In recent years, both the United Kingdom and the Netherlands have introduced significant changes to the way defined contribution (DC) pensions can be accessed. This article examines the changes and reflects on how each country’s DC savers have responded. We also consider what each country might learn from the other when planning for future DC pension provision.

Accessing DC pensions in the UK and the Netherlands

**The UK’s pension freedoms**

The UK introduced its so-called ‘pension freedoms’ in 2015. These allowed people retiring with DC pension pots the freedom to withdraw money with very few restrictions. Before this, most new retirees had to purchase insured annuities, which were proving increasingly unpopular due to the low interest rate environment. With a few conditions, people can now access their pension pot as and when they wish. This might be as a single lump sum, a regular income, or a combination of regular income and lump sums as and when required.

Accompanying these reforms was a system of auto-enrolment, which made it compulsory for companies to offer pensions to employees. This introduced more employees to work-based pension saving, many of whom had never previously saved through their employer. Almost all these new savers are now in DC pension funds.

The pension freedoms proved popular. The latest statistics from the FCA show that only 10% of DC pension pots were converted into annuities, while 35% were partially withdrawn or converted into drawdown policies where a regular income is taken. The remaining 55% were fully withdrawn, a trend we will discuss later in this article.

**Dutch DC access options**

As with the UK, up until a few years ago the main option for Dutch DC investors was to purchase an annuity at retirement. ‘Glidepath’ design was therefore focused on this end-goal for pension fund members.

In 2016 legislation was introduced to allow investors to continue investing after retirement. However, the Dutch legislation is more restrictive than the options offered under the UK pension freedoms. In particular, the Dutch system requires that providers pool or insure longevity risk for members, while also requiring that the income payable to members is based on a regular annuity calculation.

These variable pensions are colloquially referred to as ‘doorbeleggen’ in the Netherlands, which roughly translates as ‘continued investment’ (after retirement).

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1 There was an option to maintain your pension pot and draw down from it at a rate specified by the Government Actuary’s Department, but this was only available for pensioners with sufficient stable income from other sources, such as state pension and defined-benefit pension.

2 Financial Conduct Authority half-yearly data on retirement income (October 2019-March 2020).
Despite the possibility of continued investment after retirement, 94% of Dutch DC pension scheme members are still receiving a fixed annuity as their pension\(^3\). Although there has been much less take-up than the options offered in the UK, providers expect the percentage to increase over time. This slow start may have a lot to do with the default options offered by Dutch pension providers, which by law are still mostly required to target an annuity. This contrasts with the UK, where many default options now target drawdown rather than an annuity.

### Table 1: Overview of the UK and Dutch systems for DC pension savers

<table>
<thead>
<tr>
<th>Pension income</th>
<th>The only choices at present are an insured annuity, variable DC pensions via an arrangement with pooled or insured mortality risk, or transfer to a defined benefit arrangement where this is possible.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pension income</strong></td>
<td>Savers can choose to take their pension pot as single or multiple lump sums, to purchase an annuity, or to draw down from their pot over time. A combination of these options is also possible.</td>
</tr>
<tr>
<td><strong>Choice of investments</strong></td>
<td>The choices available to DC investors vary considerably by employer, pension provider and the type of investment. Some pension platforms offer a very wide range of funds. For trust-based providers, the ranges may be more restricted, but there will usually be a reasonable choice. Despite the choices available, 95% of participants in trust-based schemes invest in a default strategy(^4).</td>
</tr>
<tr>
<td><strong>Choice of investments</strong></td>
<td>DC pensions in the Netherlands generally offer some choice, whether a choice of glidepaths which members can follow, or a selection of asset categories from which they can build their own investment portfolio. However, the choice is generally much more restricted than a UK DC pension arrangement might offer.</td>
</tr>
<tr>
<td><strong>Tax</strong></td>
<td>Pension contributions are before tax (but with an annual and lifetime allowance). Pension income is 25% tax free, with the remainder taxed at the individual’s marginal income tax rate. The tax-free amount can also be taken as a lump sum (see below).</td>
</tr>
<tr>
<td><strong>Tax</strong></td>
<td>Pension contributions are before tax (up to given limits), with pension income taxed at the individual’s marginal rate.</td>
</tr>
<tr>
<td><strong>Lump sums</strong></td>
<td>In the UK, after the minimum age, pension savers have flexibility to take lump sums from their pensions. This could be the entire pot in one transaction or a series of withdrawals. It is popular to take 25% of the total pot as a lump sum at retirement, as this is tax free.</td>
</tr>
<tr>
<td><strong>Lump sums</strong></td>
<td>Lump sums are not currently permitted, although will be introduced at the beginning of 2023 for a maximum of 10% of capital.</td>
</tr>
<tr>
<td><strong>Mortality risk</strong></td>
<td>It is generally only possible to insure DC pensions directly against mortality risk via an insured annuity product. Products which combine drawdown with life insurance are in theory possible, but there have been few products and little take-up.</td>
</tr>
<tr>
<td><strong>Mortality risk</strong></td>
<td>Longevity risk must be insured or pooled. This ensures that pensions last a lifetime, but also means there is no pension pot to pass on when a member dies, apart from as a partner pension, if this was selected.</td>
</tr>
</tbody>
</table>

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\(^3\) ‘Evaluatie Wet verbeterde premieregeling’, Ministerie van Sociale Zaken en Werkgelegenheid, 11 November 2019

\(^4\) The Pensions Regulator: DC trust: scheme return data 2019 – 2020
Inheritance of pension

Annuities can include a partner pension, but there is no pension pot to provide inheritance after death. For drawdown options, any remaining pension pot is not subject to inheritance tax, but if you die after age 75, income tax is payable by the beneficiaries.

All options involve sharing mortality risk, so there is no residual pot available on death. However, partner pensions are common under both annuity and variable pension options.

Pension contributions

Contributions are a minimum total of 8% of defined earnings (of which employers must pay a minimum of 3%).

In 2019 the average was 6.7% by employers and 3.0% by employees.

Contribution restrictions vary by age, so pension funds also tend to vary contributions by age. For older scheme members, contributions of 30% or more are common.

Contributions are normally a percentage of an adjusted salary above a given threshold, intended to allow for state pension accrual.

Source: Aegon Asset Management and sources identified in footnotes.

We can see from Table 1 that there are clear differences between the DC pension provision across both countries. The Dutch system is still relatively protective of a member’s pensions, with a focus on providing an income for life. The UK’s pension freedoms have liberalised how DC pension pots may be used. This creates advantages for individuals in how they can use their pension pots, but also risks. We discuss these below.

Advantages and risks of each country’s system

Freedom to take lump sums

The UK’s pension freedoms have led to many people using their DC pension pots as a source of lump sums. This can be very useful and improves the utility of that money for individuals, for example funding holidays while they remain in good health; home improvements which they will benefit from for the rest of their retirement; paying-off an outstanding mortgage; or providing large gifts to children.

Many of those people retiring with DC pensions also have relatively substantial defined benefit and state pensions. Using their DC pension quickly at the start of retirement may therefore make sense for some. However, there remain risks to individuals, such as unnecessarily high tax charges, or not having the money available later in retirement to meet unforeseen costs, such as long-term care.

There is also evidence that many people are holding their pension in cash or cash-like investments. If this is a long-term solution it creates the potential for long-term underperformance versus invested assets and the loss of purchasing power due to inflation.

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5 Willis Towers Watson FTSE 350 DC Pension Survey 2019
6 FCA Retirement Outcomes Review 2018
Pooling or insuring mortality risk

The UK’s pension freedoms have created a system where most people with DC pensions are continuing to maintain individual pension pots after retirement (or are using up their DC pension pot soon after retirement). As discussed above, this offers greater flexibility. It also means that any money left when the individual dies can be inherited by their spouse or children. However, it also means that they are running a risk of outliving their pension pot and then, if they have no other sources of income, relying on the state pension. This risk is likely to affect an increasing number of people as the numbers relying only on DC pensions for their retirement income increases.

The Dutch system prioritises providing a pension income for life. By only permitting solutions which pool or insure mortality risk and which only pay out a sustainable income, individuals will not risk running out of money. For both annuities and variable pension solutions a partner pension can also be incorporated into the pension provision, so that partners continue to receive an income after the pension scheme member dies.

The mainstream option in the UK for insuring against longevity risk is an annuity. There are investment-linked annuities, although these are not common and the market is dominated by level, fixed-increase or inflation-linked annuities. We expect that other options will emerge over time. This may be via Collective Defined Contribution schemes, for which legislation is soon expected. However, we believe this will be an additional option, rather than a replacement for the current freedoms, given their popularity. Individuals may also be hesitant to use such vehicles if they then lose the flexibility of having an individual pot of money.

Investment choice

The choice of investments in the UK is generally much wider than in the Netherlands, although it does vary. Contract-based pension schemes using a platform may be able to invest in a wide range of funds and even individual stocks, but trust-based pension schemes are likely to offer a more limited choice.

This choice benefits people who want to make their own investment decisions about asset allocation and manager selection. There is a risk that individuals without sufficient expertise make choices which are not suitable for their circumstances and suffer underperformance, particularly if they do not take financial advice. A wide choice also only benefits a small number of pension scheme members, since an overwhelming proportion of people remain in a default strategy. This suggests that a priority for DC pension providers should be to get their default strategies right.

What should a DC post-retirement solution look like?

There is certainly no single correct answer to this question. Any solution will need to consider what is permissible and what individuals require from their DC pension after retirement.

Currently, both the UK and the Netherlands have a large proportion of people retiring with DC pensions who have also built up relatively large DB pensions. This means these people will have different goals for their DC pension than if they were fully reliant on DC pension income. In the UK, this may mean pensioners want to take their DC pension as lump sums early on in their retirement. In both the Netherlands and the UK, it may mean individuals are happy to take more risk with their DC pension in the hope of achieving better returns, because they know they have the protection of a large DB pension.
In the Netherlands, variable pension providers are offering a range of different post-retirement investment strategies. Percentages held in risk assets (such as equities, property, high yield bonds and emerging market debt) vary considerably from 5% up to over 40%. These differences are likely to reflect different target markets of the providers and what the products are expected to provide in terms of increased expected pension versus annuities.

Allocations to risk assets are necessary if variable pension solutions are to offer a meaningfully higher expected pension than annuities. The question is how much potential variability in income providers believe members can tolerate? The risk assets influence the level of capital and hence how much income can be taken. But interest-rate hedging is also important for variable pensions, as the amount of income is also determined by an annuity calculation using current interest rates. Government bonds and credits (sometimes alongside swap funds) therefore also make up a large part of variable pension solutions.

In the UK, drawdown investment strategies offered by providers also allocate to varying proportions of risk assets but between 20% and 40% is common. The focus for these strategies is growth and capital stability. Without the regular annuity calculation for how much income can be taken, interest-rate hedging is not a primary concern. However, government and corporate bonds are still likely to make up a high proportion of the drawdown allocation, as these provide long-term stability relative to riskier assets, as well as offering a premium over cash.

To illustrate how a typical Dutch variable pension strategy might compare to a typical drawdown strategy, Figures 1 to 3 show a comparison of outcomes for individuals retiring at age 65 under a simplified post-retirement investment strategy of 30% equities, 70% government bonds in three different economic scenarios – one in which equities perform in the middle of an expected range, one in which they perform badly, and one in which they exceed expectations. Further details of the scenarios are available in the appendix.

The charts show the pension paid each year in real terms (to make a fair comparison between years) from a pot of 100k in local currency at retirement. To compare the fixed annuity and variable pension (“doorbeleggen”) strategies with a pure drawdown strategy (where longevity risk is not insured or pooled), we have used the 4% rule. This is a popular drawdown strategy which involves paying an annual pension of 4% of the initial fund value and increasing it with inflation each year. For this strategy we have also shown the remaining capital of the member, so that the benefit to their beneficiaries is also available to compare. There is no residual capital for the fixed annuity and variable pension strategies, as this is the source of the longevity protection.

This is the fundamental difference between drawdown and variable pensions – with a pure drawdown strategy, the remaining capital remains the pensioner’s (and will pass on to their estate if they die), but they do not receive the additional returns offered from longevity protection, which will ensure a lifelong pension can be paid. Note that we have not considered the tax implications of any of the strategies.
Figure 1 – Mid-range equity performance

Figure 2 – Equity underperformance

Figure 3 – Equity outperformance

Source: Aegon Asset Management. See Appendix for more details of assumptions.
We see from Figures 1 to 3 that the variable pension (‘doorbeleggen’) strategy of pooling risk comes into its own when people live to higher ages. For the AG 2020 mortality rates used, at age 65, more than half of people are expected to live to 86 years of age and more than a quarter to 91. While not shown, looking at the cumulative real pension received, and including any residual capital left to pass on in the 4% withdrawal case, in all three scenarios pensioners would be better off (receive more money in real terms) with the variable pension if they lived to around age 85 or older.

We should note, however, that the variable pension strategy modelled assumes that mortality is in line with the expectations of the group. If the realised experiences were worse or better, this would impact the results.

As we would expect, a fixed annuity does have benefits in the negative equity performance scenario. A fixed annuity implicitly has a lower risk investment strategy and its only variability is relative to inflation. It therefore comes off better when the other strategies suffer from equity volatility, but without the expected long-term performance.

The 4% strategy is clearly preferable where the pensioner does not reach their mid-eighties. In this case they have residual capital to pass on to their children, which compensates for the lower pension received to that age. However, from their mid-eighties the strategy suffers, even in the equity upside scenario, where we can see that the capital is run down by age 98. There are clearly other drawdown strategies which could be pursued, for example a fixed amount which does not rise in line with inflation or pursuing a higher allocation to equities. However, the general picture will remain the same – the longer you live, the greater the benefit of longevity pooling or insurance.

The variable pension strategy shown here may cause some concern in terms of volatility of pension and the fact that much of the extra value emerges later in life, implying people who die younger will not receive such good value from the additional expected returns and longevity protection. This was addressed (or is being addressed) in several ways by the Dutch system:

1. There is an allowance for pension providers to factor in some of the expected outperformance in their annuity calculations. For example, an assumed reduction in pension of 1% each year would lead to a higher initial pension, with the expectation that the equity (or other risk asset) outperformance would make up for this assumed reduction.

2. There is also the option for pension providers to smooth the changes in pension amount. This is not universally applied, but many providers do apply some smoothing.

3. As discussed in the previous sections, the option to take a lump sum of up to 10% of capital will be introduced from 2023. This will then allow a limited amount of pension capital to be available to the member for their free use, without the restrictions of longevity pooling.

Although this analysis is simplified and only looks at three scenarios, we believe it illustrates well the benefit of longevity pooling. As they enter retirement, most people have very little idea what age they will live to and there is evidence that people generally underestimate their likely longevity. For the significant proportion who will live beyond their mid-eighties, longevity pooling removes the risk of running out of money. This is particularly important for people without a defined-benefit pension to rely on and for whom the state pension will not be sufficient to provide a comfortable later retirement.

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7 The AG tables are actuarial tables for Dutch life expectancy maintained by the Dutch Royal Actuarial Society (KAG) and updated biennially.
Conclusions: What we can learn from each other’s DC pension systems

| Growing role of DC pensions in both markets | Both the UK and the Netherlands have well-developed occupational pension systems, of which DC is an increasingly important element. We expect this trend to continue, with an increasing proportion of people retiring in the future who will rely more significantly on DC pensions (alongside state pensions) for their retirement income. |
| Contribution levels are higher in the Netherlands | Perhaps the most important element influencing pension outcomes is how much money is invested into them. Dutch DC pension funds generally offer much higher contribution levels than their UK counterparts. However, the UK’s automatic enrolment legislation has greatly improved the level of pension saving, although the levels of average contributions remain much lower than in the Netherlands. There is likely to be pressure in the UK to increase average contribution levels. |
| The importance of default strategies | The new UK system offers significant freedom to people saving into and retiring with DC pensions. As we have discussed, this has advantages and disadvantages. Given that most people still invest in their pension fund’s default strategy, there is pressure on pension providers to offer suitable default strategies. Some UK providers do not offer a default, which leaves the potential for people to make sub-optimal decisions, particularly if no advice is taken. In the Netherlands a default strategy (or strategies) for post-retirement is normally an integral part of any variable pension product. |
| Netherlands offers security over flexibility | By opting for a system which ensures pensioners receive a lifelong income, the Netherlands is offering a secure system and one which avoids adverse selection. Coupled with relatively high pensions through high contribution rates, the Netherlands is often seen as a leader in pensions provision globally. The downside of offering this security is that there may be significant numbers of people, particularly those with sufficient income from other sources, who cannot optimise the utility of the pension pot they have accrued. We expect the Netherlands to observe how the UK’s liberalised system develops. It is certainly not an ‘either/or’ choice and there is plenty of middle ground. Indeed, the Netherlands is already planning to allow some commutation of pension at retirement. |
| UK market needs to embrace lifelong income | In the upcoming years, the UK market is likely to need to offer methods of providing lifelong income to people who will largely rely on DC pensions in retirement. Most people are not financially sophisticated and will need help to do this. They may, however, also perceive the current insured annuity options as offering insufficient value unless interest rates rise significantly from their current levels. Post-retirement default strategies which offer an income for life are therefore likely to become a necessity. The introduction of variable pensions in the Netherlands offers an example of how this could be achieved. |
| The price of popularity | One thing the Netherlands should be wary of is how popular the UK’s pension freedoms have been with the media and the public. So much so, that it would now be very difficult politically to remove these freedoms. Looking ahead, changes to the UK system are therefore likely to focus on seeking additional solutions for large groups of pensioners with similar financial issues (such as a need for a lifelong income), rather than changing to a more restrictive system for everyone. |
Appendix: Modelling assumptions

For the modelling of the outcomes under the three economic scenarios we adopt certain assumptions. Firstly, we show the assumed evolution of equity (total return) indices, as well as the changes in swap rates under the three scenarios.

**Figure 4: Equity index performance under three economic scenarios**

<table>
<thead>
<tr>
<th>Age</th>
<th>65</th>
<th>70</th>
<th>75</th>
<th>80</th>
<th>85</th>
<th>90</th>
<th>95</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equities - mid-range scenario</td>
<td>100</td>
<td>1,000</td>
<td>10,000</td>
<td>65</td>
<td>70</td>
<td>75</td>
<td>80</td>
<td>85</td>
</tr>
<tr>
<td>Equities - outperformance scenario</td>
<td>100</td>
<td>1,000</td>
<td>10,000</td>
<td>65</td>
<td>70</td>
<td>75</td>
<td>80</td>
<td>85</td>
</tr>
<tr>
<td>Equities - underperformance scenario</td>
<td>100</td>
<td>1,000</td>
<td>10,000</td>
<td>65</td>
<td>70</td>
<td>75</td>
<td>80</td>
<td>85</td>
</tr>
</tbody>
</table>

**Figure 5: 10-year swap rates under three economic scenarios**

<table>
<thead>
<tr>
<th>Age</th>
<th>65</th>
<th>70</th>
<th>75</th>
<th>80</th>
<th>85</th>
<th>90</th>
<th>95</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swap rate - mid-range equity</td>
<td>0.0%</td>
<td>1.0%</td>
<td>2.0%</td>
<td>3.0%</td>
<td>4.0%</td>
<td>0.0%</td>
<td>1.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Swap rate - equity outperformance</td>
<td>0.0%</td>
<td>1.0%</td>
<td>2.0%</td>
<td>3.0%</td>
<td>4.0%</td>
<td>0.0%</td>
<td>1.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Swap rate - equity underperformance</td>
<td>0.0%</td>
<td>1.0%</td>
<td>2.0%</td>
<td>3.0%</td>
<td>4.0%</td>
<td>0.0%</td>
<td>1.0%</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

Further assumptions:

- We assume that the 30%-70% split between equities and government bonds is rebalanced annually.
- We use the AG 2020 male mortality rates for calculating annuity rates for the fixed annuity and variable pensions. Annuity factors are calculated using the swap curve at the relevant point in time, with no adjustment for any expected outperformance. Factors are based on male single life annuities although the characteristics of the outcomes will be very similar for other cases.
- We do not make allowance for fees, either for the fixed annuities or the management of ongoing investments.
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