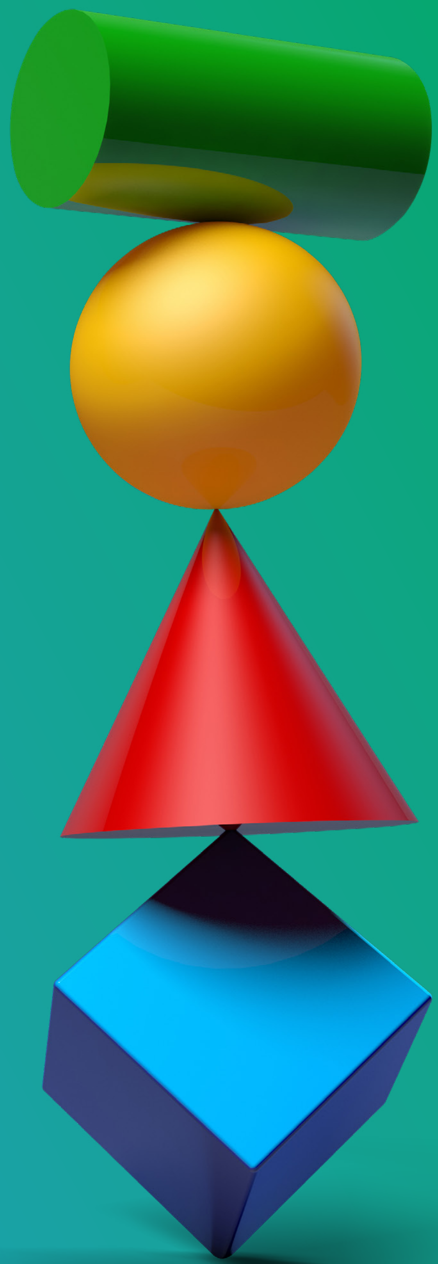
Mercer

asset allocation insights

Pension allocation trends in Latin America, the Middle East, Africa and Asia

2021



welcome to brighter

Contents

[1] Data were not available, but commentary is included based on Mercer's experience with investors in these areas.

01. Introduction and executive summary

Growth markets [2] are a critical and growing part of the global economy. These markets are becoming more accessible to foreign investors, and the investment portfolios of domestic institutional investors in these markets are evolving rapidly.

Many investors located within these jurisdictions are progressing key trends, such as institutionalizing their portfolios with a focus on governance and fees and diversifying internationally and into alternative asset classes. Investors are also considering sustainability as well as diversity, equity and inclusion factors when investing to address environmental, social and governance (ESG) issues.

In many countries, the COVID-19 pandemic has brought social issues into sharper focus while introducing additional challenges as investors have wrestled with health- and work-related issues as well as market volatility and the economic impact of the pandemic. COVID-19 also made an impact on investors' governance structures. With lockdowns imposed in most places across the globe, plan sponsors and staff found ways to work together to make and implement investment decisions efficiently, with video conferencing and more flexible meeting schedules often leading to greater speed and agility in decision-making.

Asset Allocation Insights 2021 highlights how pension fund investors within growth markets are evolving across the global investment landscape while serving their beneficiaries and stakeholders locally. It summarizes the decisions investors in Latin America, the Middle East, Africa and Asia — representing more than US$5.3 trillion in assets under management — are taking with their investment strategies.

The analysis in this report updates the analysis in *Asset Allocation Insights 2020* — incorporating inputs from 16 markets — and providing anecdotal insights and commentary for markets where external data are unavailable, including the Gulf Cooperation Council (GCC) region, Mainland China, the Philippines and Singapore. The data have been segregated by pension plan type — defined benefit (DB) or defined contribution (DC) — and by plan sponsor — government (including some mandatory plans) or corporate — to provide investors with a more detailed understanding of the investment landscape.

We provide a brief summary of the retirement savings environment in each market and the implications for underlying investment policy. More detailed information on the structures of many of these pension systems is included in the *Mercer CFA Institute Global Pension Index Report*.[3]

Asset allocation held steady even amid a volatile market

Overall observations

	Current	Prior
Fixed income	50.9%	49.3%
Equities	36.1%	37.0%
Alternatives	4.2%	4.6%
Cash	4.1%	4.9%
Other	4.6%	4.2%

[2] Mercer defines "growth markets" to include countries/regions across Latin America, the Middle East, Africa and Asia (including Japan). Jurisdictions were included based on data availability.
[3] *Mercer CFA Institute Global Pension Index Report*, 2020, available at https://www.mercer.com.au/our-thinking/global-pension-index.html.

Asset allocation trends: An evolving landscape

Even amid heightened market volatility and economic uncertainty due to the COVID-19 pandemic, overall **asset allocation was relatively unchanged** over the past year, though increases into equities and decreases from fixed income are evident over the full measurement horizon since the inaugural period.[4] On the margin, we did see some markets increase their exposure to lower-risk asset classes in 2020, evidenced by a mix of more conservative positioning as well as the need for liquidity to meet COVID-19-related outflows.

Allocations to **foreign equities** continued to rise, tipping over the midpoint, with foreign equities now representing 51% of aggregate equity allocations. Home biases remain, however, and are most pronounced within fixed income allocations. We applaud this shift, as investors that have a home bias can expose their portfolios to unnecessary risks and forgo beneficial sources of return. Even those that face home-country restrictions can gain valuable experience and better position themselves for future liberalization if they are able to access some level of global diversification.[5]

Shifts toward **alternatives** paused over the past year overall, although there were increases in some areas, and we expect more interest in alternatives as investors seek to enhance diversification and risk-adjusted returns.

Investors are shifting focus to address broad market trends, such as **sustainability/ESG, plan governance and fees,** which have become even more important amid the challenges presented by COVID-19. Sustainability and responsible investing in particular have resonated broadly. Investors and governments are beginning to make this topic a priority across the entire global footprint of this survey, although individual markets are at different places along the journey.

Reshaping investment outcomes

Asset owners around the world should consider these trends as they manage their own portfolios.

Asset managers looking to expand their reach should consider adapting their approaches as investors seek global exposures in both traditional and alternative asset classes.

Mercer works with asset owners, pension plan sponsors and asset managers all over the world to build robust retirement systems and shape a better investment landscape, and we aim to deliver brighter outcomes for all. We would be delighted to discuss the implications for your investment portfolio. Connect with your local Wealth specialist, or find contacts at the end of this report.

[4] Data noted as "inaugural" represent, in most cases, reporting dates in 2013. Please see the Survey Methodology section for more detail.
[5] For a detailed discussion of home bias in growth markets, please refer to *Stuck at Home? Home Bias in Portfolios,* available at https://www.mercer.com/our-thinking/wealth/home-bias-in-portfolios.html.

02. Investment environment: Themes and opportunities

In response to the global COVID-19 pandemic, policymakers have struggled to balance the competing priorities of safeguarding public health, the economy and personal freedoms. We are observing various important developments, such as:

- Increasingly wide-ranging policy measures
- Escalating dispersion within and between markets and economies
- Virtual formats (work, school, etc.) trending toward the mainstream
- A rapid rise in long-term planning for the future environment, society and the corporate world

Many of these trends were with us before 2020, part of a preexisting (and dizzying) acceleration contributing to "future shock."[6] They now represent an acceleration within an acceleration.

We've addressed the key themes and opportunities investors need to look out for in Themes and Opportunities: The Great Acceleration,[7] grouping these trends into three overarching themes that will affect investment decisions in 2021 and beyond: *the new world, business as unusual* and *position for transition.*

The new world refers to ways in which our monetary and fiscal institutions are moving from the drawing board to full-scale trials of new techniques for ensuring economic stability and continuity and also to the way in which global allegiances and working relationships are being recast.

Business as unusual refers to more granular trends within financial and commercial marketplaces and social movements, where the way of the world has changed forever.

Position for transition is an imperative. It is a call to action for investors to align their portfolios with a strategy that manages the risks of transitioning to a low-carbon economy and the increasing damage caused by climate change.

The new world

- Policy distortions
- Vying powers

Business as unusual

- Markets as unusual
- The age of engagement
- Workplace as unusual

Position for transition

- Money talks, markets listen
- The energy transition
- Sustainable Development Goals investing

[6] Although "future shock" has been defined in different ways, it generally relates to the impact of enormous technological and societal change.
[7] Mercer. *The Great Acceleration: Themes and Opportunities 2021*, available at https://www.mercer.com/our-thinking/wealth/the-great-acceleration.html.

03. Survey methodology and participants

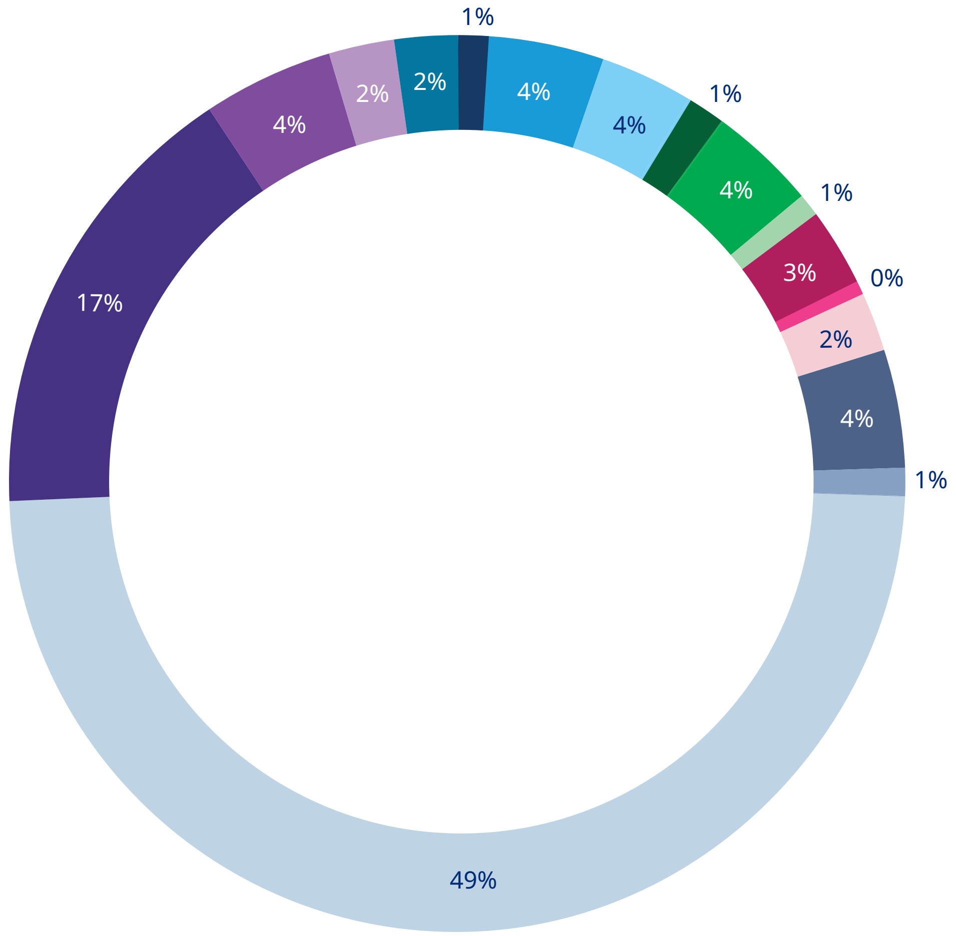
The survey incorporates information on approximately US$5.3 trillion in assets under management (AUM) from corporate, mandatory and government pension schemes in 16 markets across Latin America, Africa, the Middle East and Asia. The overall measurement period for AUM and allocation data is approximately seven years.

Externally verifiable data were not available for the Gulf Cooperation Council region, China, the Philippines or Singapore. However, we have leveraged Mercer's experience with investors across these markets to provide relevant insights. This section provides an overview of key information and data classification definitions.

- Data marked "current" comprise the most recent information available to us. In most cases, this represents information from a reporting date in 2020.
- Data marked "one year ago" or "prior year" represent, in most cases, data with reporting dates in 2019. In our 2020 report, these same data were shown as "current" and have now been carried forward.
- Data noted as "inaugural" represent, in most cases, data with reporting dates in 2013. Our 2020 report showed a six-year trend between the inaugural reporting period and the "current" data for that 2020 report. This "inaugural" period reporting has been carried forward as well and now generally represents a seven-year trend from the "inaugural" point to this 2021 report's "current" data set.
- We add new markets and data sets when available. As such, data comparisons for the inaugural and one-year-ago dates in this report may not match the information shown in prior reports.
- Data may not sum to 100% due to rounding.
- In some cases, our data sources do not classify allocations in detail. For example, data sources might only provide a total equity allocation, without the breakdown between foreign and domestic equity. In such cases, these data sets are omitted from the relevant charts for accuracy.
- Data sets used in our report may represent a single pension scheme or may be an aggregation of multiple schemes, such as an industry survey covering all corporate pension plans in the market.
- Detailed source and reporting date information can be found in the Source Notes section at the end of this report.

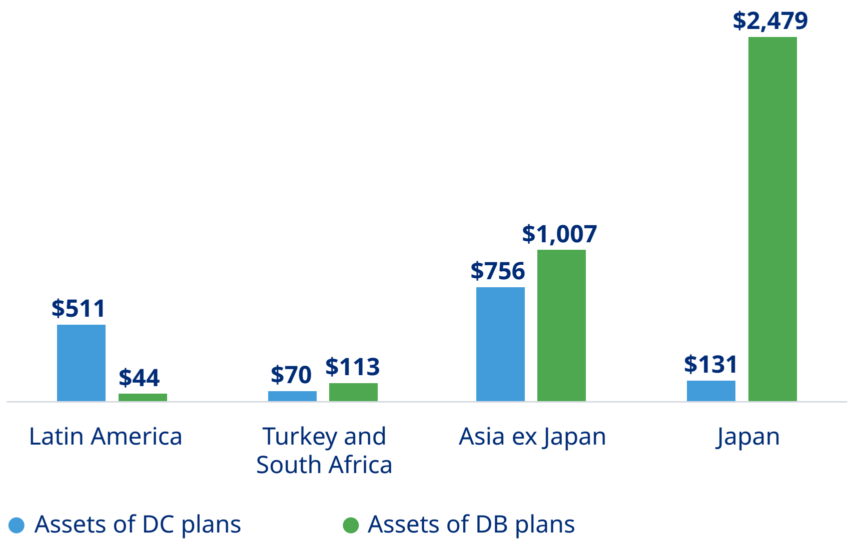
Split of total survey assets by market (US$ million)

Argentina	34,249
Brazil	233,691
Chile	194,968
Colombia	74,874
Mexico	208,115
Peru	42,840
South Africa	158,097
Turkey	25,489
Hong Kong SAR	111,254
India	227,578
Indonesia	47,923
Japan	2,609,664
South Korea	889,133
Malaysia	233,879
Taiwan	130,965
Thailand	122,187
Overall	**5,344,906**

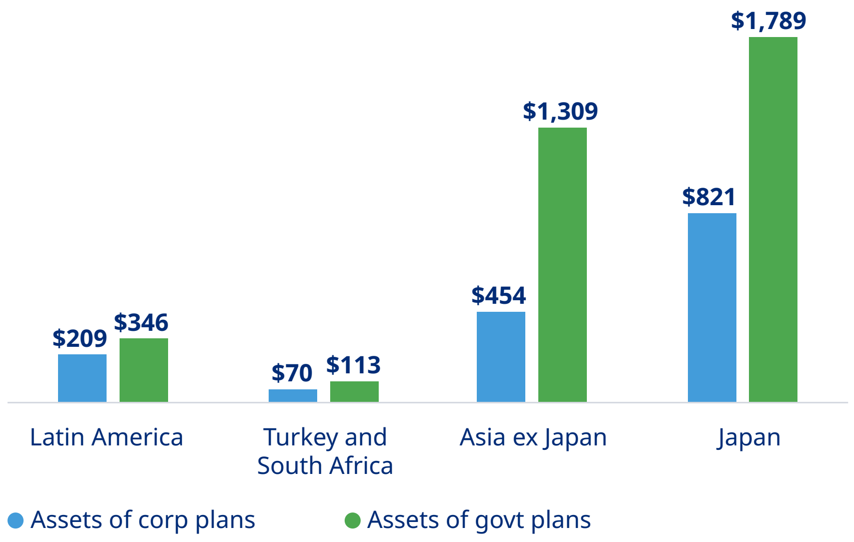


Plan types[8]

Assets of DC/DB plans (US$ billion)



Assets of corporate and mandatory/government plans (US$ billion)



The survey includes information on pension plans within the markets or regions and covers both defined contribution (DC) and defined benefit (DB) plans as well as corporate- and government-sponsored schemes. In many markets, government-mandated savings schemes are administered by a private financial institution, such as the AFPs and AFORES in Latin America.[9] We have classified these types of mandatory plans as governmental in our analysis.

[8] Brazil is excluded from the data for both of the charts above since our source aggregates DB, DC, corporate and government data.

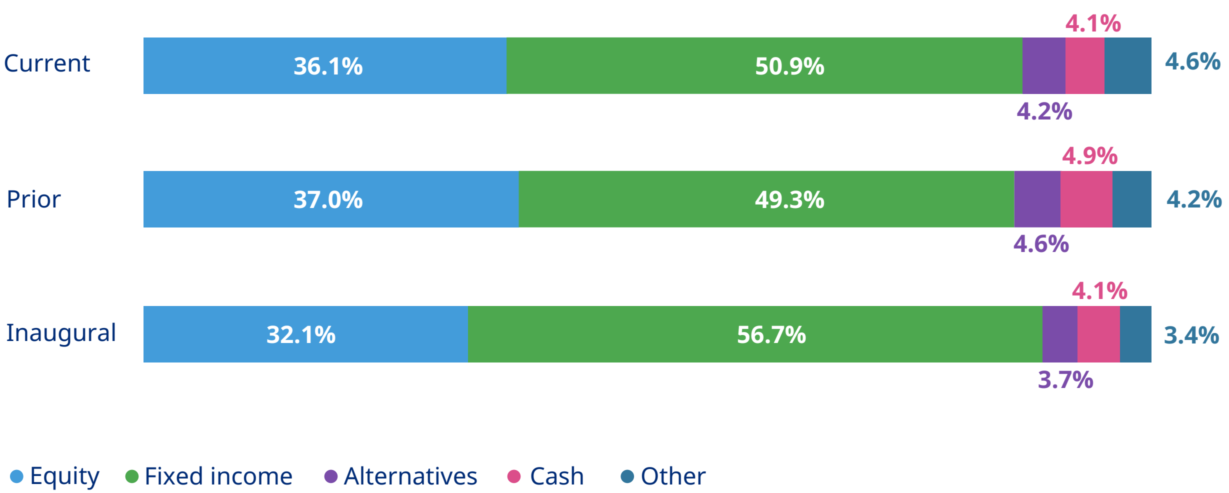
[9] Administradora de Fondos para el Retiro (AFORES); Administradora de Fondos de Pensiones y de Cesantías (AFP).

04. Key findings

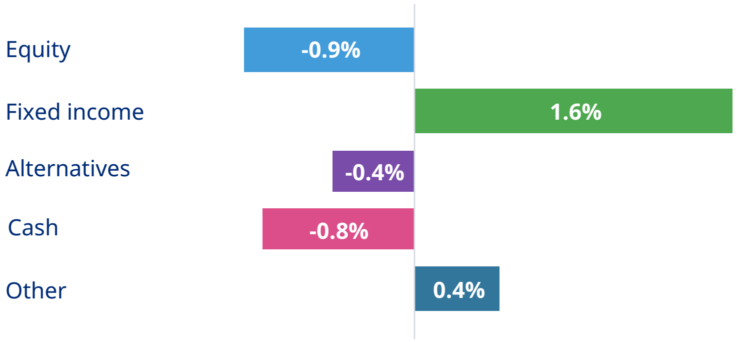
Even amid heightened market volatility and economic uncertainty, overall asset allocation was relatively unchanged over the past year, although this may mask more significant changes in exposure during the market drawdown and subsequent rally in risk assets over the first half of 2020.

Over the full measurement horizon since the inaugural period, increases in equities and decreases from fixed income are evident. Since the prior-year period, aggregate fixed income allocations rose 1.6 percentage points, with modest declines in equity and cash and increasing fixed income allocations driven by Indonesia and Argentina.

Asset allocation



Change in allocation — current versus prior year

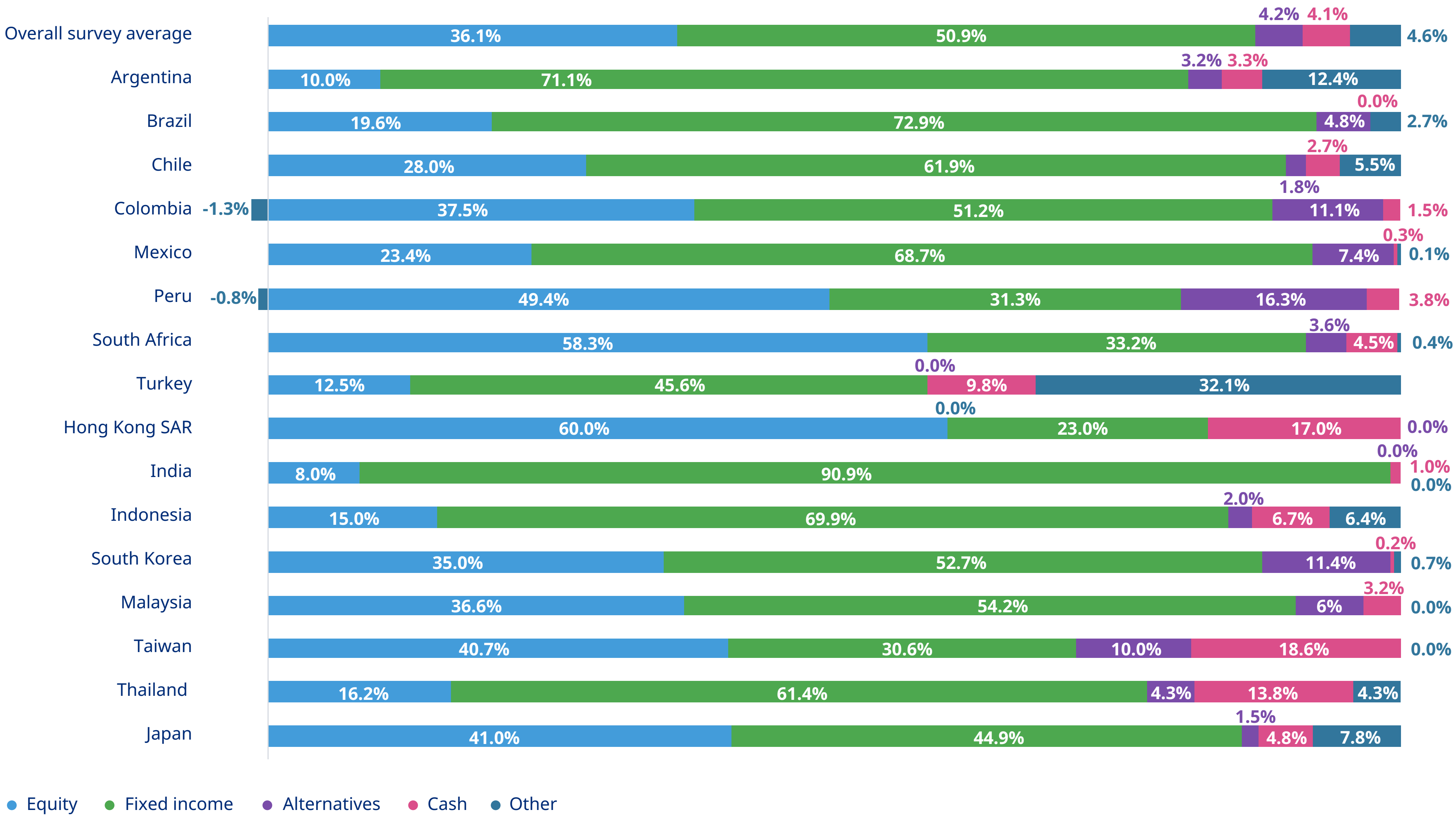


Significant variation exists with regard to broad asset allocation. India, Brazil, Argentina and Indonesia hold the largest allocations to fixed income. This is driven in part by regulatory restrictions supporting local fixed income securities and, in some cases, high local interest rates.

Conversely, Hong Kong, South Africa and Peru hold the largest proportion of the portfolio in equities. Peru, South Korea and Colombia have the largest-percentage exposures to alternatives, followed by Taiwan.

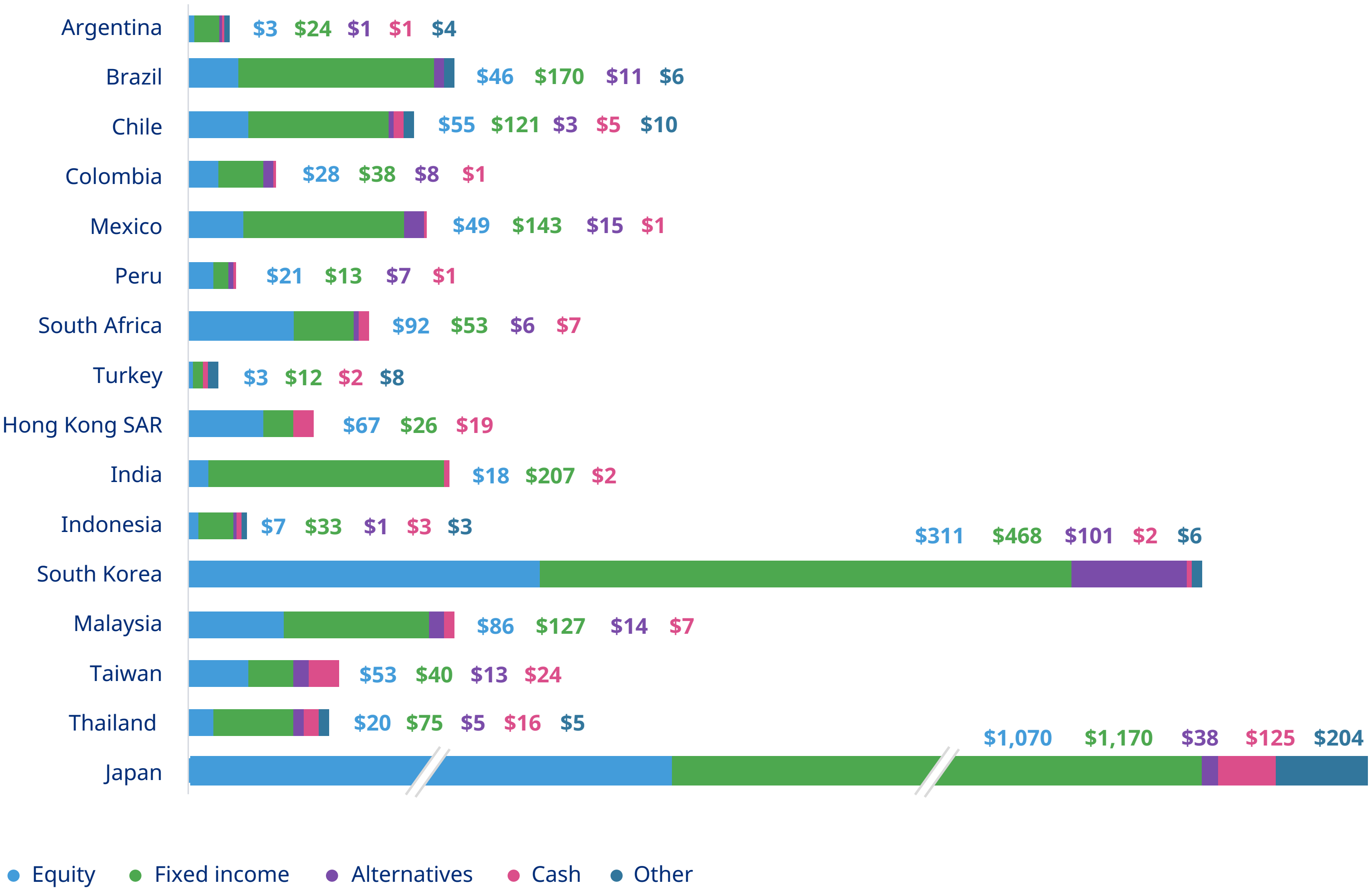
Compared to the European DB schemes represented in our European *Asset Allocation Insights 2021*, DB and DC schemes across Asia, the Middle East, Africa and Latin America are more heavily invested in equities and less exposed to fixed income and alternatives. This gap is widening as European DB plans shift more heavily into fixed income. The average allocation for European DB plans was 53% to fixed income, 21% to equities, 23% to property and alternatives, and 3% to cash. The ongoing move of DB schemes into their endgame, with desire for de-risking out of equities, has kept allocation trends fairly steady. Alternatives were the main beneficiary, particularly assets that could be used within a cash-flow-matching framework. Most investors within the European survey reported that plans increased exposure to alternative assets while decreasing exposure to equity.

Current weighted average asset allocation detail

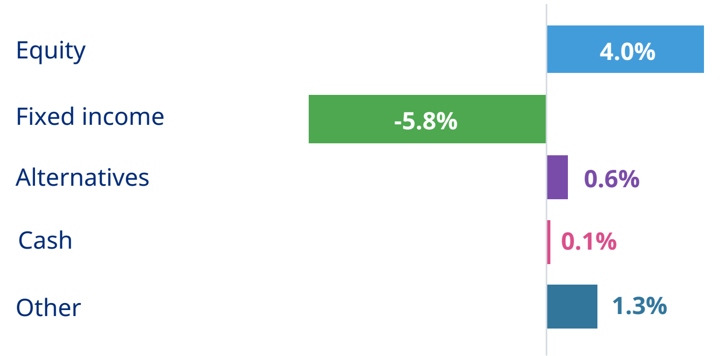


Note: "Other" for Colombia and Peru represents derivative exposures.

Current asset allocation by country, US$ billion



Change in allocation — current versus inaugural



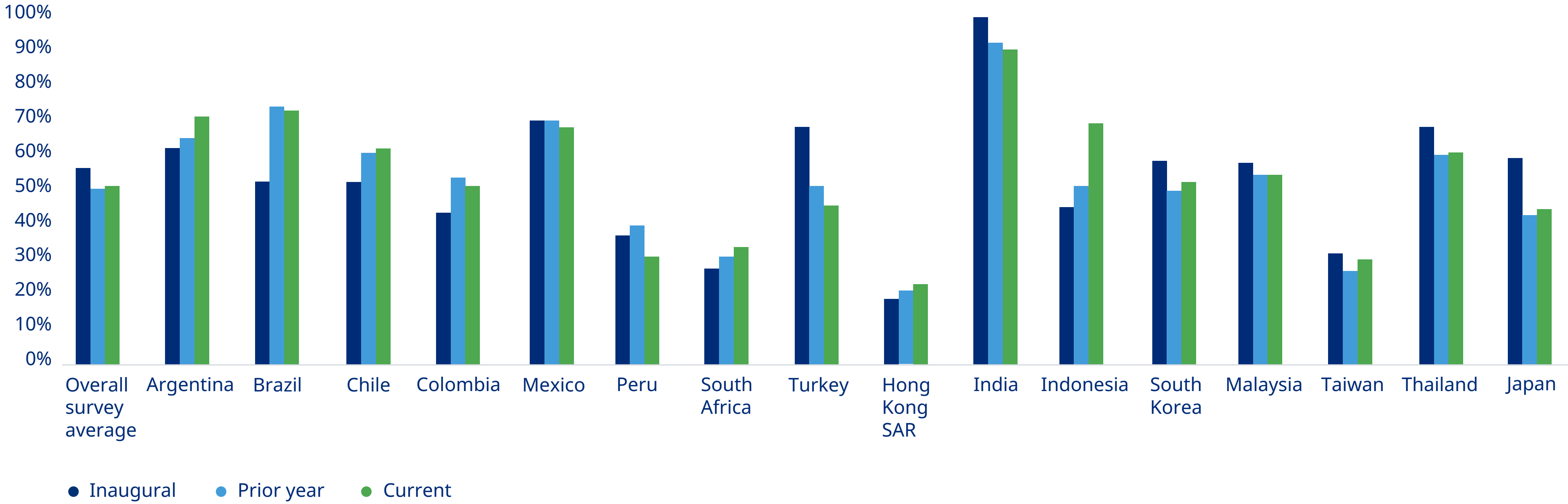
Asset allocation shifts can be seen over the full measurement period. The most pronounced change is the increase in equity at the expense of fixed income, which was largely driven by Japan.

Although in aggregate fixed income allocations declined over the period, there are significant differences in the overall level and amount of change when looking at individual jurisdictions. Fixed income exposure by market is found in the chart below.

Over the full measurement period, fixed income exposure decreased in nine markets and increased in seven. Some of these movements were significant, such as Indonesia's increase of more than 20 percentage points and, conversely, Turkey's decline by a similar amount. In Indonesia, for example, the largest change was over the past year: We saw a big shift from equity, cash and alternatives to fixed income. We believe this can be attributed to the cautious behaviors from investors in anticipation of the economic downturn in the pandemic environment.

The reasons behind these differences are many, including conservative postures (which include some reaction to the COVID-19 pandemic), correlation to liabilities and high local interest rates, among others.

Fixed income exposure



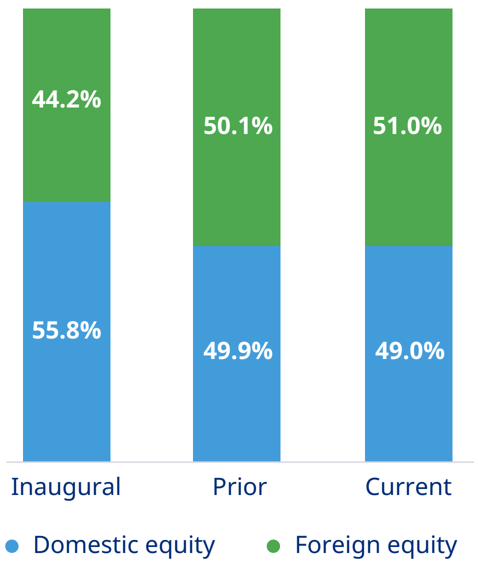
In aggregate, equity portfolios have been increasing their exposures to foreign equities and have now tipped over the midpoint, with slightly more foreign securities than domestic (51% versus 49%) — although this positioning still reflects large home biases across markets.

Over the full measurement period, we have observed a steady shift away from domestic securities and into foreign securities, with foreign equity exposure rising from 44% of equity portfolios at the inaugural period to 51% in the current period.

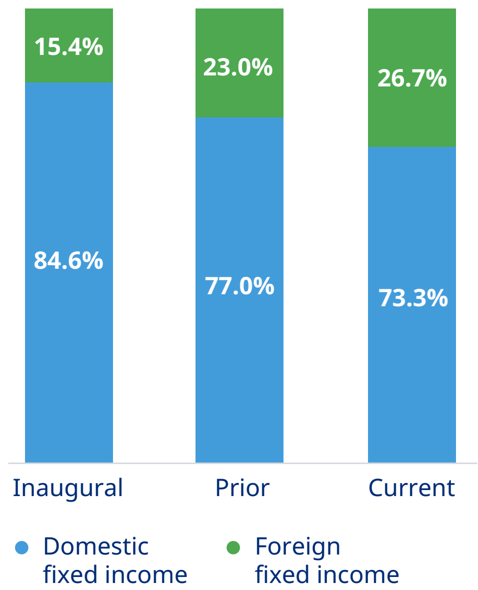
Fixed income remains more domestically biased, although foreign exposure has risen from 15% to 27% since the inaugural period. A home bias within fixed income can often be justifiable given higher local interest rates, the defensive role of fixed income in portfolios, liability management, currency volatility and potentially high costs of hedging foreign currency.

Mercer's 2020 paper, *Stuck at Home? Home Bias in Portfolios*,[10] dives into this topic in greater detail. Although a degree of home bias may be optimal from an investment perspective — due to tax considerations or other factors — and, in some cases, driven by constraints beyond investors' control, many investors could enhance risk-adjusted returns by reducing home bias. Our paper looks at the drivers of home bias and how justifiable they are from an investment perspective and presents some practical considerations for various asset classes.

Domestic versus foreign equity



Domestic versus foreign fixed income



Over the full measurement period, foreign equity exposure (as a percentage of the total equity portfolio) increased in the majority of markets, although the starting points and journeys have been very different.

Across Latin America, Brazil and Argentina, data are not fully available for the split, although we know allocations to foreign equities are typically quite low. However, this is beginning to change in Brazil. In Mercer Brazil's own survey released in June 2020, the average allocation to foreign assets was 4% of the total portfolio (pension funds are not permitted to invest more than 10% of the total abroad), but large pension plan respondents noted they were likely to start or increase foreign investment in 2021.

[10] Mercer. *Stuck at Home? Home Bias in Portfolios*, 2020, available at https://www.mercer.com/our-thinking/wealth/home-bias-in-portfolios.html.

Conversely, other Latin American countries — notably, Chile, with nearly 79% invested in foreign equities — have been steadily increasing foreign allocations and hold the largest percentages of their equity portfolios away from their home countries. This recognizes the relatively limited investment opportunity set in their home equity markets. In Mexico, the limit for foreign equity remains at 20%, although regulatory change to increase the foreign maximum to 30% is under consideration and would further support the ability of plans to invest offshore and increase exposure to equity and alternatives.

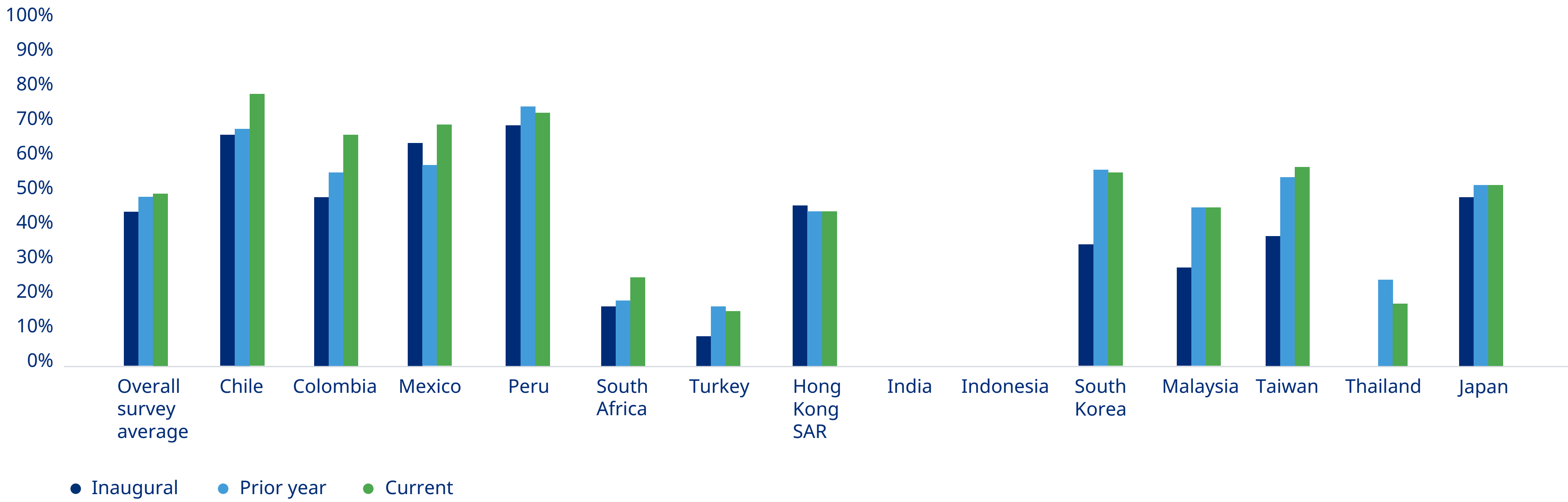
South Africa is another example of loosening restrictions over the full measurement period facilitating higher foreign allocations over time. Conversely, India and Indonesia still retain significant restrictions on pension funds' foreign investments and, as a result, have negligible allocations outside their home markets.

In Asia, we observed the most significant changes in South Korea and Taiwan, with each now allocating more than half of the equity portfolio to foreign equities.

Thailand has also increased foreign equity allocations significantly over the measurement period, although it retains a heavy bias toward domestic equities.

We expect the trend toward more globally oriented portfolios to continue in the future.

Foreign equity exposure (% of total equity)



Note: Brazil and Argentina are not included, as data are not fully available on the split between domestic and foreign equity.

Shifts toward alternatives have paused over the last year overall, although there were increases in some areas, and we expect more interest in alternatives as investors seek to enhance diversification and risk-adjusted returns.

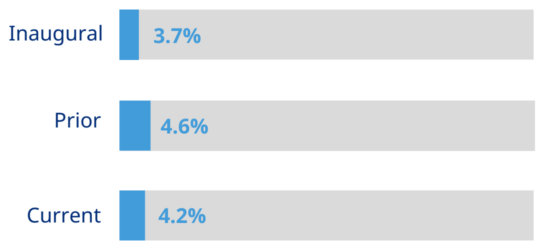
Although modest shifts toward alternatives are evident over the full measurement period — from 3.7% to 4.2% over the past seven years — the allocation has declined slightly since the prior year, from 4.6% to 4.2%. Exposure is largely concentrated in real estate, followed by private equity. Hedge funds also comprise a modest allocation.

Peru has the largest allocation to alternatives in the survey, with investors seeking diversification and higher returns, largely through private equity, including secondaries and real estate. This allocation has increased significantly over the full measurement period, from 4% to 16%. South Korea, Colombia and Taiwan also have relatively large exposures to alternatives, at or slightly above 10% of total assets.

Even some jurisdictions that have small allocations to alternatives, such as Thailand, have shown an increase over the full measurement period, rising from 0% allocation to 4% as of the current period.

Middle East investors have been moving into alternative asset classes. Although this is not captured in our aggregated asset breakdowns given a lack of externally verifiable data, based on our experience with investors in the Middle East, there has been particular interest in private markets and some interest in hedge funds. Mainland China is another market in which we have seen interest in alternatives, primarily in private equity. In Japan, the GPIF has demonstrated interest in private markets, and corporate DB plans have increased allocations to alternatives since last year. According to a survey Mercer conducted recently in Japan, approximately 60% of corporate DB plans have already invested in private assets, and approximately 50% of corporate DB plans intend to increase private markets allocations over the next five years.

Alternative investments (% of total assets)



Observations by scheme type

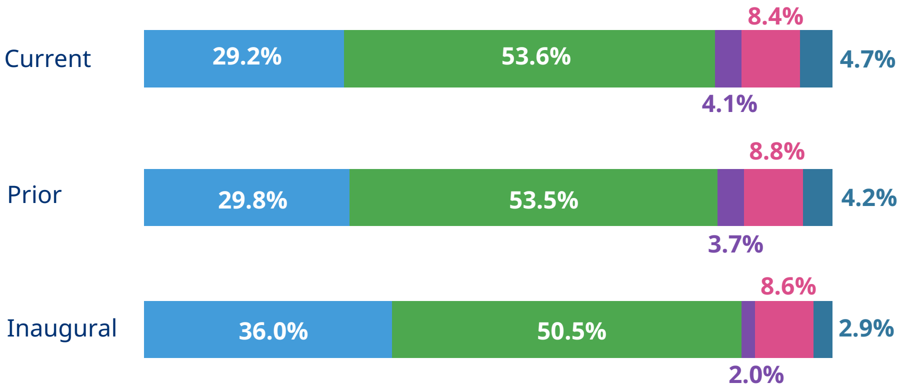
In most markets, we are seeing a shift to DC plans and away from DB plans, mirroring trends in the US and Europe. This shift is happening across both corporate- and government-sponsored/ mandated schemes. DB schemes in Taiwan and Chile are closed, and new workers contribute to DC plans; Mexico and Japan are seeing a similar rise in DC plans. Additionally, the UAE launched the first government-sponsored mandatory DC savings scheme for expatriates in the market, the Dubai International Financial Center Employee Workplace Savings (DEWS) plan, intended to provide a better mechanism for employees to save for their retirement and other financial goals.

With some adjustments made for hybrid plans and source data that aggregate DC and DB information together, we are able to segregate US$1.5 trillion in DC assets across growth markets, representing 23 data sets (of individual plans or aggregated across a segment of DC plans within a market) and US$3.6 trillion in DB assets, representing 19 data sets (of individual plans or aggregated DB plans within a market). Within these data sets, we see DB and DC plans shifting in different ways.

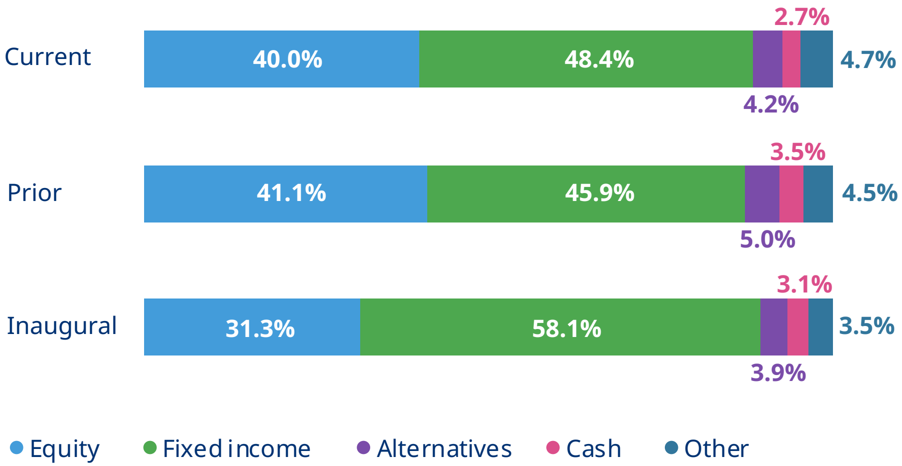
DB plans have gone through the largest shift in asset allocation over the full measurement period, with the weighted-average equity exposure rising from 31% to 40% and a commensurate decline in weighted-average fixed income exposure from 58% to 48%. Alternatives remained stable during this time at ~4%. The Japan GPIF is the primary driver of these trends. However, other DB plans also moved in a similar direction, with less magnitude: DB plans ex GPIF in aggregate shifted approximately two percentage points higher in equity, with a corresponding decrease in fixed income.

Conversely, within DC plans, equities exposure fell from 36% to 29% over the full measurement period, whereas fixed income exposure increased from 51% to 54%. Cash allocations remained stable over the period, and we did see a shift into alternatives, rising from 2.0% to 4.1% over the full period. However, a large driver of this shift into fixed income is the addition of India, which comprises more than 95% fixed income and does not have data available in the inaugural period, thus driving the aggregated data to increase over time. (Removing India from the analysis results in a change of fixed income exposure from 50.5% in the inaugural period to 46.7% in the current period.)

DC asset allocation



DB asset allocation



Other trends

Investors in the growth markets are facing many of the same issues as their peers around the world: navigating additional challenges associated with COVID-19 while still reviewing governance and fees and increasingly evaluating their investments through a sustainable investment lens. Although these topics are not addressed quantitatively in this report given a lack of available external data, we have included relevant insights from our colleagues around the world.

COVID-19

The COVID-19 pandemic most immediately brought health and welfare challenges to individuals around the world, as communities grappled with keeping their populations healthy and also sought ways to keep economies afloat. In the first half of 2020, the escalating pandemic also triggered significant market volatility, impacting investment portfolios as well as human lives.

Some governments — including those across much of Latin America and India — addressed the needs of their populations by allowing participants and/or employers to pause contributions and/or withdraw assets from mandatory DC plans. In some other places, such as Singapore, changes and reforms were pushed back.

Investment portfolios did not change significantly in most cases, although some did increase allocations to fixed income for liquidity and/or risk-reduction purposes, including in Indonesia.

Sustainability

Interest in sustainable investing is rising across the region. In some cases, this was accelerated by the COVID-19 pandemic. South Korea in particular has sought to address these issues together. In July 2020, the South Korean government announced a Green New Deal, worth approximately KRW 114 trillion (US$94.5 billion), which is meant to be invested over the course of the next few years to help the country's economy recover from the COVID-19-related recession. This could ultimately increase the focus on ESG governance and promote ESG-themed investment over the long term.

In Latin America, several of the pension administrators (AFPs) in Chile, Colombia and Peru have joined the responsible investment programs in their countries. Across these countries, they have been launching similar (but separate) programs, considering ESG issues in their investment policies and strategies. Governments are soon expected to release additional guidance for AFP investments in this area. In Brazil, according to Mercer's survey of more than 200 local pension plans, 21% indicate that they have a responsible investing policy in place, with another 56% noting they could use help implementing such a plan or intend to create one in the near term. In Mexico, new regulations governing ESG within the AFORES were recently announced and will go into effect in 2022. These require AFORES to publically disclose how they integrate ESG factors into their investment processes and define both an investment policy and a risk management policy that considers ESG factors.

Sustainable investing has become a rising area of interest for Middle East, Africa and Asia investors as well, with governments, pension plans and asset managers moving to incorporate these themes into investment strategies. In Hong Kong and Taiwan, for example, ESG factors are being considered within investment decisions, and Indian mutual fund companies have begun launching ESG-focused products. South Korea and the Philippines have each demonstrated this through investments in green bonds. In Japan, ESG is a topic of interest for corporate pensions. Although more and more funds are considering ESG risks, the level of interest in ESG varies greatly between clients. The key drivers for considering ESG risks are their financial materiality and alignment with the sponsor's ESG strategy. On the other hand, some investors cite a concern about whether ESG factors impact performance.

In addition, Mainland China has shown leadership in pursuing sustainable growth policies. Learn more about their efforts, opportunities and challenges in Mercer's recent paper, *Green Shoots in China: The ESG Landscape*.[11]

[11] Mercer. *Green Shoots in China: The ESG Landscape,* 2020, available at https://www.mercer.com/our-thinking/wealth/green-shoots-in-china.html.

Governance

Agile decision-making and oversight of investments became even more challenging in 2020, although many investors showed they were up to the task. In the GCC region, we saw that investors were quick to take action, accelerating manager selection and keeping up with rebalancing activity. In addition, investors often reviewed their governance structures. With lockdowns imposed in most places across the globe, plan sponsors and staff found ways to work together to make and implement investment decisions efficiently, with more flexible video conference meetings (in lieu of quarterly face-to-face meetings) often leading to greater speed and agility in decision-making.

In South Africa, in a continuing trend, trustees prefer to invest in balanced mandates with asset managers, delegating asset allocation decisions to the manager.

In another set of examples, Taiwan saw investors focusing more on risk management, including increasing the frequency of reviews, whereas Chinese municipalities have been increasingly delegating the management of their local pension plans to the National Council of Social Security Fund (NCSSF) to take advantage of the larger scale and an institutional approach.

In Mexico and South Korea, regulation is moving to support target date funds for DC, which are intended to provide better investment outcomes to members through diversified portfolios that are automatically adjusted over time.

The AFORES in Mexico have already implemented this shift. In Japan, recent DC regulation supports regular reviews of vendors and investment options, which should provide additional incentive for plan sponsors to ensure their offerings meet best practices.

Fees

Regulators in a number of areas are pursuing actions to promote greater transparency and competition to encourage fee reductions.

In Mexico, average fees have been declining in DC plans, both in corporate plans and within the mandatory pension administrators, the AFORES. In December 2020, these efforts continued, as pension reforms were approved that included, among other provisions, a cap on fees charged to members that will be effective beginning in 2022. The regulator is reviewing methodologies to establish the cap, including comparisons to DC schemes in other countries, such as Colombia, Chile and the US. Details are expected in late 2021 for implementation in 2022, but some initial estimates predict a decline in fees from ~80 bps to ~55 bps.

In Hong Kong, although average fund expense ratios are still relatively high within Mandatory Provident Funds (MPFs), they have declined from 1.57% to 1.45% over the full measurement period, as the MPF regulator took action to spur market competition and fee transparency. Colombia's AFPs have looked at passive options to lower fees, although this is balanced by alpha-seeking strategies to seek higher returns from segments such as emerging markets.

In the GCC, we have seen a significant focus on lower fees and increased negotiations with asset managers. In Japan and Malaysia, large plan sponsors have been looking closely at performance-based fee structures.

India's National Pension System (NPS) provides a competitive bidding environment for investment managers, leading to some of the lowest investment management fees in the world, at 0.01%.[12]

Although investors should seek to control fees and deliver value for money as best practice, this should be achieved in a manner that supports the best overall investment outcomes. Good investment performance after fees and costs is ultimately what is required to pay pensions to plan members. Care should be taken to ensure that diversification and the potential for strong risk-adjusted returns are not unduly sacrificed in pursuit of the lowest possible fees.

[12] NPS has a bidding mechanism for fund managers that wish to manage money for NPS, in which the lowest-quoted fee must be followed by any other participating fund managers. That is, fund managers must either offer services at the lowest-quoted fee or decline to manage assets on behalf of NPS.

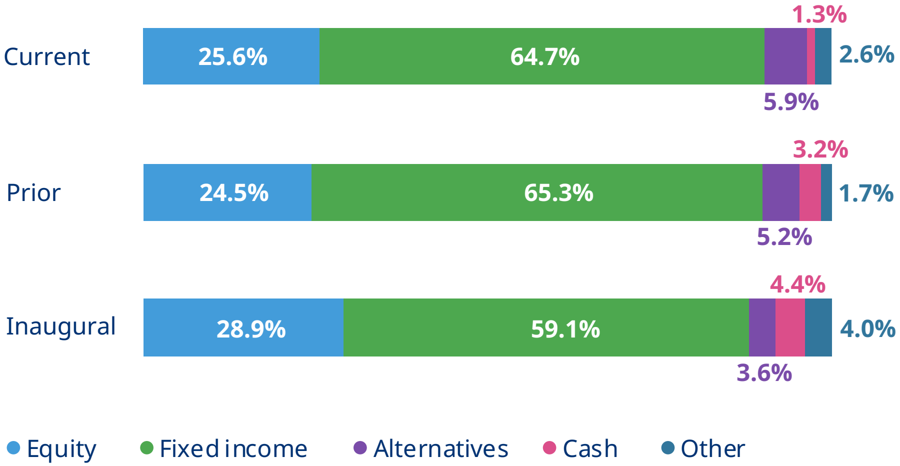
05. Latin America

The Latin America data cover plans with assets of US$789 billion, comprising primarily the AFPs and AFORES across the region (Chile, Columbia, Mexico and Peru), which are government-mandated DC plans administered by financial institutions, and “closed” private (and state-owned) company pension DC and DB schemes in Brazil. Brazil also has large “open” DC insurance pension schemes available to individuals, but because we do not have accurate information on the asset allocation of these schemes, data are not included.

Overall, the asset allocation of Latin America’s pension funds has a relatively conservative positioning compared to the survey average, with a fixed income allocation of 65% relative to the overall survey average of 51%. This finding was heavily influenced by Argentina and Brazil (both with fixed income allocations over 70%). Excluding these two countries, Latin America’s weighted average allocation to fixed income was 60.6%. For the recent year, the overall fixed income allocation declined modestly, with slight increases to equity and alternatives. For the full measurement period, the weighted-average alternatives exposure for Latin America also increased, with Chile, Colombia, Mexico and Peru each contributing to the growing allocation.

Market	Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Argentina	Argentina Fondo de Garantía de Sustentabilidad (FGS)	Government DB	33,212
	Insurance retirement plans (under social security)	Corporate and government DC	561
	Supplemental DC plans	Corporate DC	475
Total			**34,249**
Brazil	Multiple plans within the pension association ABRAPP	Corporate DC and DB	233,691
Chile	Administradoras de fondos de pensiones	Mandatory DC	194,968
Colombia	Administradoras de fondos de pensiones	Mandatory DC	74,874
Mexico	Private pension plan	Corporate DB	10,889
	Private pension plan	Corporate DC	11,037
	AFORES	Mandatory DC	186,190
Total			**208,115**
Peru	Administradoras de fondos de pensiones	Mandatory DC	42,840
Total			**788,737**

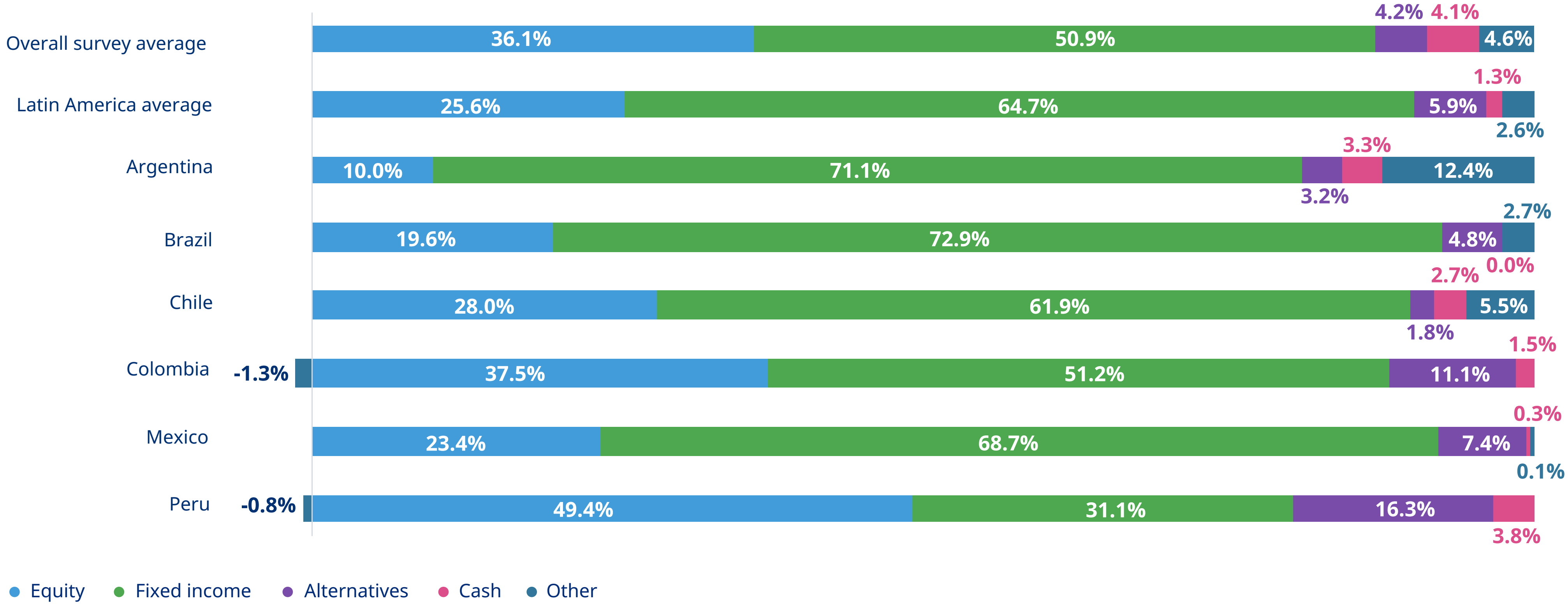
Asset allocation for Latin America



In aggregate for Latin America, fixed income allocations continue to be dominated by domestic assets, whereas equity allocations have become increasingly diversified into foreign markets over the full measurement period.

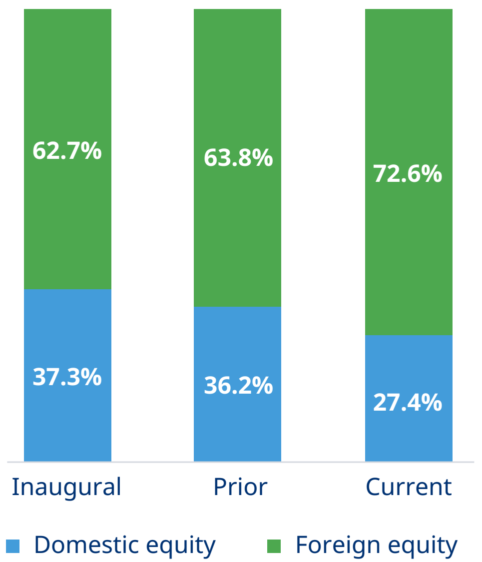
Chile, Colombia, Peru and Mexico have some of the largest foreign equity exposures (as a percentage of the overall equity portfolio) across the survey, now averaging more than 70% of the equity portfolio, an increase of approximately 10 percentage points from the inaugural period. Mexico's positioning is driven by the AFORES, as the corporate plans in Mexico are still more heavily invested in domestic equities. The data exclude Argentina and Brazil, as our data source does not break out foreign and domestic securities. However, based on Mercer's Brazilian survey of 219 local pension schemes, released in June 2020, more than 60% do invest outside Brazil, with an average allocation of 4% of the total portfolio (versus a regulatory limit for foreign exposure of 10% for pension plans). Most large plans report that they intend to start or increase their foreign investments in 2021 as investors look for greater returns and enhanced risk management.

Current asset allocation (%) — Latin America

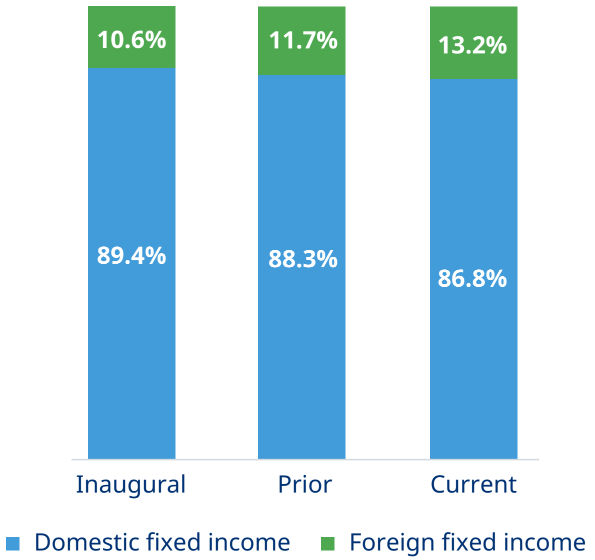


Note: "Other" for Colombia and Peru represents derivative exposures.

Domestic versus foreign equity — Latin America



Domestic versus foreign fixed income — Latin America



Sustainable investing has been gaining interest with investors in the region. According to Mercer Brazil's survey of 219 local pension plans, 21% indicate that they have a responsible investing policy in place, with another 56% noting they could use help implementing such a plan or intend to create one in the near term. In Chile, Colombia and Peru, several of the AFPs have joined the Responsible Investment Program, considering ESG issues in their investment policies and strategies, and governments are expected to release additional ESG guidance for AFP investments. In Mexico, new regulations governing ESG within the AFORES were recently announced and will go into effect in 2022. These require AFORES to publically disclose how they integrate ESG factors into their investment processes and define both investment and risk management policies that consider ESG factors.

The market volatility and economic downturns accompanying the COVID-19 pandemic had an impact on pensions and investments in Latin America, as was the case around the world. Many of the AFP systems allowed for the suspension of contributions and/or withdrawals from plan balances to enable individuals to access these assets for immediate spending needs. Although meeting the needs of individuals during distress is also necessary, it is a challenging balance to ensure that plan assets and design are sufficient to ensure they can serve the long-term needs of individual members and societies.

Argentina

Argentina's retirement income system comprises a pay-as-you-go social security system and voluntary occupational corporate and individual pension plans. These plans may be offered through employer book reserves (DB), insurance companies or pension trusts (DC).

Both employees and employers contribute to the pay-as-you-go Fondo de Garantía de Sustentabilidad (FGS). Employees contribute 11% of base salary up to a salary ceiling. Employers currently contribute 21% or 17% (according to the industry, headcount and company turnover) of payroll without limit; these percentages will converge to an employer contribution of 19.5% in January 2022. Benefits from social security are also capped, and, at high salaries, the pension replacement rates are less than 20%.

Many companies are interested in providing a supplemental DC retirement plan, particularly for those employees affected by the benefit cap. To date, however, few such plans have been established, and we don't expect these plans to become more popular without additional incentives, such as tax benefits. When companies add new pension plans, they generally do so for retention purposes and HR branding. Today, only management is typically eligible. Payment is generally a lump sum at retirement, although annuities are available in the market.

The FGS comprises the vast majority of assets represented for Argentina. Because the FGS invests in projects and financial instruments that promote growth in the Argentine economy and support the development of local capital markets, it only invests in domestic securities. Although detailed allocation information is not available for insurance or pension trust assets for the supplemental DC plans, in Mercer's experience, these plans do invest in foreign securities to a limited extent.

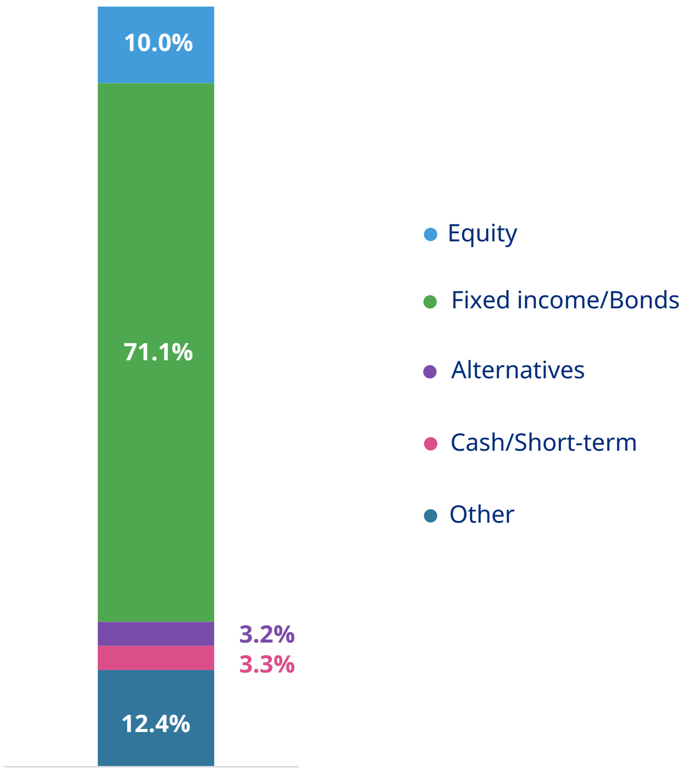
During 2019, the government introduced new tax adjustments, providing an income tax deduction for retirement and life insurance policies, with a cap of ARS 24,000 (US$200) per fiscal year per instrument. Mutual funds constituted for retirement purposes should also have this same tax deduction, which would support additional retirement saving. However, the National Securities Commission has yet to rule on which funds are subject to the deduction. The government has also limited the purchase of foreign currency to US$200 monthly and only for individuals, making investments in dollar assets difficult.

The lockdown due to the COVID-19 pandemic caused an economic recession in Argentina, and restrictions on currency exchange produced split exchange rates. Saving for the long term has been more complicated than ever. Still, some companies are considering and implementing pension plans, although we did not see significant changes to plan availability or design.

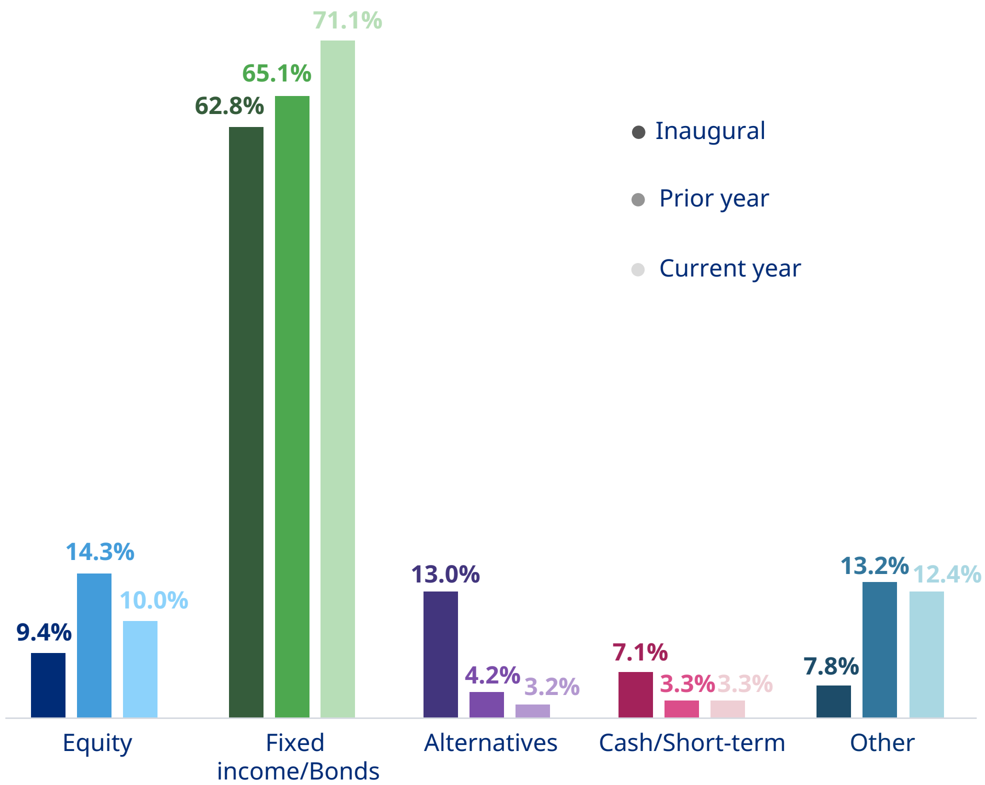
Data include:

Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Fondo de Garantía de Sustentabilidad (FGS)	Government DB	33,213
Insurance retirement plans (under social security)	Corporate and government DC	561
Supplemental DC plans	Corporate DC	475
Total		**34,249**

Current asset allocation



Allocation over time[13]



[13] "Other" is not defined.

Brazil

Brazil's retirement income system comprises a pay-as-you-go social security system, with higher replacement rates for lower income earners and voluntary occupational corporate and individual pension plans. These plans may be offered through insurance companies or pension trusts.

Recently, some major changes have affected the local retirement system as a whole:

- Social security reform was executed in late 2019, resulting in a reduction of benefits and costs, but the system is still considered unsustainable in the long term. Therefore, more reforms are expected in the future.
- Local interest rates have been trending lower (although, at the time of this writing, they have risen relative to earlier lows). Combined with moderately high inflation rates, this should result in negative real rates of return for government bonds — by far, the most popular asset class for local investors to date.
- COVID-19 has had significant social and economic impacts on the Brazilian population, which will become poorer and more unequal than before.

These events are significantly affecting pension funds' and members' attitudes toward savings, risk and diversification. As individual and institutional investors realize 1) the need to save more and 2) the need to invest more effectively, a noticeable but gradual shift to riskier strategies, such as equities, liquid alternatives, multi-asset funds, international exposure and REITs, has begun.

As an example, the number of individual investors in the local stock market almost doubled in 2020, reaching three million people.[14] Yet that figure represents only 1% of the population, signaling a long journey ahead. Interest in financial education also increased. According to Google Trends, the search for topics related to the financial market more than doubled in 2020 compared to 2017, reaching its peak during March 2020, the second-worst month for the local stock market in history.

Supplementary DC plans offered by employers have been growing in popularity for some time and are prevalent in midsize and large companies. Lower real interest rates, pension reform in 2019 and, lastly, COVID-19 have all contributed to accelerated interest in savings.

Individuals are increasingly aware that they will need to save more toward their retirement, and both open and closed pension systems in Brazil have surpassed an important milestone of BRL 1 trillion (US$246 billion) in 2021. Given this environment, we may see employers considering increasing their contributions to existing plans and a greater number of new plans being opened.

On the financial market side, 2020 was a year of intense volatility. The risk-free rate went from 4.5% to as low as 2.0% in nominal terms, repeating the trend we had observed in 2019, when the lowest levels in history had already been reached (although, as of this writing, rates have since increased to 2.75%). However, by the end of the year, the local stock market finished with a positive 3.5% return. Despite the volatility, we did not see plan sponsors alter current trends on plan design. However, the environment in 2020 did seem to reinforce existing trends of consolidation, de-risking and cost reduction.

[14] InvestNews. "Bolsa Brasileira Alcança a Marca de 3 Milhões de Investidores Pessoas Físicas," October 7, 2020, available at https://investnews.com.br/financas/bolsa-brasileira-alcanca-a-marca-de-3-milhoes-de-investidores-pessoas-fisicas/#:~:text=O%20n%C3%BAmero%20de%20pessoas%20f%C3%ADsicas,desde%20o%20come%C3%A7o%20do%20ano.

Mercer's survey incorporates data from ABRAPP, including data from closed private and state-owned pension plans. Data are not available for the PGBL segment, which comprises individual accounts held at an insurance company.

Although ABRAPP does not include information on Brazilian pensions' entry into global asset classes, in 2020, Mercer conducted its own survey of 219 pension schemes. The findings of our survey, which covered this topic and others, included:

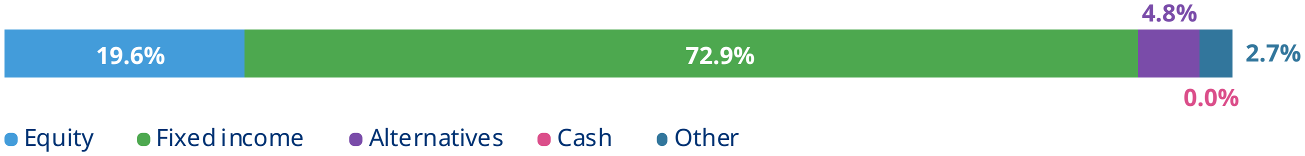
- Sixty-four percent of respondents invest outside Brazil.
- Of those respondents who invest outside Brazil, the average allocation is 4% of the total portfolio (pension funds are not permitted to invest more than 10% abroad currently, although raising the limit to as much as 20% is under discussion).
- Eighty-eight percent of respondents with asset sizes larger than BRL 2 billion (US$385 million) plan to start or increase their foreign investments in 2021.
- The primary drivers of foreign investment include seeking greater returns and managing risks.

Sustainable investment has been a topic of increased interest in Brazil, and our survey covered this topic as well. Twenty-one percent of survey respondents note that they have a responsible investing policy in place, with another 56% noting they could use help implementing such a policy or plan to create one in the short term.

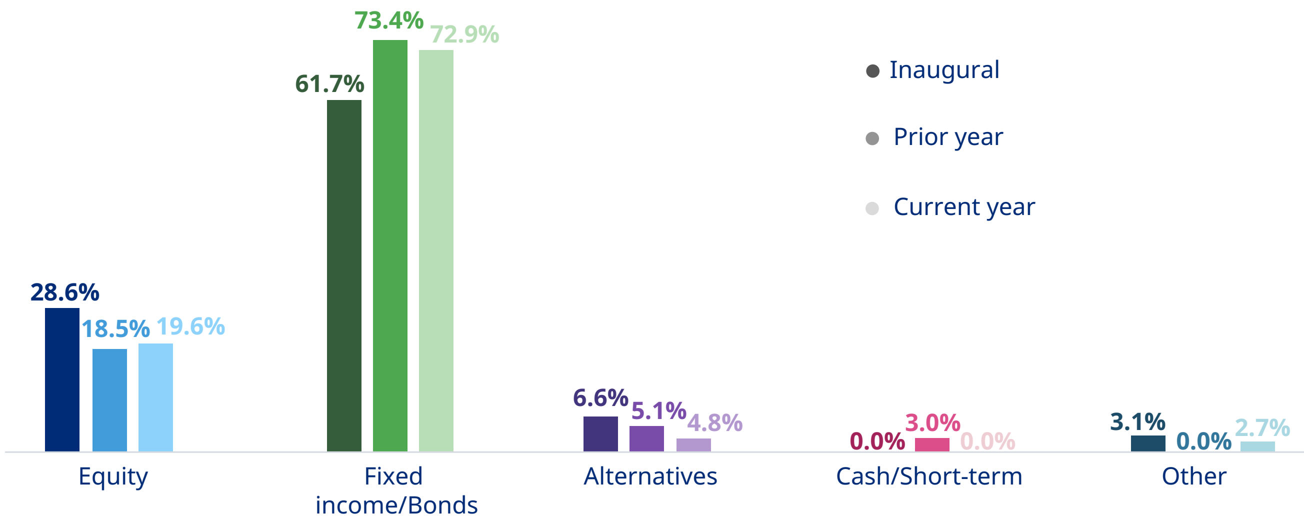
Data include:

Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Multiple plans within the pension association ABRAPP	Corporate DC and DB	233,691

Current asset allocation



Asset allocation over time[15]



[15] "Other" includes loans to participants, alternatives.

Chile

Chile's retirement income system comprises means-tested social assistance; a mandatory, privately managed DC scheme based on employee contributions, with individual accounts managed by a small number of administradoras de fondos de pensiones (AFPs); and a framework for supplementary plans sponsored by employers (the APVC schemes).

The Chilean Pension Security system was introduced in 1981 and is mandatory for every individual who has a formal job. Monthly contributions totaling 10% of salary are sent directly to one of the six private master trusts (AFPs) that oversee administration and investment management for the assets. Changes to the system structure and asset allocation limits have been discussed in the past few years. Recent protests in Chile are deeply rooted in the population's discontent with the low replacement rates the AFP system offers (~30%) now that people are retiring. In response, the government announced a 20% increase in monthly pension payments that fall under the solidarity pillar (a "safety net" that incorporates government-provided income for individuals not sufficiently covered by the pension system).

Due to COVID-19, members could withdraw up to 10% of their savings from their individual accounts. Members appeared to take advantage of this opportunity, as the AUM of the overall AFP system declined about 12% over the year, even as market returns ended close to zero on average.

Chile's fixed income allocation rose from 61% to 62% over last year's measurement period. The level of foreign exposure increased, especially in foreign fixed income. Foreign equity represented 79% of total equity exposure, and the foreign exposure to fixed income instruments was 27% of the total fixed income portfolio.

The trend among AFPs has been to pursue return-seeking strategies by moving toward active managers for greater alpha potential as well as increasing allocations to higher-returning equity segments, such as emerging markets (Asian equities, in particular), along with alternatives. During the past few years, alternatives have been increasing. Limits for alternatives vary depending on the risk level of the fund but can be found in each portfolio up to a maximum of between 5% and 13%. These limits were raised from a maximum of 10% in 2020 and were part of a review of risks amid this year's heightened market volatility. We expect to see alternatives exposures continue to rise until the maximum limits are reached.

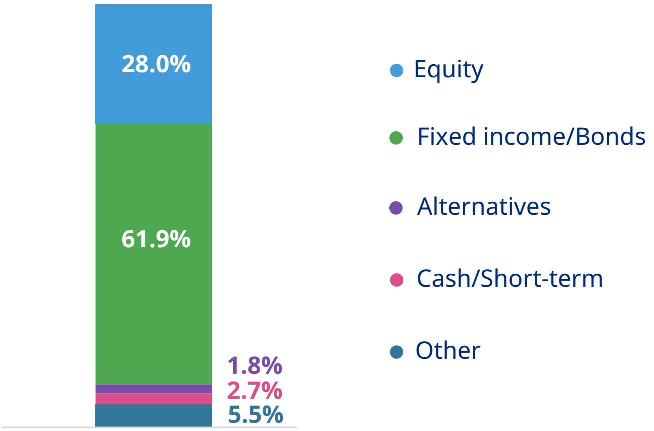
Investors in Chile have also begun showing interest in sustainable investing, including a regulatory requirement that companies report information about social responsibility and sustainable development.

The corporate governance elements of diversity can also be seen in Chile. Recent regulations incentivize organizations to show progress toward achieving diversity and reducing the gender salary gap, with criteria in place for board composition, management and organizations with regard to gender, nationality, age and seniority. Other sustainability trends are evident, such as four of the seven AFPs having signed on as members of the Responsible Investment Program, in which members consider ESG issues in their investment policies and strategies.

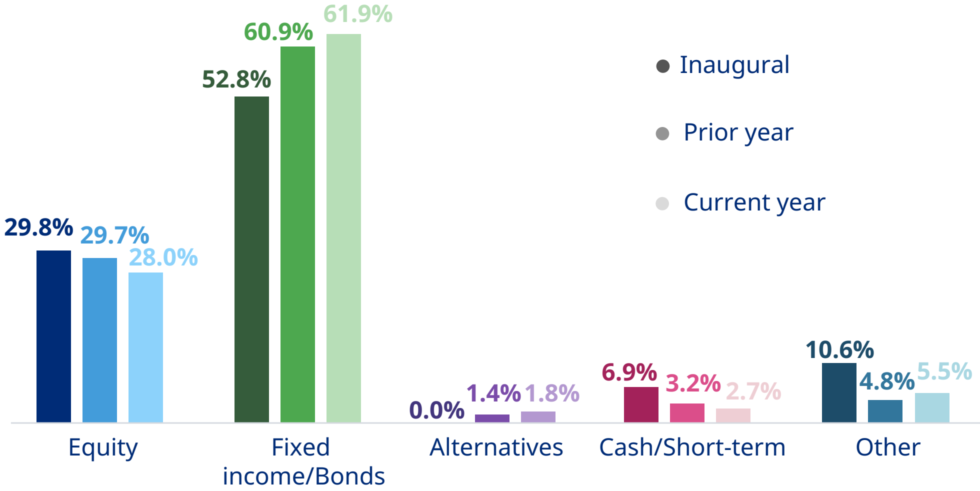
Data include:

Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Administradoras de fondos de pensiones	Mandatory DC	194,968

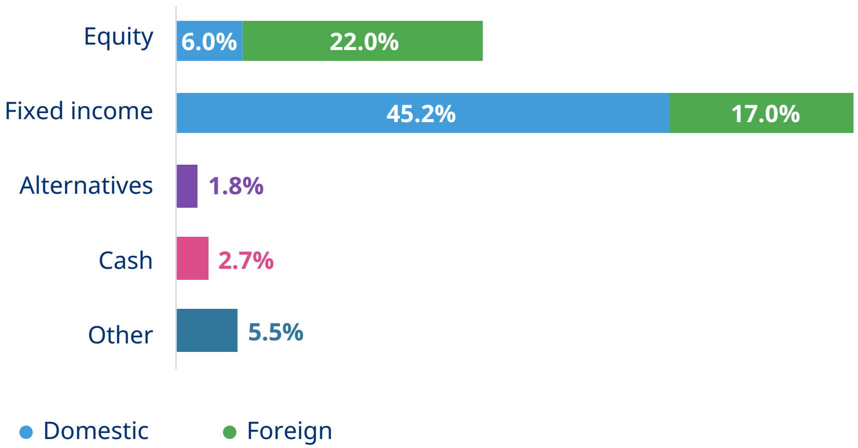
Current asset allocation



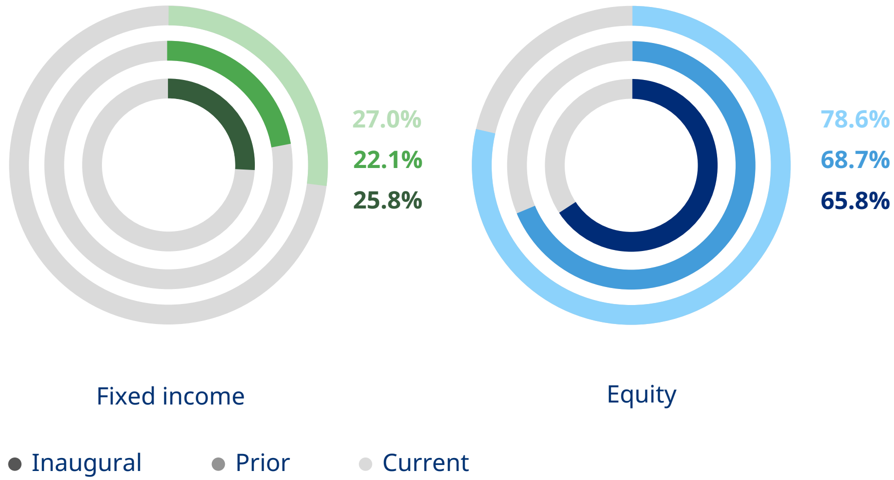
Allocation over time[16]



Asset allocation detail



Foreign as % of asset class



[16] "Other" includes derivatives, such as currency forwards and other foreign equity assets.

Colombia

Colombia's retirement income system comprises a means-tested pension and two parallel and mutually exclusive pension systems. The first of these two systems is a pay-as-you-go DB plan and the second is a system of funded individual accounts offered through qualified financial institutions (AFPs).

An employee elects to join one system and has the option to change later, with certain restrictions. The employer and employee contribution rates are the same for both systems. Some companies also offer a supplemental plan, typically DC, designed for higher earners whose benefits under the mandatory system are limited by a contribution ceiling, allowing them to benefit from favorable tax treatment.

As noted in the prior year's survey, the Colombian government has recently implemented reforms to the DC investment regime that allow for greater exposure to alternatives and foreign investments. These reforms are intended to promote Colombia's infrastructure, reduce local investment risk and allow greater diversification. Investment funds are typically selected internally by AFP staff and include regulations precluding delegation of asset management fund selection to other parties, with the exception of fund of funds.

Structural pension reform was supposed to take place during 2019 but was postponed. Although no formal language has been released, some pronouncements from government officials indicate that 1) limited pension parameters will be changed (for example, retirement age), and 2) the reform will aim to expand pension coverage and promote greater equality among participants. This would be driven by additional required contributions from wealthier participants to offset gaps in pension adequacy for those who do not qualify for the pension or have not amassed sufficient assets. Colombia is also planning new regulations to clarify and expand fee disclosures to help investors make informed choices.

New amendments to the investment regime in the past few years significantly raised the limit to invest in alternatives. Colombia's alternatives investments allocation rose from 9% to 11% over the past year's measurement period.

Due to COVID-19, during two months, members and the employer sponsors could choose to reduce their contributions to the fund from 16% to 3%. Nonetheless, AUM grew during the year.

Our survey indicates that Colombia modestly reduced fixed income exposure over the year and increased allocations to equity and alternatives. The level of foreign fixed income exposure decreased as a portion of the overall fixed income portfolio due to the greater risk exposure investors are seeking, preferring assets with higher yields.

AFPs offer individuals the ability to select from a number of risk-based funds; each has set ranges of allowable investments, including overall equity/fixed income exposure and the level of foreign assets permissible. Several years ago, a more aggressively positioned fund was added to the suite of AFP investment options that incorporated higher equity and alternatives exposure, including foreign allocations. However, this more aggressive option constitutes less than 10% of total assets under management.

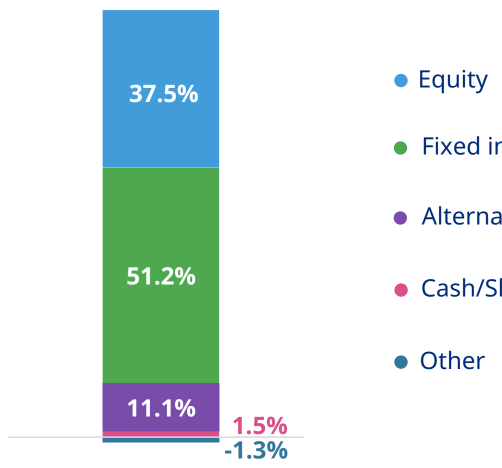
AFPs have traditionally looked for more passively managed options to lower fees, although this trend is changing as alpha-seeking strategies become more prevalent. At the same time, AFPs have shown increasing interest in higher-returning equity segments, such as emerging markets, including Asian exposure.

Sustainability is becoming a topic of some interest in Colombia. Two of the four AFPs have joined the Responsible Investment Program, where members consider ESG issues in their investment policies and strategies. The government is reportedly planning to release a guide to incorporate ESG principles within AFP investments. We expect this to focus primarily on corporate governance and managing conflicts of interest rather than environmental topics.

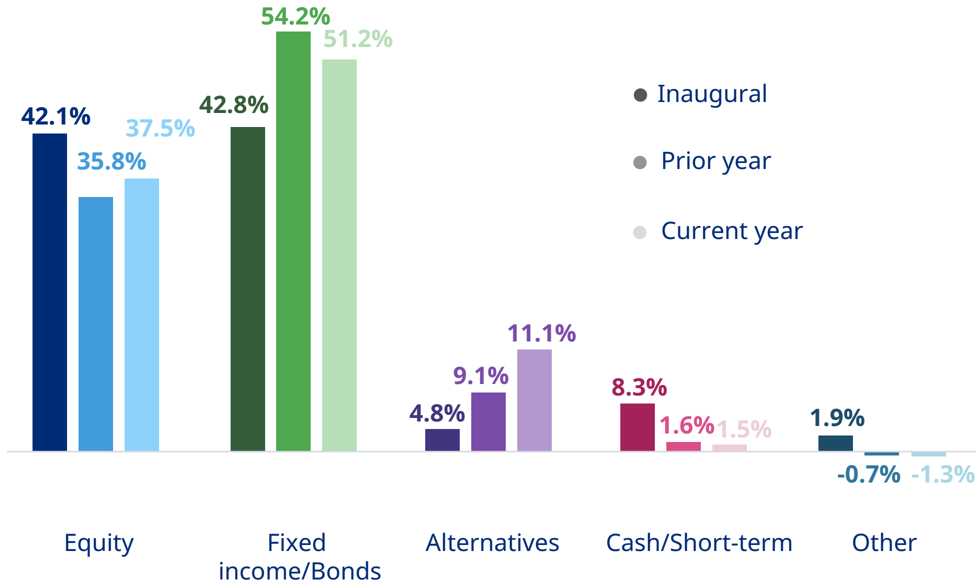
Data include:

Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Administradoras de fondos de pensiones	Mandatory DC	74,874

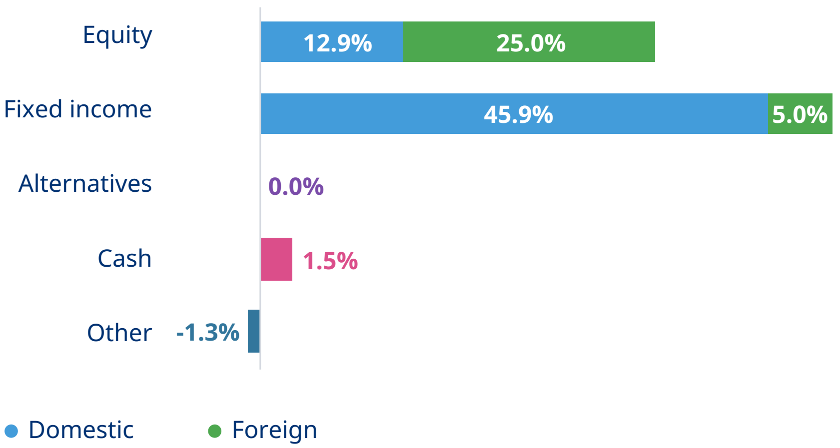
Current asset allocation



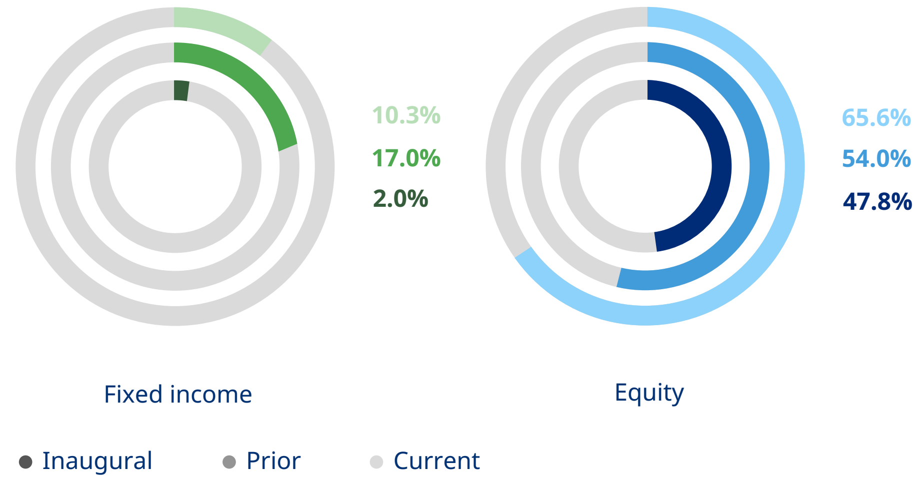
Allocation over time[17]



Asset allocation detail



Foreign as % of asset class



[17] "Other" includes derivatives.

Mexico

Mexico's retirement income system comprises a mandatory and funded DC scheme for individuals with formal jobs in private companies and government employees. In 1997, the private company scheme transitioned from DB to DC, and the government employees' scheme made the same transition in 2007. The 10 Administradoras de Fondos Para el Retiro (AFORES) are the retirement fund administrators for these schemes. Some companies also offer supplemental private pension plans to their employees (either DB or DC).

In 2021, the DC mandatory scheme for private companies was reformed to increase contributions, increase minimum pension, cap AFORES commissions and lower the minimum conditions to retire. A summary of the main changes are:

- **Increased contributions:** Increase from 6.5% of employee's salary (with a cap for higher earners) to 15% in eight years; contributions will start increasing in 2023 and reach 15% in 2030.
- **Minimum pension:** Increase the minimum pension paid by the social security retirement system, depending on age, salary and contribution weeks.
- **Minimum contribution weeks to retire:** Decrease the minimum requirement of contribution weeks needed to retire from 1,250 weeks to 750 weeks for 2021. These new minimums will add 25 additional weeks each year until 2030, when the new minimum will be 1,000 weeks.
- **Fee cap:** A maximum fee that can be charged to members will be established; details are expected in late 2021 for implementation in 2022. The regulator is reviewing methodologies to establish the cap, including comparisons to DC schemes in other countries, such as Colombia, Chile and the US. Details are expected in late 2021 for implementation in 2022, but some initial estimates predict a decline in fees from ~80 bps to ~54 bps.

As of December 2019, AFORES transitioned from auto-enrolling participants in target risk funds to offering a range of target date funds, which work as life cycle funds. The aims of the transition were to achieve better outcomes for employees and avoid the need for individuals to change from one AFORE fund to another when nearing retirement, which would incur additional costs and inefficiencies.

The investment strategy in 2020 has been dominated by transitioning to target date funds, which included a need for each AFORE to expand its offerings from five to 10 different funds.

As part of the shift, we have seen increasing exposure to foreign equity and alternatives. The limit for foreign equity remains at 20%, although regulatory change to increase the foreign maximum to 30% is under consideration and would further support the ability of plans to invest offshore and increase exposure to equity and alternatives.

Overall, the AFORES investments dominate the results of our analysis, particularly in terms of exposure to foreign equity, as supplemental private pension plans have minimal foreign exposure. The AFORES foreign equity allocation at the end of the recent period was 18% of the total portfolio, within the cap and representing ~70% of the equity portfolio.

In addition to the mandatory schemes, some limited tax incentives encourage companies to provide their workers with supplemental private pension plans. These supplemental plans are subject to certain investment restrictions:

- Thirty percent must be invested in government instruments or fixed income mutual funds.
- The remaining 70% can be invested in any type of asset as long as the instrument is registered with the Comisión Nacional Bancaria y de Valores.
- A maximum of 10% can be invested in the company's own securities.

As of the end of December 2020, close to 2,300 supplemental private plans represented US$29 billion registered with the Comisión Nacional del Sistema de Ahorro Para el Retiro — or 3.3% of Mexico's GDP. This percentage is almost unchanged from the previous year and represents a 10% increase over the past five years. Forty-three percent of these plans are DB — a figure that has been decreasing over the past four years, mainly due to tax regulation changes and plan administration costs. At the same time, we observed an increase in the creation of DC plans, with 60 new DC and hybrid plans created in the last year. Hybrid schemes, which include DC components with a guaranteed minimum benefit, have become particularly prevalent.

During the pandemic, the withdrawal of some savings from the AFORES became popular because the regulation allows retirement due to unemployment. The approximate withdrawal totaled two billion Mexican pesos (US$100 million), the highest amount since 2005 and 68% higher than 2019.

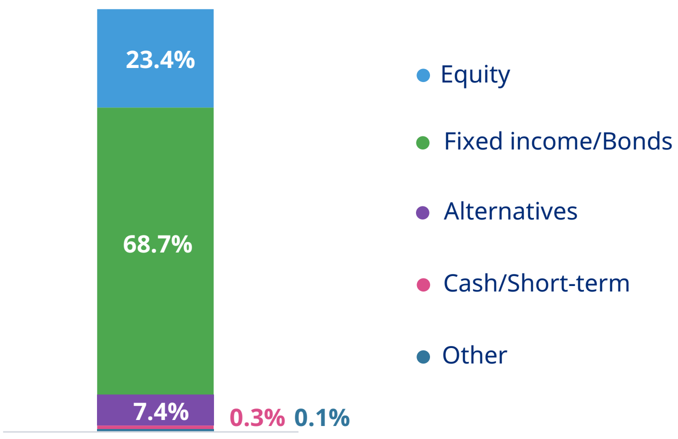
New regulations governing ESG within the AFORES were recently announced, to go into effect in 2022. These require AFOREs to publicly disclose how they integrate ESG factors into their investment processes and define both an investment policy and a risk management policy that considers ESG factors.

For DB supplemental plans, the investment strategy is migrating to a more conservative allocation by decreasing exposure to equity. However, many DC supplemental plans have migrated from a single investment option to a life cycle or lifestyle option. Within supplemental private pension funds, asset allocations did not move significantly over the period, but equities decreased slightly due to Mexican market volatility. Most of the decrease was in foreign assets due to the Mexican peso exchange rate and trade tensions with other governments (though these decreases remained at less than 3%). Most private pension plans seek actively managed strategies through mutual funds, although more sophisticated plans make direct investments.

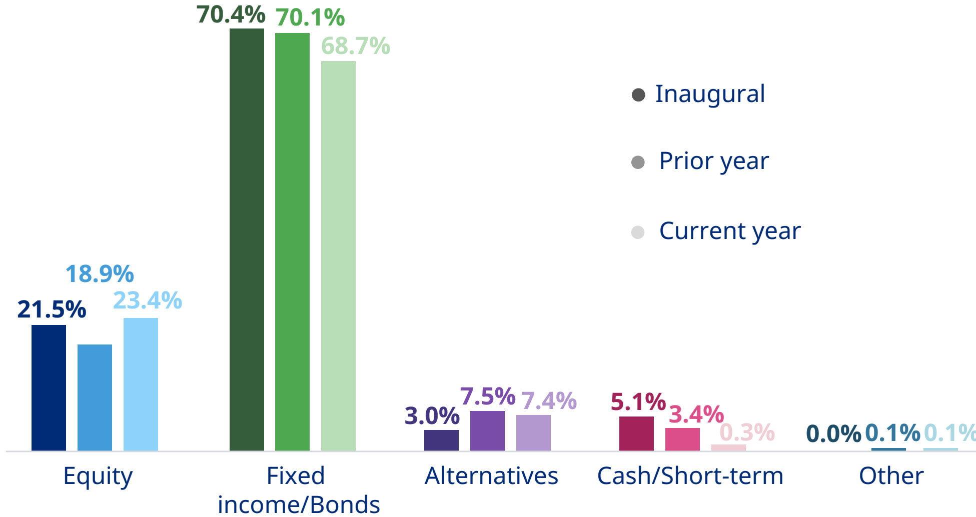
Data include:

Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Private pension plan	Corporate DB	10,889
Private pension plan	Corporate DC	11,037
AFORES	Mandatory DC	186,190
Total		**208,115**

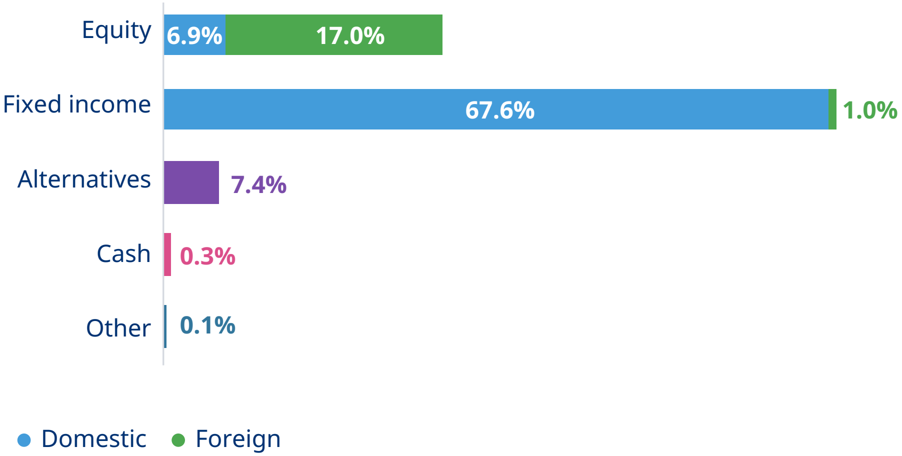
Current asset allocation



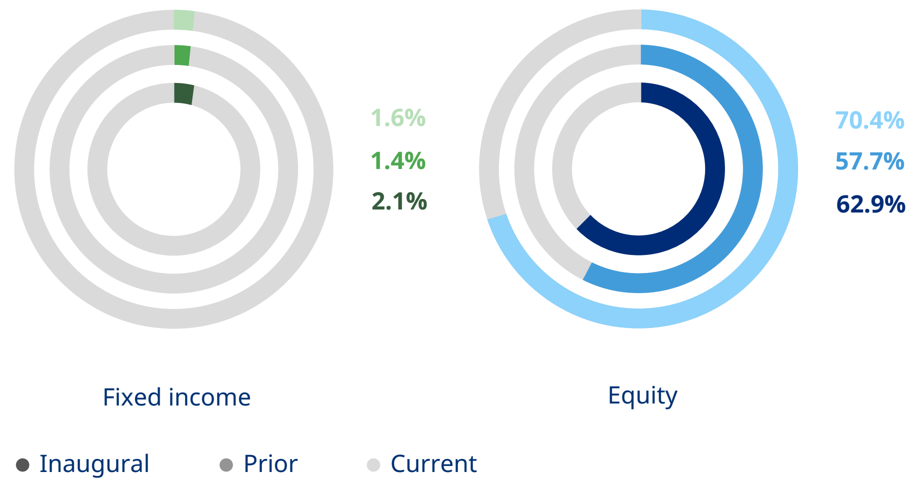
Allocation over time[18]



Asset allocation detail



Foreign as % of asset class



[18] "Other" includes structured notes and undefined.

Peru

Peru's retirement income system comprises a means-tested pension and two parallel and mutually exclusive pension systems. People are able to choose between a pay-as-you-go DB public system and a fully funded DC system managed by four private-sector AFPs. Once an individual chooses between the DB and DC schemes, strict rules limit switching between them; for example, only participants who began contributing to the DC scheme prior to 1995 may switch into the DB scheme. Supplemental corporate private pension plans are not common.

AFPs offer individuals the ability to select from a number of risk-based funds; each has set ranges of allowable investments, including overall equity/fixed income exposure and the level of foreign assets.

At the time of this writing, pension reform is being debated. The reform draft aims to unify both pension systems currently coexisting in Peru. The main focus of the reform is to increase coverage, although it still needs to establish funding sources in order to be sustainable. In addition, the lack of competition and the need to reduce the fees AFPs charge are always hot topics. Like other pension systems in the region, the Peruvian AFP system produces low replacement rates and reaches only a small portion of the population.

During the recent period, alternative investments have increased, and the trend is to continue increasing until reaching the cap allowed for the pension funds, which varies between 15% and 20% depending on the risk level of the fund.

Due to COVID-19, members could elect to stop their 13% contributions to the pension fund. Also, the Peruvian Congress approved that active workers may withdraw up to 25% of their savings. Accommodations were also made for members who had not made contributions for the past 12 months and for workers who had been affected by mandatory social isolation requirements.

Peru devotes a significant portion of its allocation to equities (almost half of assets under management), of which more than 70% is invested internationally. Additionally, the international fixed income exposure more than doubled from its 2019 position (although the fixed income portfolio remains domestically focused, with 20% invested internationally).

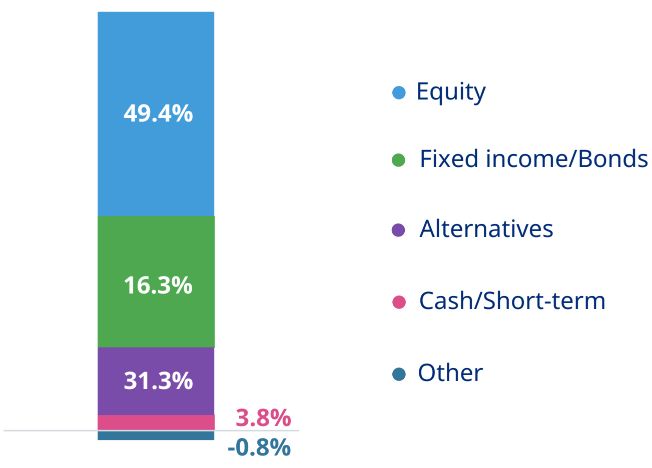
Peru's AFPs have been moving strongly toward passively managed strategies in order to reduce fees. At the same time, they have shown an increasing interest in higher-returning equity segments, such as emerging markets, including Asian exposure.

From a sustainable investing perspective, three of the four AFPs in Peru have joined the Responsible Investment Program, considering ESG issues in their investment policies and strategies. The government is expected to release guidance for ESG principles within the AFPs' investment portfolios. Similar to Colombia's ESG guidance, this is likely to focus on corporate governance and conflict issues and less on environmental issues.

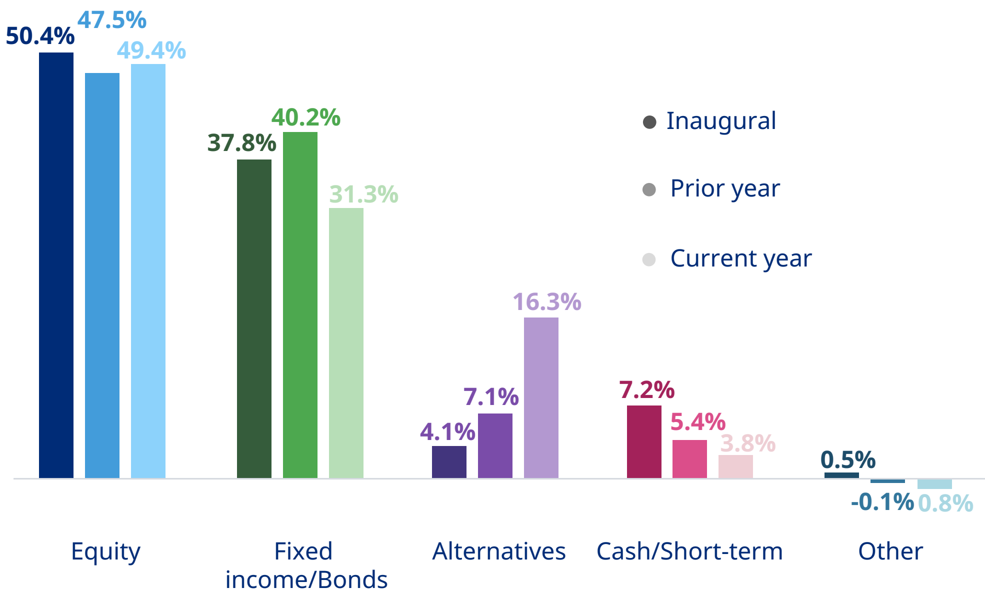
Data include:

Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Administradoras de fondos de pensiones	Mandatory DC	42,840

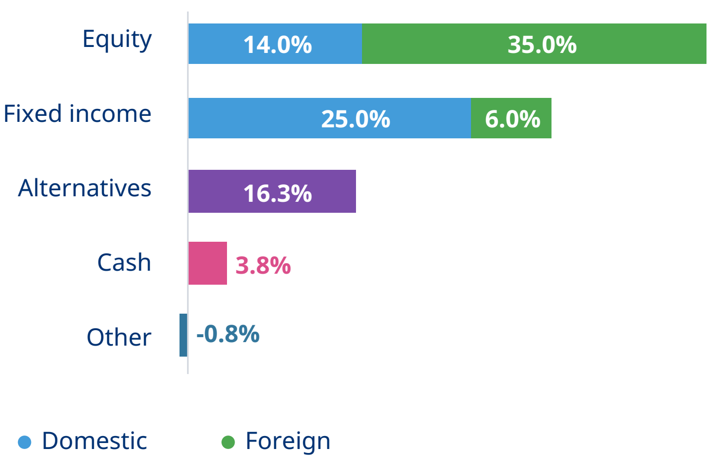
Current asset allocation



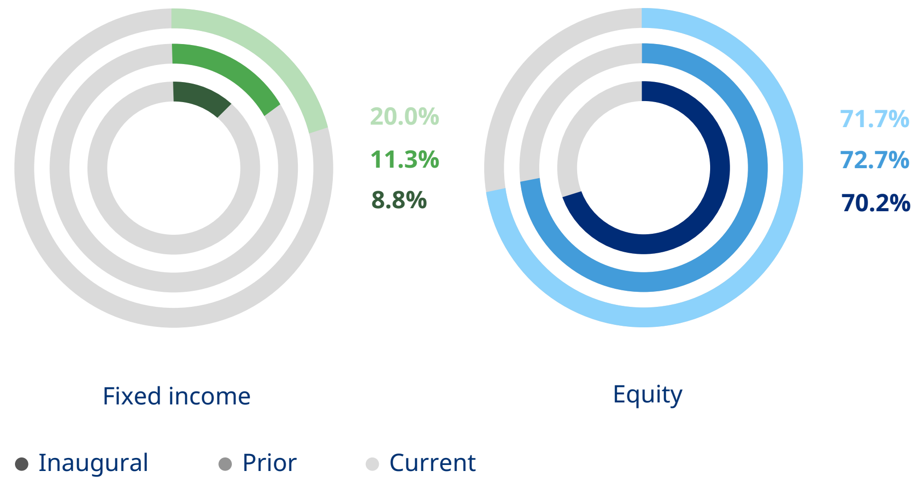
Allocation over time[19]



Asset allocation detail



Foreign as % of asset class



[19] “Other” includes derivatives.

06. Middle East and Africa

Middle East and Africa

The Middle East, Turkey and Africa region includes a number of large investors — based on Mercer's estimates, the GCC region alone is home to more than US$5 trillion in institutional assets under management — but data regarding investors in the region are not publicly available. A key recent initiative, launched in the UAE in early 2020, saw the first government-sponsored DC savings scheme for expatriates in the market, the Dubai International Financial Center Employee Workplace Savings (DEWS) plan, which is intended to provide a better mechanism for employees to save for their retirement and other financial goals. The DEWS Plan drew $127 million in assets under management in its first year, including more than 1,100 employers and 19,000 employees enrolled as of February 1, 2021.

This region was more heavily positioned to equities when compared to the overall survey positioning, with 52% relative to 36% for the survey average.

Interestingly, although the survey average has shown an increase to equities over time, the South Africa and Turkey region shows a decrease to equities, with an increase in fixed income, over the same period.

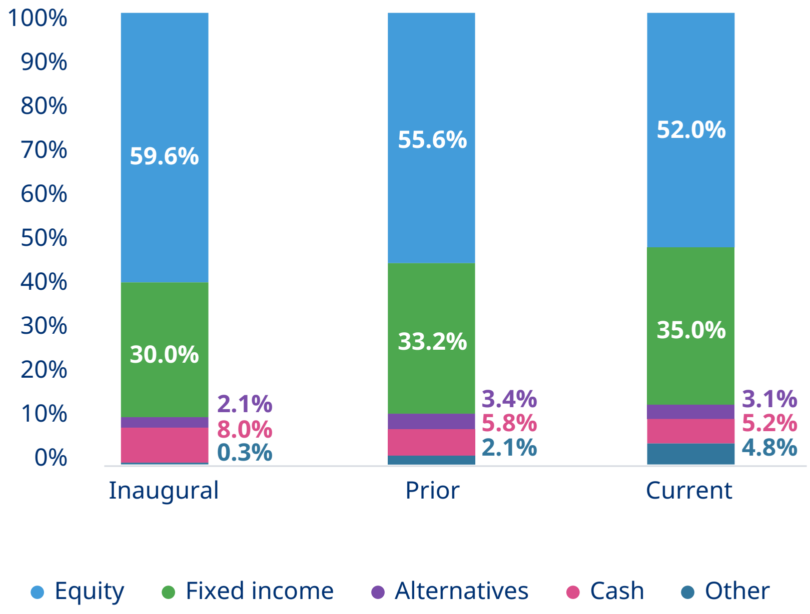
In South Africa the allocation to equities was almost 60%, more aggressively positioned than the survey average of 36%. From our experience, GCC investors are also more aggressively positioned, with diversified portfolios in equities (including sizeable allocations to foreign equities) and alternatives. In Turkey, there are concerns about economic and market volatility, leading to an allocation of more than 55% to fixed income and cash combined.

In all, this region represents a set of economies with very different circumstances and sizes, and this is further evident in the significant differences in the positioning of their pension investments.

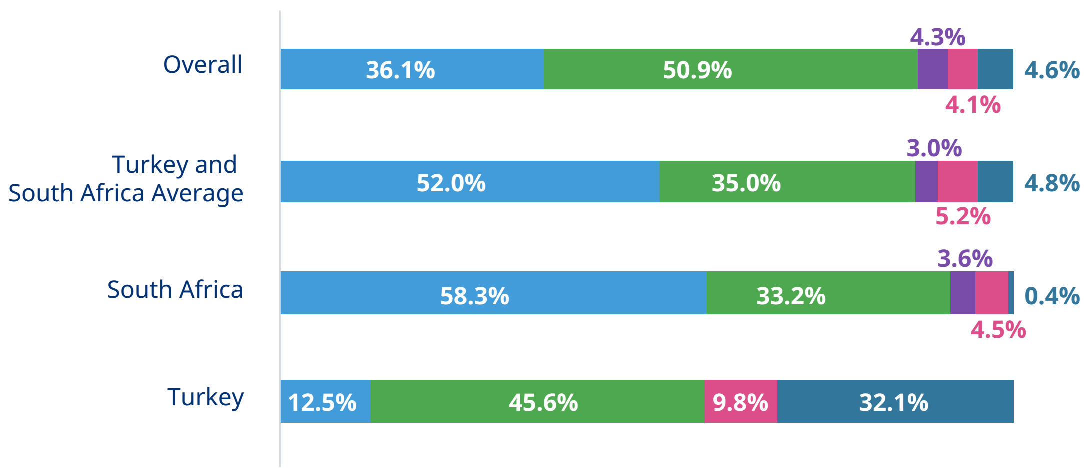
Data include:

Market	Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
South Africa	South Africa	Corporate DB	113,190
South Africa	Plans represented in the Alexander Forbes Investable Global Manager Watch™ survey	Corporate DC	44,907
Total			**158,097**
Turkey	State contribution	State contribution	25,489
Total			**183,586**

Turkey and South Africa asset allocation



Current asset allocation (%) — Turkey and South Africa



South Africa has increased its exposure to foreign markets within equities while dipping slightly within fixed income, in part owing to relaxed regulations over the past few years allowing up to 30% foreign investments (from 25%), plus a 10% exposure for Africa (outside South Africa). Turkey has also increased exposure to foreign markets over the full measurement period (although with a step back over the most recent year), but it remains heavily home biased.

Gulf Cooperation Council (GCC)

In the GCC region, pension funds are the second-largest category of institutional investors after sovereign wealth funds (SWFs), with assets under management estimated to be around US$600 billion. Pension systems across the GCC vary, but pension systems that cover nationals typically fall within two main categories:

- Government- or state-sponsored plans: These plans comprise the majority of assets and have embarked on an institutionalization journey outlined later in this section.
- Corporate or nongovernment-sponsored plans: These plans are relatively rare and, in general, are conservatively positioned and lack the sophistication and risk management of their government-sponsored peers.

Expatriates or others who do not fulfill retirement conditions are typically paid an earnings-related lump-sum retirement benefit by their employers. In 2020, the Dubai International Financial Center (DIFC) Authority introduced an employee workplace savings plan (DEWS), thereby replacing the end-of-service benefits arrangements and aligning with global retirement savings standards. The initiative means employees will switch from an unfunded end-of-service benefits regime to a funded, professionally managed DC scheme.

The DEWS Plan drew US$127 million in assets under management in its first year, including more than 1,100 employers and 19,000 employees enrolled as of February 1, 2021.Other authorities in the region are exploring the potential to implement similar arrangements based on the success of DEWS.

In response to market declines over 2020, investors in the region were quick to take action to capture opportunities. In addition to some high-profile purchases by GCC SWFs, a number of GCC pension funds accelerated manager selection activity and made top-up investments into areas including equities, listed infrastructure and real estate. Rebalancing activity remained elevated and disciplined throughout the year. Governance structures were also reviewed. Given the lockdowns imposed across the region, committee members had to find new ways of working together to ensure investment decisions could be made efficiently and in an expeditious manner. Government bodies were quick to implement new systems and processes to reduce disruption to the decision-making frameworks.

Oil price declines exacerbated the ongoing sustainability challenges faced by some GCC state pension funds. In response to these challenges, GCC pension funds continue to increasingly invest internationally to diversify away from the local markets and reduce dependence on government contributions, which are typically reliant on oil revenues.

Some GCC states are exploring initiatives such as pension scheme mergers, with a view to enhancing governance and improving cost efficiency.

Different markets have been impacted to various degrees by the falls in oil prices, and government bond yields vary markedly across the GCC. Consequently, cash allocations remain high among some of the GCC pension funds, particularly in jurisdictions where the deposit rates are viewed as attractive relative to the yields available in developed-market government bonds.

As in international developed markets, GCC pension funds continue to place greater emphasis on lower fees and have increased negotiations with asset managers. The trend toward investing passively in liquid asset classes has also continued.

ESG factors have continued to be a discussion topic for pension fund investors, driven by the influence of regional SWFs involved in the One Planet initiative. As focus on responsible investment initiatives grows, areas such as stewardship and sustainable investment are expected to feature more prominently on pension funds’ agendas.

South Africa

South Africa's retirement income system comprises a means-tested public pension and tax-supported voluntary occupational schemes. The analysis includes data from South Africa's Government Employees Pension Fund (GEPF) as well as information provided by Mercer's strategic partner in Africa, Alexander Forbes Investments (AF). Allocations provided by AF are based on Alexander Forbes' Investable Global Manager Watch™ survey.

Within the Manager Watch™ survey, asset allocations to growth assets have ticked higher compared to the previous survey but remain below 70%, with the bulk of the allocation to equities. Within growth assets, there has been an increased allocation to alternative assets from under 1% last year to 2.5% in the current survey. Within fixed income, there has been a slight increase in allocations (+1.5%) to domestic fixed income despite South African government debt being downgraded to noninvestment grade by Moody's in March 2020 (following previous moves by S&P and Fitch in 2017), as real yields remain attractive versus other bond markets.

Investors continue to make full use of their permitted 30% allocations to offshore assets. However, within this allocation, there was a shift to foreign equities (+3.5%) at the expense of global cash as yields on international cash assets became increasingly unattractive.

Some managers have taken selective positions in corporate bonds in an effort to benefit from widening credit spreads following the first quarter 2020 sell-off.

Within the GEPF, over the past year, the exposure to fixed income increased slightly (38% of the fixed income portfolio, up from 34%), whereas overall allocations to equity, fixed income and alternatives declined year-over-year.

Balanced managers proliferate in the South African market, with trustees preferring to delegate asset allocation decisions to asset managers. On the whole, the pace of uptake of private markets and hedge funds in balanced mandates has been slow. However, as certain funds have grown, providers have been able to increasingly add to alternatives. Allocations to alternatives have increased over the year and now stand at 2.5%, which remains significantly below the 15% limit that may be allocated to unlisted "alternative" vehicles. Liquidity will remain a constraint in a largely DC pension fund market, but allocations to alternatives are expected to continue to increase as investors seek diversification away from equities into other growth assets to meet the high-return targets expected by local investors.

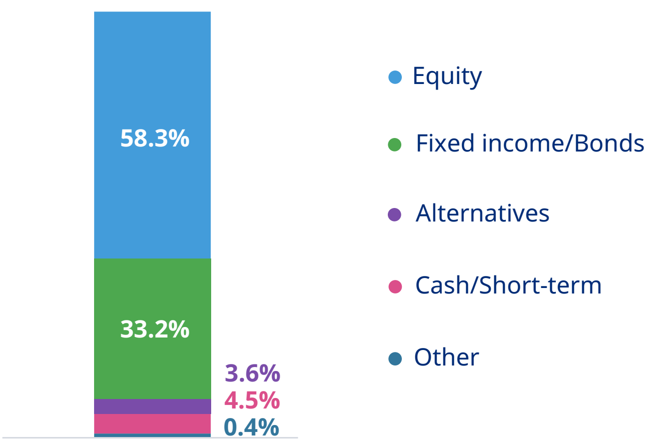
During 2020, one of the top private market sectors benefiting from inflows was infrastructure, with trustees increasingly focusing on making investments that provide both returns and a positive social impact. Before the COVID-19 pandemic, the South African economy was already in a recession, and government finances became increasingly stretched over 2020, which further limited its ability to fund infrastructure investments directly. There is an increasing need for private capital to fund investments that provide broader economic and social benefits. In response to this need, South Africa's National Treasury has released draft amendments (for public comment) to Regulation 28 of the Pension Funds Act to make it easier for retirement funds to invest in infrastructure assets.

Although the pandemic has focused more attention on social issues within the country, sustainability and ESG factors within pension funds' decision-making is well-established in South Africa, with the Code for Responsible Investing in South Africa (CRISA) applying to both institutional investors and their service providers. CRISA provides guidance on how institutional investors should execute investment analysis and activities and exercise their rights so as to promote sound governance. Shareholder activism and environmental/social justice organizations have also raised the level of stewardship within the South African market in recent years.

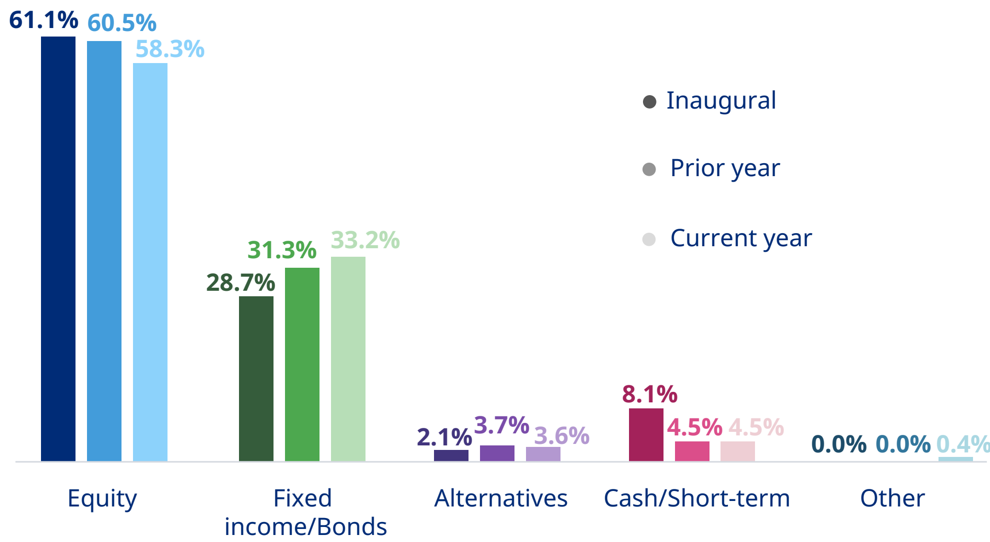
Data include:

Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Government Employees Pension Fund	Government DB	113,190
Plans represented in the Alexander Forbes Investable Global Manager Watch™ survey	Corporate DC	44,907
Total		**158,097**

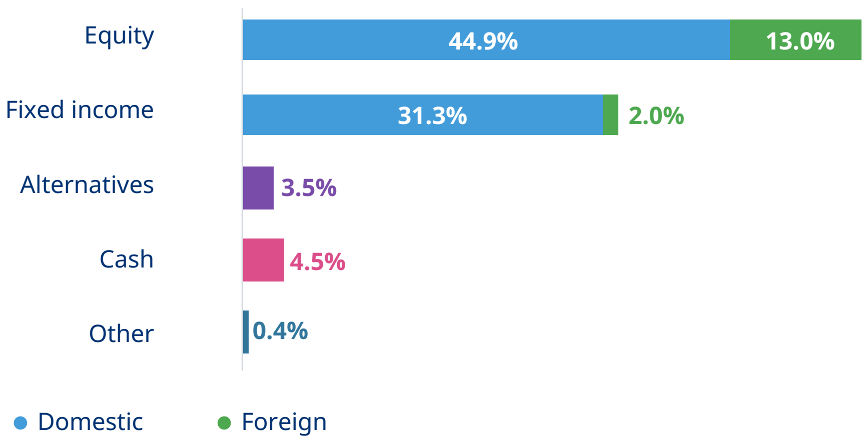
Current asset allocation



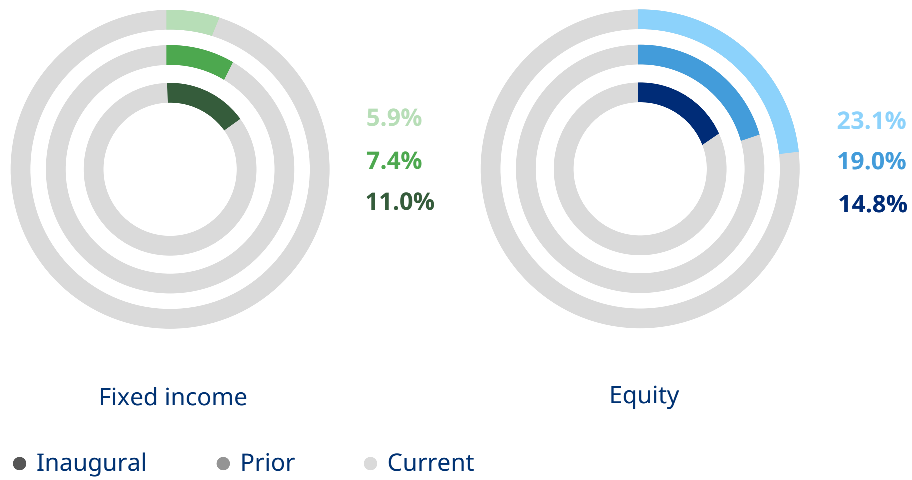
Allocation over time



Asset allocation detail



Foreign as % of asset class



Turkey

The pension system in Turkey consists of three pillars. The first pillar is a mandatory pay-as-you-go public pension in the form of an earnings-related scheme supported by a means-tested safety net and a flat-rate pension. The second pillar is occupational schemes, which are mostly DB plans. The third pillar is a voluntary, fully funded private pension system, established in 2003.

Over the past decade, two major reforms to the third pillar have been introduced to encourage savings. In 2013, the government started matching employee contributions by 25% up to the monthly minimum gross wage. In January 2017, it introduced auto-enrollment with mandatory employee contributions. Employers with more than five employees are now required to implement a plan but not to contribute financially toward pension pots.

Such changes should have been followed by an increase in the participation rate and pension savings. However, the scheme has seen a higher opt-out rate than predicted, meaning only around 40% of employees are staying in the auto-enrollment plans.

Today, Turkey has total assets under management of nearly US$20 billion invested in 404 pension funds, with 6.1 million contributors in voluntary plans and 5.7 million contributors in auto-enrollment plans.

The majority of the funds are invested in local fixed income securities, mainly due to Turkey's high economic volatility and high interest rates on short-terms deposits. However, investment choices are migrating toward to a less conservative allocation by increasing exposure to Turkish equities, precious metal funds (mainly gold as a traditional investment vehicle) and public-leasing certificates, which are securities issued by asset-leasing companies with returns tied to revenue received from the underlying asset. Investment options are different in voluntary and auto-enrollment plans. Currently, no auto-enrollment funds invest in other-currency eurobonds or foreign securities.

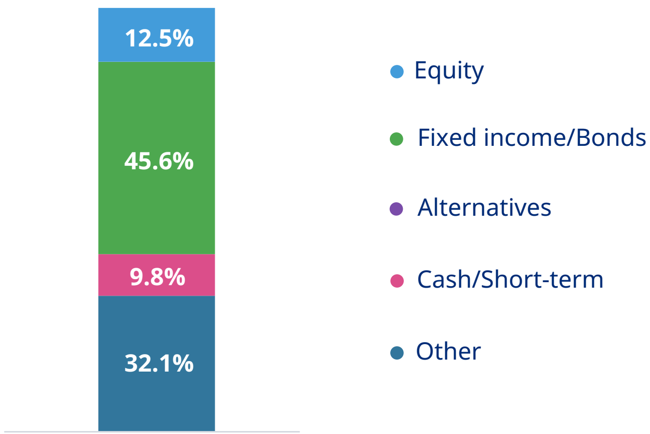
The state-contribution investment strategy is set by the Turkish Treasury and cannot be changed by participants. It comprises at least 70% government bonds and leasing certificates, 10% Turkish stocks (introduced via legislation change in May 2019), and 20% deposits and private-sector bonds. Conversely, voluntary and auto-enrollment plan asset allocation is participant-directed and can be changed up to six times a year. However, due to low financial literacy, only a limited number of participants change their fund allocations during the year, and this activity remained low in 2020, even amid market volatility. The largest pension administrators are already employing robo-advisors on a large scale to support better fund allocation and help individuals manage their assets.

The government is currently discussing new reforms, which include reenrollment to the auto-enrollment system, mandatory employer contributions to DC plans and integration of termination indemnity to the private pension system. These actions, if implemented, will encourage long-term savings and increase private pension assets under management.

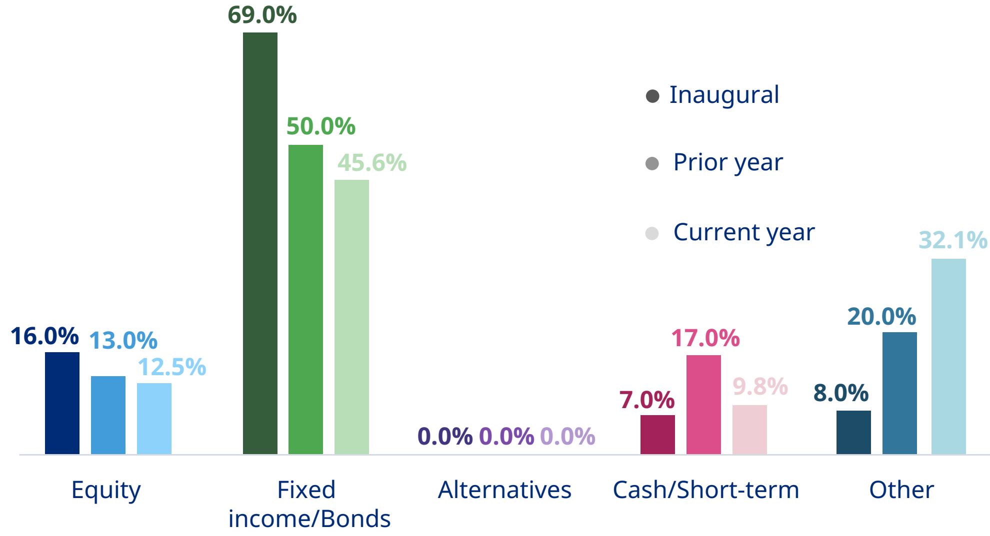
Data include:

Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Voluntary	Voluntary DC	22,706
Auto-enrollment (employee)	Mandatory DC	1,804
State contribution	Mandatory DC	3,584
Total		**28,130**

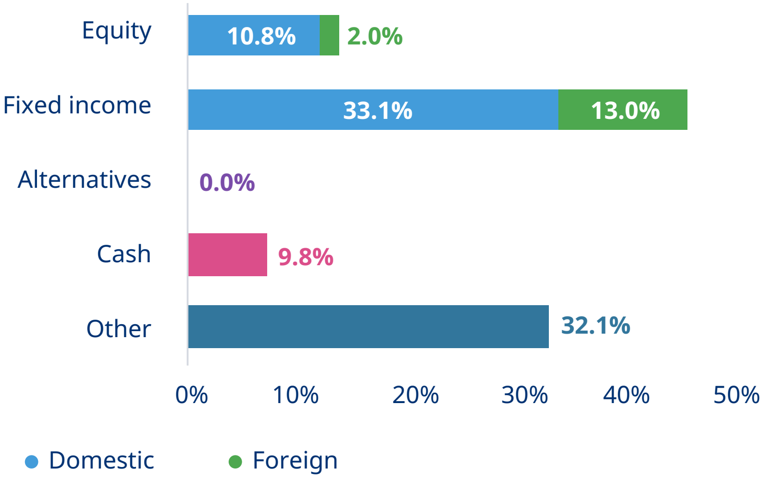
Current asset allocation



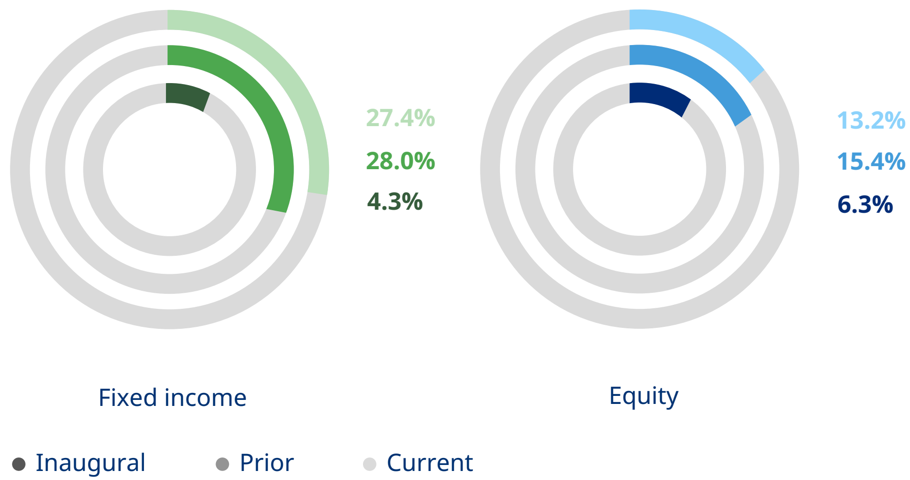
Allocation over time[20]



Asset allocation detail



Foreign as % of asset class



[20] "Other" includes public leasing certificate, corporate leasing certificate, time deposit and precious metals.

07. Asia

Asia/Asia ex Japan

Asia represents a diverse region — the data comprise mandatory DC schemes, such as found in Hong Kong and Malaysia, as well as large government DB schemes found in South Korea and Japan, and many others in markets across the region. Given the size of the Japanese pension system, notably, including GPIF, we review trends for Japan and the rest of Asia separately.

Data include:

Market	Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Hong Kong SAR	Mandatory Provident Funds (MPF) schemes	Mandatory DC	111,254
Total			**111,254**
India	National Pension System	Government DC[21]	58,766
	Seamen's Provident Fund Organization[22]	Government DC	259
	Employee Provident Fund — EPFO	Government DC (with guarantee)	168,553
Total			**227,578**
Indonesia	Employer pension fund — DB (DPPK-PPMP)	Corporate DB	11,195
	Employer pension fund — DC (DPPK-PPIP)	Corporate DC	2,537
	Financial institution pension fund	Financial institution DC	7,185
	BPJS Ketenagakerjaan — jaminan pensiun	Mandatory DB	4,292
	BPJS Ketenagakerjaan — jaminan hari tua	Mandatory DB	22,714
Total			**47,923**

[21] Established by government but now overseen independently by NPS Trust.

[22] Inaugural period data include only the Seaman's Provident Fund Organization plan since data were not available for the others. The other plan data are included beginning in the prior-year figures.

Market	Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
South Korea	National Pension Fund	Government DB	685,437
	Government Employee Pension Fund	Government DB	7,846
	Teachers' Pension Fund	Government DB	16,206
	Military Mutual Aid Association Co Ltd.	Government DC	6,828
	Corporate Pensions	Corporate DB	121,801
	Corporate Pensions	Corporate DC	51,015
Total			**889,133**
Malaysia	Kumpulan Wang Simpanan Pekerja (KWSP) (EPF)	Mandatory DC	199,751
	Kumpulan Wang Persaraan (KWAP)	Government DB	34,128[23]
Total			**233,879**
Taiwan	Statutory corporate DB plans (LSA)	Mandatory DB	30,559
	Statutory corporate DC plans (LPA)	Mandatory DC	79,267
	Private school pension fund	Government DB	84
	Private school pension DC	Government DC	1,738
	Public Service Pension Fund	Government DB	19,316
Total			**130,965**

[23] Malaysia KWAP's latest annual reports were not available at publication time of this survey; as such, asset values used in Mercer's 2020 Asset Allocation Trends survey were carried over into this 2021 edition.

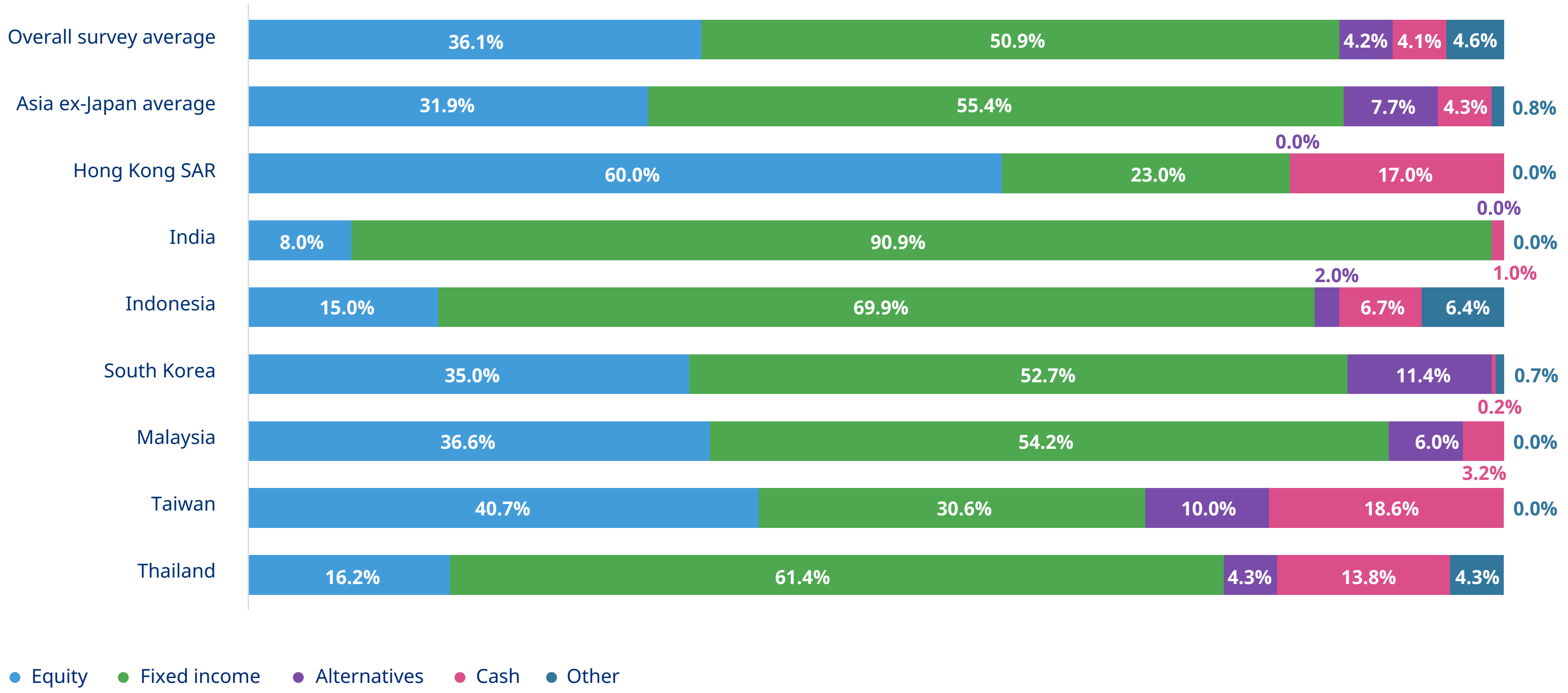
Asset allocation for the Asia ex Japan region is broadly aligned with growth markets in aggregate. However, it has the highest allocation to alternatives (~8%) among all regions.

Over the past few years, Asia ex Japan investors have held allocations fairly steady, with modest increases to alternatives over the full measurement period. Hong Kong and Taiwan have the most aggressive asset allocation among all jurisdictions. Hong Kong has a 60% allocation to equities, whereas Taiwan has a 41% allocation to equities and 10% to alternatives. South Korea has the highest allocation to alternatives among all Asia markets at 11%, which has been increasing over the measurement period. Conversely, India's fixed income allocation is significant at close to 90%.

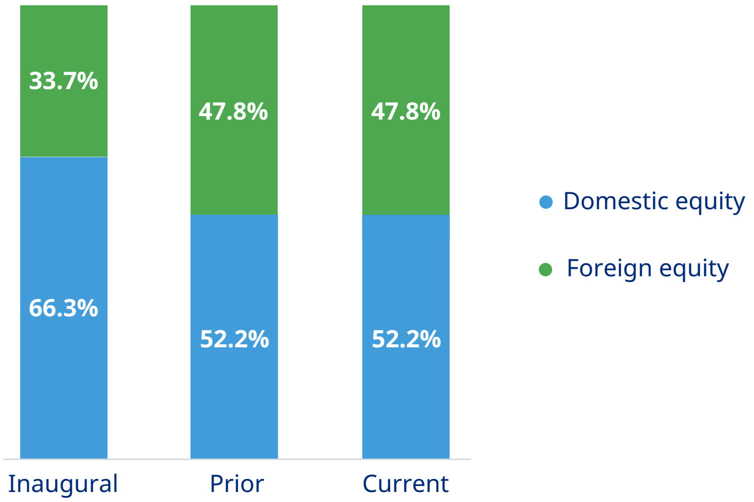
Market	Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Thailand	Government Pension Fund	Government DC	13,985
	Voluntary provident fund	Corporate DC	38,760
	SSF benefit fund (old age and child allowance)	Government DB	69,443
Total			**122,187**
Total			**1,762,922**

Asia ex Japan asset allocation

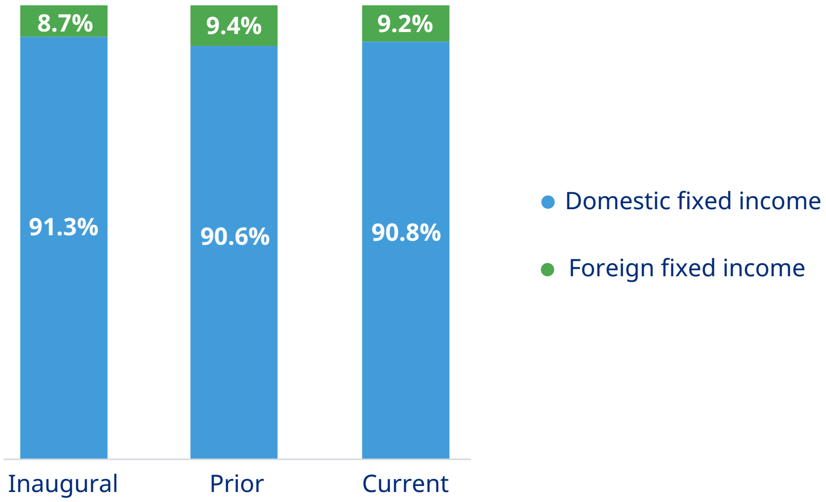
Current asset allocation (%) — Asia ex Japan



Domestic versus foreign equity



Domestic versus foreign fixed income



Within the equity portfolio, assets have shifted to foreign equities, with the current period average of 48% up from 34% in the inaugural period. Shifts in Taiwan and Malaysia have contributed to this. Foreign fixed income has remained a relatively low portion of the fixed income portfolio and remained largely flat over the measurement period at 9%.

Sustainable investing has become a rising area of interest for Asian investors, with governments, pension plans and asset managers moving to incorporate these themes into investment strategies. In Hong Kong and Taiwan, for example, ESG factors are being considered within investment decisions, and Indian mutual fund companies have begun launching ESG-focused products. South Korea and the Philippines have each demonstrated this through investments in green bonds, with South Korea specifically tying their objectives to social themes to support the economy amid the COVID-19 recession. In addition, Mainland China has shown leadership in pursuing sustainable growth policies, and investors have the potential for rapid development of their approaches to ESG and stewardship.

Asian investors took different approaches to navigating the volatility and economic circumstances relating to COVID-19. In India, similar to many of the AFP plans in Latin America, the government temporarily lowered the mandatory employee and employer contribution rates. Some allocations to fixed income assets increased, including in Hong Kong MPF and more significantly in Indonesia.

Mainland China

Mainland China's retirement income system comprises an urban system and a rural social system as well as arrangements for rural migrants and public sector workers. The urban and rural systems have a pay-as-you-go basic pension consisting of a pooled account (from employer contributions or fiscal expenditure) and individual accounts (from employee contributions). Supplementary plans are also provided by some employers, more so in urban areas.

Mainland China's pension assets have grown rapidly over the past few years. Since 2018, there have been several developments in the pension market, which is gradually becoming a more significant force in Mainland China's capital market. These developments include:

- **Pillar One:** More state pension assets from the provincial social security funds have been delegated to the National Council of Social Security Fund ("NCSSF").
- **Pillar Two (supplemental pension scheme):** Occupational Annuity schemes, part of the Pillar Two Scheme, have started to appoint investment managers and invest into capital markets (notably, A-share equity market).
- **Pillar Three (individual pension scheme):** This scheme is being officially established with significant government support, signaling a more commercialized pension market developing.

As an aging population looks set to continue to be a key theme in Mainland China, the pension market has been pushed as a fast-development track. Although the overall pension asset growth is not surprising, Mercer has observed two key areas of development: 1) the overall market is becoming more institutionalized, and 2) ESG integration has arrived on the agenda.

Pillar One:

- Although historically provincial basic pension was mostly managed locally, we have seen an increasing number of provincial governments delegate their basic pension capital to NCSSF to take advantage of its scale and institutional approach. As of Q3 2020, most provinces (24 of 34) have dedicated 1.1 trillion yuan (US$168.4 billion) from local pension funds to be managed by NCSSF.
- Assets managed by NCSSF were still concentrated in the onshore market in 2019, as 9.6% of its total assets were invested in foreign markets, a slight increase compared to 2018. However, in 2020, NCSSF initiated a global manager selection mandate across global responsible investment equity, Japanese equity and global technology equity. It has been more than eight years since the last time NCSSF hired overseas managers. In addition, notably, it marks the first time for a Mainland China pension investor to specifically include ESG integration as part of the manager selection process, which echoes our observation of an increasing focus on ESG and responsible investments in Mainland China's asset management ecosystem.

Pillar Two:

- As of Q2 2020, the total size of China Enterprise Annuity (EA, part of the Pillar Two Scheme designed for corporate employees) had reached 1.98 trillion yuan (US$168.1 billion), representing a 10% growth compared to the end of 2019. The number of firms with EA plans and participating employees also increased 3.9% and 3.5% compared to the end of 2019.
- The most notable development in Pillar Two is the evolution of the Occupational Annuity scheme (OA, part of the Pillar Two Scheme designed for government employees), with most provincial OA schemes starting to delegate capital to professional asset managers. Considering the compulsory participation of OA schemes, the market expects their total assets to exceed EA scheme assets in the next three to four years.
- Compared to NCSSF's investment guidance, both EA and OA employ more stringent investment restrictions, with 30% upper limits on public equity allocation, and invest solely in Mainland China onshore markets.

Pillar Three:

- At the beginning of 2020, the China Banking and Insurance Regulatory Commission (CBIRC) issued the "Guiding Opinions on Promoting the High-Quality Development of Banking and Insurance Industries," in which CBIRC noted its intention to strengthen the construction of the third pillar and to develop diversified pension insurance products.

  Other government organizations, such as the Ministry of Finance, PBOC and China Securities Regulatory Commission, have also noted intentions to promote third-pillar tax-related policies.
- Twenty-three insurance companies had participated in the tax-deferred pension insurance pilot as of April 2020, with 66 products issued, total premium income of 300 million yuan (US$45.9 million) and more than 47,000 people enrolled.
- At the same time, there were 94 target-date pension funds on the market as of Q1 2020 and nine pension-themed wealth management products issued by bank wealth management subsidiaries as of May 2020.
- However, the specific implementation path of the third pillar is still uncertain. At this critical period of third-pillar development, speeding up policy framework construction is broadly expected to be the only way to provide clearer guidance to institutions.

Hong Kong SAR

In Hong Kong, the Occupational Retirement Schemes Ordinance (ORSO) and Mandatory Provident Fund (MPF) are retirement savings schemes set up for employees. The ORSO came into effect in 1993 as a voluntary occupational retirement scheme, and the MPF system was launched in December 2000 as a mandatory, privately managed, fully funded DC scheme.

The two types of schemes operate quite differently. ORSO schemes are established voluntarily by employers to provide retirement benefits for their employees, and, as such, the governing rules are drawn up by individual employers. Some ORSO schemes are quite sizable, have a long history and are actively maintained by employers. However, we consistently observe slowing asset growth within ORSO schemes compared to MPF schemes, largely due to their voluntary nature. As of June 30, 2020, ORSO scheme asset growth was 14% over the past five years[24] compared with 56% growth in MPF assets over the same period.[25]

In terms of the types of retirement plans, the DC approach adopted under both ORSO and MPF schemes dominates and accounted for more than 91% of total pension assets as of June 30, 2020. The average fund expense ratio (FER) for MPF funds has shown a declining trend. As of March 31, 2020, the average FER had dropped from 1.57% to 1.45% over the full measurement period. The MPF Authority (MPFA) is continuing to drive market competition and transparency to create room for fee reductions through collective market power.

In addition, voluntary contributions have been an area of focus in the MPF market in recent years. Voluntary contributions increased by 54% from 2015 to 2020, representing 16% of the total contribution from scheme members as of 2020. Moreover, in April 2019, the MPFA introduced a tax-deductible voluntary contribution up to a maximum of HK$60,000 per year to encourage employees to contribute to their MPF schemes. The aim was to provide a simpler, more convenient and flexible arrangement for retirement savings.

Our analysis includes only MPF schemes, given their considerable market share. The majority of assets are invested in equities (including equity allocations in lifestyle funds as well as standalone equity funds), with the remainder in fixed income and cash. Alternative investment options have not yet been introduced to MPF schemes because of the restrictions on permissible investments. Asset allocation remained largely the same compared with that of five years ago, and the overall MPF market has a home bias in both the equities and fixed income allocations.

With regard to ESG integration, Hong Kong has entered the initial stages of adopting ESG factors within pension investment. This has been driven by a number of different industry players. These include a survey of ESG factors led by the Securities & Futures Commission (SFC) and the MPFA inviting trustees, in their role as asset owners, to explore ESG factors and climate-risk integration in asset management within the MPF spectrum through continuing communications on the global trend and market development in green and sustainable finance.

In response to the COVID-19 market volatility in 2020, some multi-asset funds increased their fixed income allocations modestly to mitigate volatility within the portfolios.

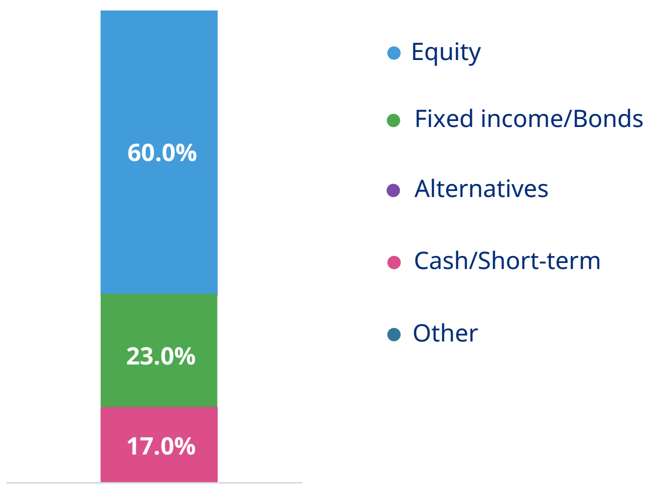
Data include:

Scheme name(s)	Sponsor and plan type	Current asset size (US$ million)
Mandatory Provident Funds (MPF) schemes	Mandatory DC	111,254

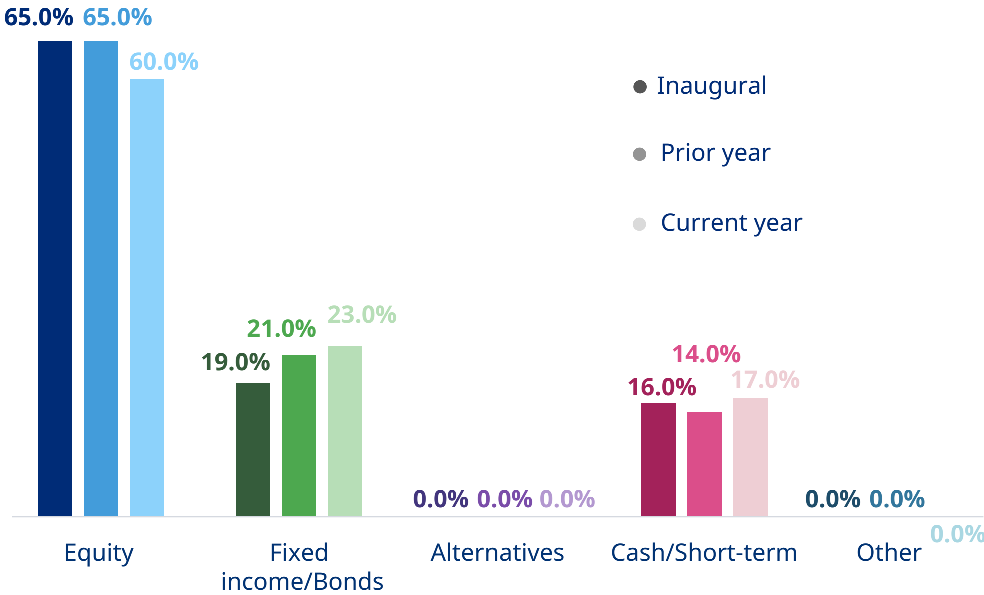
[24] As of June 30, 2020, the asset size of ORSO DB and DC schemes stood at US$14,738 million and US$27,797 million, respectively. On June 30, 2015, these figures were US$13,092 million and US$24,151 million, respectively.

[25] As of June 30, 2015, the asset size of MPF schemes was US$79,505 million.

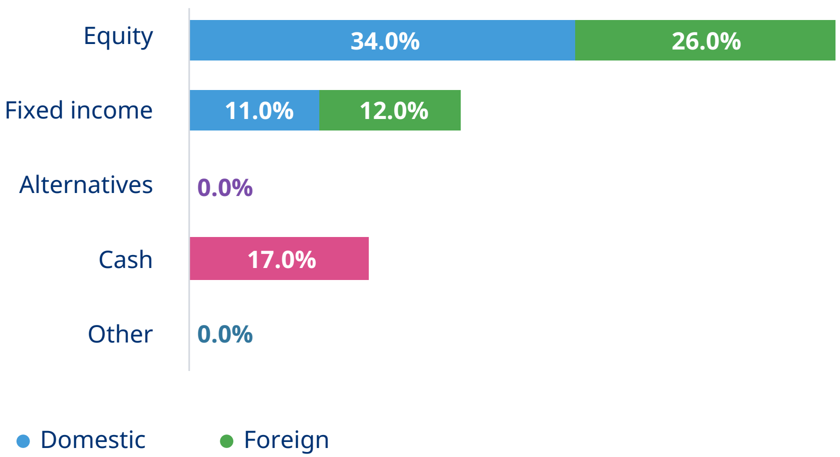
Current asset allocation



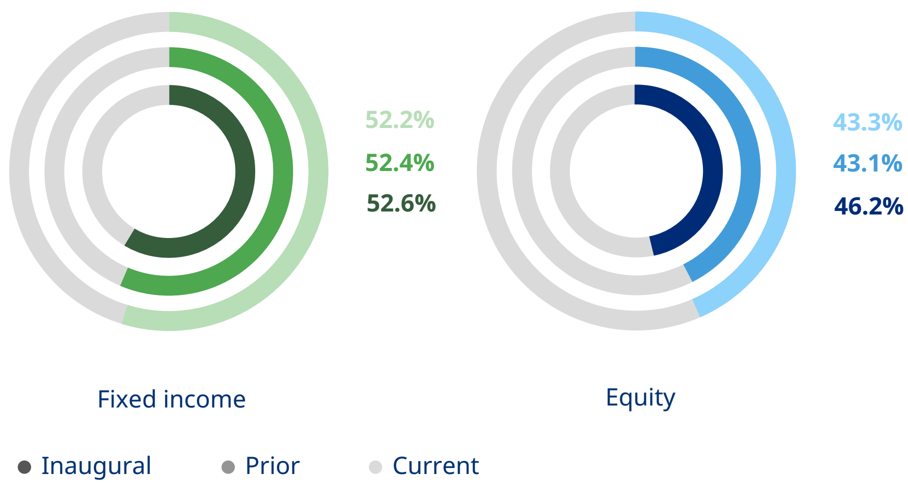
Allocation over time



Asset allocation detail



Foreign as % of asset class



India

India's retirement benefit system comprises a DC statutory employee provident fund (hybrid, with a guaranteed interest rate), an earnings-related employee pension scheme (DB) and a supplementary employer-driven/voluntary DC pension scheme — the National Pension System (NPS). Some employers also provide legacy supplementary superannuation schemes, which are largely DC in nature. Due to changes in regulation brought about in 2016 and 2017, these schemes are gradually porting to NPS. Government schemes have been launched as part of the universal social security program, aimed at benefiting the unorganized sector. The NPS is gradually gaining popularity.

The Employees' Provident Fund Organisation (EPFO) was set up in 1952 with a dual role as a regulator and an administrator of the Provident Fund scheme in India. EPFO is a mandatory scheme for corporate employers, and both employees and employers make 12% contributions. Investments by EPFO are made largely in fixed income instruments and held to maturity. This is a nonunitized plan with an interest credit annually to all members and is largely exempt from income tax. EPFO does not allow employee choice in investments. Investment decisions are made by fund managers appointed by the EPFO.

The Pension Fund Regulatory & Development Authority (PFRDA) regulates the NPS. It was initially launched in 2004 as a mandatory pension scheme for government employees as part of the government's pension system reform and migration from DB to DC. It was subsequently extended to all citizens in 2009. In 2011, a corporate model was introduced to allow flexibility in contribution from an employer/employee perspective as a nonstatutory supplementary pension plan with flexibility of investment options, variety of funds with life-styling options, income tax breaks and one of the lowest fund management charges in the world. It has an open architecture, with functions such as fund management, recordkeeping, investment monitoring, etc., mandated to external experts.

Retirement funds in India, both DB and DC, have high allocations to fixed income. These investors buy underlying bonds directly (under advice from advisors) and invest only small amounts in manager-based debt products. In 2015, for retirement funds other than NPS, equity was made mandatory as an asset class, with a minimum 5% of incremental investments over each year. Though direct equity is allowed, retirement funds in India have largely opted for manager-managed funds. Investments in foreign assets are not yet allowed.

The year 2019–20 saw a continuation of risk aversion from institutional investors due to the credit events in 2018.

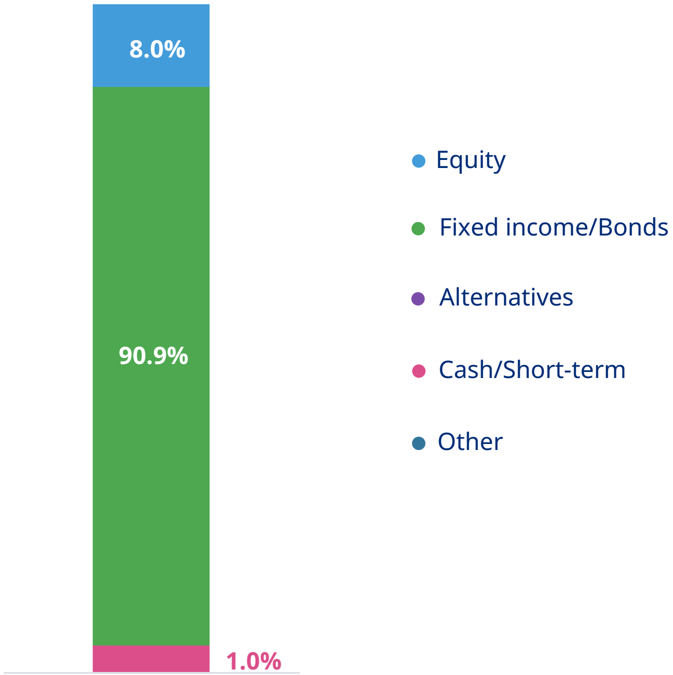
This was further amplified with the outbreak of COVID-19, and, as did many nations, the Government of India announced a nationwide lockdown in March 2020, thereby impacting financial markets, the business sentiment and the population in general. The Indian equity market saw a steep fall in March 2020, which had a significant impact on EPFO and NPS investments. The post-March period of 2020 also affected the fixed income markets, which saw a fall in yields. This affected earnings of the EPFO and retirement funds in general, as fixed income comprises close to 95% of their investments.

The latter part of 2020 saw a series of reforms announced by the Government of India to offset the impact of COVID-19. These have had a positive effect on industrial policy, infrastructure and overall business sentiment, resulting in improved conditions in the financial markets. India also saw encouraging developments on the credit side, as the bankruptcy of one of the large defaulters (DHFL) that had defaulted in 2018, progressed toward resolution. This is expected to have a positive impact on retirement trust funds and fixed income markets in general. The Indian financial markets have been constantly evolving, and 2020 saw other notable developments, including the launch of ESG-and internationally focused funds by many large mutual fund companies. These changes are expected to become part of the core investment philosophy in the future and may also impact how Indian retirement funds invest in the coming years.

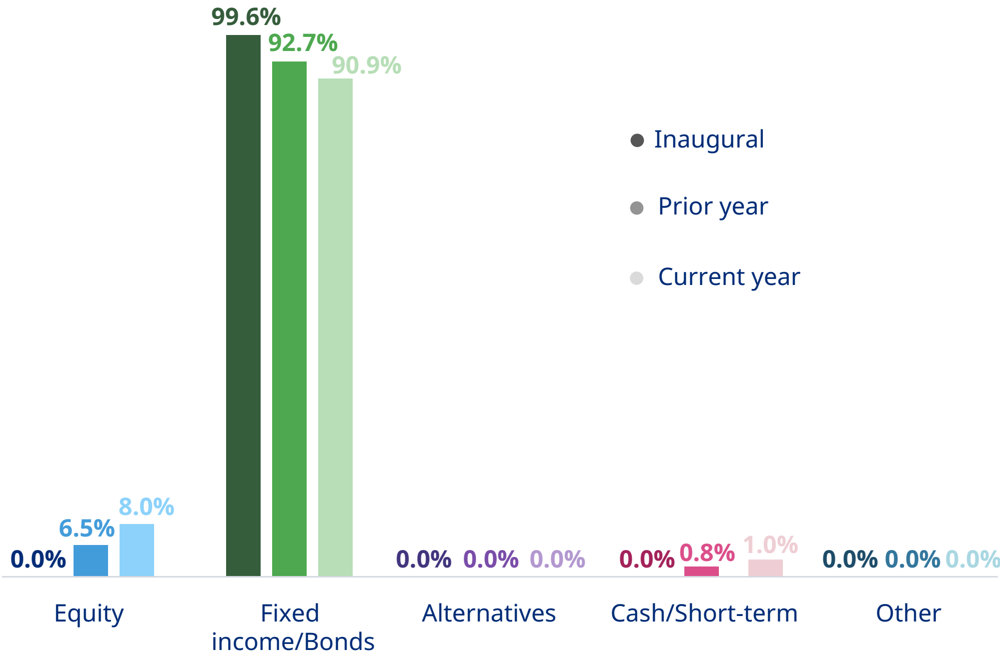
Data include:

Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
National Pension System	Government DC[26]	58,766
Seamen's Provident Fund Organization	Government DC[27]	259
Employee Provident Fund — EPFO	Government DC (with guarantee)	168,553
Total		**227,578**

Current asset allocation



Allocation over time



[26] Established by government but now overseen independently by NPS Trust.
[27] Inaugural period data include only the Seamen's Provident Fund Organization plan since data were not available for the others. The other plan data are included beginning in the prior-year figures.

Indonesia

Indonesia's retirement income system comprises three pillars:

- **Social Security —** A mandatory, state-run scheme providing basic coverage in the form of DC and, from 2015 onward, DB pensions. The scheme is funded by fixed contributions from employers and employees linked to salaries.
- **Job Creation Law No. 11/2020 and Government Regulation No. 35/2021 (a new statutory regulation replacing the existing Labor Law No. 13/2003) —** A minimum level of benefit to be paid from employers to employees when they reach the normal retirement age. There is no requirement for employers to set aside assets to fund this benefit, but it can be offset with the employer portion of private pension fund benefits.
- **Private Pensions —** Voluntary DC or DB plans funded by contributions from employers and employees. These can be administered in-house by the employer or outsourced to a financial institution.

In general, the adequacy of Indonesia's pension system is poor. Household savings rates are relatively high by international standards, but this is dominated by bank deposits with low engagement in long-term savings.

Growth in corporate private pensions and savings vehicles will be critical for improving benefits going forward.

Within the corporate pension system, Indonesia continues to see a shift from DB to DC plans, with further growth in the number of employers contributing to voluntary DC plans administered by a financial institution (DPLK). However, employees seldom have visibility or input into asset allocation choices.

We see employers investing conservatively in fixed income and cash/short-term assets to ensure they can meet minimum statutory benefits requirements. This is particularly the case within DPLK plans, where the average allocation to cash/short-term assets is 87.2%. The investment strategies of social security plans are also risk-averse in nature.

Over the past six years, we have seen a shift from cash/short-term assets to fixed income as investors seek a pick-up in yield, evident across the investment portfolios of the social security plans and corporate managed private pensions. This year, we see a big shift in the overall asset allocation, with major movement seen from equity, cash and alternatives to fixed income. We believe this is attributable to cautious behaviors from investors anticipating an economic downturn in the pandemic environment.

In the near future, we believe overall allocations to growth assets will remain low due to the following attributes:

- Low financial literacy across a growing middle class leading to cautious behaviors
- Relatively high interest rates available on bank and time deposits (although rates have been falling)
- Lack of access to information to help investors assess the quality of investment strategies available
- No consistent approach to pension scheme and investment governance, with limited use of independent investment advice on strategy and asset allocation

Investment regulations also limit the possibility for investing in growth assets, including a low maximum allocation on equity investments for social security plans and restrictions on foreign investments, either directly or via mutual funds, for private pension plans.

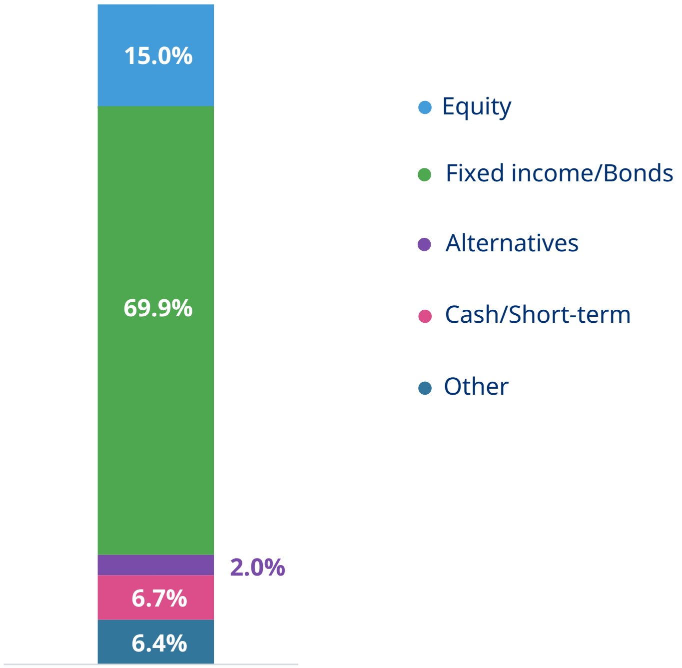
Reduced monetary limits on mutual fund investments and emerging fintech solutions are supporting a new trend of micro-investors. Although this trend is still in its early stages, signs are starting to show that the growing middle class is becoming more engaged with investments and more interested in putting its savings to work. That said, more can be done by employers to provide the tools, training and technology to engage employees in their long-term financial well-being.

Data include:

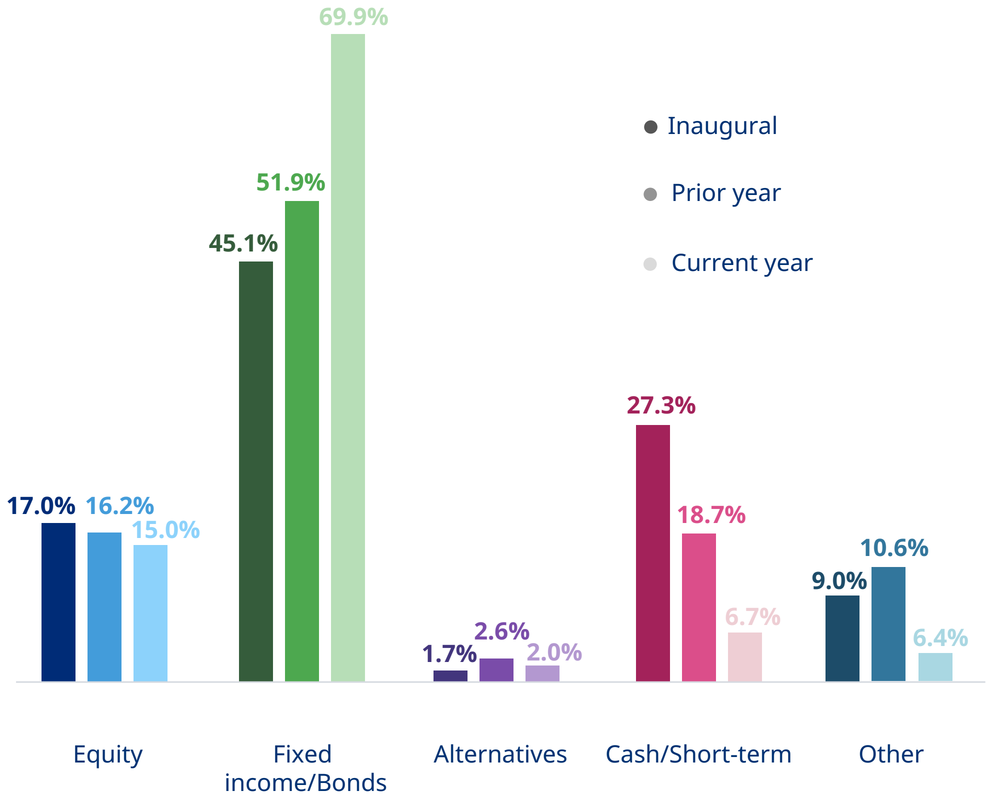
Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Employer pension fund — DB (DPPK-PPMP)	Corporate DB	11,195
Employer pension fund — DC (DPPK-PPIP)	Corporate DC	2,537
Financial institution pension fund (DPLK)	Voluntary/financial inst DC	7,185
BPJS Ketenagakerjaan — jaminan pensiun[28]	Mandatory/govt DB	4,292
BPJS Ketenagakerjaan — jaminan hari tua	Mandatory/govt DB	22,714
Total		**47,923**

[28] Past data are not available for this plan, as it was established in 2015.

Current asset allocation

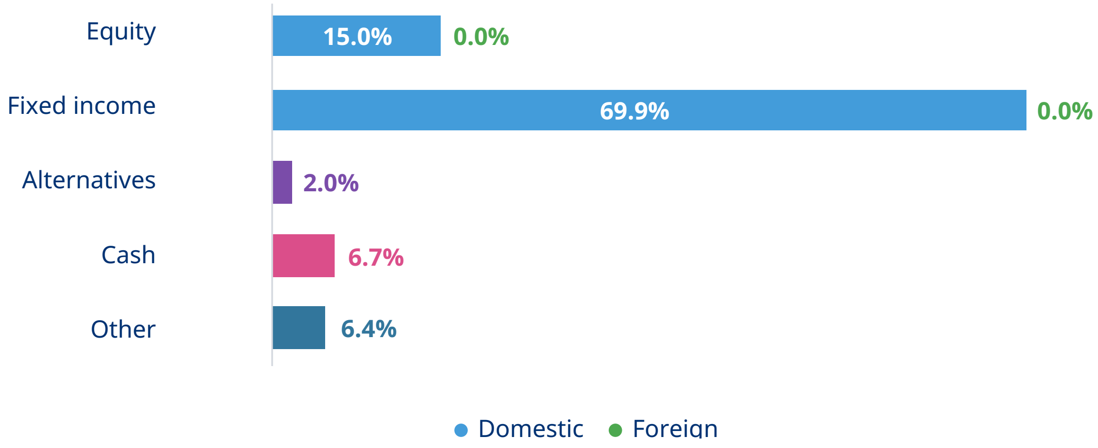


Allocation over time[29]



[29] "Other" includes mutual funds and direct investments — no more detailed information is available on underlying assets.

Asset allocation detail



South Korea

The South Korean pension system comprises three pillars, the first of which consists of two parts:

- The National Pension Fund (NPF), managed by the National Pension Service (NPS), which applies to the public, excluding government employees, private school teachers and military service personnel
- The special occupational pension (SOP) schemes, which apply to government employees (GEPS), private school teachers (TP), and military service personnel and associated civilian employees (MMAA)

The second pillar consists of the Severance Pay Scheme (SPS) and retirement plans governed by the Employee Retirement Benefit Security Act (ERBSA plans),[30] and the third pillar consists of private pension plans — voluntary pension schemes funded by individual contributions.

The NPF was established in 1988 to secure retirement benefits for South Korean citizens who are not entitled to the SOP Scheme.[31] It is the world's third-largest pension fund, with total assets under management amounting to KRW 776 trillion (US$685 billion) as of July 31, 2020.

Today, NPF is placing greater focus on its governance framework and responsible investment in ESG. Although each SOP scheme has its own purpose, mission and policy, we note significant overlaps between the investment approaches adopted by both NPF and SOP.

Since 2016, the NPF has adopted responsible investment clauses in its investment policy statement and introduced an assessment system to support ESG-based scoring analysis in investment decisions. The COVID-19 pandemic has also led to significant demand for ESG investment, including green bonds in the short term. In July 2020, the South Korean government announced a Green New Deal, worth approximately KRW 114 trillion (US$94.5 billion), which is meant to be invested over the course of the next few years to help the country's economy to recover from the COVID-19-related recession. This could ultimately push the need for increased focus on ESG governance and the promotion of ESG-themed investment in the long term. Overall, South Korea's ESG rating framework has been focused most on the governance elements. However, in 2020, we saw a shift toward the environmental and social elements. We are seeing a rising interest from pension funds in managing climate change risks and heightened demand for ESG-related products, especially green bonds.

With regard to alternative investment, collaboration and partnership with foreign pension funds has been a popular trend in South Korea. For example, in 2020, NPF joined forces with Dutch APG on investments in large international projects in infrastructure and commercial real estate.

Allocations to fixed income assets still dominate, accounting for more than 48% of total pension assets. However, looking at the changes over the past three years, we note that NPF and other SOP schemes have increased allocations to equity (+9%) and alternatives (+3%) while decreasing allocations to fixed income assets (-12%) to seize opportunities from changing market environments. We expect this trend to continue in the future based on the schemes' midyear target asset allocation plans. Allocations to equities within domestic and foreign sectors remain balanced, but allocations to domestic fixed income continue to reflect a heavy home bias.

[30] The Employee Retirement Benefit Security Act (ERBSA) was introduced in 2005, replacing the Severance Pay Scheme (SPS), established in 1961 as the first mandatory DB benefit plan.

[31] The special occupational pension applies to government employees, private school teachers, and military service personnel and associated civilian employees.

Although the corporate retirement plan market represents US$173 billion, principal-protected products[32] account for 90%, and performance-based products account for 10%. The move toward the latter has been increasing in recent years in light of relatively low returns[33] from the former. Within DB schemes, fixed income and fixed-income-balanced funds account for 78%, and alternative investments, including real estate and physical assets, account for more than 10%, with the remainder of assets in equity funds (7%) and mixed asset funds (4%).

Within DC schemes, the fixed income and fixed-income-balanced funds account for almost 69%, with the balance allocated to equity funds (27%), alternative investments (4%) and mixed asset funds (1%).

Under current ERBSA regulations, retirement pension assets can only invest up to 60% in risky assets, which has considerably limited members' investment choices. However, in 2019, the government introduced a new rule on target date funds (TDFs). These funds will now allow investments of up to 100% of the member's plan assets. We expect to see increased activity in the TDF arena in the coming years.

Data include:

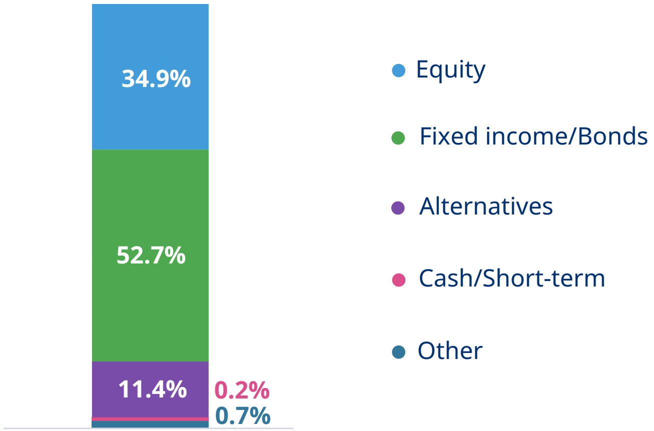
Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
National Pension Fund	Government DB	685,437
Government Employee Pension Fund	Government DB	7,846
Teachers' Pension Fund	Government DB	16,206
Military Mutual Aid Association Co Ltd.	Government DC	6,828
Corporate Pensions[34]	Corporate DB	121,801
Corporate Pensions	Corporate DC	51,015
Total		**889,133**

[32] Includes mutual funds, such as equity, fixed income and various types of alternative funds.

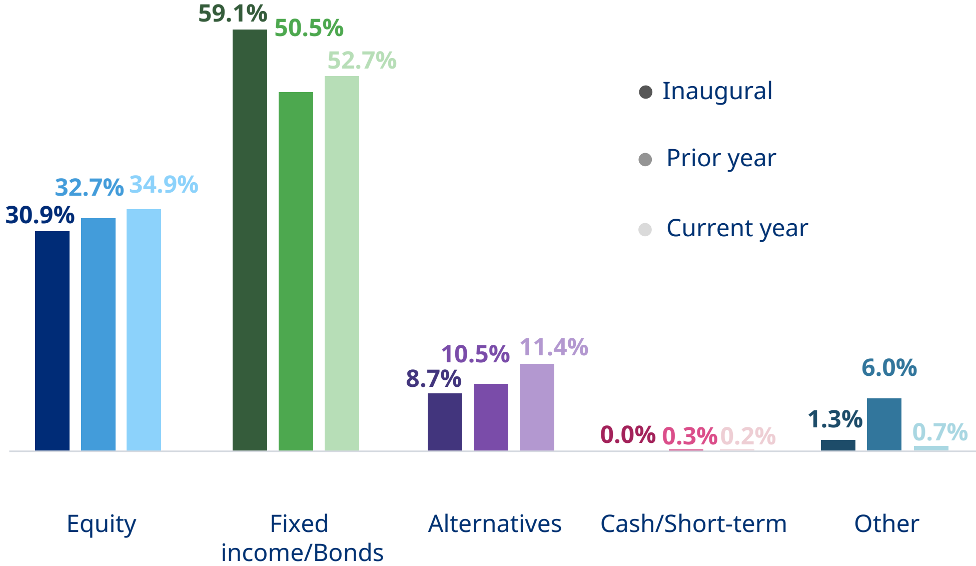
[33] As of December 31, 2019, principal-guaranteed products within the DB and DC schemes have returned 1.74% and 1.52% p.a., respectively.

[34] The data for South Korean Corporate DB and DC plans have been updated for this period and prior; they now incorporate both performance-based assets and principal-guaranteed assets — which was not covered in prior surveys.

Current asset allocation

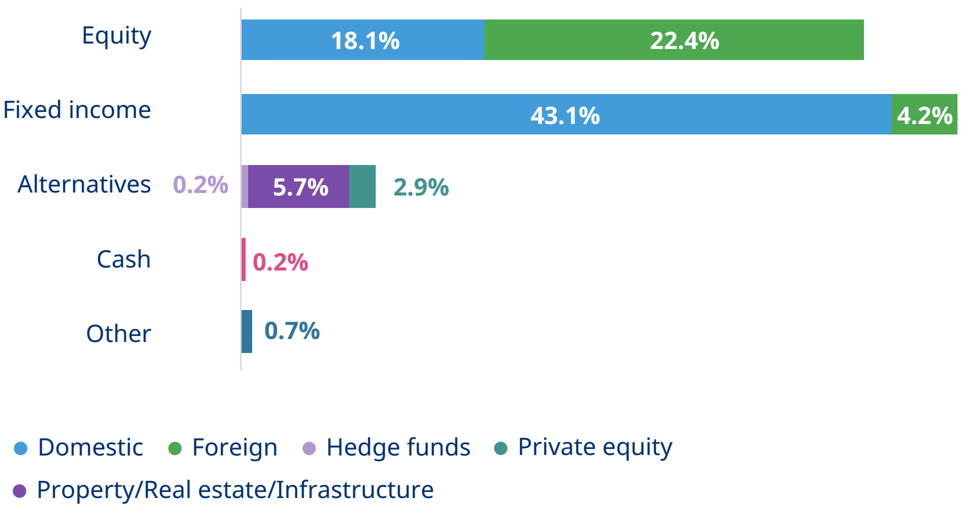


Allocation over time[35]

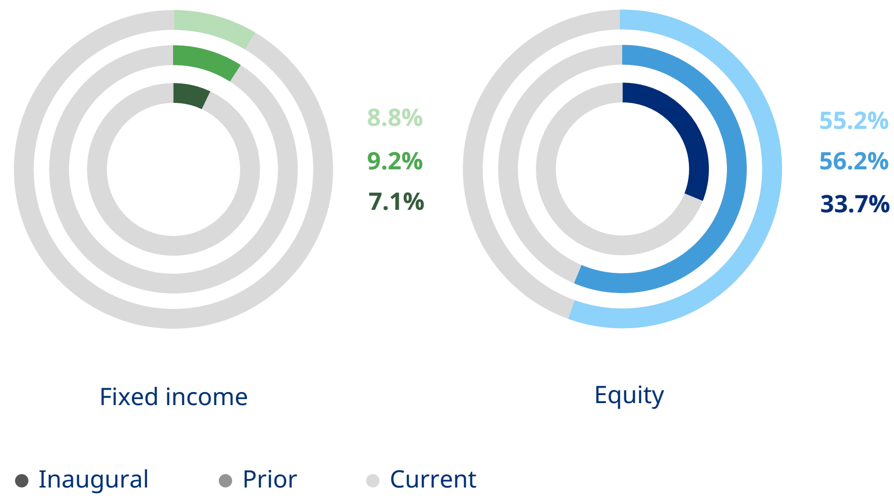


[35] "Other" includes miscellaneous asset funds (categorized as "special asset funds" in Korea), such as real asset type (that is, agriculture), carbon credits, ship funds, funds that invest in derivatives related to agriculture, livestock, forestry and mineral products, and infrastructure funds. Differences in the level of "other" asset classes over time are not fully disclosed. However, we believe the largescale redemption in "special asset funds" happened in 2019 due to growing worries about a global economic slowdown.

Asset allocation detail[36]



Foreign as % of asset class



[36] The allocation between foreign and domestic equity and fixed income was not available for the MMMA and corporate pension plans. These charts include data only for the NPS, GEPS and TPS plans.

Malaysia

There are two main state-run pension plans in Malaysia:

- The Employees Provident Fund (EPF) is a mandatory DC plan that covers private-sector employees, nonpensionable public-sector employees and voluntary contributors (with funds for around 14.6 million members as of December 2019). The plan includes a guaranteed minimum dividend rate of 2.5% p.a., and provisions allow some benefits to be withdrawn at any time (under predefined uses, such as to fund education, home loans or specific healthcare needs), with other benefits preserved for retirement.
- The government pension fund (KWAP) is a partially funded DB plan that covers employees of pensionable status who are in service with statutory bodies, local authorities and agencies. As of December 30, 2020, there were nearly 180,000 contributing employees and 472 contributing employers.

Both plans have typically held a domestic bias. However, over the five-year period, there have been changes in the asset allocation for the EPF, with an increase in foreign equity. There have also been increased efforts to diversify the portfolios, including allocations to alternatives, such as real assets and private equity. Overall, the plans' combined asset allocation maintains a strong bias for domestic equities — although this is gradually reducing — and Malaysian government fixed income securities.

In 2013, the Securities Commission Malaysia (SC) launched the supplementary Private Retirement Schemes (PRS), with the fund size exceeding US$1.2 billion as of April 2021. These are DC funds set up on a voluntary basis by individuals or employers through private-sector providers. The aim of the PRS is to provide additional sources of retirement savings, increase the role of the private sector and aid development of Malyasia's capital markets. A significant portion of PRS assets are invested domestically. Notwithstanding this, the SC has recently endeavored to bolster the industry's competitiveness. In 2020, the SC liberalized investment guidelines on foreign investments, which includes allowing conservative funds to invest in foreign markets. Previously, conservative fund providers could only invest in the domestic market.

In 2016, the EPF launched a sharia-compliant option for members, with an initial allocation of around US$20 billion. KWAP has also stated a longer-term aspiration of being 100% sharia-compliant. We therefore expect that sharia-compliant investments within the plans may increase over time. As of December 31, 2019, close to 37% of investment assets were sharia-compliant.

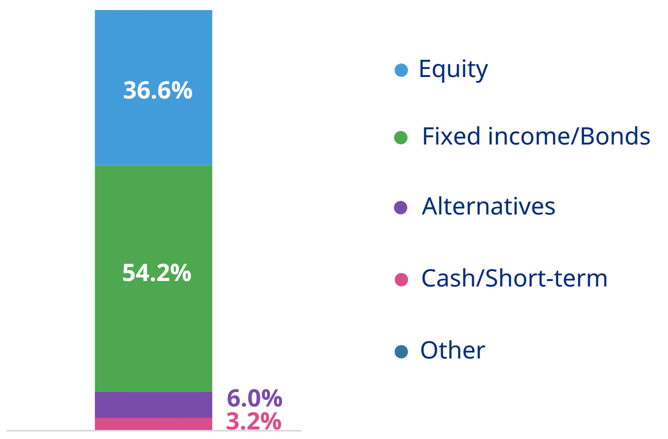
There is also interest in broader ESG issues. In 2019, EPF became a signatory to the United-Nations-supported Principles for Responsible Investment (PRI), a declaration of its commitment toward responsible investing. PRI signatories are required to publicly report on their responsible investing activities on an annual basis.

Data include:

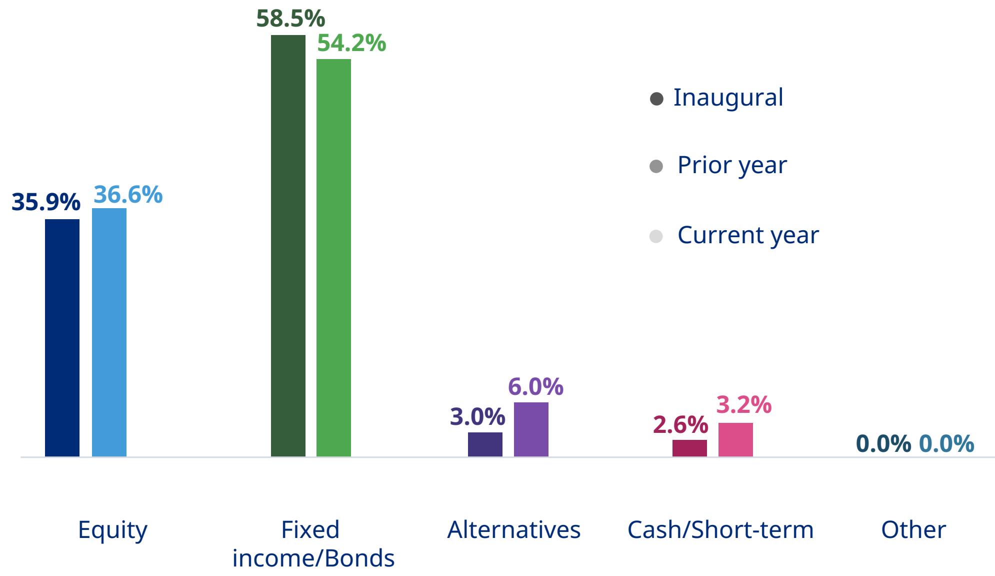
Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Kumpulan Wang Simpanan Pekerja (KWSP) (EPF)	Mandatory DC	199,751
Kumpulan Wang Persaraan (KWAP)	Government DB	34,128[37]
Total		**233,879**

[37] KWAP's latest annual report was not available at publication time of this survey; as such, asset values used in Mercer's 2020 Asset Allocation Trends survey were carried over into this 2021 edition.

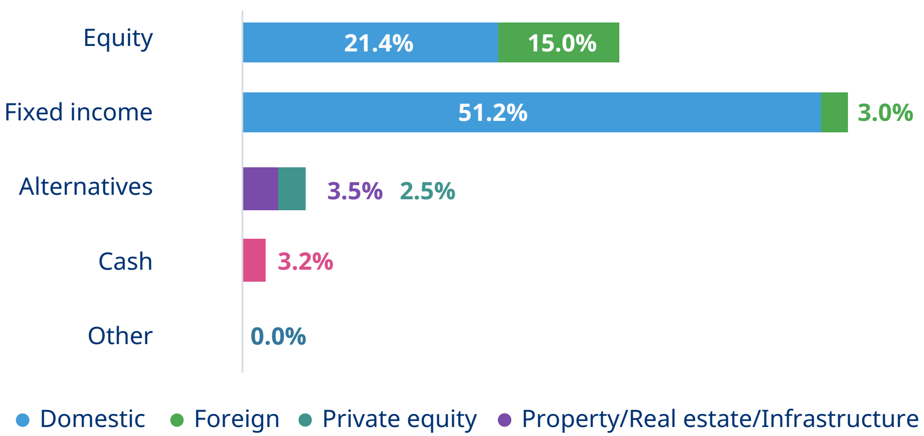
Current asset allocation



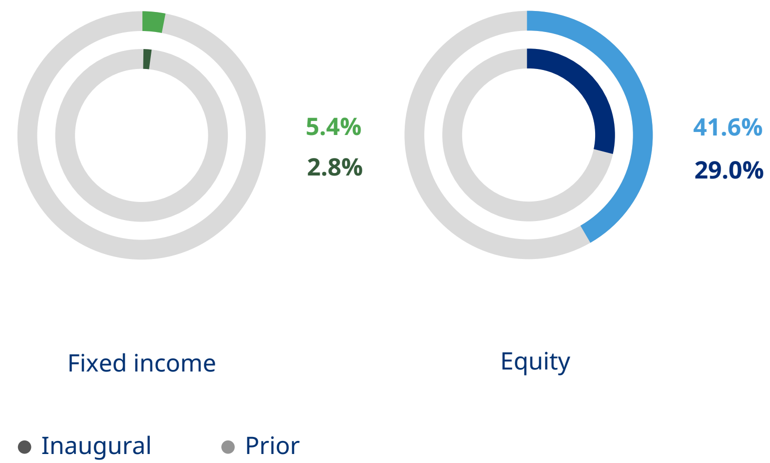
Allocation over time



Asset allocation detail



Foreign as % of asset class



Philippines

Pensions in the Philippines comprise two government-sponsored DB plans: the Social Security System (SSS) for the private sector and the Government Service Insurance System (GSIS) for public servants. The regulatory requirement of DB termination indemnity provides at least half a month's salary for every year served, with a minimum of 10 years of service, although retirees who have at least five years of service will receive a lump sum upon retirement equal to member and employer contributions plus interest. Retirees also have a right to a 13th-month pension every December. Employers can offset these statutory termination indemnities by offering supplemental retirement scheme benefits.

Supplementary corporate-/private-sponsored plans are not uncommon, with 36% of respondents in Mercer's January 2019 Benefits Monitor providing a DB plan, 16% a DC plan and 36% offering a hybrid plan. Private-sector employees are entitled to retirement benefits upon compulsory retirement at age 60, with early retirement beginning at age 50. Companies commonly have final salary DB plans, linked to age and length of service, although these are not integrated with social security. Any DC plans are essentially hybrids, as they must at least provide termination indemnity, and these are typically structured to equal the greater of employee contributions or the minimum statutory retirement benefit.

New plan setups are predominantly DC, in line with the market, but some multinational firms migrating from DB to DC have settled for a hybrid plan to cater to the generous old DB plan and onboard new employees on a DC plan. We are seeing a shift in interest toward DC for the purposes of risk management, global alignment of benefits or other employee-retention efforts.

Philippine-government-sponsored plans have specific limitations on the asset class, sector and even financial products in which they can invest. The asset classes are restricted to locally registered organizations (including asset managers and trustees), which are focused on peso- or US-dollar-based investments, including government securities, private equities and securities, and member loans, such as housing loans.

Conversely, private plans have more investment management options. However, market prevalence is for private pension plans to be invested through local bank trustees, which often provide proprietary products or mutual funds through local partners. Demand for offshore investments is relatively low, due in part to low financial literacy, although we are starting to see signs of growth in offshore investments from local boutiques introducing fund of funds to established offshore investment managers.

The SSS invested in local fund managers in 2019 to provide greater diversity in management of its Investment Reserve Fund (IRF). Additionally, political pressures to increase benefits have put a strain on the pension systems. This has left them with no recourse but to seek higher-yielding investment products.

Furthermore, given the significant and catastrophic natural events that have occurred in the country over the past few years, the Securities Exchange Commission (SEC) of the Philippines is considering the impact of climate change and has taken important steps to increase focus on innovative financial products that address sustainability issues. For example, there has been a growing interest in ESG risk disclosures and in promoting sustainable finance, such as the issuance of the Guidelines for ASEAN Green Bonds. Currently, the sustainable market is valued at US$1.49 billion, with seven labeled green bond issuances and one labeled sustainability bond issuance.

Singapore

The main pension fund in Singapore is the Central Provident Fund (CPF), which is a mandatory DC plan. As of the end of 2019, the fund had more than 3.9 million members and S$425.1 billion (US$320 billion) in total account balances within the CPF system.[38] This excludes US$16.1 billion reserved for investment in the CPF Investment Scheme through which CPF members can withdraw funds to invest in a wide range of options to enhance their retirement savings. We are seeing increasing interest in supplementary benefit plans, especially for higher earners and foreign workers; however, the prevalence of this remains small.

The CPF's financial statements indicate that the assets supporting members' accounts are Singapore government bonds. However, these are special nontradable bonds that underlie a risk transfer mechanism to move CPF's obligations for guaranteed minimum returns to the government. Therefore, an asset allocation snapshot of a portfolio fully invested in domestic fixed income securities does not accurately portray the risk exposures within the fund.

In addition to CPF, there are separate DC schemes for the armed forces and the Home Affairs Uniformed Services, which had combined assets of around US$2.1 billion as of March 2018 per their latest annual reports.

These provide members with a choice of three funds:

- Dynamic (70% equity, 30% fixed income)
- Balanced (40% equity, 60% fixed income)
- Stable (100% fixed income)

Furthermore, as of December 2018, approximately US$6.7 billion was invested in accounts in the Supplementary Retirement Scheme (SRS), representing more than 156,000 individual accounts. The SRS is a voluntary savings arrangement with certain tax incentives available to any resident of Singapore. Some multinational companies have used the SRS as a savings vehicle for foreign workers. The statistics on this scheme indicate that 28% of the assets are invested in equities, 36% in unit trusts/insurance products and the balance in cash or other assets.

[38] Thean Eu G. "Singapore CPF Pension Top-Ups Jump Despite 16-Year High Jobless Rate," *Asia Asset Management*, October 23, 2020, available at https://www.asiaasset.com/post/23932-cpftopup-gte-1022.

Taiwan

In Taiwan, the Labor Standards Act (LSA) and the Labor Pension Act (LPA) are both retirement protection schemes for private-sector employees. The LSA came into effect in 1984 in the form of a DB plan. The LPA was launched in 2005, with the aim of shifting the retirement income system to a DC scheme. Effective July 1, 2005, the LPA is mandatory for employees hired after that date and is optional for preexisting LSA participants. The LSA has been closed to new participants since July 1, 2005.

The operations of the two schemes are similar. Both the LSA and LPA are funded on a mandatory basis by private employers to provide retirement benefits for their employees, but plan funds are held by the government. The government also conducts and manages the investment of assets. Since the pension system is transitioning to a DC scheme, the LPA's fund size has grown at an annualized rate of 13.3% over the five-year period ended December 31, 2019, compared to an annualized rate of 8.6% for the LSA fund.

In addition to the LSA and LPA, there are two main state-run retirement schemes for public-sector employees in Taiwan:

- The Public Service Pension Fund (PSPF) is a mandatory DB plan that covers public servants.
- The private school pension system covers private school teachers. The system consists of one DB plan and one DC plan. Similar to the LSA and LPA, the DB plan is closed to new participants.

The private school DC plan is the first state-run plan that offers investment options to its participants. The focus now is to lower the participation rate in low-risk default investment options to encourage participants to invest according to the risk and return category funds for their ages.

ESG investing is gaining popularity in Taiwan, especially with institutional investors, including the Bureau of Labor Funds (BLF) and investment managers. Both BLF and PSPF are planning to issue new ESG equity mandates in 2021. In addition, they each take stewardship into account when they select investment managers.

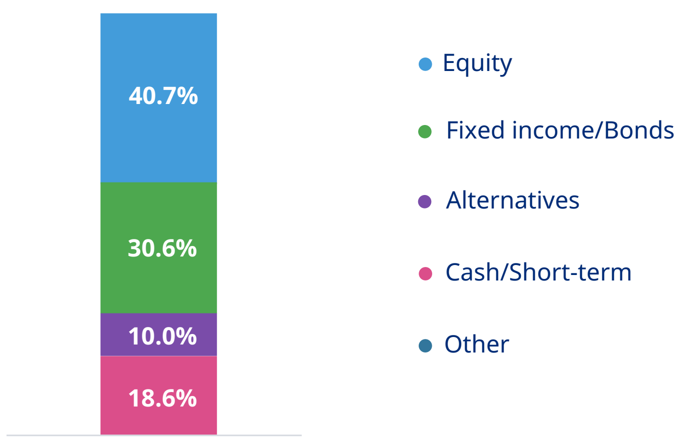
In terms of asset allocation, over the past five years, there has been a trend toward increasing foreign investments. Allocation to alternative investments has slightly increased over the period, which is due to the increasing exposure to these investments for LSA and LPA plan funds. Over the same period, average cash balances increased incrementally and remain high.

We did not observe plan sponsors making significant design changes in response to market volatility amid the COVID-19 pandemic. However, many did increase their focus on risk management, including increasing the frequency of reviews. Additionally, BLF modestly reduced equity in favor of fixed income investments to reduce market volatility impact.

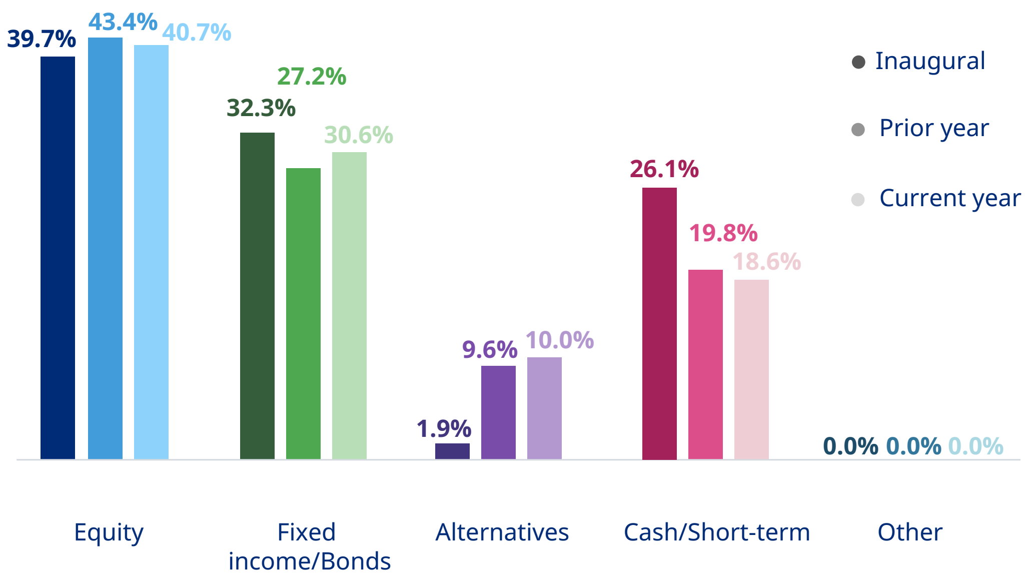
Data include:

Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Statutory corporate DB plans (LSA)	Mandatory DB	30,559
Statutory corporate DC plans (LPA)	Mandatory DC	79,268
Private school pension fund	Government DB	84
Private school pension DC	Government DC	1,738
Public Service Pension Fund	Government DB	19,316
Total		**130,965**

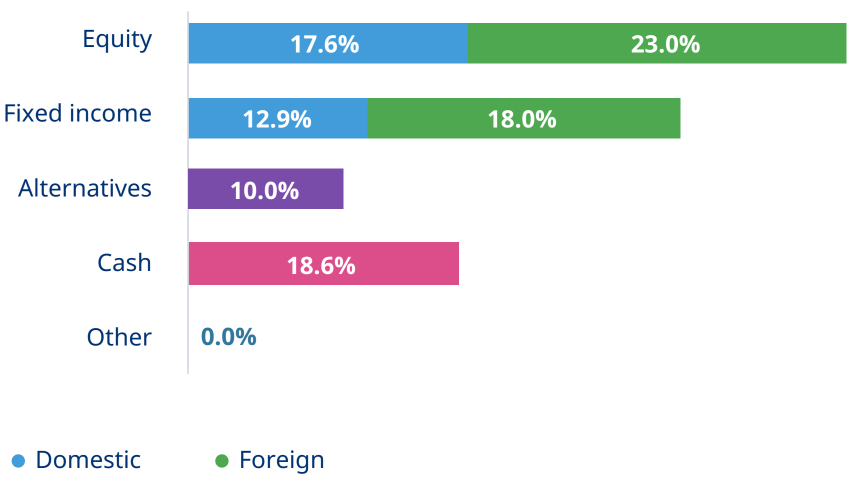
Current asset allocation



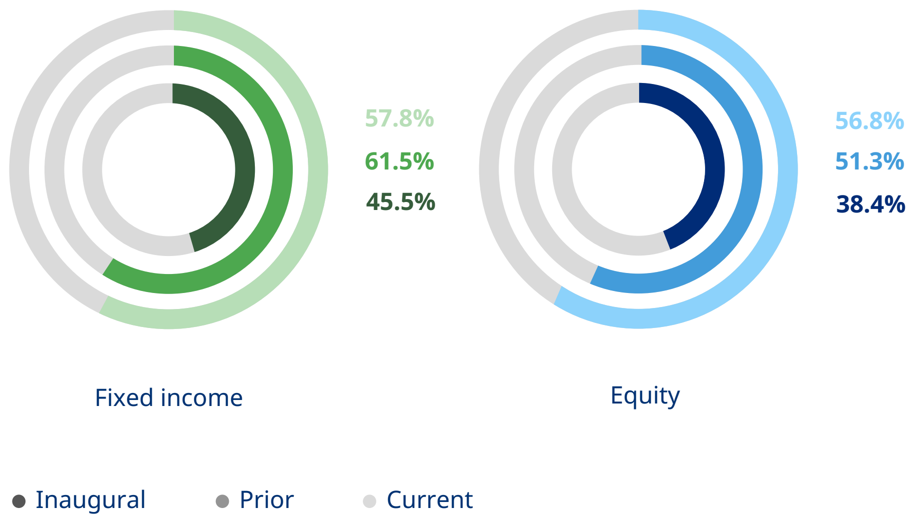
Allocation over time



Asset allocation detail



Foreign as % of asset class



Thailand

The Thai pension system is in its growth and development phase. The system structure and asset allocation are geared toward conventional practice, but the system is evolving to be more sophisticated, especially in the global investment arena.

The first Thai pension system was initiated in 1902 as a pay-as-you-go DB scheme for government officials. The system continued for almost a century, but apparent unsustainability led to a complete restructuring in the late 1990s. At a high level, the Thai system currently comprises three pillars. The first pillar consists of two parts:

- Old Civil Service Scheme (DB)
- Social Security Fund (SSF)

The second pillar consists only of the Government Pension Fund (GPF), a DC pension system for civil servants.

The third pillar is the provident fund, voluntarily established between employer and employees based on respective contributions. Provident funds can be set up either as a single fund, whereby the fund committee has full control of the investment policy and objectives, or as part of a pooled fund.

Despite the difference in size across these schemes, the asset allocation is similar. Most allocations are geared toward domestic fixed income, with GPF being the most sophisticated. Of the three schemes covered, only SSF is a DB scheme and thus has an explicit liability component to consider. Nevertheless, since the SSF is still in its growth phase, we expect allocations to be comparable to its DC counterpart.

Provident funds currently have the highest allocation to (domestic) fixed income and limited allocations to alternatives (especially hedge funds and private equity). This is due to a lack of employee choice, access, availability, regulations and a thorough understanding of this asset class. However, this area has seen the most progress in terms of accepting more sophisticated products, especially in foreign investment areas. Due to the stellar performance of new economy equity last year, a substantial amount of provident fund money is flowing into more aggressive global technology and healthcare funds.

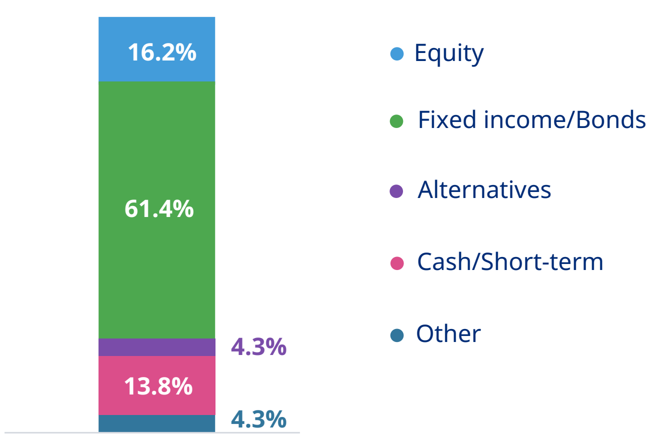
Recent trends have seen more employers adopting the “life-path” option as the default for their employees. We expect to see more allocations to domestic equity over the longer term, where domestic equity is still prevalent in life-path allocations. In the short term, however, foreign equities have risen (as a percentage of the equity portfolio). This may be due to investors seeking additional return in the midst of low bond yields and a higher demand for equities generally. For SSF and provident funds, access to foreign equities is mostly achieved through ETFs and feeder foreign investment funds.

Sustainability investment is gaining traction in the investment community, especially for institutional investors, including the GPF, SSF and large-scale asset managers.

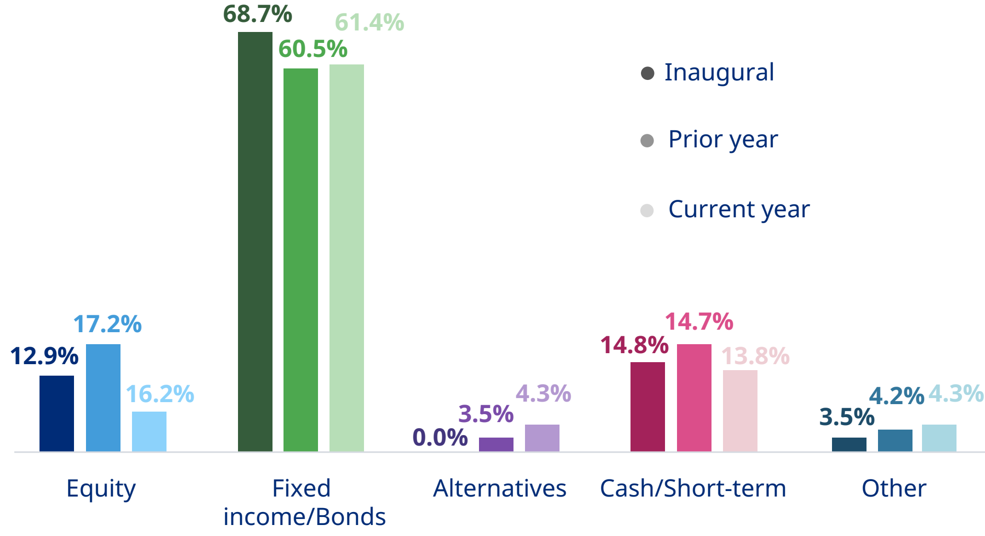
Data include:

Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Government Pension Fund	Government DC	13,985
Voluntary provident fund	Corporate DC	38,760
SSF benefit fund (old age and child allowance)	Government DB	69,443
Total		**122,187**

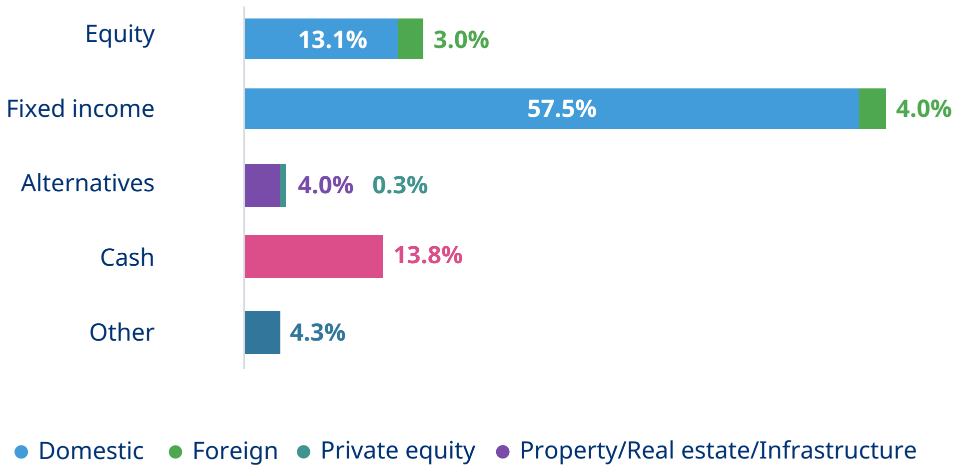
Current asset allocation



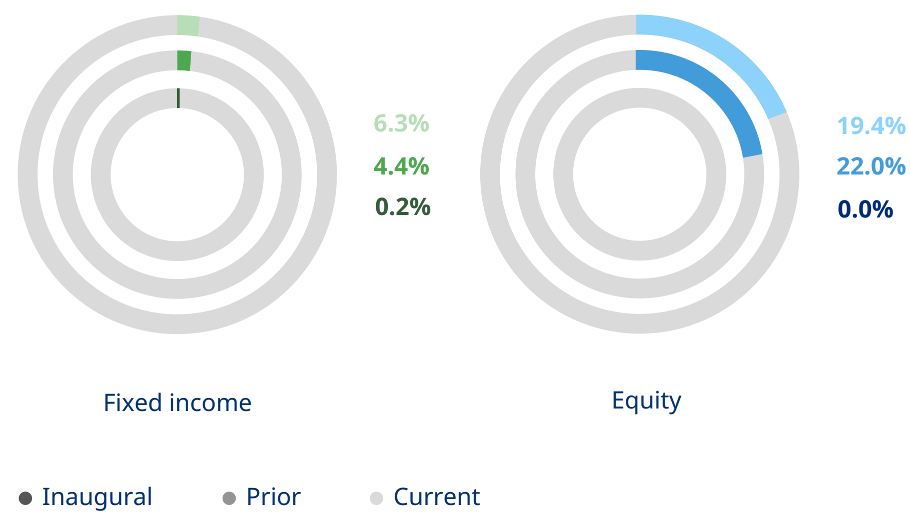
Allocation over time[39]



Asset allocation detail



Foreign as % of asset class



[39] "Other" includes non listed unit trusts.

Japan

The pension system in Japan is robust and comprises both corporate and public DB schemes — including the US$1.4 trillion Government Pension Investment Fund (GPIF) — and a growing DC system that includes both corporate and individual plans.

In recent years, the GPIF has seen its assets grow, primarily due to the shift away from employee pension funds (EPFs), which were all but eliminated following 2013 legislation. The GPIF has increased its allocation to fixed income and decreased cash/short term from one year ago. Within its fixed income allocation, the fund has moved to more foreign assets at the expense of domestic assets. It has also demonstrated interest in ESG-related strategies and private markets. Over the full measurement period, Japan has transitioned from having one of the most conservatively positioned asset allocations to one of the most aggressive. The fixed income allocation decreased from 59% to 45%, largely due to changes within the GPIF pension fund.

Corporate DB plans have increased allocations to alternatives since last year. According to a recent Mercer survey, approximately 60% of corporate DB plans have already invested in private assets, and approximately 50% of corporate DB plans intend to increase allocation to private markets in the next five years. Both the GPIF and corporate DB plans have been decreasing their home-country biases in the fixed income area over the year.

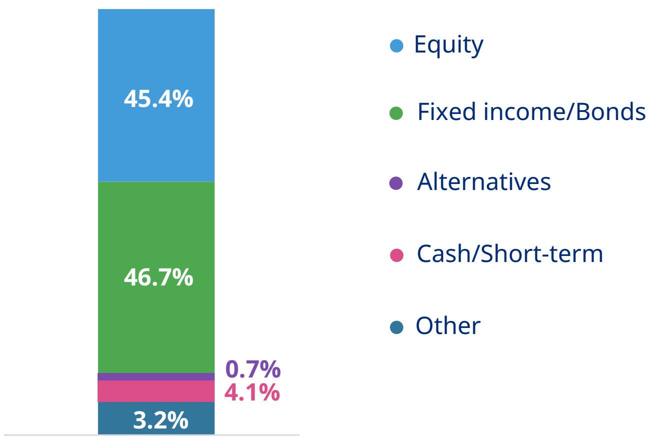
ESG is a topic of interest for corporate pensions, as is private markets. More and more funds are considering ESG risks, but the level of interest in ESG varies greatly between clients. The key drivers for considering ESG risks are the financial materiality of ESG risks and alignment with the sponsor's ESG strategy. On the other hand, some investors cite a concern about whether ESG factors impact performance.

Data include:

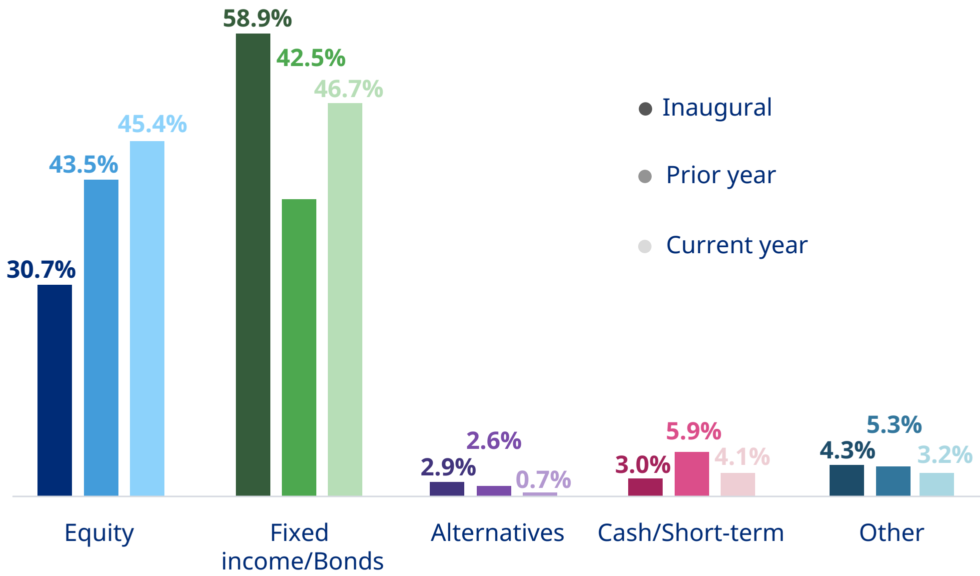
Plan name(s)	Sponsor and plan type	Current asset size (US$ million)
Government Pension Investment Fund (GPIF)	Government DB	1,395,289
Other public DB[40]	Government DB	393,457
Pension Fund Association	Corporate DB	98,709
Corporate DB	Corporate DB	591,704
Corporate DC	Corporate DC	130,504
Total		**2,609,664**

[40] Includes Pension Fund Association for Local Government Officials; National Federation of Mutual Aid Associations for Municipal Personnel; Federation of National Public Service Personnel Mutual Aid Associations; Promotion and Mutual Aid Corporate for Private Schools of Japan and National Pension Fund Association.

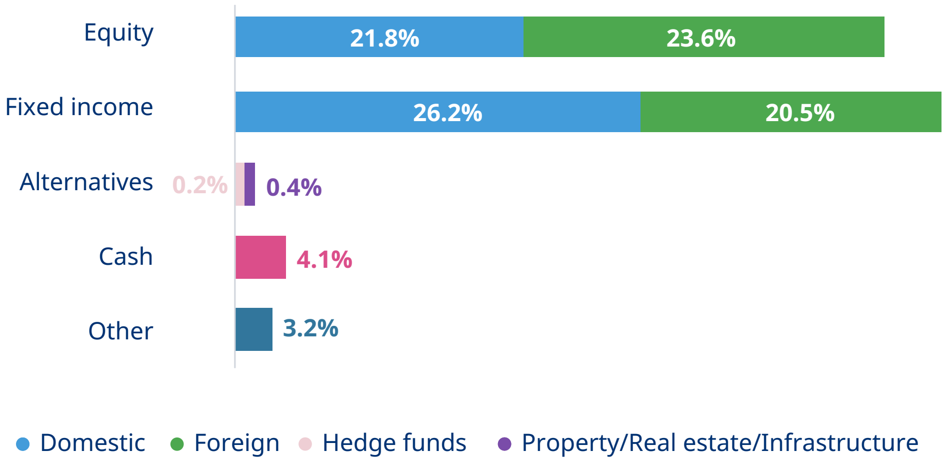
Current asset allocation



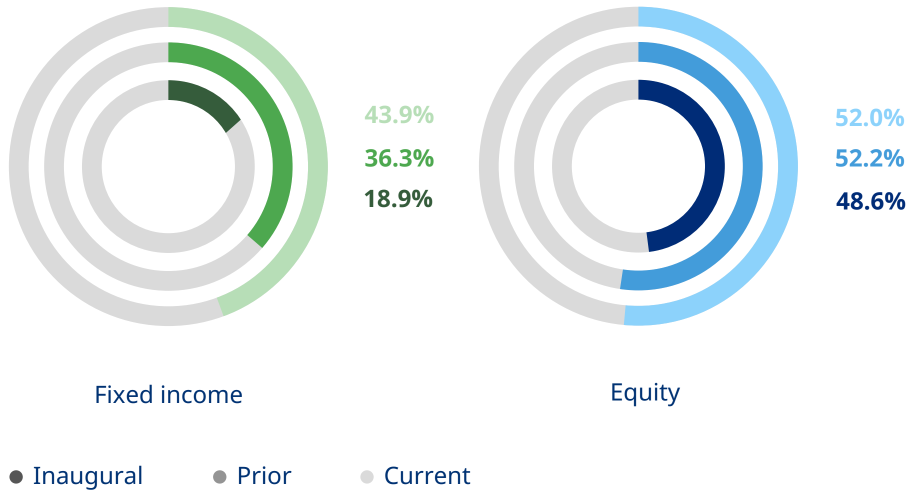
Allocation over time[41]



Asset allocation detail



Foreign as % of asset class



[41] "Other" is largely undefined, depending on the plan and data source. Within corporate DB, "other" includes life general accounts (similar to guaranteed investment products). Within individual DC plans, "other" includes balanced funds and insurance policies.

08. Source notes

Market	Current AUM included in survey (US$ million)	Date	Prior AUM included in survey (US$ million)	Date	Source	Plan info and other notes	FX rate used (US$1 = X local)	Key contributors
Argentina	34,249	Data as of 30 Sept 2020, 30 Jun 2019, 30 Apr 2020	36,810	Data as of 30 Jun 2019, 31 Mar 2019, 30 Sep 2019	BNP Paribas, Santander Rio, TMF Group, Superintendencia de Seguros de la Nación (SSN), Fondo de Garantía de Sustentabilidad (FGS)	Government DB, government and corporate DC, corporate DC	0.0132	Gustavo Aguilar, Fabricio Basulaldo, Marcelo Carroll, Clara Estevarena
Brazil	233,691	Data as of 31 Dec 2019	254,468	Data as of 31 Dec 2018	ABRAPP (pension plans association)	Corporate DC and DB	0.2460	Guilherme Gazzoni, Mauricio Martinelli, Vanessa Santos
Chile	194,968	Data as of 30 Sep 2020	219,027	Data as of 31 Oct 2018	Superintendencia de Valores de Chile	Mandatory DC	0.0013	Martyn James
Colombia	74,874	Data as of 30 Sep 2020	79,697	Data as of 1 Jun 2018	Superintendencia Financiera de Colombia	Mandatory DC	0.0003	Martyn James
Mexico	208,115	Data as of 30 Jun 2020	222,689	Data as of 31 Dec 2017	CONSAR, Mercer Mexico	Corporate DB and DC; mandatory DC	0.0433	Ivette Maya, Jose Luis Quiroz, Oscar Castanon
Peru	42,840	Data as of 30 Sep 2020	50,411	Data as of 30 Apr 2018	Superintendencia de Valores de Peru	Mandatory DC	0.2813	Martyn James
GCC								David Lynch, Paul Rooney
South Africa	142,423	Data as of 30 Sep 2020 for AF survey, 31 Mar 2019 for GEPF	142,423	Data as of 30 Sep 2018 for AF survey; 31 Mar 2018 for GEPF	Alexander Forbes Investable Global Manager Watch™ survey, South Africa Government	Corporate DC, government DB	0.0703	Alexander Forbes: Makhonsonke Madi, Riccardo Fontanella Mercer: Mark Smathers
Turkey	25,489	Data as of 31 Jul 2020	19,858	Data as of 30 Sep 2019	https://www.spk.gov.tr/SiteApps/Yayin/AylikIstatistikBultenleri	Corporate DC	0.1683	Gokhan Karali, Serap Ozalp

Market	Current AUM included in survey (US$ million)	Date	Prior AUM included in survey (US$ million)	Date	Source	Plan info and other notes	FX rate used (US$1 = X local)	Key contributors
Mainland China								Barney Chen, Marco Liu
Hong Kong SAR	111,254	Data as of 31 Mar 2020	116,678	Data as of 30 Jun 2019	MPF Schemes Statistical Digest	Mandatory DC	0.1282	Erika Leigh, Adeline Tan, Vincent Tsang
India	227,578	Data as of 31 Mar 2020 for NPS, 31 Mar 2019 for EPFO	187,183	Data as of 31 Mar 2019 for NPS and Seamen's plans, 31 Mar 2018 for EPFO	Plan annual reports	Government DC and DB	0.0141	Akhil Dev Sharma, Amit Gopal, Richa Rastogi
Indonesia	47,926	Data as of 31 Dec 2018 and 31 Dec 2017	37,740	Data as of 30 Sep 2018 and 31 Dec 2017	OKJ, BP JS Ketenagakerjaan	Corporate DB, corporate DC, financial institution DC, mandatory DB	0.00007	Milo Kerr, Jovita Sadrach
Japan	2,609,664	GPIF data as of 30 Mar 2020, other public data as of 30 Jun 2020 and 31 Mar 2020, PFA as of 31 Mar 2020, DC 31 Mar 2020	2,666,106	GPIF data as of 30 Jun 2019, other public data as of 30 Jun 2019 and 31 Mar 2019, PFA as of 31 Mar 2019, DC corporate and individual as of 31 Mar 2018	GPIF, PFA and other public websites	Government DB, corporate DB, corporate DC	0.0093	Takuya Arai, Tomoya Goto, Toshio Imai, Nobuhiro Shingyoji
South Korea	889,133	KNPS data as of 31 Jul 2019; GEPS data as of 31 Aug 2019; TP data as of 31 Dec 2018; MMMA and corporate DB and DC as of 31 Dec 2018	680,558	KNPS data as of 31 Jul 2019, GEPS data as of 31 Aug 2019, TP data as of 31 Dec 2018, MMMA and corporate DB and DC as of 31 Dec 2018	Korea NPS website, GEPS website, Teachers Pension Korea website, MMMA site, Financial Supervisory Services (FSS) website	Partially government-funded DC	0.0009	Erika Leigh, Vincent Tsang, Elizabeth Oh
Malaysia	233,879	EPF data as of 31 Dec 2018, KWAP data as of 31 Dec 2017	233,879	EPF data as of 31 Dec 2018, KWAP data as of 31 Dec 2017	EPF Annual Report 2018KWAP Annual Report 2017	Mandatory DC and government DB	0.2396	Chin Yee Koh, Merissa Ang
Philippines								Harold Tan
Singapore								Chin Yee Koh, Merissa Ang

Market	Current AUM included in survey (US$ million)	Date	Prior AUM included in survey (US$ million)	Date	Source	Plan info and other notes	FX rate used (US$1 = X local)	Key contributors
Taiwan	130,965	Data as of 31 Dec 2019	121,217	Data as of 31 Dec 2018	Annual Reports, Ministry of Labour; Private School Pension Fund Committee; Annual	Government DC, government DB, mandatory DB, mandatory DC	0.0324	Sue Cheng, Laura Liao
Thailand	122,187	SSF as of 30 Jul 2020, GPF as of 30 Sep 2020, Prov Fund as of 30 Nov 2019	120,116	SSF as of 30 Sep 2019, GPF as of 31 Dec 2018, Prov Fund as of 30 Jun 2019	www.sso.go.th, www.gpf.or.th, www.thaipvd.com	Government DC, government DB, corporate DC	0.0328	Suthayut Chuaphanich, Akekachat Lertsurapakdee, Kasin Sutuntivorakoon
Overall	**5,344,906**		**5,191,113**		**OECD *Pension Markets in Focus*, Mercer CFA Global Pension Index**		**Simon Coxeter, Fiona Dunsire, Tracy Teel, Janet Li, Martyn James, Daniela Simic, Ana Baptista, Vishal Kalra, Atul Pahuja, Hem Kishore, Deepanshu Yadav, Pushpendra Gautam**	

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