Executive Summary

PAYG financing is a driver for public debt

The results of the country studies and the key indicators in the Overall Pension Index (OPI) show that PAYG pension systems tend to be more affected by financial pressures resulting from the demographic transition. In simple terms, systems with a strong focus on PAYG financing are often confronted by an "institutional trade-off": Cost-dampening policies strengthen the financial sustainability of the system at the expense of future generosity and adequacy. Conversely, generous PAYG pension systems come at the cost of reduced financial sustainability. Austria exhibits a strong reliance on PAYG financing. The impact on public spending is obvious, despite the cost-containment measures already legislated, which will lead to future cuts in the generosity of the pension system. Public pension spending is expected to increase to more than 15% of GDP by the mid of the next decade – at the same time the benefit ratio will drop significantly, potentially leaving larger groups of retirees at risk of poverty. Demographically induced increases in expenditure can also be observed for other PAYG systems: Public spending will be at almost 18% of GDP for Italy in 2035 or at 12% for Germany. At the same time, and in countries with well-developed funded pension components, spending for public pensions in 2035 will be 9% in the Netherlands, 7% in Sweden or 8% in Denmark. Public pension spending is also a relevant source for public debt sustainability risks. The EU Commission's S1 indicator, which measures medium-term fiscal sustainability risks, assigns a medium risk to Germany and Austria and a high risk to Italy. Conversely, many of the countries in our sample with extended funded pension components, in particular Sweden and Denmark, are considered to have low sustainability risks.

Austria is lagging behind in the development of funded pension provision

Despite future reductions in benefit levels and generosity, which have already been legislated in Austria, the build-up of funded pension capital has not yet accelerated. Total assets in funded and private pension plans increased moderately from a low level and amounted to around 7% of GDP in 2021. This is well below the comparative figures especially for the countries with a stronger focus on funded pensions – for example the Netherlands with around 215% of GDP, Sweden with 120% or Denmark with 235%. However, Austria stays also below countries that themselves have a strong focus on PAYG financing, such as Italy with 13% or France with 12%. The annual volume of contributions reflects the still weak expansion of funded pension plans in Austria. In 2021 contributions to funded and private pension plans amounted to 0.3% of GDP in Austria, compared to 9% in Denmark, 4.5% in the Netherlands or 8% in Switzerland. The coverage of participants in voluntary occupational pensions relative to the working age population was at 15% for Austria in 2021, compared to 54% in Germany or 23% in France. For Denmark, the Netherlands or Sweden the coverage in occupational plans varies between 90% and 100%. Correspondingly, the coverage of voluntary individual plans in Austria ("prämienbegünstigte Zukunftsvorsorge") was 16.5% in 2021, compared to about 30% ("Riester"-contracts) in Germany. Accordingly, the development of forms of funded pension provision continues to show great potential for Austria.

PAYG driven debt and lacking fiscal sustainability is an obstacle to competitiveness

Competitiveness is a relevant precondition for the financing of all pension systems. Competitiveness determines important framework conditions for pension financing, such as wage and growth developments, inflation and the development of interest rates, company returns and macroeconomic conditions in general. The relevance of competitiveness initially applies regardless of the financing system. Also, systems with a stronger focus on funded financing are not exempt from the systemic imperative of competitiveness. For example, the country analysis of the Netherlands shows that the high prevalence of funded DB systems in combination with very low interest rates has led to financing bottlenecks. The result was a gradual increase in contributions while at the same time suspending the indexation of the benefits paid. Recent political reforms are ushering in a transition from DB to DC systems. In addition to the demographic pressure, the financing of benefits in PAYG systems, however, is primarily dependent on the development of macroeconomic conditions. Productivity and its development are crucial for wage development and thus for the development of the contribution bases of public PAYG pension systems. There is high potential for a vicious circle if the increasing fiscal burden on public pensions reduces competitiveness and thus itself becomes an obstacle to productivity development. This can be clearly seen in Austria where, for instance, in 2021, 55 billion EUR from the budget were spent on old-age benefits (including pensions). At the same time only 1.7 billion EUR were spent on environment protection and energy, and 6.2 billion on primary and elementary education. While the latter categories of expenditure could be clearly considered “future-oriented” expenditure which would help support long-term competitiveness of the Austrian economy, there is a clear bias towards financing the past commitments.

The productivity development in particular is an essential base for financing pension systems, which are already under demographic pressure. Here too, the key indicators in the Overall Pension Index (OPI) show that hybrid systems, in which pension provision is based on an integrated multi-tier mix of funded and PAYG systems, are more capable of meeting this challenge.

Leading countries offset a negative relationship between sustainability and adequacy, also due to funded pension schemes

Analyses within the Overall Pension Index (OPI) reflect the aforementioned "institutional trade-off" between cost dampening and the maintenance of generosity. This indicates a negative correlation between future generosity in the sense of adequacy and sustainability. However, this negative relationship between sustainability and adequacy is offset in countries with a stronger focus on funded pension spending. For the leading pension systems in the Netherlands, Denmark or Sweden no such negative correlation is recognisable. These three countries achieve favourable results in terms of both criteria, sustainability and adequacy as well. For the remaining eight countries, the analysis of the OPI key indicators shows the trade-off. The results from the statistical analysis suggest that this is also due to the relevance of funded pension provision. The variation of countries in funded pension assets explains almost 50% of the variation in the overall OPI scores.

The medium-term performance of pension funds is also decisive for the ability of funded pensions to fulfil key functions of pension provision and income security in old age. Over the period from 2011 to 2021, the average real investment rate of return in Austria was 2.8%. In the countries that perform best according to the analysis of the OPI scoreboard, it is not only the importance of funded pensions for the provision of pension income that is higher. The leading countries also showed a significantly better investment performance. Over the period from 2011 to 2021, the average real investment rate of return of funded pension plans in Sweden and Denmark was around 5%, in the Netherlands even around 5.7%. Efficient regulatory framework conditions are particularly relevant for medium-term performance.

Assets in funded pensions are a driver for innovation and productivity

The expansion of funded pension components is also a driver for innovation and productivity. Countries with more developed funded pension schemes achieve better results in terms of the innovative capacity of their society and economy. The statistical relationship is evident, when assets in funded pensions are compared to innovation indicators such as the European Innovation Scoreboard, the volume of venture capital investments or the results from the Global Innovation Scoreboard. Not only do the funded pensions system guarantee improving the financial sustainability of the public budgets and improve on the incomes of retirees, but they also provide the – much needed – boost of capital for investment and innovation.

Overall, the expansion of funded pensions promotes macroeconomic development

The macroeconomic simulation analysis shows positive macroeconomic effects resulting from the extension of funded pensions. The supply of financial assets boosts national investment and as consequence labour demand, labour income and GDP. In addition, higher pension fund assets expand supply of financial funds for private equity investments leading to a higher productivity in the economy. GDP and real investment in the considered economies rise in line with the stock of pension funds and are significantly higher than without pension fund investments. For the EU-27 GDP per capita rises by 1.130 Euro in 2070. Moreover, the higher economic activity improves public finances in these countries by about 0.4 to 0.5 percent of GDP, if implemented on the EU-level by 0.6.

Pension systems are the result of specific historical pathways

The design of pension systems is a result of gradual and often path-dependent "parametric" policy reforms. This is also due to institutional, political and economic restrictions: Once a system is established, substantial "non-parametric" reforms produce winners and losers. It is important to bear in mind that once a system is established, institutional lock-in effects often contribute to a fundamental persistence and maintenance of its institutional features. As mentioned, the pension systems in Sweden, Denmark or the Netherlands achieve overall good results in the analysis of key indicators within the scope of the OPI index. This is partly due to the development of funded pension components. The high level of the funded components in these countries must be understood from the historical context of parametric reforms and path dependencies.

Similarly to Austria or Germany, the **Netherlands** implemented a public PAYG pension system in the 1950s. Back then, PAYG financing was considered as a "natural" form of pension financing.

However, in contrast to the Bismarckian counterparts in Germany or Austria, the Dutch PAYG (AOW) scheme was originally designed as a universal flat-rate system, providing basic pension benefits that were targeted at the minimum wage. Ensuring the maintenance of living standards was not a function of the system. In a post war "golden area" of the social market economy trade unions put pressure on employers to ensure for additional funded pensions. Following the corporatist tradition of the Dutch welfare state, these systems were implemented by collective agreement at industry level. When cost dampening policies led to cuts in the public PAYG (AOW) system from the 1980s onwards, these losses were compensated for by funded pension provision. Already in the 1990s, the first PAYG tier provided only 45% of pension income in the Netherlands, while the provision of old-age income was still relying to a much greater extent on PAYG in Austria or Germany. Occupational pensions have high legitimacy and acceptance in the Netherlands and they also have an important and integrated function in the overall pension system. Social partners and employee representatives are highly involved in the management and organisation of pension funds at a sectoral level.

Similarly to the Netherlands, a comprehensive national pension system that guaranteed income security to every citizen had been established in **Sweden** by the mid-1950s. Industrialization after the Second World War required changes to the system, to account for the growing sectors of labourers. In 1959, the parliament accepted a generous public pension model that included a universal national pension supplemented by earnings-related PAYG pensions. Already in the late 1970s it became clear that the system was not sustainable in the long run. Systemic reform efforts failed in the 1980s. An abolition of the pension system by social democratic governments would have been seen as a "political defeat" for the trade unions. After the 1991 elections a new centre-right government was formed. This opened a window of opportunity for "blame-avoidance". By involving the trade unions in the reform process, the government gave them the opportunity to present themselves as protagonists and to represent and articulate their demands and values within the reform process. Their main demand was to portray the reform as a reformation and not as an abolition. For instance, familiar concepts and terms of the old system were used in order to strengthen the legitimacy and public acceptance of the reform. It is important to notice, that in the first half of 1990s Sweden entered a deep financial and economic crisis, which necessitated the rethinking of the components of the pension system. In the wake of a severe financial crisis, problems with financial stability, equivalency and long-term stability became obvious. The main shortcomings of the old system provided the reasons for the 1998 pension reform: The first was the dependence between financial performance and economic growth. The second was the design of the earnings ceiling for the calculation of pensions. The third key rationale behind the Swedish pension reform of 1998 were the expected costs of demographic ageing. The Swedish pension reform converted the old universal national pension into a new guaranteed pension. Under the given historical conditions, it was possible to implement substantial non-parametric reforms in the 1990s, while comparable welfare states were still engaged in more "incremental" policy reforms. Key success factors were, on the one hand, the "pressure to act" due to the financial and economic crisis, but also the broad involvement of stakeholders and employee representatives.

In **Denmark** the first initiatives for earnings-related supplementary schemes were taken in the early 1960s. In contrast to the other Nordic countries and more comparable to the Dutch PAYG (1st tier) system, the Danish scheme was designed as a flat-rate system. It was the unions that opposed earnings-related systems because they would perpetuate inequalities in the labour market by providing pension benefits equivalent to earnings. The upper middle- and higher-income groups attempted to cover their preference for maintenance of living standards through supplementary occupational benefits, leading to an increasing coverage of occupational pensions. In the 1980s the discussion of the Danish pension system was triggered by the inequality between the basic pension receivers and those covered by the funded occupational schemes. One reason for this inequality was the economic situation in the early 1980s with high interest rates. While contributions to the different kinds of supplementary pension schemes were tax-deductible, interest on these savings was not taxed. The second reason which led to the Danish pensions reform was a more competitiveness-oriented policy: given a negative balance of payments, the government wanted to improve the competitiveness of the Danish economy by policies of wage moderation. The pressure from several trade unions, particularly the Union of Danish Metalworkers, led to decentralization of wage negotiations in the late 1980s. This change made it possible for unions to get agreements on pensions covering only their members and creating selective incentives for joining trade unions. The new pension schemes were managed by corporatist boards with equal representation from employees and employers. These agreements started the substantial increase in the coverage of funded occupational pensions. Funded occupational pensions achieved a high level of acceptance and legitimacy as early as the 1990s. They play an important role in Denmark's overall pension system as regards the provision of adequate replacement rates to pensioners. More than 90% of employees pay into supplementary sector-specific occupational schemes. Since their introduction in the 1990s, the coverage of these schemes has increased drastically, making them almost universal.

Lessons must be learned from the historical pathways in the leading countries

In Sweden, Denmark and the Netherlands, which are the leading countries according to the OPI analysis, funded occupational pensions have a high level of acceptance and legitimacy. The participation in these countries varies between 90% and 100% in relation to the working-age population. Embedded in a multi-tier overall pension system with funded and PAYG elements, funded occupational pensions ensure relevant functions in the overall pension system. In the Netherlands, for example, pension funds implicitly take into account a PAYG component, the so-called AOW franchise, when calculating contributions to an overall contribution rate. One of the first lessons learned from historical developments in the leading countries suggests that the high level of acceptance and legitimacy in these countries does not arise independently of the institutional design of the overall system and the design of the public PAYG components. For example, the function of maintaining the standard of living is largely fulfilled by funded occupational pensions, while the public PAYG systems provide only basic flat-rate benefits. In contrast to this, in the Bismarckian systems the function of maintenance of living standards is directly fulfilled by the public PAYG systems.

The "extended" functionality of the Bismarckian PAYG systems can trigger a political lock-in effect with adverse consequences for long-term sustainability. It has the potential to impose “political costs” for current governments if certain functionalities such as equivalence-based protection of living standards are decoupled or “abolished” from the public PAYG system and shifted to funded occupational pensions and funded capital that – to a large extent – has to be built up. For instance, the coverage of occupational pensions and assets in funded pensions are still comparatively low in Austria. Therefore, in addition to contributions and tax-payments into the existing PAYG system, pension capital must be accumulated to finance funded pension entitlements.

The political aspect could be even more important if the capital build up in the funded components creates the impression of an additional burden beyond the contributions to the PAYG system. Here too, the lessons from historical pathways of the leading countries are exemplary: The broadening inclusion and expansion of funded pensions partly took place parallel to cost-dampening policies in the public PAYG systems. As a result, as in the Netherlands, for example, a systemic transition was pursued, giving the impression of a substitution of system components rather than the abolition of existing systems or an additional contribution burden.

A high level of acceptance and legitimacy for substantial and non-parametric reforms is more likely to be achieved if the impression of intergenerational justice can be conveyed. Fairness must be conveyed across different age groups and the impression that certain cohorts are financially disadvantaged should be avoided as far as possible. PAYG systems implicitly include a “first generation's gift.” The first generation of pensioners received benefits without having paid contributions. The funding for the first generation's gift was shifted to future generations. In fact, it is the generation that, in addition to financing existing entitlements in the PAYG system, also has to build up the capital stock for its own funded pension that finances most of the "gift" to this first generation.

The implementation of reforms can be more easily argued if the public understands the pressure to act. This was the case in Sweden, for example, in the context of the financial crisis of the 1990s. Here, the perception of long-term sustainability deficiencies was accompanied by acute financing shortages. In the context of maintaining competitiveness, a general understanding and pressure to act was also present in Denmark during the late 1980s and early 1990s, or also in the Netherlands. In the Netherlands, a competitiveness-oriented policy resulted in the 1982 Wassenaar accord of the social partners. Already in the 1970s the development and indexation of the minimum wage, that serves as a target for public AOW (PAYG) pensions, was decoupled from the development of real wages.

The broad involvement of social partners and interest groups can hamper substantial reform processes. At the same time, the involvement of interest groups and the coordination of interests can support the acceptance and legitimization of reforms, especially in sensitive areas such as pensions, once an agreement has been reached. In the Netherlands and Denmark, occupational funded pensions were set up precisely because of pressure from the trade unions. In the Netherlands, social partners are directly involved in the management of the large industry-wide funds. In Denmark, the funds established in the 1990s are managed by corporatist boards with equal representation from employees and employers.