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## Explaining the growth of funded pensions: A case study of the Netherlands

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# WORKING PAPER

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# EXPLAINING THE GROWTH OF FUNDED PENSIONS: A CASE STUDY OF THE NETHERLANDS

Dirk Bezemer<sup>1</sup>

## ABSTRACT

Explaining the growth of funded pension systems is a major project in political economy. Drawing on the financialization and growth models literatures, this is a case study of recent pension fund growth in the Netherlands. Newly digitized data show almost continuous net fund inflows since their post-war inauguration, while since 2006 per-worker contributions have risen by half and annual costs, mostly investor remunerations, rose to almost a third of annual benefits. The ageing-based rationalization of investments is questioned based on demographic and pension fund data. The drawbacks of pension investments in terms of investment costs, macroeconomic volatility, loss of effective demand, and financial fragility are examined. Using the lens of the political economy of finance-led macroeconomic growth models, an alternative explanation for pension fund growth is developed. Post-2000 continued pension fund expansion in the era of managed money was financially necessary to cover investors' remunerations, and was a conduit for the investment of strongly rising international inflows. The costs of the funded system were obscured by the academic discourse on pension funds in terms of neoclassical models, treating pensions as financial assets. Since academia and policy are part of the same epistemic community, this fed into a policy discourse centered on continuous worries and painful reforms, leaving no policy space for consideration of alternatives to funded pensions. Insights from this case study have wider applicability to economies with funded pension systems.

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# Explaining the growth of funded pensions: a case study of the Netherlands\*

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Explaining the growth of funded pension systems is a major project in political economy. Drawing on the financialization and growth models literatures, this is a case study of recent pension fund growth in the Netherlands. Newly digitized data show almost continuous net fund inflows since their post-war inauguration, while since 2006 per-worker contributions have risen by half and annual costs, mostly investor remunerations, rose to close to third of annual benefits. The ageing-based rationalization of investments is questioned based on demographic and pension fund data. The drawbacks of pension investments in terms of investment costs, macroeconomic volatility, loss of effective demand, and financial fragility are examined. Using the lens of the political economy of finance-led macroeconomic growth models, an alternative explanation for pension fund growth is developed. Post-2000 continued pension fund expansion in the era of managed money helped cover investors' remunerations and was a conduit for the investment of strongly rising international inflows. The costs of the funded system were obscured by the academic discourse on pension funds in terms of neoclassical models, treating pensions as financial assets. Since academia and policy are part of the same epistemic community, this fed into a policy discourse centered on continuous worries and painful reforms, leaving no policy space for consideration of alternatives to funded pensions. Insights from this case study have wider applicability to economies with funded pension systems.

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# Explaining the growth of funded pensions:

## A case study of the Netherlands

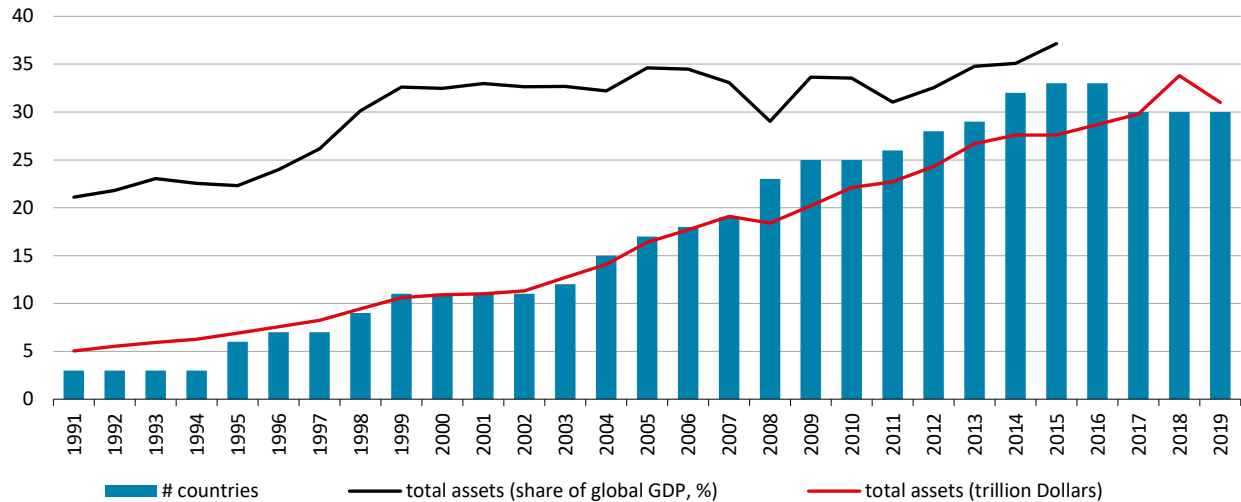
### 1. Introduction

This is a study of pension fund capitalism, exemplified in a case study of the Netherlands. The term ‘pension fund capitalism’ (Toporowski, 2000, 2020; Dixon, 2008) captures the connection between a particular way of providing for old age and the wider economic system. Funded pensions have always existed in capitalism, but they became a global paradigm for old-age provision in the 1980s. As postwar welfare state capitalism gave way to the era of the ‘Market Turn’ (Offer, 2017), funded pensions suited the new consensus that markets should be central to society’s arrangements.<sup>1</sup> Between 1980 and 2000, dozens of countries privatized and ‘funded’ their pension systems, while existing funded systems increased their scope, coverage and financial sophistication.

Like other elements of the ‘Market Turn’ socio-economic model such as privatization, financial liberalization and free capital flows, the institutionalized promotion of funded pensions enlarges global investible asset markets, in direct support of the total returns (yield plus capital gain) falling to rentiers. Therefore, with the ascent of financialized capitalism in the 1980s, the advantages of funded pensions were becoming firmly embedded in the global conventional wisdom of international organizations<sup>2</sup> such as the G8, OECD, IMF and World Bank, in national central banks and Treasuries and even in trade unions and other non-government organizations (Brooks, 2005).

Over time, the ‘pension fund revolution’ (Drucker, 1995) mobilized so much of disposable incomes for financial investments – a genuine ‘money flood’ (Clowes, 2000) - that pension funds came to inflate, dominate and shape the global financial markets for decades (Toporowski, 2000, 2020). Since 1991, global pension assets increased sixfold and they doubled as a share of global GDP (Figure 1). Currently assets valued at over thirty trillion dollar<sup>3</sup> (equivalent to a third of global GDP) are managed by pension funds or on behalf of pension funds. The Dutch pension fund system is the largest of all and the only one among the big funds that continues to net invest. To the best of my knowledge, to date no academic study exists in which an explanation for these exceptional facts is pursued<sup>4</sup> and used as a lever to better understand drivers of the growth of funded pensions globally.

**Figure 1: The global growth of pension funds, 1991-2019**



Notes: The Figure shows an underestimation of OECD members' pension fund assets by at least 10 per cent since pension fund assets in the UK amounted to 3.6 trillion Dollars in 2019 (Statista.com), over ten per cent of the 33 trillion Dollars for the 2019 OECD total in the figure. This is not added since there is no time series data available. Of the 37 OECD countries, there are also no time series data for France, Lithuania and Portugal. From 2014, missing annual values for Colombia, Costa Rica, Denmark and the US were imputed using YoY sample-average growth of asset values. Van der Zwan (forthcoming) reports 41.3 trillion in total in 2019. The global GDP data series of the St Louis Federal Reserve was discontinued after 2015.

Sources: OECD Pensionstats, St Louis Federal Reserve data base.

Notwithstanding a policy and academic consensus in favour of funded pensions, there is no compelling case in the *economics* of funded pension that they generally outperform PAYG systems (Ortiz et al., 2018). Because the amounts of money involved and the scope of the social and economic effects are both so large, pension funds and their reform are a continuing political battleground. Indeed, a key claim of the present paper is that the *political economy* of pension fund capitalism, including the narrative it creates, offers a more powerful explanation of the uniquely large funded pension system in the Netherlands than demography and saving needs, factors that usually dominate the economics debate (see Berry, 2021 for a similar approach to the UK pensions system).

This claim is developed in a case study, where the unusual situation in the Netherlands is used as something akin to a 'natural experiment', allowing us to identify political economy factors more clearly than in other settings. It is argued that the commonly quoted logic of aging (pension investment needs to accelerate as the worker/pensioner ratio is set to fall) is unlikely to hold for the Netherlands, drawing on Ten Cate (2019). This is exceptional. For other countries, the need to save is real, so that other drivers to do with the political economy of pension fund capitalism are obscured or cannot be isolated. For the Netherlands, the situation is different. By the pension fund logic that is propounded in the public debate, a country that had saved enough would stop. It will be argued that the Netherlands is such a country - and yet

it continues to save. This provides a unique setting to ask the question: why?, and to shed new light on the logic of pension fund expansion, other than the ageing-related need to save.

The answer to that question will be that financialization has its own logic, quite separate from the needs of pensioners which are typically invoked to rationalize more saving. When continued capitalist growth predicated on rising asset prices has become the growth model, pension funds serve other needs than to ward off a needy old age. Therefore, after introducing Dutch funded pensions in the next section, in section 3 the conceptual lenses of financialization and growth models are introduced. In section 4 an analysis of Dutch pension data and demography is presented, questioning the need to save more. This is followed by a discussion of the drawbacks of pension investments in terms of direct costs, macroeconomic volatility, loss of effective demand, and financial fragility.

In the face of these costs, and without an ageing-related need to save, an alternative explanation for pension fund growth is required. This is developed using the lenses of financialization and growth models in section 5, focusing on the system, the actors, the epistemic community and the discourse of pension fund capitalism. Previewing the results, a dissection of pension fund data shows that continued pension fund expansion in the era of managed money helped to pay for strongly rising investor remunerations. It was also a much-needed conduit for the international investment of large foreign inflows. It is argued that academic, pension funds and policy actors moved within an epistemic community where the discourse framed pension fund analysis in terms of neoclassical economic models. This framing supports the ageing narrative and obscures the four categories of costs of the funded system. Insights from this case study have wider applicability to economies with funded pension systems.

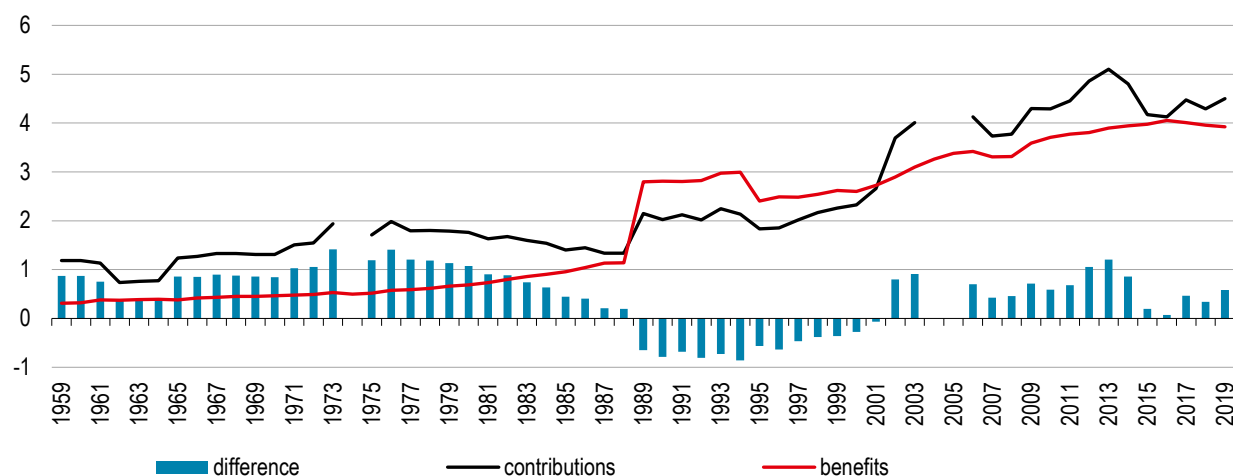
## **2. The Dutch pension system: an international comparative view**

Old-age provisions in the Netherlands consist of three tiers.<sup>5</sup> The publicly administered pay-as-you-go (PAYG) nationwide ‘Algemene Ouderdoms Wet’ (AOW, the first tier) system is paid out of the state budget. This is supplemented by the semi-private pensions funds for separate industries and enterprises (240 funds in total), the second tier and the focus of this paper. The third pension system tier is any additional private savings that individuals may have accumulated at their own initiative.

For an average employee in 2020, the first and second tiers jointly absorbed 25% of earnings in mandatory pension contributions (OECD, 2021).<sup>6</sup> Employers typically pay more into the funds than employees, with the distribution between employer and employee contributions varying from 50/50 to 70/30 (Tamerus, 2009). With the exception of the years 1989-2001, annual contributions have continued to exceed benefits, as is clear from newly digitized data (Figure 1). In this sense, most of the time investments

were not financially necessary for pension benefits. The excess of benefits over contributions was used to pay the pension funds and to accumulate financial wealth.

**Figure 2: Contributions, benefits and net inflows of Dutch pension funds (%GDP), 1959-2019**



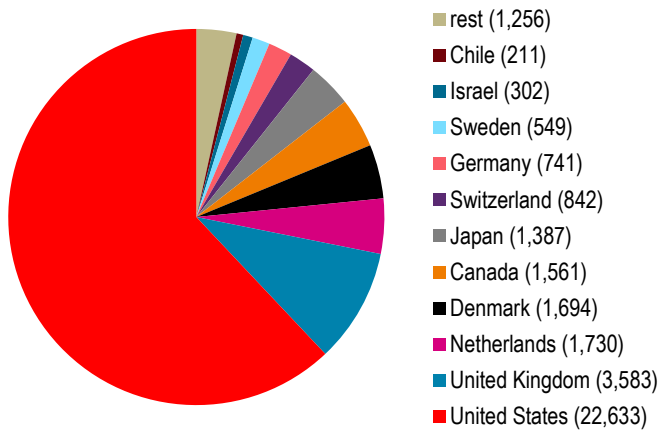
Notes: The increase in both contributions and benefits in 1989 is due to the addition of the ABP pension funds to the data. ABP was publicly owned from 1982-1995. Data for 1974 and 2004-2005 (contributions and benefits) and 2001-2005 (benefits) were not available; the benefits, which follow a smooth path around the omissions, were interpolated. Sources: Newly digitized data from Pensioen- en Verzekeringskamer, annual reports (1959 - 2002); DNB table 8.4 ('Baten en Lasten') (2006-2020).

The size of the transfers from contributors to pensioners increased from half a per cent of the gross domestic product in the 1950s to 4 per cent in 2019. But each year, money in addition to the transfer was saved and invested in the financial markets. This excess saving was large, on average 0.5 per cent of GDP annually over 1958-2019. In the decade to 2019, pension contributions exceeded pension benefits by 15 per cent on average; for instance in 2019, contributions came to 36.5 bn euro, compared to 31.8 bn euro paid out in benefits. In this way, each year incomes – both wages and profit – are net extracted as organized savings under compulsory participation regulations<sup>7</sup>, channeled into the pension funds and invested in the financial markets. The official rationalization of this wealth is that it is necessary to pay for future pensioners' consumption. For the investment companies working for pension funds, it generates fees in proportion to the wealth.

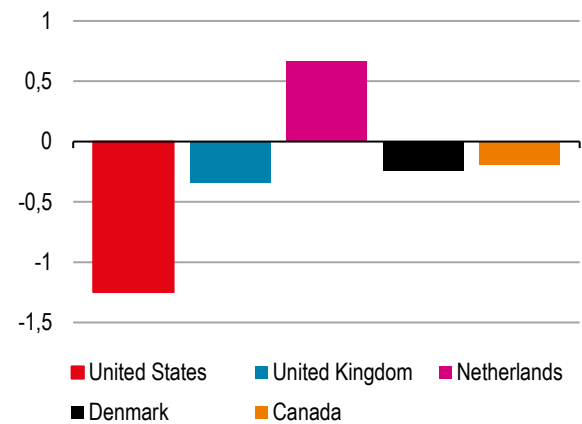
The expansion of the Dutch funded pension system followed the global rise of financialized capitalism. Its growth was modest at first, from 14 per cent of GDP in 1959 to 20 per cent in 1980, then during era of the global 'pension fund revolution' Dutch investments as a share of GDP rose *tenfold*. There are financial giants among the funds, such as the ABP fund catering to the public sector and education sector, which manages 462 bn dollar in investments; it is the fourth largest fund in the world. More details about the structure and development of the Dutch pension system are provided in the Appendix.

The Dutch pension system is sometimes lauded as ‘the best pension system in the world’, based on a ranking by pension savings relative to national income compiled by the financial services company Mercer.<sup>8</sup> Pension investment came to 1,924 bn euros in 2020, more than twice the Dutch GDP. This is exceptional: in relative terms it is the largest ‘pension savings pot’ in the world. In terms of funds invested it comes third globally, after the UK and US (Figure 3a). And it continues to grow. Between 2000 and 2020, pension fund assets double relative to GDP and quadrupled in nominal money terms. This also is exceptional. Of the five largest pension fund economies, four have matured: they pay more in pensions than they collect in contributions. But the Netherlands – the oldest of them all - maintains positive net saving (Figure 3b).

**Figure 3:**  
**(a): pension assets by country (2017, bn Dollars)**



**(b): net investment in the five largest funds, per cent of GDP in 2019**



Source: OECD global pension statistics. Data for Lithuania, Costa Rica, Sweden, France, Portugal, Ireland, Denmark and the United Kingdom are not reported in OECD global pension statistics and are taken from Statista.com (2019 data).

### 3. Methodology: pension funds as part of the growth model of financialized capitalism

The premise in this paper will be that the evolution of funded pensions is best understood by viewing them as integral part of the wider economic system rather than as an expression of individual pensioner’s saving preferences, a common viewpoint in the economics’ pension literature (e.g. Barr and Diamond, 2006). Other pension fund studies that take this approach include Biondi and Sierra (2018). They show that pension fund management practices have developed so as to promote active financial markets, rather than strictly in line with the needs of maintaining intergenerational solidarity, the avowed *raison d’être* of pension funds.



In this view, pension fund expansion responds not primarily to pensioners' needs but to the needs of the dominant actors in the financialized economic systems, and to the stability of that system.

This approach can be usefully located in the growth models literature (Baccaro and Pontusson 2016) within the wider field of political economy. Here it is recognized that if the system we are studying is growth-oriented capitalism, then the system's logic can be captured by asking the question: what is it that drives growth in this system? Theorists working in this tradition (Baccaro and Pontusson 2016) and in post-Keynesian macroeconomics (Lavoie and Stockhammer, 2013; Hein and Vogel, 2008) have distinguished wage-led growth, profit-led growth, export-led growth and finance-led growth as alternative growth models. The growth paths of wages, profit, export and financial assets can each generate the dynamics and financial liquidity that drives national-income growth. Typically, they also and simultaneously generate tensions that undermine their growth-supportive role, after which the economy evolves into a new growth model (Toporowski, 2020).

Since the 1990s, the finance-led growth model has been on the rise (Guttman, 2016). In this context, pension funds evolved from mere transfer systems to become leading engines of financial and real estate market expansion (Drucker 1995; Braun, 2021). These markets in turn have evolved to become major factors in macroeconomic expansions and contractions. Simultaneously, the new finance-led growth model has been generating the rising inequality and instability that erodes the basis for its continued expansion. Just so, pension fund expansion supports the logic of that system and generates trends that undermine it, as will be analyzed in section 4. Rent extraction by financial actors has increased (section 5) alongside cuts in pension benefits and pension system reforms, which generated social tensions and policy conflicts (section 7).

The key concept in theorizing both the logic and its erosion is 'financialization' (Arrighi, 1994; Krippner, 2005; Van der Zwan, 2018) - the term used to indicate problematic sides of what is otherwise benignly called 'financial development'. Financialization differs from the traditional perception of financial markets (which informs mainstream pension debates) in which the markets help allocate savings to productive uses (e.g. Mishkin, 2020, ch 12). As in the case of pension funds, a consensus developed in the 1980s that financial markets should be 'liberalized' from state regulation and ownership in order to function well. Since then, financial markets, with pension funds as major players, have grown so large that they transformed the economies and societies they are supposed to serve.

Since the 2008 financial crisis, the mainstream narrative around financial markets has changed. Their effects can be harmful as well as helpful – that is, 'financialization' is now widely accepted to be real. In the financialization perspective, "the dominance of financial motives, financial markets, financial actors and financial institutions over the operation of the domestic and international economies" (Epstein 2005) are subjects of study. The very term 'financialization' used to be near-absent from the economics discourse, but much like other formerly heterodox terms (such as 'neoliberal'), it has now shed its taboo status.<sup>9</sup> Articles

about the systemic problems of outsized financial systems in terms of income losses, inequality and rent-seeking now appear in ‘flagship’ economics journals (Philippon and Resheff, 2011; Arcand et al., 2015).

This critical turn in mainstream academic economics has so far not extended to the study of pension funds, even though pension funds are pillars of the global financial markets. In economics, pension fund evolution is understood as resulting from the needs of (current and future) pensioners. This micro-economic lens excludes any political economy factors by construction as well as any feedbacks from pension funds to the economy.

This contrasts to the field of political economy (including growth models scholarship), where pension fund capitalism is a recognized subject of critical inquiry. For the purposes of this paper, to take a political economy approach as distinct from a (neoclassical) economics approach will mean three things: to study the system qua system, and not reduce it to a representative household or firm; to identify central actors and study their interests and their scope to pursue their interests; and to study the reigning discourse or narrative that typically serves to further these interests and to reinforce the acceptance of the idea of funded pensions (Brooks 2005, 2007). The system, actors and discourse of financialized capitalism will provide the lens for the present case study of the most ‘pension-funded’ economy in the world. In conclusion of this section, briefly consider each in turn.

As to the system, the size and structure of pension funds affects macroeconomic outcomes such as distribution, aggregate demand and stability: pension funds are major entities determining the nature of varieties of capitalism (Van der Zwan, 2020). Therefore, it is appropriate to speak of ‘pension fund capitalism’ (which substantially overlaps with the ‘finance-led growth model’) as a system. The study of pension fund capitalism as a category by itself is broadly similar to Minsky’s (1996) recognition of the replacement of industrial capitalism by ‘money manager capitalism’, in our time also described as ‘asset manager capitalism’ (Braun, 2021).

As to the actors, pension funds, by providing so much liquidity to the capital markets, have elevated money managers and asset allocators to become central actors in the global economy (Toporowski, 2009; 2020), and pension fund administrators live in increasing proximity to these financial market actors (Dixon and Sossa, 2009). The interest of financial market actors is naturally in total returns (yields on assets plus capital gains), hence the dominant discourse centered on these financial-market values, at the neglect of other values (such as macro-economic stability, effective demand and lower inequality).

As to that discourse, this is the discourse of neoclassical economics. Neoclassical economics is an epistemic framework, which defines the terms in which economic issues shall be perceived and discussed (Boumans and Davis, 2015) within the community which accepts those terms (the epistemic community; Miller and Fox, 2001). The terms of the neoclassical discourse are individualistic, optimizing and market-based. Pensions are viewed as financial assets in individual ownership, optimally allocated on behalf of

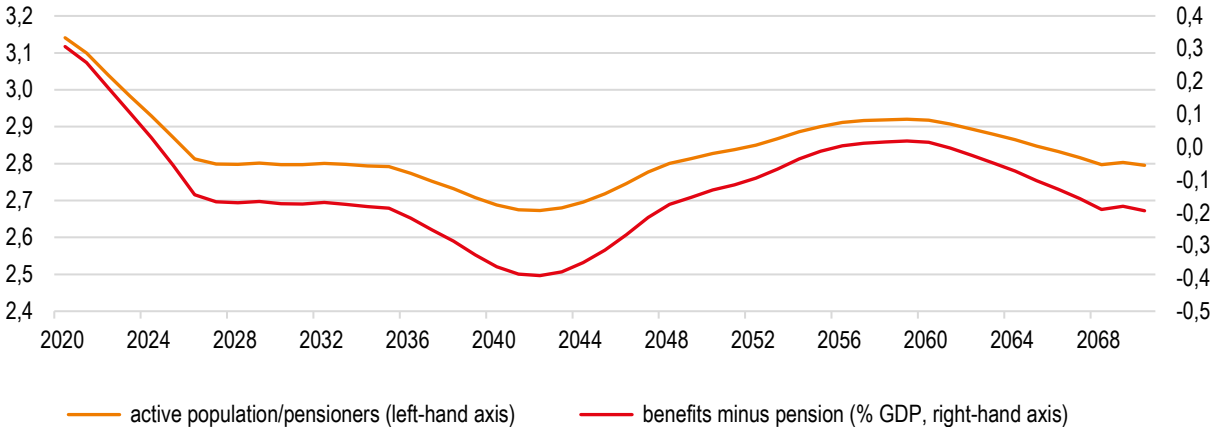
future pensioners according to their preferences. This discourse supports the narrative that financial-market returns are good for everyone, obscuring their costs. They are especially beneficial, even necessary, for those paying the pension contributions that continue to lift the capital markets, with only a modest and merely facilitating role for financial-market actors, according to the narrative. The necessity arises, so the narrative continues, because aging trends mean that future pensioners can only be financially secure with continued and increasing pension fund investments. This discourse and the narrative it supports are explored in more detail in section 6.

In the next section the case study begins with examining this claim and other elements of the narrative for the case of the Netherlands. This will create the analytical scope to turn to political economy factors which interact with actors, system and discourse in sections 5, 6 and 7, respectively. Section 8 concludes.

**4. Examining the need for savings**

One way to evaluate the need for continued savings is to explore the consequences of the alternative. Figure 4, building on Ten Cate (2019:139), shows demographic projections based on official data, assuming a benchmark pension system covering all workers (employees and others) from 2020 which is fully PAYG, i.e. with zero funding from investments. Aging is a temporary challenge. The official demographic projections data show that the ratio of the Dutch working-age population to pensioners falls from its current value of 3.2 to a trough of 2.7 in 2042 (assuming a rise in pensionable age to 69.5 years in 2042), then rises back to 2.9, falling in the 2060s to 2.8.

**Figure 4: Demography and projected shortfall of pension contributions, 2021-2070 (% GDP)**



*Author’s computations, based on Ten Cate (2019), with thanks to Martin ten Cate.  
 Data sources: Netherlands Statistical Bureau (population projections) and De Nederlandsche Bank (pension data).  
 Data and projections are available on request. The assumptions underlying this graph are that productivity growth is 0.5 per cent and inflation is 4 per cent annually.*

The assumption underlying the benchmark projection is that pension contributions are fixed at 25 per cent of earnings (as they are at the moment of writing in 2022). This ensures that the pension burden does not increase over time. Contributions are fully disbursed as pension payments. This results in an annual surplus or deficit, which is the difference between contributions and pensions. Starting with historical data in 2020, the demographic projections can be combined with different assumptions on inflation and productivity growth to yield annual projections for this shortfall of pension contribution with respect to pensions. This would be the cost of the PAYG system (plus operational costs, which are small: they are 0.1 bn in the first tier PAYG ‘AOW’ system). With benefits paid out of contributions that are fixed as share of earnings, the gap between per-pensioner money benefits and per-worker contributions declines proportional to the worker/pensioner ratio.

As a percentage of GDP, the deficit falls to 0.2 per cent of GDP annually by 2035 and then declines further to the trough of 0.4 per cent of GDP in 2043. After 2065, it moves between 0 and 0.2 per cent of GDP. In money terms, the costs do not exceed 3 bn in the first 15 years of the projection period, compared to the year 2020 with costs of 9 bn for running the funded system. (Since all is nominal, the shortfall in money terms increases over time, but not in per cents of the GDP.)

This is a benchmark; its aim is not to propose a detailed and realistic real-world system, but to demonstrate in broad brush that saving and financial investments are not necessary to pay pensions that are stable relative to GDP from contributions that do not rise relative to GDP. Note that the 2020 level of pension assets (1,974 bn) does not come into this projection; the existing second-tier pension entitlement would be *additional to* the projected PAYG system or could be used in any other way.

A large number of refinements would be added in practice. Nominal GDP growth will not be stable over time as in this simulation, and a stabilization fund could be included in the set-up, perhaps with investments resulting from the initial surplus position, or from existing pension assets, or from the public balance sheet. Operationally, the question would be who managed the PAYG system, since it is nationwide rather than the current firm-specific and industry-specific funds.<sup>10</sup> One could imagine a public institution removed from politics, much like the central bank; in fact, the existing first-tier AOW administration could be expanded and its governance adapted to do this.

These and other issues are important in practice, but not for the question that this benchmark projection is designed to answer: is past saving, leading to the uniquely large current investment, necessary to pay pensions in the future? And is future saving required? The answer is no and no, provided a public (or in any case collective) institution is inaugurated which manages the modest annual costs of a no-saving, no-investing, nationwide benchmark PAYG pension system. For purposes of comparison, the accumulated shortfall over 2020-2070 in nominal money (196 bn euros) comes to only 10 per cent of year 2020 investment of 1,974 bn euros. So even if the idea were that past savings are needed for future shortfalls,

and even assuming (unrealistically) average zero returns on the year 2020 assets, even then 90 percent of year 2020 savings will not be needed in the next half century. In sum, this benchmark simulation serves to question the idea that the continued rise of pension contributions and investments is required for the second-tier system to survive the coming onslaught of aging.<sup>11</sup>

How can this assessment be reconciled with the consensus in the Dutch and international academic pension analysis communities that there is too little rather than too much saving in the funded pension system? The principal reason is the impact which the terms of the discourse have on reasoning about pensions, as explored in more detail in section 7. Future pensions are interpreted as financial assets that must be purchased at the time of retirement with the discounted money value of current and future pension fund investments at the moment of writing. Assets are discounted at the 2022 rate of 1,3 per cent that the pension funds are obliged to use in their financial reporting. The low interest rates undermine pension funds' perceived financial sustainability, necessitating more saving. In contrast, in the computation of PAYG pensions underpinning Figure 4, future pensions are interpreted as a tax on future incomes. They are rather a share of the community's value-added in the future which grows rather than shrinks, than a future financial asset that must be discounted. This is where the vastly different assessments come from.

Another part of the difference in viewpoint is that any need for saving needs to be set against the drawbacks of funded pensions. These drawbacks are ruled out by construction in neoclassical economics, as will also be discussed in section 6. They include (1) the direct financial costs, (2) reduced effective demand, (3) lower financial resilience, and (4) larger macroeconomic volatility. Consider each in turn.

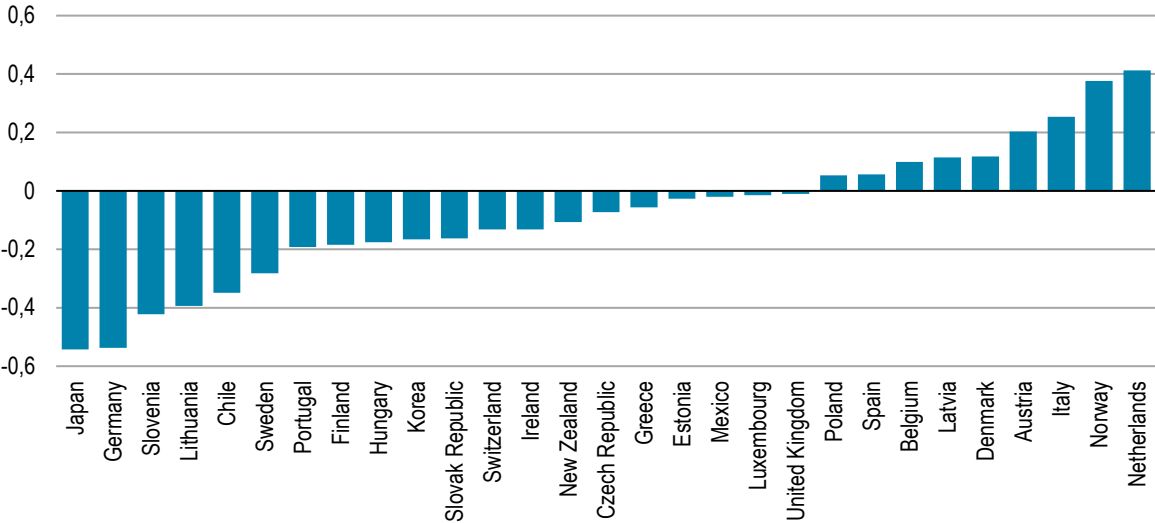
The direct financial costs of running the pension funds over the years 2006-2020 (for which we have the data) was 25 bn euros. The additional costs of remunerating the professional investors came to 50 bn euros over these years. The annual costs of supervising pension funds (absorbing 113 full-time jobs in De Nederlandsche Bank) are budgeted at 32 million euros (DNB, 2021). In comparison, a PAYG system is much cheaper. In the year 2019, the AOW PAYG system serving 3 million pensioners cost 100 million euros to run, including staff remunerations. This is a tiny share of the 9 bn euros in investment and operational costs for the pension funds in 2020, serving 3 million pensioners and 6 million contributors.

Another cost of saving more than is needed for current pension benefits is lower household spending and hence aggregate demand. Continued saving was not the natural result of an increasing number of active contributors (see Figure A1b) but of more extraction of pension savings per contributor. These rose by half over 2006-2019.<sup>12</sup> Low levels of spending in the Dutch economy have been a drag on economic growth at least since the great financial crisis (Storm, 2021). This is not helped by the institutionalized net investment, i.e. contributions in excess of pension benefits amounting to 4 per cent of GDP in 2019 (Figure 2). Spending is also depressed by the transfer by young households (who would otherwise spend more of their incomes) to wealthy, older household (who spend less of it), further reducing effective demand.<sup>13</sup>

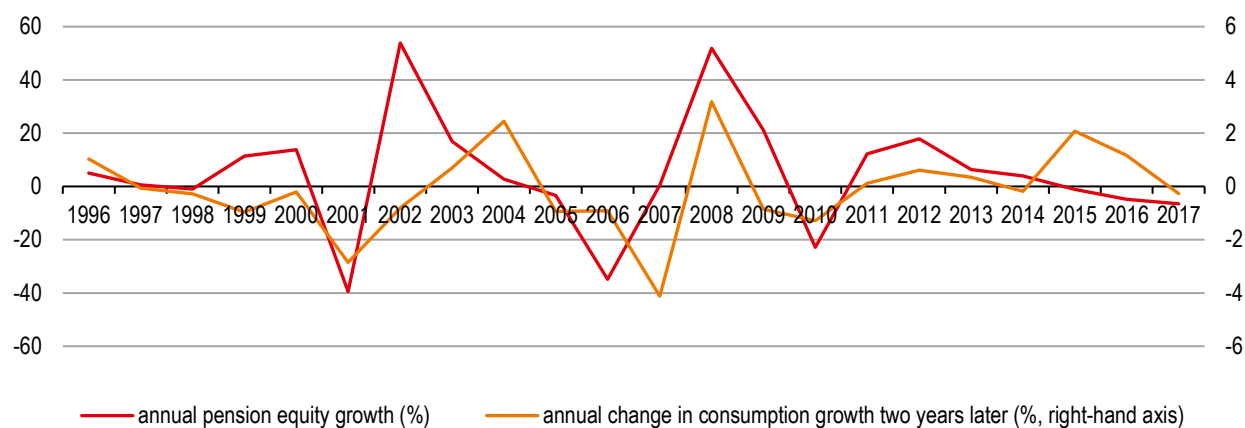
It is difficult to explain this as distributional policy, the common rationale of pension systems. Dutch senior citizens above 65 years of age enjoy disposable incomes that are equal to the average for the rest of the population.<sup>14</sup> Their poverty rate is only a third of the national rate, while their net wealth exceeds wealth in other income brackets (CBS, 2020). The Dutch funded pension system is regressive in wealth terms, taking disposable income from those with little net wealth and giving it to those with large net wealth. The drain on disposable incomes was especially problematic since simultaneously, many households, including those paying pension contributions, had insufficient access to ready cash in the face of shocks to their incomes or assets. In an economy where one in five households is behind on paying their bills, pension funds taking about a quarter of wages, are a problem.<sup>15</sup>

High and inflexible forced pension savings decrease the resilience not only of household finances, but of the macroeconomy (WRR, 2016:127; Bezemer, 2021) through inflated and variable asset prices (Toporowski, 2000:29-46; 2009) which affect investment and consumption (Tori and Onaran, 2018, 2020; Ludwig and Slok, 2002). With a 0.41 bivariate correlation coefficient of changes in net pension equity and changes in lagged private consumption expenditures over 1995-2019, this volatility is larger in The Netherlands than in *any* of the other 31 OECD economies for which the National Accounts data are available (Figure 5a).<sup>16</sup> Changes in pension equity and the lagged change in the growth of consumption in The Netherlands move tightly together (Figure 5b).<sup>17</sup> Funded pensions so make the economy vulnerable to the turbulence of the international financial markets.

**Figure 5:**  
**(a): Correlations between net pension equity change (%) and change in private consumption expenditures growth 2 years later (pp change) in OECD economies, top panel**



**(b): Net pension equity change (% , left-hand axis) and change in private consumption expenditures 2 years later in The Netherlands (pp change, right hand axis)**



Source: National Accounts.

Yet another drawback of funded pension systems is opacity and the privileges this gives to the highly educated and those who can afford professional financial advice. The funded pension system is opaque both with respect to the financial structure of pension payments, investments and costs, and with respect to regulations, including tax treatment. The problem of opacity, which is equally present in Dutch tax and mortgage finances, is glossed over under the assumption of consumers' financial literacy. In practice financial literacy is quite low on average.<sup>18</sup> Van Rooij et al. (2011) find for the Netherlands that those who are more financially knowledgeable are more likely to plan for retirement. Financial advice does not help here. The financial markets watch dog AFM (2019:34) reports that 89% of pension fund members in the Netherlands do not use (and are probably unaware of) their options to invest according to a personalized risk profile, or to use opt out possibilities; they all 'choose' the default investment plan. The reason may well be that use of this option requires that members report to a pension fund adviser their financial position, financial knowledge and experience, financial goals, and their risk appetite. The implied assumptions about pension fund members fit the *homo economicus* assumptions in neoclassical pension fund models (section 7), whereas in reality most pension fund members will struggle to know what risk appetite is. All this implies that more opaque retirement arrangements bequeath privileges to the highly educated and those who can afford professional financial advice. Opacity also hinders broader participation in the public debate about the pension system, solidifying the confines of epistemic communities (section 7).

In sum, continued net saving appears not financially necessary to maintain pensioners' income and it is harmful in terms of increased volatility, loss of effective demand, increased financial fragility and opacity. Therefore, from the point of view of (future) pensioners and the macroeconomy, it is puzzling why Dutch pension asset investments continued to expand in recent decades.

## 5. The political economy of pension fund expansion: financial-market actors

By applying a financialization lens, several explanations for this puzzle come into view. The financialization perspective involves the recognition that the financial sector has developed dynamics of its own, unmoored from needs and trends in the real sector that the financial sector is supposed to support. In the financialization perspective - unlike the conventional neoclassical perspective (see section 6) - there is scope for the views and preferences of financial-sector actors (such as professional investors) to determine outcomes, and room for a financial logic to determine macroeconomic trends. This suggests several reasons for continued pension fund expansion in the Netherlands.

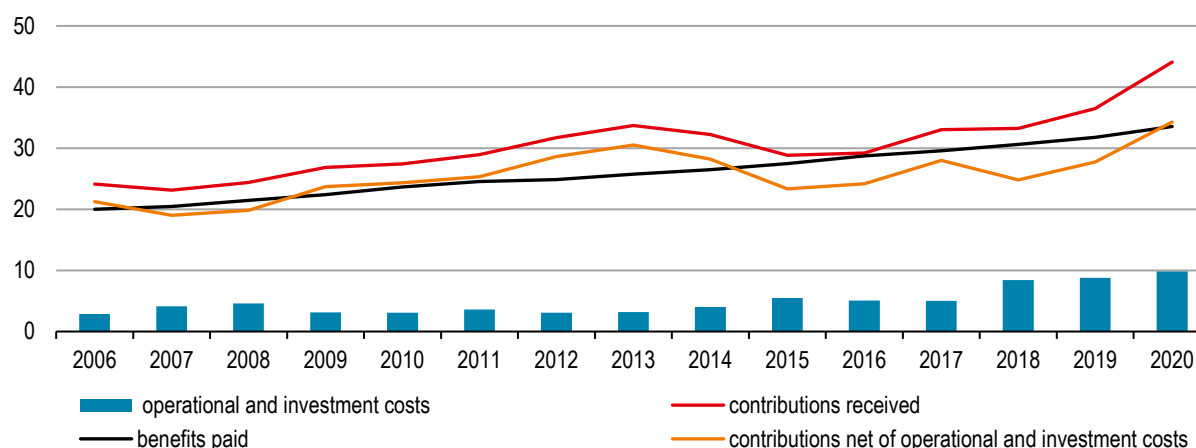
The first reason is that the remuneration needs in the financial sector are large, and that financialization has meant that they have increased steeply. Financial-sector incomes, which include incomes paid in pension funds and investment funds, were already 30 per cent higher than other incomes in the Dutch economy in 1995 and they rose to become 60 per cent higher than other incomes in 2019.<sup>19</sup> Plausibly much of this rise is unearned rents rather than earned income linked to creation of value-added.<sup>20</sup>

The publicly available data on the remunerations paid for running the Dutch pension funds and investing the contributions go back only to 2006. They came to between 3 and 4 bn annually from 2006 to 2013, but from 2014 they rose to 8.4 (2018), 8.8 (2019) and 9.8 bn euros (2020). Almost all of this rise went to the 'costs' of investment (*'beleggingslasten'*) which quadrupled from 2006 to 2020, from 1.9 to 8.0 bn euros. As a share of benefits, the costs rose steeply from 14 per cent in 2006 to a staggering 29 per cent in 2020. Given regulations, this created a need for continued expansion, and hence it may be a part of the answer to this paper's central question. The level of contributions as well as the indexation of benefits were linked to a mandatory assets/obligations ratio (the *'dekkingsgraad'*). A pension fund's assets should exceed a percentage of its future pension obligations, discounted at the risk-free rate of return. If the ratio falls below this threshold, less indexation and increased contributions must ensure a recovery within 15 years. (see the Appendix for further details).

While since 2001 annual pension benefits could be paid from annual pension contributions, contributions *net of investment and operational costs* fell short of the annual benefits (Figure 5) – so that contributions needed to rise to also cover the asset allocators' bonuses and other remunerations without a decrease in mandatory assets/obligations ratios.<sup>21</sup>



**Figure 6: Pension fund contributions, benefits, returns and costs 2006-2019 (bln euros)**



Source: DNB table 8.4 ('Baten en Lasten').

For instance, in May 2021, the largest Dutch pension fund ABP reported that performance-related bonuses (paid in addition to regular wages and salaries) came to 1.54 bn euros over the year 2020. This was unusually large since 2020 was an exceptional year in the capital markets. Still these bonuses were always one billion euros or more in recent years (Wolzak, 2021). If eating into the investments to pay these bonuses is not an option, then higher bonuses necessitate higher net contributions for the 1.15 mln active ABP contributors. Indeed, following the rise in bonuses in 2020, ABP announced that the 2021 contributions as a per centage of wages would rise from 24.9 to 25.9, noting that this was “necessary in order to finance pensions in a responsible manner”.<sup>22</sup> Other ways to finance the bonuses and other costs are to suspend indexation, which ABP has done since 2009.

This strong rise in investment remunerations may be connected to a striking change in the manner of investment, away from the traditional shares and bonds portfolio. In 2008 the asset classes ‘investment fund shares’ and ‘other securities’ of Dutch pension funds amounted to 200 bn euros each; by 2020 they had rising to 850 bn and 560 bn euros, respectively. Derivatives had increased from 50 bn in 2008 to 200 bn in 2020.<sup>23</sup> To manage these assets, pension funds have increasingly relied on asset management companies (such as Vanguard and BlackRock), where performance-related remunerations are the norm. In 2020 about half of all Dutch pension fund assets were in such asset management companies (or ‘investment institutions’), up from one fifth in 2007 and one twentieth in 2002. This additional middleman, used to performance-related bonuses in addition to the regular remuneration, adds to the remuneration costs for pension funds<sup>24</sup>, driving up the contributions and fueling continued pension fund expansion. In section 4 it was suggested that this was not necessary from (future) pensioners’ perspective. Here we find that it may have been necessary from a financial-market actors’ perspective. This is how financialization helps explain pension fund growth.

Part of the answer to this paper's central question, then, is that perhaps Dutch employees and companies continued to pay so much into pension funds because without this, the remunerations for pension funds and the investment funds that work for them could not be financed without depressing the assets/obligations ratio further. Clearly it was not in the interest of these financial companies to explain that from a pension payments perspective, there was no need for the investments that formed their source of income. Helpfully, there was no demand for such explanations since pension fund growth is not problematized. This absence of critical questions in turn can be understood by turning to the economic system of which funded pensions are a part (section 6), and the discourse about funded pensions (section 7).

## **6. The political economy of pension fund expansion: macroeconomic system**

In the growth models prism adopted in this study, institutional arrangements can be understood in the context of the wider economic system. The acceptance of continued net saving in the Netherlands was plausibly related to the international payments position and tax status of the Netherlands. Pension savings offered a much-needed way to invest the large Dutch trade and investment inflows abroad. This is not to say that investing export earnings, multinational profits and individual wealth abroad was the premeditated rationale for the growth of the funded pension system. But whereas in other contexts the drawbacks (see section 4) of skimming off income to invest it abroad might have raised critical questions, this was less likely to happen in a country with exceptionally large and growing inflows that needed to be invested.

The Dutch current account fluctuated between 0 and 5 per cent of GDP until the end of the 1980s and then started on a long climb upwards that would take it to above 10 per cent in 2019. It is the fourth biggest current account surplus in money terms globally after Germany, Japan and Russia. A major source of international investments balancing the current account surplus is that for tax reasons, many multinational companies and 'Special Financial Institutions'<sup>25</sup> are domiciled in the Netherlands. Their profit and other income is lightly taxed at Dutch rates and then invested abroad. Also, much individual wealth is channeled through the Netherlands, which is pivotal in the international tax avoidance system (Merkies, 2021; for an assessment of evidence see Gunn et al, 2020).<sup>26</sup> The relevance to pension funds is that the Netherlands' tax haven status enlarges inflows and outflows of foreign currency investment, providing foreign currency and a financial environment conducive to pension fund investments.

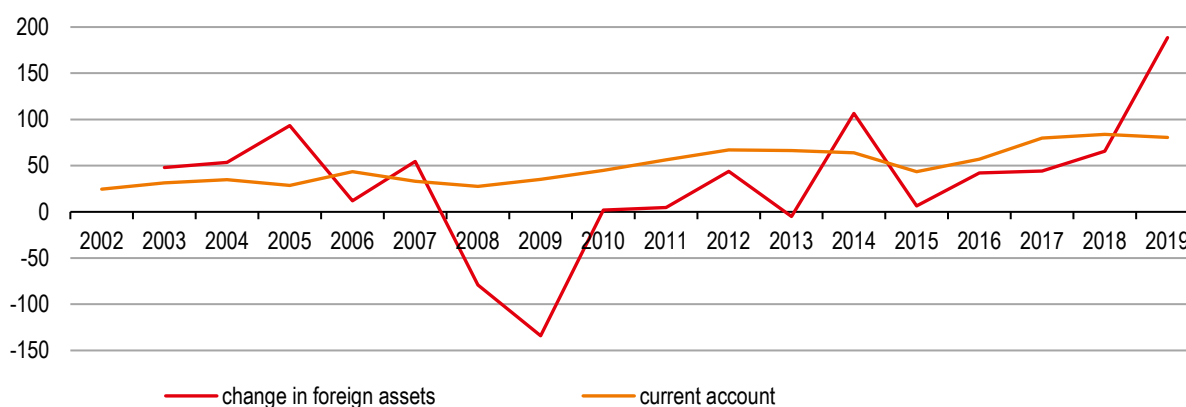
Trade-related inflows are also relevant. The discovery of natural gas deposits from 1959 and gas exports provided large inflows of revenues during the following decades, further increased by export-oriented industrial policies. A major boost for Dutch export was the introduction in 2000 of the euro, which was undervalued relative to its predecessor the guilder. These inflows, to the extent that it pushed up spending, threatened to stimulate imports that competed with domestic production, and that would raise inflationary

and (especially) exchange rate pressure which would defy export-oriented industrial policies. This became known as ‘Dutch disease’, a phrase coined in 1977 by *The Economist*.

The growth of funded pensions and their increasing investment abroad helped to balance the inflows associated with natural gas and other exports. Just like sovereign wealth fund savings (Senner and Sorrette, 2021), pension savings are a way to relieve the pressures on inflation and the exchange rate, though at the cost of disposable wage incomes and net profit. In this perspective the function of pension funds in the wider system has changed, away from a way to provide for old age needs and towards a way to manage international financial flows – in sum, another manifestation of financialization.

Figure 7 shows that from the start of the data series in 2002, foreign pension fund investments accounted for most of (and occasionally exceeded) the current account surplus, except for the stagnating years 2008-2013.<sup>27</sup>

**Figure 7: Change in pension funds’ foreign assets and the Dutch current account, 2002-2019 (bn euros)**



Source: DNB table 8.1BC (*‘Statistische balans totaal pensioenfondsen per jaar naar looptijd en geografie vanaf 1986’*).

## 7. The political economy of pension fund expansion: discourse

Another political economy factor which has discouraged critical inquiry into pension fund expansion is discourse. In the public discourse, a narrative of unsustainability and decades of fraught negotiations between employers and employees (described in the Appendix) exhausted the policy space to suggest that perhaps the problem was not insufficient saving, but too much saving. The analytical basis for these worries lies in the academic discourse, where the dominance of neoclassical economics obscured the financial dimensions and the macroeconomic costs of funded pensions.

### *7.1 The neoclassical academic discourse*

The process of financialization induces and strengthens any narrative or theoretical framework which excludes its problematic aspects. In the case of pension financialization in the Netherlands, the problematic aspects discussed in previous sections are: (1) the large magnitude of net payment flows and accumulated pension assets in relation to actual pension needs, (2) the existence, based on these asset stocks, of rentier incomes detracting from other incomes, and (3) the costs to the wider economic system: increased volatility, loss of effective demand, and increased financial fragility.

A framework for pension fund analysis that conveniently abstracts from these problems is neoclassical economics. Part of the explanation for the continued expansion of the Dutch pension funds therefore is that their academic discussion is couched in terms of neoclassical economics. Neoclassical economics is microeconomic and nonfinancial by definition<sup>28</sup>, so that these four issues fall outside the scope of the hundreds of articles and papers on the Dutch pension system.

The canonical approach is the lifecycle model by Modigliani and Brumberg (1954). This defines an individual's consumption and saving choices (depending on her time preference and interest rates) over the life cycle, resulting in optimal pension savings. Optimal saving is selected based on the question how much capital - interpreted as real capital such as machine and robots - the economy should accumulate by saving (Abel et al., 1989), again based on individual utility maximization.

There are no flows of money and no stocks of assets in the model, which obscures the liquidity consequences of over-saving and the financial-market inflation which it causes. There is no forced saving due to the public and legal framework in which pension funds operate. There are no professional investors. The fiction is that saving is voluntary and that the household is the investor.<sup>29</sup> This overstates the agency of households and it understates – indeed, it defines away - the agency of professional investors. Finally, there is no effective demand and no macroeconomic volatility in this model, so that the macroeconomic consequences of pension fund capitalism cannot trouble the analysis.

Later models are constructed in the same vein. An overview by Beetsma et al (2015) notes innovations in the literature such as the introduction of hyperbolic discounting, the use of nudging in contracts and intergenerational accounting and risk sharing. Most pertinent to the present focus, Van Ewijk and Meijdam (2020) consider the desirable balance between PAYG and funded pensions in terms of an intergenerational model. The conclusion is that PAYG might be optimal if risk sharing through financial markets is not sufficiently possible between generations. The increasing sophistication of these models lies in refinements of the microeconomic framework, without introducing rentier incomes, financial fragility, effective demand and macroeconomic instability – in short, omitting precisely the problematic aspects of financialized funded pensions.

An important point is that each of these omissions is structural rather than accidental. The structure of neoclassical economics rules out unearned incomes (rents), since all that is paid for in the market is assumed to yield utility worth the price (else, it would not be paid). Neoclassical economics also rules out financial fragility, since the model is not in terms of actual financial flows and payments but in terms of utility, leisure and preferences. It further rules out macroeconomic instability emanating from ‘long balance sheets’ with large stocks of debt and large stocks of pension assets – because there are no financial stocks. All savings and capital are treated as if they were machines and robots, not financial assets. The enormous growth of financial capital relative to real investment (McKinsey, 2021) is ignored, as is their wasteful allocation (Philippon and Resheff, 2011; Arcand et al, 2015). In these models, financial markets can only decrease risk; they cannot generate risk. And finally, the models omit effective demand because they are ‘micro-founded’, ruling out macro-economic demand-side effects.

These omissions are not due to a lack of research interest in pensions in the Netherlands. There is a dedicated research network (*Netspar*) on pensions, aging and retirement, partly subsidized by the pension fund industry and connecting 300 academic and other researchers. Like other parts of the financial industry, the pension fund ecosystem functions as ‘A Magnet for the Best and the Brightest’ (Kneer, 2013). Since *Netspar*’s 2005 inception, hundreds of research papers were published, the overwhelmingly majority neoclassical in nature. All except 23 papers address funded pensions.<sup>30</sup> Strikingly, none of these publications offers an explanation for the enormous size of Dutch pension savings. Intriguingly, the fact that Dutch pension investments increased so much compared to other economies is not viewed as in need of an explanation. With rare exceptions (Westerhout, 2021; Beetsma et al 2015; Ewijk and Meijdam, 2020) even the fact that pensions are funded to start with is hardly a topic in this literature.<sup>31</sup>

Also outside of this research network, Dutch public policy discussions offer only occasional references to the macroeconomic drawbacks of the funded system (e.g. in a 2016 report by the independent advisory body WRR on volatility) and the possibility that the funded system has gone too far (e.g. Boot and Cools, 2016). Argument and debate on the possibility of over-saving also occurs in occasional blogs and books for a general audience (Ten Cate, 2019; De Vos, 2021), but they are few and far between.<sup>32</sup>

The situation is not different in the international literature on the transition to or expansion of funded pension. Even papers where reservations on funded pensions are expressed, the models discussed are all neoclassical, and the most daring statements are observations that funded pension cannot achieve a ‘Pareto improving position’ (Sinn 2000) since the net present value of pension contributions is not increased. This may or may not be true; the point is that it leaves out all the problems of funded pensions that the financialization lens highlights.

## 7.2 *Epistemic communities*

This puzzling lack of diversity is best understood in terms of epistemic communities (Miller and Fox 2001). Neoclassical theory establishes a method to ‘know’ the economy, and in that sense it is an epistemic framework. Once an epistemic framework is accepted in what is then an epistemic community, alternative ways to understand the economy are excluded, because the concepts in this alternative view find no expression in the epistemic community’s language. This is the reason that political economy scholarship - another epistemic community altogether - and neoclassical research on pensions funds rarely if at all engage; they pass like ships in the night. Making contact would require the acceptance of concepts which are not just contradictory but meaningless within one’s own epistemic community. Examples of such concepts for neoclassical economists are: rentier incomes, capital gains, financial actors, financialization, financial assets as distinct from real capital goods, and uncertainty as distinct from risk (Lavoie, 2014).<sup>33</sup>

In particular, neoclassical economics imposes an individual-investment framework on funded pensions analysis, where future pensions are assets which can be valued in current money terms by discounting. This denies the presence of radical uncertainty about the future, which makes such sums meaningless to economists in other epistemic communities, such as post-Keynesian economists. Here the world is considered to be non-ergodic, so that ‘actuarially certain knowledge regarding the future is not available to decision makers’ (Davidson, 2015:1).

Moreover, in the neoclassical analysis this ‘asset’ nature of future pensions completely takes over (e.g. in discounting sums). It is often forgotten that real goods and services are not the same as financial assets. But pensions must be related to future output (Barr and Diamond, 2006:20) rather than to the doubtful discounted future value of financial assets, which are claims on output and not output itself. Pensions do not result from individual optimal choice, but from the community’s future production, resulting in the figure 4 projections. This view cautions against financial investment of current income, rather than real investment that augments future output (financial investments do not, in a financialized economy; see Arcand et al., 2015).

Each era of capitalism produces and fosters the economic theory that it needs (Davis, 2006; Veblen and Samuels, 1990 [1911]). Over-saving in funded pensions requires a financialized, neoclassical prism to be justified. This epistemic dimension helps understand the continued growth of Dutch funded pension systems. The expansion was not problematized in the academic discourse, because the prevailing language within the epistemic community that discusses pension funds offered no vocabulary in which to discuss the problems. The final question to be considered in this section is how this carried over to policy.

### 7.3 Implications for policy

Epistemic communities form the context in which economic models function as ‘transmission device’ between economic paradigms and policy programs (Heimberger et al, 2020). The neoclassical paradigm, expressed in pensions-as-assets models, is largely shared by pension policy makers. In this way, neoclassical preconceptions coupled to financialization (financial considerations taking precedence over real needs) were institutionalized in policy under the guise of prudence. One example is that the level of contributions as well as the indexation of benefits were linked to an assets/obligations ratio (the ‘dekkingsgraad’. This rule introduced interest rate risks into the pension funds’ balance sheets. As interest rates were falling, the assets/obligations ratio forced pension funds to abolish indexations, to increase contributions and occasionally, to cut benefits - even as they were growing richer (see the Appendix for further details).

This policy made little sense from a pension payments perspective, but it made excellent sense from a financial-market actor perspective. The problem was how to maintain the net inflows that paid for remunerations even as the funds grew richer. The solution was the assets/obligations regulations which obscured that wealth and instead created alarm over future pension payments. This ratio supported a perception that more saving is needed. No one involved in the design and implementation of this rule perhaps made this connection, and it was perhaps introduced with the best intentions, in the belief that it served pensioners’ needs. In this sense, the assets/obligations regulation is an example of what Galbraith (2004) identified as ‘innocent frauds’. They are “innocent” because “[n]o one is especially at fault; what is convenient to believe is greatly preferred... There is no serious sense of guilt; more likely, there is self-approval” (Galbraith 2004: 2–3).

Given the strictures of these regulations, worries about future pensions mounted since the turn of the century. This bore little relation to the reality of ever richer pension funds, which made much better *total* returns (capital gains plus yield) than the official risk-free rate they were forced to use for discounting their wealth. But the background to the public pension discourse, nevertheless, became one of decades of worries and reform struggles in the belief that pension benefits were endangered by aging. Peer dynamics in pension reform (Brooks, 2007) in other countries played a role here; Guardiancich and Guidi (2020) show that the financial stresses since the great financial crisis intensified reform efforts in many countries.

More generally, Heimberger et al (2020:37) note how “political decisions are coined by technicalities and, as a consequence, seemingly innocent technical assumptions become objects of political demands”. This is a strikingly accurate description of the relation between academic pension models and pension policies. Among the ‘seemingly innocent technical assumptions’ are assumptions on pensions as assets, the need to discount at market rates, and the computation of ‘assets/obligations ratios’. These ratios then drove political demands for pension fund reform in political party manifestoes and negotiation processes, aimed

at maintaining high enough ratios by rising contributions, abolishing indexation, and rising pensionable age.

Within neoclassical preconceptions and in this policy climate, the only possible answer to apparent threats appeared to be more saving, and this left little room to consider other ways of organizing for old age provision by policy makers. In a 2021 paper titled ‘Completing Dutch Pension Reform’, published by the country’s premier economic policy analysis institution, PAYG is not even mentioned as a reform option. The paper carries unnerving section titles such as ‘Erosion of the risk bearing base’ and ‘Halting the drop in assets/obligations ratios’ (Westerhout et al, 2021b). Ironically, the expression of these worries in supervisory rules (such as the asset/benefit ratio and forced discounting at low risk-free rates) obscured the enormous wealth already amassed in pension funds, which might have alleviated the worries. The epistemic lock-in is that the rules as well as the data and reports produced on the basis of the rules, sustained a narrative of unsustainability producing more rules. Fraught negotiations and failed agreements (see the Appendix) rendered any pension discussion hypersensitive. It reduced the intellectual and policy space for solutions – especially for solutions that deny the worries. Amidst all the discussions, the one thing that remained unquestioned was that the biggest funded system in the world was not yet big enough.

## **8. Conclusions**

This paper has explored pension fund capitalism in the Netherlands, based on a historical account of the growth of the funded pension system and using newly digitized data. One finding is that while in other major funded pension economies, net saving turned to net dissaving from the 1990s, in the Netherlands net saving was resumed after 2000. The central question is how the continued growth of pension investments, already large in 2000, can be explained. It is shown that in an understanding of pension fund evolution as resulting from the needs of (current and future) pensioners, this growth is puzzling. It is suggested that a financialization framework, including a consideration of the wider macroeconomic system, actor interests, and discourse, is analytically more powerful.

The growth of pension investments was connected to the simultaneous growth of the current account surplus and the rise of managed money. The organized outflow of disposable income into the financial markets relieved inflationary and exchange rate pressures arising from the large Dutch current account position. And without continued investment, it appears that the remunerations for pension funds and the investment funds that work for them could not be financed.

Several problematic aspects of pension fund capitalism in terms of macroeconomic outcomes were identified. This includes the large magnitudes of net payment flows relative to actual pension needs; the existence, based on these asset stocks, of rentier incomes; increased macroeconomic volatility and



household financial fragility; and loss of effective demand. The continued expansion of the fund despite these outcomes was set in the context of a public discourse of pervasive aging concerns, fraught and drawn-out negotiations and failed policy agreements, all of which left little intellectual space and policy room to reconsider the development of the pension system. The academic discourse in a clearly delineated epistemic community, the prevailing model language offered no vocabulary in which to discuss these problems. This omission carried over to the policy world. Taken together, these elements of an explanation, all consistent with the financialization lens, offer new insights into the continued growth of pension investments in the Netherlands.

Several lines of research have remained unexplored in this paper for reasons of focus and length. One is the wider political economy of funded pensions in the Netherlands, tracing the respective roles and interests of trade unions, the business and financial sectors, successive government, the rich ecosystem of public and civil society organizations in the Netherlands, and international organizations and money management firms. The decision to trade disposable income for managed money was made in vastly different contexts over the different post-war eras from the 1950s to today. There is as yet no historical study like Nazyk (2013), who undertakes a comparative historical analysis of pension debates in Belgium and France from the end of the 1970s until the mid-2000s to focus on the role of financial firms in pushing for privatization – or, in the case of the Netherlands, for regulations that maintain and increase organized savings. This merits deeper study since there is for instance no simple capital/labor divide. Röper (2021) shows that German banks and investment companies advocated financialized pension funds in Germany, while nonfinancial firms and insurers opposed this.

This paper has also abstained from the development of policy implications and recommendations. The desirability of lower net savings into the pension funds appears to be a logical corollary to the analysis. The merits of this policy avenue should be weighed in follow-up applied pension research in the Netherlands.

Insights from this case study have wider applicability to economies with funded pension systems. Most emerging economies are net investing in their pension funds because of demographic concerns and old age poverty alleviation policies. This study illustrates that even without these drivers, net pension investment has its own dynamics. This argument is particularly relevant for several highly developed economies which continue to net save in their pension funds, including Switzerland, Australia and New Zealand. Development of the arguments and evidence offered here for other contexts will enrich the policy and academic debate on the possible drivers of pension fund expansion, a major topic in political economy.

## APPENDIX

### THE EARLY START AND REMARKABLE RISE OF DUTCH FUNDED PENSIONS

#### *A.1 A public-private system<sup>34</sup>*

The post-war<sup>35</sup> organization of old age provisions in the Netherlands started in earnest with the introduction of a publicly run PAYG system under the ‘General Superannuation Law’ (Algemene Ouderdoms Wet, or AOW) of 1957, replacing an earlier and temporary system that had been introduced in 1947, itself an extension of 1913 and 1919 legislations. The AOW system, still in place, provides a minimum guaranteed level of income to all long-time residents of the Netherlands from (currently) age 67 (70 per cent of the minimum wage per person for singles, 50 per cent per person for couples). AOW benefits are financed on a PAYG basis, paid out of current contributions by employees and firms. In 2021 AOW benefits support about 3 million people on an 18 million population.

In the second tier of old age provisions, the AOW benefit is augmented by benefits paid out by the pension funds ensuring that a pensioners’ income reaches 75% of their median pre-tax wage level over their careers (until recently this used to be a more generous 70% of the final wage, and in a few funds, it still is). The maximum funded pension benefit is 100,000 euros annually, based on full-time employment. Contributions are made by both employees and employers. For instance, in 2020 employee contributions as a per centage of wages in the largest ABP fund were 24.9 per cent of wages (Wolzak 2021). Employers typically pay more into the funds than employees, with the distribution between employer and employee contributions varying from 50/50 to 70/30. In all, each year incomes – both wages and profit – in the order of magnitude of at least half the wage bill are extracted as ‘organized savings’ and channeled into the pension funds, to be invested in the financial markets. This is a large drain on current consumption and investment.

Much of the legal context for these organized savings was created in the 1947 act on mandatory participation in industry pension funds (‘Wet Verplichte Deelneming in een Bedrijfstakpensioenfonds’) and the 1952 Pension and Savings Fund Act (‘Pensioen- en Spaarfondsenwet’), which was the first Dutch law to regulate pension investments. The ‘private’ pension funds, like other parts of the financial system such as the private banks, have long been supported and regulated by public institutions and by public guarantees against failure. Without the force of law, the exceptionally high 90 per cent assets/obligations ratio - the per centage of employees who participate in the funded pension system –would not have been achieved (it is not in other countries) and it would not have remained so high throughout the travails of pension system reforms since the 1980s.

Another public-support element is fiscal support. The state foregoes taxes on both the wages and profit that are paid as pension fund contributions. These foregone taxes are only partly recovered by taxes on

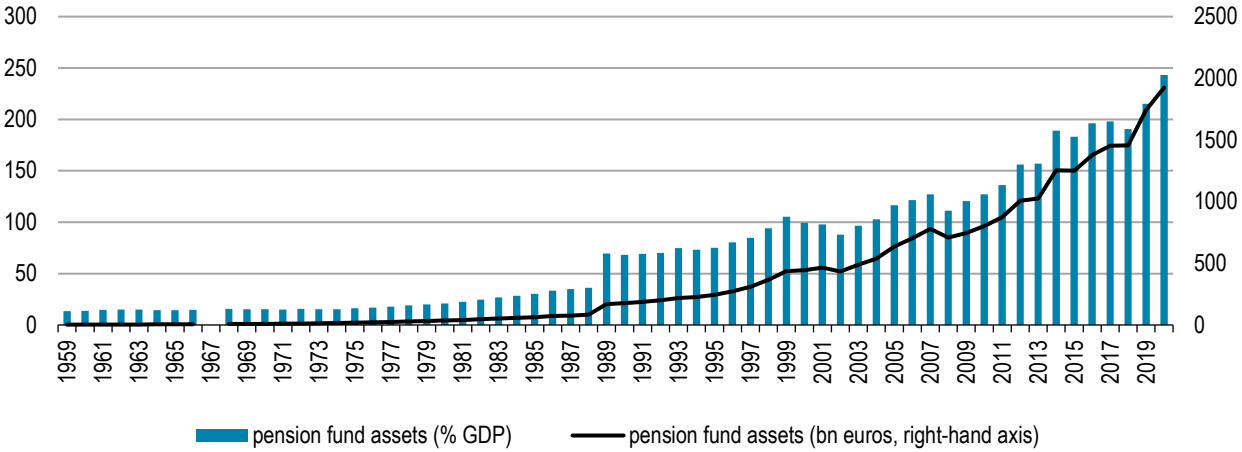
pension incomes, so that there is a net subsidy. Another subsidy is that households are not taxed for their wealth in pension funds. This fiscal support makes continued investment attractive since the downside in the public finances are an externality to the contributor and the professional investor.

A third public-support element is regulatory oversight. This was entrusted to a dedicated ‘pension and insurance chamber’ founded in 1923, which holds pension oversight tasks since 1953. The chamber was privatized in 1992 and in 2004 it was absorbed into De Nederlandsche Bank. In sum, just as in the case of the private bank money system and the wider financial markets, the private-public old-age insurance system was in the 20th century expanded based on force of law, fiscal support, central organization and oversight. Pension funds act as private financial market actors but are firmly embedded in and protected by public regulatory structures.

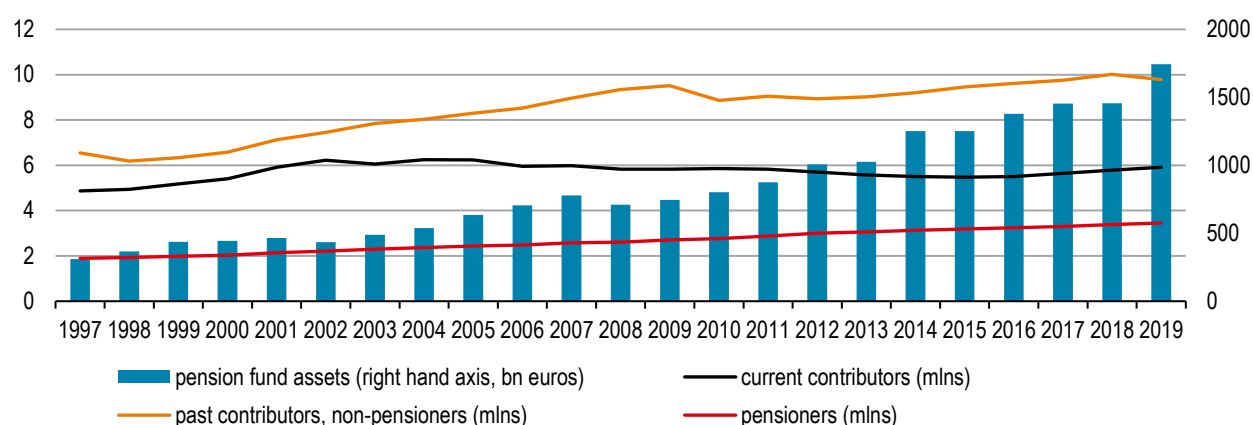
*A.2 Unparalleled expansion*

Dutch pension investments expanded gently at first and then steeply since the 1980s (Figure A1a), from the equivalent of 9 bn euros (1970s) to 36 bn (1980), 176 bn (1990) and 445 bn (2000), to 802 bn (2010) and 1,924 bn (2020). The almost quadrupling in the last two decades brought pension savings to a level that was more than twice the 2020 Dutch GDP of 791 bn euros. After positive investment since their post-war inauguration there followed years of negative investments over at least 1989-2000<sup>36</sup>, just as most of the larger funds were disinvesting as they matured (Toporowski, 2000:82). But in the Dutch schemes, positive net inflows have resumed since, as annual contributions exceeded benefits again.

**Figure A1**  
**(a): The rise of Dutch pension investments, 1959-2020: assets**



**(b): The rise and size of Dutch pension investments, 1997-2019: assets and contributors**



Notes: The increase in assets in 1989 is due to the addition of the ABP pension fund to the data. ABP was publicly owned from 1982-1995. Sources: DNB tables 8.6 (“aantallen deelemers”) and 8.1BC (“Statistische balans totaal pensioenfondsen per jaar naar looptijd en geografie vanaf 1986”, .Pensioen- en Verzekeringskamer, 1959-1985 annual reports, as reported in McCarthy et al (2016); I thank Natascha van der Zwan for making these available.

Figure A1b shows that more recently the funds expanded in asset values but not in the number of active contributors, which has been stable at around 6 million<sup>37</sup> since the turn of the millennium. The number of pensioner claimants rose from just under 2 million in 1997 to 3.5 million in 2019 - with the exception of the years 1989-2001 - annual benefits could be paid from annual contributions. The size of the transfers from contributors to pensioners increased from half a per cent of the gross domestic product in the 1950s to 4 per cent in 2019. But each year money in addition to the transfer was saved and invested in the financial markets. This excess saving was on average 0.5 per cent of GDP annually over 1958-2019.

While their size increased, the investment mix of the pension funds underwent a rapid transition, especially between 1980 and 2000. McCarthy et al (2016) show that in 1960 pension savings financed credit to local and central government and enterprise (banks, transportation, public utilities and industry). Until the mid-1990s, almost all investments were domestic, but from the late 90s most were made abroad. By 2020 only about a tenth of all assets other than investment fund shares were invested in the Netherlands.

Pension investments have also become increasingly financial-market oriented. Domestic loans and domestic property investments were almost completely phased out in favour of a portfolio dominated by bonds and shares. The 2000s saw the rise of other asset classes than the traditional shares and bonds such as non-listed investments, financial derivatives and especially, investment fund shares. While investment fund shares were held in Dutch institutions, these in turn hold their securities globally. The 2007-8 crisis triggered a sharp decline in the foreign-held shares especially of derivatives (DNB data).

Riding the waves of the international securities markets first increased average returns, but it also made the funds vulnerable to market downturns such as the dotcom crisis, when returns plummeted from 14 per

cent in 1999 to 1 per cent in 2001 (Van Ewijk and Van de Ven 2001). The increased volatility had consequences also for macroeconomic stability (section 4).

### *A.3 Worries and Continuous Reforms*

The Dutch funded pension system is a ‘defined benefit’ system, which aims for a guaranteed pension income in real terms. Since the 1980s and especially since the 1999 dotcom crisis, the Dutch pension system has come to be perceived as financially unsustainable and in need of reform. This reversed the trend in the earlier postwar period in which pensions had become increasingly generous.<sup>38</sup> A lively debate and growing academic literature (starting with Teulings and De Vries, 2006) on ‘intergenerational risk sharing’ has sprung up to accompany this change.

In practice ‘defined benefit’ had already been undermined. The 2008 financial crisis highlighted the problems of funded private pensions relying on returns, in the Netherlands and elsewhere (Ebbinghaus 2011). Since then, contributions have increased and most pension funds have stopped price indexation of benefits, while consumer prices have risen by 17 % since then. Some funds cut benefits in the 2013 and 2014 crisis conditions, pressured by financial losses and stricter oversight. In 2007, a ‘financial assessment framework’ (‘financiële toetsingskader’, or FTK) was inaugurated in which pensions were reduced by relating them to mid-career rather than final wages. This followed with a lag the Anglo-Saxon crisis in final-salary pension schemes (Langley, 2004) due to low interest rates; many funds, like ABP, had in practice already made this move.

The level of contributions as well as the indexation of benefits were linked to an assets/obligations ratio (the ‘dekkingsgraad’). A pension fund’s assets should exceed a per centage of its pension obligations, discounted at the risk-free rate of return. If the ratio falls below this threshold, less indexation and increased contributions must ensure a recovery within 15 years. This rule introduced interest rate risks into the pension funds’ balance sheets.

As interest rates were falling, pension funds abolished indexations, increase contributions and occasionally, cut benefits - even as they were growing richer. Financialization (financial considerations taking precedence over real needs) was institutionalized in policy under the guise of prudence.

Further pension reforms gathered momentum after the 2009 great financial crisis which wrought havoc in pension fund investments (Hassel et al 2019). Three state-appointed committees were inaugurated to study the problems and to suggest changes, while the Minister responsible for pensions jointly with *De Nederlandsche Bank* started a re-assessment of the financial assessment framework of 2007. This resulted in a 2010 pension agreement with trade unions and employers. Due to its contentious nature and sensitivities all round, this agreement was never implemented. A decade of further negotiations followed. Meanwhile

in 2012, a law was passed to increase the pensionable age for the AOW (PAYG, first-tier) pension to age 66 in 2019 and 67 in 2023, and then to rise with life expectancy.

In 2019, another pension agreement was reached. Pension benefits were now foreseen to fluctuate with returns on pension investments. The pensionable age was to rise more slowly than planned earlier. Employees were to have the right to receive a prepayment out of their pension investments once during their job career. None of this has been implemented at the moment of writing. Implementation is foreseen to start in 2022 or (for some rules) 2023.

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## NOTES

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<sup>1</sup> The landmark 1994 and 2005 World Bank reports present overviews of the arguments supporting this consensus. The context in which this occurred was one of maturing welfare states running state pension systems and a growing awareness that populations were aging. The then common Pay As You Go (PAYG) pension systems, where pension benefits are paid directly out of current contributions, came to be perceived as financially unsustainable due to aging, and as operationally too costly for the state. Investing the contributions so as to add returns to them was seen as the solution not only to the aging problem, but also to state involvement and spending. A third argument for funded pension systems was that it ‘mobilized savings’ for global capital markets. These could allocate the funds to foster productivity and innovations.

<sup>2</sup> The OECD and World Bank have dedicated departments where funded pension systems are operationally supported with technical advice, where research into funded pensions is undertaken, and where pension system databases are maintained.

<sup>3</sup> The amount is 41.3 trillion dollars according to Van der Zwan, forthcoming.

<sup>4</sup> That is, no study of the Dutch pension system problematizes the uniquely large pension investments as something that requires an explanation.

<sup>5</sup> An excellent analytical history of the Dutch funded pension system since the turn of the century is Westerhout et al (2021b).

<sup>6</sup> This average hides variation according to the level of earnings and the fund the employee participates in. ‘The total nominal contribution rate in the Netherlands equals 18% below 39% of average earnings, 40.5% between 39% and 66% of average earnings and 22.5% above. For occupational schemes in Denmark and the Netherlands, contribution rates are fund-specific, so typical rates are shown.’ (OECD 2021, note to Table 8.1).

<sup>7</sup> Of all OECD countries, only Switzerland and the Netherlands have compulsory second-tier participation (OECD, 2021).

<sup>8</sup> <https://www.mercer.com/our-thinking.html>. One often-quoted indication of success is that old-age poverty in the Netherlands is low. In the Netherlands 3.1 per cent of the over-65 population live in poverty, compared to 9 per cent in the total population. Old-age poverty is 3.4 per cent in France, 8.2 in Belgium, 9.6 in Germany, and 13.1 per cent on average for all OECD economies. But this could have been achieved with the AOW PAYG system alone. See <https://data.oecd.org/inequality/poverty-rate.htm>.

<sup>9</sup> The economic literature database EconLit reports 19 publications having ‘financialization’ in their abstracts for all years before 2007 (since 1960), and 620 publications since then.

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<sup>10</sup> One of the inefficiencies of the current system is the profusion of hundreds of investment funds, all aiming at maximum security and discounting at low interest rates, resulting in collective over-saving.

<sup>11</sup> See Berry (2021) for an assessment of the second largest pension fund country, the UK.

<sup>12</sup> In the 15 years 2006-2019 for which the data are available, there was an increase by 49 per cent in per-person contributions (by both employers and employees) into the pension funds, from 4,146 euros per active contributor in the year 2006 to 6,180 euros in 2019.

<sup>13</sup> Kramer et al (2021) found that those aged 65+ had ‘more wealth than is optimal’ in a lifecycle model. Klok (2019) connects the surprisingly sluggish consumption growth to the increased pension contributions and the decreased pension benefits, both contributors to pension fund expansion.

<sup>14</sup> Per-person annual disposable income for persons over 65 years of age were on average 26,545 euros ,compared to 26,860 euros for the rest of the population (CBS data).

<sup>15</sup> It is estimated that a prudent financial buffer for Dutch household should be between 3,500 and 6,000 euros, but in 2020 a quarter of households had less than 2,500 euros at their disposal in the face of a financial calamity (DNB 2020). A third of those in the 20-45 age bracket have less than 2.000 euros in (access to) liquid money (Prins and De Boeck 2018) and one in five households is behind on paying their bills Schonewille and Crijnen (2018)

<sup>16</sup> The figure shows that also consumption growth in Denmark and Norway – both economies with large investment funds - appear sensitive to the market value of pension and sovereign wealth savings.

<sup>17</sup> These unconditional correlations are only indicative. Other contributors to the strong consumption response include high private debt levels and large swings in the domestic property market. Both are related to the pensions system though, since generous pensions have encouraged the growth of mortgage debt (Johnston et al, 2021). For instance, the country with the second-largest funded pension system relative to GDP, which is Denmark, is also the country with second-largest most indebted households relative to disposable income. These ‘long balance sheets’ – large wealth and large private debt – make the Dutch economy vulnerable to financial and real estate shocks, which tend to occur simultaneously, as in 2009-2014. Volatility in all domestic component of GDP is larger in the Netherlands than it is in comparable other European economies (Hemmerlé, 2020; SER, 2020).

<sup>18</sup> Studies conducted in the US, UK, the Netherlands, and Germany indicate that most consumers have difficulty answering financial questions. Very few are able to answer more sophisticated questions relating to stock market behaviour and safe investment or saving strategies. See the studies references in Mak ( 2012:260)

<sup>19</sup> CBS data, Table ‘beloning werkers per bedrijfstak’.

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<sup>20</sup> Philippon and Resheff (2012) calculated that about one third to one half of financial-sector income in the US is rents, in the sense that there is no counterpart growth in value-added in the economy that justified these remunerations.

<sup>21</sup> It is perhaps counter-intuitive that the remuneration-motivated need for net extraction of liquidity from firms and households becomes larger, not smaller, when the pension funds are more successful in growing the size of pension investments. The reason is that higher returns increase the size of those remunerations which are based on returns. To the extent that regulations stipulate that rising return-based remunerations cannot be paid out of the pension investment, they must be paid out of rising net contributions.

<sup>22</sup> <https://www.abp.nl/pensioen-bij-abp/pensioenpremie/>

<sup>23</sup> Source: DNB table 8.1BC ('Statistische balans totaal pensioenfondsen per jaar naar looptijd en geografie vanaf 1986')

<sup>24</sup> This strategy also increases the concentration of financial power, while the pension fund sector is already extremely concentrated. The ten largest Dutch funds manage 1,000 bn dollar between them, the twenty largest funds worldwide 1,600 bn, the 300 largest 2,000 bn and all pension funds together 40,000 bn. Investment institutions concentrate yet further this already highly concentrated money. The result is that a few very large asset management companies direct much of the global money flows in capital markets, partly on behalf of pension funds. As of 2019, Vanguard, BlackRock, and State Street – the three largest passive index funds – together managed 21 per cent of the S&P 500 (Davis 2020).

<sup>25</sup> Special Financial Institutions is the translation of 'Buitengewone Financiële Instellingen', the technical term used by De Nederlandsche Bank for shell companies set up by multinationals to register profit in the Netherlands. (Not to be confused with the international term Special(ized) Financial Institutions, such as development banks.) Dutch Special Financial Institutions include 'holding companies of (mainly) foreign companies; re invoicing companies that are mainly invoiced by foreign entities and invoice other foreign entities; operational lease companies that typically lease durables to foreign customers; royalty companies, film and music rights companies that receive royalties mainly from abroad; finance companies that typically extend loans to foreign group companies and are themselves financed mainly from abroad; and Special Purpose Vehicles (SPV's) created by foreign originators whose balance sheets almost exclusively contain foreign assets and foreign liabilities.' (DNB, 2011:1)

<sup>26</sup> According to the Tax Justice Network Ranking; this is disputed by the Dutch government of the Netherlands

<sup>27</sup> Since the level of foreign pension fund investments includes returns and capital gains on assets, this overstates the actual pension savings. Over 2006-2020 new investments (both foreign and domestic) were 32 bn euros per year on average while average annual returns and capital gains amounted to 18 bn.

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<sup>28</sup> Neoclassical analysis is ‘nonfinancial’ in the sense that flows of payments and stocks of assets are absent from the analysis, ruling out their analysis as in Figure 4 (Bezemer 2010, 2016; Godley and Lavoie 2006).

<sup>29</sup> An exception is in Beetsma et al (2015:567) who write that: “[t]he combination of self-interested financial service providers and naive consumers who are not interested in the product creates a considerable governance problem.” This observation introduces an explanation of the importance of regulation.

<sup>30</sup> Of those 23 papers, one recent paper concludes in favour of PAYG (Westerhout et al, 2021).

<sup>31</sup> Perhaps this is only natural since in a PAYG system, Netspar would be redundant.

<sup>32</sup> Outside the Netherlands, critical views outside academia include World Bank (2013) and Ortiz et al (2018).

<sup>33</sup> Note that imperfect information, discussed in Barr and Diamond 2006:21 in terms of ‘ignorance’, ‘mistaken choice’ and ‘not well-informed consumers’ is not the same as uncertainty. Barr and Diamond suggest regulation and protection to address these problems, but this does not solve the fundamental uncertainty problem.

<sup>34</sup> See also Tamerus, 2009

<sup>35</sup> Funded pensions have a long history in The Netherlands. A pension fund for the military was started in 1814, the year in which the Kingdom of the Netherlands was founded. A predecessor to the civil servants’ ‘Algemeen Burgerlijk Pensioenfonds’ (ABP), currently the fourth largest pension fund in the world, was founded in 1836; the ABP itself in 1922. In addition to these public pensions, hundreds of private, company-level initiatives sprang up across the Dutch economy over the 19th and 20th century. Johannes van Marken, director of a Delft-based factory producing yeasts and methylated spirit (predecessor to the food multinational DSM), initiated in 1880 a savings fund for his employees’ pensions. Initially 10 per cent contribution out of company profits was paid. A 7 percent employee contribution was added in 1883 when profits were falling. This was an early example of a dual-contribution funded pension system. In 1913 the ‘Talma’ Law, named after its initiator in Parliament, made pension contributions by both employees and employers obligatory, in order to provide for workers’ pensions to be paid from age 70. In 1919 this was extended to needy small businesses owners and the pensionable age was decreased to 65. In 1938 there were already 738 enterprise-level pension arrangements. They often invested their contributions, sometimes in the company itself.

<sup>36</sup> Negative saving must in fact have started earlier since the giant ABP fund is not included in the pre-1989 data; but when it is added in 1989, its pension payment exceed its contribution by a substantial margin.

<sup>37</sup> In addition to pension funds contributors (5.9 million in 2019) there were 0.5 mln employees contributing to ‘pension institutions’ (“premiepensioeninstellingen”, DNB table 14.3) in 2019. These companies offer pension contracts and accumulate savings but do not bear any of the risks. I thank Buke Bergsma for drawing my attention to this.



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<sup>38</sup> For instance, in 1975 a subsidized early retirement scheme ('vervroegde uittreding', or VUT) was introduced. This fiscal treat was abolished in 2005 legislation (the 'Wet aanpassing fiscale behandeling VUT/prepensioen en introductie levensloopregeling, of VPL for short). The 2005 VPL law introduced the less generous but still fiscally attractive 'lifecycle facilities' ('levensloopregeling') savings options. These, in turn, were abolished in 2012.

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