CAPITAL FORMATION 2

Investing Pension Contributions in Private Markets Responsibly
CAPITAL FORMATION 2: INVESTING PENSION CONTRIBUTIONS IN PRIVATE MARKETS RESPONSIBLY

Sviatoslav Rosov, PhD, CFA
Capital Market Regulation

Securities Market Regulation

Public markets

Private markets

Defined Contribution

Defined Benefit

Pensions

Venture Capital

Private Equity

Private Debt

Listed companies

Public companies
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1. Executive Summary

The number of public companies listed on public equity markets worldwide has experienced a significant decline in the past few decades. This development may reduce investment options and expected returns for retirement portfolios. One policy proposal being considered in many jurisdictions is to allow pension schemes, particularly defined contribution (DC) pension schemes, to invest relatively more in private markets. Private market investments, which tend to be more illiquid and to have a longer time horizon than public market counterparts, are considered by many to be suitable for diversifying pension savings exposures to public equity and debt markets and seem to promise higher expected returns.

This report looks at the current pensions landscape in developed markets, with a focus on European jurisdictions, to identify the benefits and disadvantages of DC schemes increasing their investments in private markets. The experience of defined benefit pension schemes, traditionally an active participant in private markets, is also considered.

The aim of this report is not to advocate for, or against, increased private market investments by DC schemes, but rather to identify the issues that would result should such a policy be pursued by a given jurisdiction. Specifically, we identify the following issues that need to be addressed when expanding DC scheme investments into private markets:

- **Value for money**: The focus of regulators on low cost as the key metric of value for money may need to change. For example, charge caps, such as the one imposed on default funds under DC schemes in the United Kingdom, would need to account for the higher expenses involved in the structurally complex private market strategies.

- **Eligible assets**: The universe of permitted investments on such funds as Undertakings for the Collective Investment in Transferable Securities (UCITS) or European Long-Term Investment Funds (ELTIFs) may need to be reviewed to enable DC schemes to participate in private market investments.

- **Disclosure**: It is likely private market companies and funds themselves will need to adjust their disclosures, including on costs and charges, to increase their transparency to end investors. It may also be necessary to review the traditional private market fund fee structure if attracting DC assets is deemed a priority.

- **Pooling resources**: The issue of access is important even for large DC schemes because of the restricted nature of many private market funds. It seems likely that consolidation
or pooling of small schemes would be necessary to generate enough scale to participate meaningfully in private markets. In the United Kingdom, efforts to encourage this trend through the Master Trust structure are already underway.

CFA Institute believes there is a plausible argument for increasing participation by DC schemes in private markets, although it is not as clear-cut as implied by some advocates of this policy. A sober realization is necessary, however, that such investments do not guarantee outperformance of public markets, and also that they come with significant risks and uncertainty for savers. These investments will also challenge the existing daily liquidity paradigm that exists in the DC industry, something that, in any case, may be overdue.
2. Introduction

Public markets are a key component of retirement savings portfolios, which typically comprise the majority or plurality of invested assets. However, the changes experienced by public markets, as described in our 2018 report Capital Formation: The Evolving Role of Public and Private Markets, may be a cause for concern for future retirees.

Specifically, many markets worldwide have observed a significant decrease in the number of listed public companies, a decrease in the number of new companies joining the listed markets through an initial public offering (IPO), an increase in the number of companies delisting from public markets, or a combination of all three. These developments may reduce investment options and expected returns for retirement portfolios.

One of the policy proposals in the concluding section of the 2018 Capital Formation report was to look at these changes in public markets in the context of retirement savings. With private markets playing an ever-larger role in the capital formation process, is there still a level playing field for investors saving for their retirement? This question is particularly pertinent given the secular shift from defined benefit (DB) to defined contribution (DC) pension schemes in which individual savers take responsibility for their investment returns and retirement outcomes. This follow-up report takes a closer look at the issues facing retirement savers in a world in which private markets are becoming bigger and more critical to economic activity.
3. The Three Pillars of Pension Systems

To understand the ways in which retirement savers depend on public markets, and the ways in which they may be affected by changes in those markets, it is important first to understand the scope of pensions systems. Several taxonomies of retirement-income systems are used to organize the complex and varied pension systems found around the world. The World Bank\(^1\) and Organisation for Economic Co-operation and Development (OECD)\(^2\) taxonomies are two examples that are based on “pillars” of income support from different sources, which combine to form the total retirement income of a retiree. We have drawn on these models to design the taxonomy used in this report, which is shown in Figure 1.

For context about the relative importance of the different pillars, the OECD\(^3\) reports that Pillar I public pensions replace on average 40% of preretirement income, with so-called Pillar II (typically private pensions schemes mandated by regulation) replacing another 9% of preretirement income on average. Pillar III (voluntary schemes) account for another 6% of preretirement income, so that on average the total proportion of preretirement income replaced by pension savings is around 55%.

Although public schemes are clearly the most important for retirees in most countries, mandatory private schemes (Pillar II) are becoming an increasingly popular tool for governments looking to improve pension outcomes for its citizens.

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### FIGURE 1. SCHEMATIC OF THE THREE PENSION PILLARS.

<table>
<thead>
<tr>
<th>Safety Net Pillar</th>
<th>Insurance Pillar</th>
<th>Discretionary Pillar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mandatory participation</td>
<td>Mandatory participation, private schemes mandated by regulation</td>
<td>Voluntary participation</td>
</tr>
<tr>
<td>Payouts not based on contributions</td>
<td>Payouts based on contributions</td>
<td>Payouts based on contributions</td>
</tr>
<tr>
<td>Can be means-tested</td>
<td></td>
<td>Often encouraged by governments through tax-advantageous treatment of contributions</td>
</tr>
</tbody>
</table>

#### Safety Net Pillar
- Mandatory participation
- Payouts not based on contributions
- Can be means-tested

#### Insurance Pillar
- Mandatory participation, private schemes mandated by regulation
- Payouts based on contributions

#### Discretionary Pillar
- Voluntary participation
- Payouts based on contributions
- Often encouraged by governments through tax-advantageous treatment of contributions

**Public**
- **Defined Benefit**: Common in civil service
  - Often funded out of tax-revenue on a pay-as-you-go (PAYG) basis
  - Can also be funded through investments, although often these are underfunded relative to expected liabilities
  - Sometimes based on a points-system or notional-account approach
- **Defined Contribution**: Increasingly common among new civil service joiners

**Private**
- **Defined Benefit**: Increasingly common for mandated schemes
  - Legacy schemes often under-funded
  - Sometimes based on "auto-enrollment" of employees into a default fund, which they can later change if desired
- **Defined Contribution**: Increasingly rare among private firms
  - Legacy schemes often under-funded

**Private**
- **Defined Benefit**: Increasingly common for private firms
- **Defined Contribution**: Increasingly rare among private firms
  - Legacy schemes often under-funded

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3.1. The Redistributive Pillar – The Safety Net

**Mandatory, universal**
The first pillar typically includes *mandatory* and *noncontributory* schemes, which are financed by the state on a pay-as-you-go (PAYG⁴) basis. These pensions are provided on a universal (i.e., independent of one’s contributions) but means-tested basis (typically wealthier retirees receive less) to alleviate poverty among the elderly. Under the World Bank taxonomy, this pillar is referred to as the “zero pillar,”⁵ emphasizing its place at the foundation of the welfare state. The first pillar has four broad categories of schemes:

1. *Basic pension schemes:* These pensions provide benefits that are not subject to past earnings nor to additional income from other sources. These benefits may either depend on years of work or may be distributed on a flat basis (i.e., the same amount is paid to every retiree).

2. *Target programs* (also known as means-tested programs): These programs discriminate between poorer and well-off retirees and consider current means (but not contributory history). Benefits can be pension-income tested (the amount depends on only the level of pension income received), broader income tested (the amount is reduced if the pensioner receives income from other savings), and broader means-tested (the amount received depends on both income and other assets).

3. *Minimum pensions:* These pensions ensure that the income of low-earning pensioners does not fall below a certain threshold, but benefits are conditional on retirees having paid contributions for a minimum number of years. Minimum pensions are a hybrid of contributory and noncontributory schemes (and are interconnected with Pillar II) because they are activated only if the pension level received under a contributory second-pillar program falls below the minimum pension.

4. *Social assistance:* In countries that do not have targeted programs, the population is entitled to general social assistance benefits (generally financed through taxes or social contributions).

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⁴ In this instance, PAYG means that pension payments are funded by current tax receipts.

3. The Three Pillars of Pension Systems

3.2. The Insurance Pillar

Mandatory, but based on contributions
This second pillar is typically a mandatory and contributory system that can be public or private. This pillar seeks to replace some portion of lifetime preretirement income through payments that are linked to lifetime earnings and contributions either through a fixed formula (DB) or as a result of accumulated contributions (DC). Public systems (e.g., civil servant pensions) typically will be funded on a PAYG basis, whereas private (e.g., corporate pensions) systems typically will be partially or fully funded, and worker participation in these private plans will be guaranteed by a regulatory mandate. Although both public and private systems can be structured as either DB or DC plans, the latter are rapidly increasing in popularity both for public and private systems.

DB versus DC Plans
In DB plans, the amount a retiree receives is a function of both the number of years of contributions made and individual earnings. In contrast, participants in DC schemes typically have individual accounts in which contributions are credited and subsequently invested. Unlike DB schemes that promise a specific level of benefits (defined according to a formula), in DC plans, the level of future benefits is uncertain because it depends on the amount of assets accumulated and other variable factors, mainly, the performance of the investments undertaken on behalf of workers’ contributions. DC schemes may be provided by the employer or chosen at an individual level.

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6 Funded schemes (both private and public, DB and DC) use contributions from current employees to accumulate (mainly financial) assets. The gains generated from these assets (in the form of capital gains or income) are then (fully or partially) used to pay these worker’s pension benefits in the future. DB schemes that are partially funded (i.e., underfunded) require the balance of pension payments to be drawn from firm earnings or taxpayer funds. DC schemes are definitionally fully funded because the pension payments always are limited to the amount of money accumulated in the worker’s DC account (hence, their increasing popularity). Public schemes that are unfunded (i.e., PAYG) use contributions from current taxpayers to pay benefits to current pensioners. Private PAYG schemes are not common.

7 For example, the auto-enrollment policy in the United Kingdom is an example of a government creating a second-pillar system out of a well-developed third-pillar system by mandating participation in a contributory workplace scheme.

One of the main differences between DB and DC pensions systems is the distribution of financial risk. Although in a DB scheme the risk is borne by the provider of the pension plan (i.e., the State or the pension fund), in a DC scheme, the risk is borne by the individual. This difference has been the main driver in the secular shift from DB schemes to DC schemes around the world. To get a sense of scale for this shift, the global first mover in DC pensions – Australia – has around 87% of pension fund assets in DC schemes. By comparison, as of 2015, only 32% of UK assets are under DC schemes.9

### 3.3. The Discretionary Pillar

**Discretionary, based on contributions**

The third pillar is a voluntary and contributory private system that typically is offered by employers as a benefit (e.g., generous DB schemes to management) or as an opt-in product for workers seeking additional retirement security (e.g., voluntary corporate DC plans). The latter often is encouraged by governments through advantageous tax treatment of contributions.10 Such third-pillar plans are funded either partially (DB) or fully (DB or DC) by the employer.

The third pillar also encompasses private pensions plans that are chosen independently by individuals seeking additional retirement security.

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4. Pension Schemes and Private Markets

The attraction of private markets to pension schemes stems from the potential for an improved risk–return trade-off and scope for diversification.

Private markets traditionally are viewed as offering an illiquidity premium that rewards investors for taking on the risk of not being able to dispose of their investment as easily as on public markets. As outlined in the first capital formation report, however, some evidence suggests that competition for a limited number of private investments has reduced or eliminated this illiquidity premium in large private markets, such as the US.

In terms of diversification potential, returns from private markets historically have shown low correlation with the equity and bond markets that continue to constitute a large proportion of pension scheme portfolios. The issues described in the original capital formation report — that of a shrinking number of older and bigger public firms — also may contribute to pension schemes lacking “total market exposure” unless they are exposed to private markets.

Although DB pension schemes have long allocated funds to alternative asset investments, most DC schemes are restricted by regulation or design from investing significant amounts outside of traditional equity or debt markets.

4.1. The DB Experience with Private Markets

DB pension schemes’ allocation to alternative assets, an often-used category that encompasses private markets, has increased over time as market conditions and demographics moved against DB managers in the past two decades. Specifically,

12 OECD, Global Pension Statistics.
15 APPG Alternative Investment Management, UK Pension Schemes and Alternative Investments (February 2019).
increased longevity of plan participants has increased the ratio of retirees to active employees. Furthermore, reductions in long-term interest rates and expected returns since the early 2000s have increased the present value of accrued pension liabilities and have decreased the present value of pension assets, respectively. DB managers look to alternative private-market assets in search of diversification across assets with historically low correlation to the public markets and an expected higher yield resulting from the illiquidity premium.16

DB schemes naturally are suited to investing in private markets in one important sense: they have a long investment time-horizon with predictable liabilities. This relatively longer time horizon enables DB funds to invest more in private markets because the institutional plan sponsor bears the investment and duration risks. In DC schemes, the risk falls on the plan beneficiary (i.e., the individual saver), who is unlikely to tolerate uncertainty and illiquidity enough to be an effective investor in private markets.

Furthermore, contrary to DC schemes, most DB schemes use a PAYG system in which pension payments to current retirees come from working-age members. This means that the DB scheme typically does not need to sell assets to meet its obligations to retirees drawing pension income.

Finally, the increasing use of liability-driven investment (LDI)17 by DB funds enables increased private-market participation.18 In this approach, fixed income securities and financial derivatives would be used to hedge the liability risk, reducing the mismatch between DB schemes assets and liabilities, whereas equity and alternative investments would be used to generate higher returns.

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16 Daniela Silcock, “DC Scheme Investment in Illiquid and Alternative Assets” (Pensions Policy Institute, March 2019).
18 LDI is an investment approach that allocates a share of the scheme’s assets to managing expected future liabilities, duration, inflation, and interest rate risk, and the remaining proportion to generating returns. The ambition of LDI is to match the pension plan investment policy with its funding levels to minimize any shortfall against liability growth or volatility.
DB Investment in Private Markets: Canada, the United States, and the United Kingdom

It is interesting to examine the experience of three developed pension systems to illustrate the DB experience with private markets. In Canada, DB schemes hold the lion’s share of pension assets. In recent decades, underfunding of DB funds has increased because of the demographic and market changes described earlier. To improve funding ratios, Canadian pension plans have been diversifying their investment portfolio away from the traditional 60/40 equity/fixed income split, instead adopting more active portfolio management and liability-driven investment approaches. This has caused a relative shift into alternative assets, a category that includes but is not limited to private-market investments.

Specifically, the proportion of assets under management (AUM) invested in alternative assets has risen from 24% in 2012 to 35% in 2018.

In the United States, regulation before the 1980s limited DB public schemes’ investment options to corporate bonds and Treasuries. These rules were relaxed in the 1980s and 1990s allowing pension plans to diversify away from fixed-income securities and to increase their exposure to equities and alternative assets. This trend continued into the 2000s with allocations to public equity and fixed income among state pension plans declining by 5.3% and 11.2%, respectively, between 2001 and 2011. In contrast, investments in private equity, real estate, and other alternative assets increased by 4.3%, 3%, and 9.3%, respectively. This flow into alternative assets has significantly affected the stock of alternative assets in pension portfolios as well. In 2006, 61% of public pension assets were allocated to equities and 11% were allocated to alternative assets. By 2013, the share of alternative assets had increased to 25%.

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19 According to Georg Inderst as of 2014, DB schemes in Canada held 95% of pension assets; see “Pension Fund Investment in Infrastructure: Lessons from Australia and Canada,” Rotman International Journal of Pension Management 7, no. 1 (Spring 2014).
20 More specifically, 10.15% in real assets, 7.43% in venture capital and private equity, 5% in infrastructure, and 1.64% in hedge funds; see “Asset Mix Report” (Pension Investment Association of Canada, 2018), https://www.piacweb.org/publications/asset-mix-report.html?theyear=2018.
21 That is, 12.8% in real estate, 12.5% in venture capital and private equity, 8.17% in infrastructure, and 1.7% in hedge funds; see the “Asset Mix Report (2018).
During this time, the composition of the alternative asset allocation also has been evolving. In 2005, the proportion of asset allocation within alternative assets was approximately 29% in private equity, 6% in hedge funds, 63% in real estate, and 2% in commodities. Although the allocation to private equity had gone up to 35% by 2015, the significant change was a fall in real estate exposure from 63% to 31% and a reallocation to hedge funds from 6% to 31%.

A similar pattern of diversification out of public equities can be observed among UK DB schemes. The National Association of Pension Funds identified large shifts in asset allocation between 2005 and 2012 with equity holdings falling from a 61% share to 35% in that time. The slack was taken up by fixed-income products (rising from 31% to 39%) and alternative assets (rising from 17% to 26%).

4.2. The DC Experience with Private Markets

The DC experience with private markets has been notably different to the trend of rising DB allocations to alternative assets. Historically, DC schemes have been subject to tighter regulatory and operational constraints that hamper the fund’s ability to allocate capital in investments other than traditional assets (public equity and fixed income).

There are some exceptions, however, and Australian superannuation funds typically are thought of as world leaders in allocating DC scheme capital to alternative investments (including property, infrastructure, and private equity) with around 23% of plan assets deployed in such assets. In contrast, in the United Kingdom, the share of DC scheme capital in alternative investments is typically in the low single digits, with continental European countries typically having even lower proportions of DC scheme capital in alternative assets.

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27 Inderst, “Pension Fund Investment in Infrastructure.”
28 OECD Online Statistical Database (Funded Pensions Indicators).
Note that even in countries with a track record of investment in alternative assets, these investments tend to be into so-called liquid alternatives, which can be likened to a public market wrapper around a private-market investment. Examples of liquid alternative asset classes include the following: listed private equity companies, real estate stocks, natural resources stocks, high-yield debt, emerging market debt, and bank loans. Although this enables some exposure to factors driving private-market performance, this exposure is indirect and restricts the universe of investments.

Private-market investments of the kind discussed in the 2018 Capital Formation report (i.e., private equity and private debt) are regarded as illiquid alternatives, along with infrastructure debt, private real estate, and certain hedge funds. Thus far, these illiquid asset classes have been the domain of DB plans, to the extent that pension schemes have invested in them at all.

For DC schemes, investing in private markets is by no means a simple extension of public market investing principles. The following significant barriers need to be overcome:

- complexity;
- high fees and value for money;
- valuation (daily pricing) and liquidity (daily dealing) terms, which are not compatible with DC schemes’ terms and conditions; and
- investing culture.

### 4.2.1. Complexity

Although private market investments promise to diversify DC scheme exposure to public markets, it is also necessary to subsequently diversify the idiosyncratic risk of the underlying private-market exposures. This diversification will require a significant number of individual investments or investments in multiple private-market funds. This poses a difficult challenge in terms of deal sourcing and due diligence. For this reason, commentators have suggested that it is not so much an illiquidity premium that can be captured in private markets (particularly given the run-up in valuations in recent years), but a complexity premium that rewards sophisticated and ingenious fund managers and investors who can select investments that justify the significant transaction costs involved.

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29 PIMCO, “Liquid Alternatives: Considerations for Portfolio Implementation.”
Investing in a private-market fund does not completely solve the diversification issue for a DC scheme. The so-called J-curve\textsuperscript{31} represents the tendency of private equity funds to deliver highly negative returns and cash flows in the initial years of the fund’s life that result from upfront management fees (paid on committed capital), from the high costs of reorganizing target firms, or from the writing-down of target firm assets. This initial period is intended to be followed by positive cash flows and investment gains as the fund’s investments begin to mature.

Even if the fund performs as promised, however, the DC scheme is still subject to this idiosyncratic and uneven return distribution. A DC scheme looking to invest in private-market funds could attempt to mitigate this initial negative cash flow profile by investing in a range of fund vintages at different stages in the J-curve through the secondaries market or through a focus on funds with a less pronounced J-curve, such as buyout or growth equity funds. Both solutions, however, may compromise expected returns or diversification potential.

It is unlikely that many DC schemes have the in-house expertise to navigate these kinds of private-market complexities better than more traditional private-market investors (e.g., firms that act as limited partners, such as DB pension schemes, university endowments, or insurance companies). For this reason, the 2018 Capital Formation report concludes with a policy recommendation that increased exposure to private markets for retirement savers should be enabled (if at all) through a professional and expert intermediary layer. This would add, of course, another layer of fees and costs. Therefore, when considering the potential benefits of expanding DC schemes investments into private markets, it also is important to consider the likely significant costs of doing so with sufficient expertise and professionalism to achieve good outcomes.

**Workshop Highlight: Dublin, Ireland**

An interesting topic of discussion during the workshop in Ireland was the need to consider member fairness when DC schemes are planning to invest in private markets. The first issue is the impact that the vintage of private-market funds has on performance and how difficult (if not impossible) it is to genuinely diversify private-market investments across vintages so that scheme members receive a relatively uniform rate of return from this segment regardless of when they join the scheme. Another contributor to this member fairness issue is the J-curve effect, which similarly may advantage late joiners to the DC scheme at the expense of incumbents who funded initial investments.

4.2.2. Value for Money and Fees

The increase in the popularity of DC schemes as a way to fund retirement has been accompanied by an increased regulatory focus on the fees being charged to retirement savers and whether they represent value for money. For example, the United Kingdom sets a binding cap on the total expense ratio of 0.75% per year on the default fund of a DC scheme. Some efforts have been made to include transaction costs (currently exempt) into a future all-in fee charge cap. Typically, plans with a one-dimensional focus on costs will be able to access only passive equity or fixed-income index exposure, and they are not likely to be able to invest in private markets absent new, and cheaper, investment products from the industry.

A good example of the kind of costs regulation that implicitly acts against DC scheme participation in private markets is the Norwegian requirement that the scheme operator must pay asset manager fees rather than pass these fees along to the account beneficiary (as in most countries). This gives DC schemes a strong incentive to search for the lowest possible cost asset manager, which in turn drives investments mostly into passive indexed funds.

Furthermore, consideration needs to be given to the age of members. Members in their late 50s, for example, likely will not have enough time to benefit from the full realization of a private-market fund investment, which can take seven or eight years. Is an age limit needed on members directing their savings to private-market funds offered by the scheme?

Finally, workshop participants expressed a concern that moving significantly into private markets may result in a loss of control for large corporate schemes that, in some instances, make large shifts of their investments. This likely would be more expensive and difficult to do if they had significant private-market investments that were difficult to sell.

The complexity and information asymmetry of private-market investments requires professional expertise, preferably from the top quartile of managers\(^{33}\) who charge significantly more for their services than a passive fund manager. These costs may be justified by the extensive and expensive due diligence and ongoing governance costs as well as by the high transactions costs during the purchase and sale of private assets. Some asset classes, such as infrastructure, often require large initial disbursements of capital along with high lifetime maintenance costs. These characteristics need not necessarily prohibit DC schemes from employing such managers or investing in these assets. It does mean, however, that value for money needs to be considered on an after-fee total portfolio\(^{34}\) basis rather than as a headline (low) cost percentage.

CFA Institute believes that should DC scheme access to private-market investments become a priority for regulators, they will need to replace the low-cost mind-set with a more holistic value-for-money approach to determining the suitability of DC scheme investments. A renewed focus on professionalism and ethical behavior also will be needed if investor money is being allocated to these relatively opaque markets.

### 4.2.3. Valuation and Liquidity Policies

Daily valuation and dealing of assets are not explicit regulatory requirements in most jurisdictions, although they often are misinterpreted as an implicit requirement.\(^{35}\) DC schemes typically expect daily valuation of assets so that they may offer plan holders the ability to contribute or transfer funds to and from different schemes at any time. Specifically, daily pricing of assets is considered necessary to correctly value contributions and withdrawals while daily dealing is marginally less critical and strictly necessary only if assets need to be physically sold to implement withdrawals. As long as relatively few plan holders are conducting such transactions at any given time, however, it is unlikely that the DC scheme will need to physically sell assets. In this context, investing in illiquid alternatives also likely would not create significant cash flow management issues under normal market conditions and when the share of illiquid alternatives is not dominant.

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\(^{33}\) For evidence of the strong correlation between manager quartile and fund abnormal returns, refer to the 2018 Capital Formation report.

\(^{34}\) APPG Alternative Investment Management, *UK Pension Schemes and Alternative Investments*.

This liquidity management approach to investing in illiquid alternatives works well in countries like Australia\(^{36}\) where pension funds have significant stakes in private-market investments. This approach works well in Australia because of the sizeable and reliable capital inflows generated by long-running mandatory contribution schemes coupled with members who statistically do not often request transfers of assets between schemes. This approach, however, is unlikely to work in all jurisdictions, or for all DC schemes, or in turbulent market conditions. It is in some sense a “fair-weather” solution to the illiquidity challenge.

For example, a DC scheme that service a large corporate client whose assets account for a significant share of the scheme’s AUM could suffer disproportionately from the illiquidity of private-market investments should that corporate client decide to change its DC scheme provider. In jurisdictions without large mandatory employee or employer contributions, the flow of capital into DC schemes also may not provide a sufficient liquidity buffer to manage illiquidity risk. Finally, during a market downturn, private-market liquidity is unlikely to be provided on anything other than fire-sale terms, and thus, DC schemes likely would face significant challenges of disposing of assets at reasonable prices. During times of stress, investment funds often introduce gates or suspend redemption rights for this reason.

To date, the industry response to these challenges has been to attempt to engineer new liquidity management and valuation tools. New valuation models or structured illiquid–liquid hybrid vehicles have been suggested.\(^{37}\) In our view, however, these do not address the fundamental liquidity mismatch between private-market investments and the market norm and expectation for daily liquidity.

CFA Institute believes the only robust way of enabling DC schemes to increase their presence in private markets is for a change in market expectations for daily liquidity and the portability of plan assets. For example, daily access could be replaced with quarterly access (or some other optimal nondaily access\(^{38}\)) on the portion of plan assets invested in private-market assets. While limiting the ability of savers to transfer between DC schemes, it is unlikely that this issue is as critical as it may first appear. First, the reality


\(^{37}\) Silcock, “DC Scheme Investment in Illiquid and Alternative Assets.”

\(^{38}\) Determining the optimum valuation frequency for private-market investments is a difficult balancing act. It is likely that regulation would be needed regarding the upper limit of assets subject to nondaily redemption in a portfolio. Stress testing of scheme portfolios also should be adjusted to take into account the possibility of liquid asset sales being necessary to cover redemption requests, while illiquid assets remain in the portfolio and thereby increase in their concentration.
is that corporate governance practices, in any case, will force a significant amount of lead time before a corporate plan can change its DC scheme provider. Second, individual plan holders typically interact with their plans so rarely\(^\text{39}\) that there seems to be little justification for demanding daily liquidity on plan assets, a service that is mostly unused by individual plan holders. This shift away from a daily mind-set would have the additional benefit of reinforcing to investors the relatively riskier (in part because of illiquidity) nature of their private-market investments that is the quid pro quo of their expected higher returns.

### 4.3. Summary: A Need for Culture Change

Given the potential benefits and challenges facing DC schemes investing in private markets that have been listed, it is important to note that there are relatively few explicit regulatory impediments to increasing DC schemes’ private-market investments in the default fund to levels significantly beyond their current low level.\(^\text{40}\) Although caps on the share of DC scheme assets invested into alternative assets do exist in many jurisdictions, they typically are set at levels higher than currently are observed in DC scheme portfolios.

Instead, it appears that the most significant immediate impediment is a reluctance on behalf of DC schemes to increase alternative asset investment. This reluctance often is attributed to DC schemes’ culture, which typically is conservative and risk averse. There is a perception that private-market investments are too risky and too complex for DC schemes.\(^\text{41}\)

From the point of view of CFA Institute, should the increased participation of DC schemes in private markets be considered desirable, it will be necessary for the investment management industry to shift the mind-set of investors and regulators away from a two-dimensional focus on daily liquidity and minimum cost. Instead, they should provide a more sophisticated, yet still accessible and transparent, spectrum of products and fees to DC schemes that, in turn, gradually may become more comfortable with placing plan assets in private markets.

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\(^\text{40}\) Funds other than the default fund, which are offered to DC scheme members typically cannot be alternative investment funds as these are not easily marketed to retail investors.

\(^\text{41}\) APPG Alternative Investment Management, *UK Pension Schemes and Alternative Investments*.
In addition, the industry likely will need to place an even greater emphasis on professionalism and ethical behavior as well as transparency in the disclosure of costs and performance.

**Workshop Highlight: Madrid, Spain**

Spanish workshop participants focused on the cultural and mind-set barriers standing in the way of increased participation in private markets. Although regulatory boundaries do exist as well, they are by no means the only hurdle.

Historical path dependence means that most investors think of companies, equity, and debt when constructing a portfolio rather than private equity funds. The complexity and lack of access to private markets means that knowledge is lacking. This includes knowledge of the potential return and diversification benefits that may be found in private markets.

Furthermore, labels such as “alternatives” are perceived negatively by many investors, such as family offices, who prefer more familiar assets. Workshop participants agreed that adviser and investor education would be needed before private-market investments enter the daily lexicon of Spanish investors.
5. Capital Formation and Pensions: A European Perspective


Historically, European countries are known for having a relatively higher reliance on nonequity (i.e., bank-based) capital formation, and the same is true for the deployment of retirement savings. According to World Bank data (see Figure 2), the ratio of market capitalization of publicly listed domestic companies to GDP fluctuates around the level of 40–80% for countries, such as Ireland, Germany, Spain, Norway, France, and the Netherlands. In some periods, this ratio can exceed 100% (e.g., France, the Netherlands, Spain, and Sweden in the lead-up to the 2007 financial crisis), but in general, it is significantly lower than the typical level of market capitalization to GDP of more than 100% that can be observed in more market-based economies, such as the United States and the United Kingdom.

Workshop Highlight: Frankfurt, Germany

Germany has a unique and interesting investment landscape despite the social expectation that the state will satisfy the bulk of citizens’ pension entitlements.

First, in Germany, direct property investments for the rental market are a popular destination for savers’ capital as are open-ended property funds run by large banks. Although these property funds declined after the financial crisis in 2008, workshop participants reported that they once again are growing in popularity.

Second, in terms of institutional products, deposit investments remain significant despite many years of low interest rates. Life insurance policies also are widespread with many people having two or three separate policies (for more detail, see Section 5.2.2 of the report). The deposit and life insurance markets measure in the trillions of euros in assets and dwarf German private markets; however, life insurers are restricted in their ability to invest outside of fixed-income securities.

Workshop participants in Frankfurt suggested that the German market would benefit from US-style REITs given the popularity of property as an investment, but that investor education regarding the liquidity mismatch of open-ended funds investing in illiquid assets needed to be addressed.
FIGURE 2. THE NUMBER OF LISTED COMPANIES (TOP PANEL) AND THE MARKET CAPITALISATION OF DOMESTIC COMPANIES AS A PERCENTAGE OF GDP (BOTTOM PANEL) FOR SELECTED EUROPEAN COUNTRIES.

Source: World Bank data and CFA Institute analysis.
Figure 2 shows that European public markets have experienced a similar decline in the number of listed companies that can be observed in other developed markets. France has seen the number of public companies halve since a peak in 2000–2001, and Germany has seen a steady decline since the 2008 financial crisis. Other countries, such as Sweden, Italy, Norway, and Ireland, have seen a stable number of publicly listed companies, although the small size and specialized nature of many local markets can override any global secular trends. For example, the Oslo Stock Exchange is particularly attractive for oil and gas companies and acts in concert with the other Nordic exchanges to create a quasi-regional capital market.

The first point to make about European private markets is that, by global standards, they are small and tend to coalesce around a specific niche in a given country. For example, the French private-market AUM (the largest in Continental Europe) is around USD180 billion as of 2017, but this figure stands at more than USD600 billion in the United Kingdom, and more than USD3 trillion in the United States.

The growth story of private-market AUM in Europe, however, is similar to that of other developed markets discussed in the 2018 Capital Formation report. Specifically, the period since the early 2000s has seen nearly uninterrupted growth across most countries, as shown in Figure 3. France, in particular, stands out with by far the largest private-market AUM among the EU-27, followed at a distance by Sweden and Germany. The Netherlands, Italy, Luxembourg, and Spain occupy a cluster of countries with around USD20–30 billion of private-market AUM.

These trends are replicated in the data for the private equity portion of private-market AUM, with France and Sweden once again being leaders among the EU-27 countries (see right panel of Figure 3). To reiterate an earlier point, despite the growth observed in Figure 3, the relative size of even French private equity AUM is small by global standards. Although French private equity AUM exceeded USD80 billion between 2017 and 2018, the level of UK private equity AUM was more than USD300 billion in the same time period. Chinese and US private equity AUM was even larger at more than USD600 billion and USD1.5 trillion, respectively.

As shown in Figure 4, in the buyout space, France, Sweden, and the Netherlands have the largest AUM. These rankings change somewhat in venture capital, with France, Germany, and Netherlands having the largest AUM. The Netherlands, in particular, has experienced some rapid growth to overtake Italy, which has been stagnating for several years. The private debt space is relatively underdeveloped in European jurisdictions (see Figure 5), but France is following the global trend for exponential growth in AUM, possibly a few years ahead of other jurisdictions in Europe.
FIGURE 3. PRIVATE MARKET AUM (TOP PANEL) AND THE ASSOCIATED PRIVATE EQUITY AUM (BOTTOM PANEL) FOR SELECTED EUROPEAN COUNTRIES.

Source: Preqin data and CFA Institute analysis.
FIGURE 4. BUYOUT FUND AUM (TOP PANEL) AND VENTURE CAPITAL FUND AUM (BOTTOM PANEL) DEPLOYED IN SELECTED EUROPEAN COUNTRIES.

Source: Preqin data and CFA Institute Analysis.
FIGURE 5. PRIVATE DEBT AUM DEPLOYED IN SELECTED EUROPEAN COUNTRIES.

Source: Preqin data and CFA Institute Analysis.

Workshop Highlight: Oslo, Norway

The lack of significant private debt AUM is not always a sign of a fledgling local market. Norway has almost no private debt AUM and is an interesting example of a public (debt) market being so effective that, to date, no private equivalent has managed to arise.

The Norwegian context relevant for understanding this phenomenon is that the oil and gas sector plays an outsized role in Norwegian capital markets. The oil and gas sector has developed a symbiotic relationship with the local bond market, with the two acting together as an efficient capital allocation ecosystem. Even when private debt is raised to finance buyouts and other transactions, this typically is done by bank syndicates, which may offer this debt to institutional investors, such as insurance groups, but private debt funds do not participate significantly.
The relatively underdeveloped state of private markets in continental Europe likely will pose challenges to deploying DC scheme assets at scale domestically. However, the European tendency to rely on DB-like or DB-DC hybrid institutionalized pension savings schemes (as opposed to individual DC savings plans) provides certain advantages, particularly relating to professionalism and the time horizon.

5.2. European Pensions Landscape

Most European jurisdictions will have some combination of first-pillar government-provided universal noncontributory pensions, second-pillar mandatory contributory DB or DC schemes, and purely private voluntary third-pillar schemes. There are also some interesting hybrid forms of retirement savings products, however, which are neither wholly DB nor wholly DC. Specifically, these include government-run points-based and notional account schemes, and the use of life insurance products as a retirement savings tool.

5.2.1. Points-Based and Notional Account Schemes

Points-based systems can be found in French occupational pension plans or the German public scheme. In France, for example, the second pillar is a compulsory supplementary occupational pension scheme that has elements of both a DC and DB scheme. First, the pension scheme does not promise a defined benefit, with benefits being proportional in some way to contributions. Equally, however, there is no direct link between the investment performance of any assets held by the scheme and the eventual benefit to be paid out, as one would expect from a typical DC scheme. Instead, the conversion value of one’s points into retirement benefits varies over time subject to negotiation.

Workshop Highlight: Paris, France

The public portion of the French second pillar system is designed so that compulsory contributions go into pension funds operating under the guidelines of one of three national federations: one for civil servants IRCANTEC, and two historically separate federations for private sector workers: ARRCO for manufacturing and agricultural sector employees, and AGIRC for white-collar workers and executives. In January 2019, the latter two programs merged, resulting in a unified supplementary pension scheme called AGIRC-ARRCO. The terms ARRCO and AGIRC describe both the pension schemes and the oversight bodies that supervise the schemes.

These schemes are DC-type plans that operate on a PAYG basis. That is, each year, the contributions going into the schemes are used to pay the obligations of the scheme that same year. In return for their contributions, workers are allocated pension points, which are calculated by dividing their annual earnings by the cost of the pension point. The cost or value of a pension point is negotiated through collective bargaining. This “points account” accrues annually until retirement when the worker’s retirement income is calculated by multiplying the total number of pension points accrued by the pension-point value at the time of retirement.

As of 2017, the AGIRC-ARRCO and IRCANTEC funds were invested approximately 60/40 in bonds/equity, with the latter having a small component in real estate. Private market exposure is minimal.

Another interesting type of pension scheme is the notional account scheme (sometimes called notional defined contribution [NDC]) that is used in the public plans of Sweden and Italy. This type of scheme resembles a DC scheme in the sense that workers have individual accounts, and that a rate of return is applied to their contributions. NDC schemes, however, generally are publicly provided and apply a rate of return that is set by the government, rather than the market. The asset managers of the plan must then attempt to minimize or negate any shortfall risk between these two rates of return.

Workshop Highlight: Stockholm, Sweden

The Swedish system can be used as an illustrative example of a notional DC system. In Sweden, the second pillar has both a public and private component. The public second-pillar component, which is financed by a mandatory 18.5% contribution rate, is itself split into two systems: the premium pension and the income pension.

The premium pension is the smaller portion, which directs 2.5% (out of the total 18.5% of salary contribution) to individual investment accounts, which allow employees to choose from a finite menu of funds when making their investment decision. This is the typical occupational DC system found in many countries.

The income pension directs the remaining 16% of salary and invests it equally into four funds known as AP Funds (AP-Fonden). Here, the money is recorded in notional individual accounts (although functionally all the contributions are pooled; hence, the term notional DC). The NDC structure in Sweden means that the AP Funds do not need to worry about unpredictable transfers of funds between AP plans and, therefore, have a DB-like liquidity requirement. As a result, these funds historically have invested quite extensively in alternative assets, ranging from real estate to private equity and hedge funds. As of end 2017, the First AP Fund (AP1) had approximately 30% of AUM in alternative assets.45

5.2.2. Life Insurance as a Savings Mechanism

Apart from explicit pension products, another form of retirement planning that can be observed in continental Europe is the use of life insurance products as a form of retirement saving. France is the largest market in the euro area with 35% of assets managed by euro insurers.46

Insurance products can include a savings and investment component (known as cash value account), which sees a portion of the policyholder’s premium payment being invested in a tax advantageous manner. Policies also differ depending on who bears the market

risk, either policyholders\textsuperscript{47} (unit-linked policy) or the insurer giving the capital guarantee (euro-denominated policies). The former policies typically have higher equity allocations, whereas the latter are invested more heavily in bonds.

The cash value is separate from the death benefit and beneficiaries do not receive it when the policyholder passes away (the insurer keeps it). Therefore, the policyholder must make use of it while still alive. The policyholder can take advantage of this cash value component by taking out a policy loan,\textsuperscript{48} by either partially or fully withdrawing the funds, or by using the account to pay the insurance premiums. They also can receive this amount if the policy is surrendered. Withdrawals from the policy’s cash value reduce the death benefit by the same amount or by a greater amount (due to fees), depending on the specific type of whole life insurance.

Other strategies to take advantage of the insurance policy to supplement retirement income include converting the insurance policy into a life annuity. The annuity is funded by the cash value account and also by the sale of the life insurance policy in the secondary market. In the case of sale, the policyholder receives money up front (the amount usually being greater than the policy’s cash value and lower than the death benefit), and the buyer of the policy becomes the new beneficiary and is responsible for paying the premiums. Finally, life insurance sometimes can be used to fund long-term care expenses by reducing the death benefit and the cash value (this is known as accelerated death benefit).

The private-market implications of this type of retirement savings is that worker contributions are managed and invested by insurance companies and therefore fall under the remit of the Solvency II Directive.\textsuperscript{49} Amendments to this Directive have been designed to facilitate insurance companies’ investments in long-term sustainable projects, such as infrastructure and small and medium enterprises (SMEs), through the reduction of capital charges against such assets. At the time, this was in line with the Capital Markets Union Action Plan’s objective of mobilizing and channelling funds to the real economy.

The Solvency II legislation does not require insurance companies to invest (or not) in particular categories of assets. Instead, it requires that insurance and reinsurance undertakings

\textsuperscript{47} The unit-linked market is typically considered most promising for alternative asset allocation.

\textsuperscript{48} A policy loan is a loan from the insurer in which the cash value is used as collateral. If the policyholder dies while the loan is outstanding, the death benefit received by the beneficiaries will be reduced by the amount of the loan. If the value of the loan, including interests, exceeds the cash value, the life insurance policy will lapse.

should invest in assets and instruments whose risks can be properly identified, measured, monitored, managed, and reported as well as accounted for in the assessment of the solvency needs.

A recent legislative change that affects the dominant French insurance-based investment product market is the so-called PACTE law, which translates as Action Plan for Business Growth and Transformation. While covering a broad range of issues, such as the regulation of initial coin offerings (ICOs), it also aims to increase the use of DC schemes (rather than insurance products) by French savers. The changes introduced by PACTE are informed by experience in other markets, particularly the United Kingdom, and include expanding the universe of investable products (including private investments), introducing favourable tax treatment of pension contributions, and introducing new ways to access pension savings upon retirement (e.g., lump sum withdrawals).

5.3. Linking Retail Investors more Directly to Private Markets

Systems like notional DC or life insurance products (and, indeed, DB schemes or even some DC schemes) allow pension savers to indirectly gain exposure to alternative investments by granting the fund managers operating such schemes some discretion to invest savers’ contributions in alternative assets or funds as part of their portfolio management. There is also a movement to allow retail investors to directly purchase alternative investment products. Such efforts often are controversial because it is debatable whether it is responsible to encourage retail investors to purchase products known for illiquidity and complexity. It is also unclear what could incentivise private firms to seek capital from a large number of individual small retail investors.

In the 2018 Capital Formation report, CFA Institute concluded that any move to systematically increase savers’ participation in private markets likely would need to be done through a professional intermediary layer. Such an intermediary would be able to provide the scale, expertise, and professionalism necessary to navigate the complexity and information asymmetry of private markets.


Although not designed explicitly to provide access for retail investors to private markets, ELTIFs are EU Alternative Investment Funds that are available for purchase by retail investors and are managed by investment management firms regulated under the EU Alternative Investment Fund Managers Directive (AIFMD).

ELTIFs are intended to provide long-term finance to infrastructure projects (sustainable energy, transport, communication and social infrastructure), listed SMEs as well as unlisted companies. ELTIFs are also meant to provide attractive investment opportunities for pension providers, insurance companies, and other institutions that seek long-term returns and face recurrent liabilities, as the structure of these funds should allow for steady income streams over time.

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52 Some 70% of assets must be invested in equities and bonds issued by Italian or Italian-registered companies and 30% of these equities and bonds (i.e., 21% of investable assets) must be in SMEs not included in the main index (FTSE MIB).

53 Financial Times, https://www.ft.com/content/6b5461b8-0127-11e8-9650-9c0ad2d7c5b5.


An ELTIF is allowed to invest only in eligible investment assets\textsuperscript{56} and UCITS-eligible assets. Although a typical private equity fund unlikely will be eligible as an investment under the ELTIF, the ELTIF regulation does provide an interesting example of how retail investors and illiquid investments, such as private equity, could interact. For example, to ensure portfolio diversification and limit counterparty risk, an ELTIF’s investment in any given eligible investment asset is limited to no more than 10% of capital.

Another interesting feature of ELTIFs worth considering in the context of this report is that because of their illiquid nature and the need for investors to lock up their capital for the full term of the investment, ELTIFs generally will not offer regular redemptions before the end of their life. To incentivize investors (especially retail investors), however, the manager of an ELTIF may decide whether to offer early redemption rights to investors, provided certain conditions are met. Should an ELTIF not be able to satisfy investors’ redemption requests within one year, the investors may be allowed to solicit the winding down of the ELTIF.

To enhance the liquidity profile of ELTIFs, the regulation allows for the trading of units or shares of these funds on regulated markets and multilateral trading facilities. This offers investors the opportunity to sell their units or shares in secondary markets, before the end of the life of the ELTIF.


European savers can gain access to private markets, or at least a subset of private markets, through several means, as illustrated in Figure 6. At a retail level, there is no accessible way to invest in private-market firms (short of outright purchase or partnership) or projects other than through crowdfunding or ICOs. We ignore the possibility of direct investments into real estate as this market is universally accessible and therefore of limited interest to the report. A limited set of products, however, enables direct retail investor access to private-market funds sold by institutional product manufacturers. These include regulated products, such as ELTIFs or Italian PIR funds.

Indirect access to private-market investments also is available through public Pillar II schemes and insurance policies. In both cases, savers delegate investment authority subject to relatively lengthy lock-up periods (early redemption is possible but for large fees) to institutional investors, including insurance companies or asset management funds like the AP Funds in Sweden. Because of the medium- to long-term time horizon afforded by the explicit lock-up periods, these funds have a more DB-like liquidity horizon and thus are able to invest relatively more in private markets compared with private DC schemes.

Today and for the foreseeable future, however, DC schemes are an increasingly dominant way to organize retirement investing. If private-markets are to play a more significant role in savers’ retirement portfolios, the ability of DC schemes to invest in private markets needs to be addressed.

Existing products can be leveraged to increase access to private markets in the following ways:

- expand the universe of eligible assets for ELTIFs or create a similar noninfrastructure asset wrapper;
- expand the use of tax-advantaged investment accounts that use lengthy lock-up periods to reduce the liquidity mismatch problem of investing in private markets;
- expand the ability of DB pension and insurance funds to invest in private markets; and
- expand the ability of DC pension funds to offer nondefault fund options with significant allocations to private markets.
In pursuit of these objectives, however, CFA Institute believes the following challenges need to be addressed in a manner consistent with market fairness, market integrity, and investor protections:

- **Value for money**: The focus of regulators on low cost as the key metric of value for money may need to change. For example, charge caps, such as those imposed on default funds under DC schemes in the United Kingdom, would need to account for the higher expenses involved in the structurally complex private-market strategies.

- **Eligible assets**: The universe of permitted investments on such funds as UCITS or ELTIFs may need to be reviewed to enable DC schemes to participate in private-market investments.
Disclosure: Private-market funds likely will need to adjust their disclosures on costs and charges to increase the transparency of the fees paid by investors. It also may be necessary to review their traditional fee structure if attracting DC assets is deemed a priority.

Pooling resources: The issue of access is an important one even for large DC schemes because of the restricted nature of many private-market funds. It seems likely that consolidation or pooling of small schemes would be necessary to generate enough scale to participate meaningfully in private markets. In the United Kingdom, the Master Trust structure already has been encouraging this trend.

CFA Institute acknowledges that there is a strong argument for increasing participation of DC schemes in private markets. Such investments, however, do not guarantee outperformance of public markets, and these investments come with significant risks and uncertainty for savers. These investments also will challenge the existing daily liquidity paradigm that exists in the DC industry — a challenge that may be overdue.