Innovation in sustaining the pension fund model – inspiration from Holland
The Dutch “DB” model

- A DB solution that morphed into DC
- All risk sits with the members
- One asset allocation mix
- 10 year smoothing of investment returns
- Same indexation rate for everyone
- Pay-as-you-go element in a funded scheme

Did Escher design this pension scheme?
The Dutch Disease

Dutch "DB" pension funds have:
- Unclear property rights
- Intergenerational transfers
- In-transparent
- DB accounting in collective DC
- Etc.

The Dutch “DB” or CDC

Final wage to career average wage,
Full indexation to conditional indexation

Roof on contributions
Cutting pensions in payment

Lower costs
Take risk in pay out phase

Quality

The Dutch “DB” or CDC

DC

Life cycles

Year


240x462
WHAT IF THE DESIGNERS OF THE OLD DB WOULD JOIN US TODAY?

A thought experiment
Objective

Building a stable retirement income,
with individual flexibility and choice

– If you don’t know what you are saving for,
any pension scheme will get you there!
Principles of Pension Design

BEHAVIOURAL

STABILITY

RISK-SHARING
The governance challenge...

Market imperfections

Agency issues

Behavioural biases
In theory

CAN AN INDIVIDUAL LIFE CYCLE BE AS GOOD AS THE DUTCH MODEL?
Amazing insight (1)

Wow – an Dutch collective scheme can be replicated by a DC solution with a very specific individual life cycle!

Source: Ortec, Cardano, CPB etc.
Current Dutch Pension Funds

Aha, we can unbundle the risks in current Pension Fund contacts.
## Make customised packages

This package is made for a ‘young’ employee (up to age 55)

<table>
<thead>
<tr>
<th>The individual</th>
<th>The collective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can bear exposure to interest rate sensitivity</td>
<td>No interest rate hedge</td>
</tr>
<tr>
<td>Desire exposure to equity risk premium</td>
<td>Risk is not hedged (and should not be pooled)</td>
</tr>
<tr>
<td>Family protection in case of disability</td>
<td>Risk is pooled, charge premium</td>
</tr>
<tr>
<td>Family protection in case of death</td>
<td>Risk is pooled, charge premium</td>
</tr>
</tbody>
</table>
Different packages during life

During retirement it is possible to share life related risks and still have individual investment profiles!

Working

Retired
Mortality return is more important than the asset return at older ages. This is why pooling individual longevity is welfare increasing...
Amazing insight (3)

We can separate biometric return from financial return
Let’s get practical

HOW TO DESIGN A GOOD SOLUTION FOR THE FUTURE?
Step 1: Replicate current contract

If we are satisfied with the current solution then we use it to anchor the new design!
Step 2: Define specific building blocks

**Current**
- Stocks
- Bonds
- Overlay

**Proposed**
- **Growth assets**
  - Targeting real + 3%
  - Can be dynamic over time
  - All members have units in this type of portfolio
- **Nominal income**
  - Targeting stable cash flows
  - Members in each vintage have the same portfolio

Two building blocks make it possible to offer individual design possibilities without making the implementation very complex.
## Step 3: A simple and good default

<table>
<thead>
<tr>
<th>Age group</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working (Up to 55)</td>
<td>Exposure to growth assets targeting real returns.</td>
</tr>
<tr>
<td>Transition (55 to 67)</td>
<td>A gradual shift towards income assets. At the retirement the member has 20% in growth assets.</td>
</tr>
<tr>
<td>Retired (67 and more)</td>
<td>Move into the sustainable pay-out solution with a 20% individual buffer (growth assets)</td>
</tr>
</tbody>
</table>

This is the default choice, determined by the board. Experience shows that around 90% of the members will stay with the default.
Intermezzo: pay-out phase

The Growth portfolio serves as an individual buffer:

i) Retirement income is ‘protected’ against unexpected increases in systematic longevity

ii) Some compensation for purchasing power via sustainable indexation

At the end of each year, the changes in systemic longevity is captured by the growth portfolio. The reminder of the growth portfolio will be used to grant a sustainable indexation percentage for next year.

- Compensate changes in longevity
- Sustainable indexation
### Step 4: Add choice

<table>
<thead>
<tr>
<th>Age group</th>
<th>Alternatives A</th>
<th>Alternatives B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working (Up to 55)</td>
<td>Static and passive investment approach (low cost)</td>
<td>Dynamic investment approach</td>
</tr>
<tr>
<td>Transition (55 to 67)</td>
<td>Transition begins earlier than 55</td>
<td>Transition begins later than 55</td>
</tr>
<tr>
<td>Retired (67 and more)</td>
<td>Fixed nominal annuity</td>
<td>Variable annuity</td>
</tr>
</tbody>
</table>

The possible choices for the members are determined by the board. Approximately 10% of the members make choices.
KEY TAKE AWAY
Yes, it is possible!

- A flexible solution for today's labor market
- Built in the spirit of the designers that made the original DB scheme...
- ...using modern tools and technology.
- Collective implementation in a mutual.

This is really far from the 401(k) products sold in the US...