Study on the pension reforms in Greece during the economic adjustment programs: 2010 - 2018

Final Report

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June 2020

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Luxembourg: Publications Office of the European Union, 2020.

PDF	ISBN 978-92-76-22179-1	doi: 10.2765/85172	KC-02-20-736-EN-N

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List of abbreviations

AROP	At-risk-of-poverty rate
AWG	Ageing Working Group
CPI	Consumer Price Index
DB	Defined-Benefit
DG ECFIN	Directorate-General for Economic and Financial Affairs
EAEE	Greek association of insurance companies
EAP	Economic Adjustment Programme
EC	European Commission
ECB	European Central Bank
ECHR	European Convention of Human Rights
EFKA	Unified Social Security Fund
EFSM	European Financial Stabilisation Mechanism
EKAS	Pensioners' Social Solidarity Benefit
ELETEA	Greek association of occupational funds
ELSTAT	Hellenic Statistical Authority
EPC	Economic Policy Committee
ESM	European Stability Mechanism
ETEA	Unified Auxiliary Insurance Fund
ETEAEP	Integrated Fund for Supplementary Pensions and Lump Sum Benefit
EU	European Union
EUR	Euro Area Currency
GAO	General Accounting Office
GDP	Gross Domestic Product
GLF	Greek Loan Facility
GNP	Gross National Product
HAIC	Hellenic Association of Insurance Companies
HUIORP	Hellenic Union of Institutions for Occupational Retirement Provision
IKA	Social Insurance Institute
ILO	International Labour Organization
IMF	International Monetary Fund
MFS	MacroFinancial Stability

NAA	National Actuarial Authority
NDC	Notional Defined Contribution
OAED	Employment Agency
OECD	Organisation for Economic Co-operation and Development
PAYG	Pay-As-You-Go scheme
PSI	Private Sector Involvement
SBA	Stand By Agreement
SILC	Survey on Income and Living Conditions
SSC	Social Security Contribution
SSF	Social Security Fund
SSN	Social Safety Net
WB	World Bank

Abstract

The three Economic Adjustment Programmes (EAPs) implemented in Greece over the period 2010-2018 consisted of providing loans to Greece in light of the financial difficulties it was facing, conditionally on the implementation of policy measures. Pension reforms were a key focus of the programmes from the start, given that the pension system had recently been assessed to be unsustainable, based on actuarial studies and long-term projections of the Greek National Actuarial Authority.

This study provides an overview of the main characteristics of the pension system at the start of the programme and depicts the various waves of reforms which have been implemented. It then provides an independent assessment of the impact of those reforms on the pension system (in terms of sustainability, fiscal savings made and efficiency). Finally, it covers the economic implications of the Court rulings and the impact of the reforms on the labour market. The study draws on evidence gathered through a mixed-methods approach, comprising both quantitative and qualitative research techniques.

Executive summary

European Adjustment Programs (EAPs) and the financial sector in Greece

Three Economic Adjustment Programmes (EAPs) were implemented in Greece over the period 2010-2018. The three programmes consisted of providing loans to Greece in light of the financial difficulties it was facing, conditionally on the implementation of policy measures.

Over the period from May 2010 to August 2018, a total of EUR 288.7 billion were disbursed to Greece at favourable conditions approximately 90 per cent of which coming from the Euro area under various pool of funds. All programmes had the same objectives of helping to correct unsustainable imbalances, stabilise the financial sector in the short term and restore the growth prospects and the country's capacity to finance itself fully on the financial markets (fiscal sustainability) in the medium and long run.

To achieve these objectives, a set of conditions were agreed with the institutions[1] in the programme's respective Memoranda of Understanding on Specific Economic Policy Conditionality (MoU), serving as benchmarks for assessing policy performance as part of periodic reviews. In that context, pension reforms were a key focus of the programmes from the start, given that the pension system had recently been assessed to be unsustainable, based on actuarial studies and long-term projections of the Greek National Actuarial Authority (Ageing Report 2009).

Study scope, objectives and methodology

The study focuses on analysing the characteristics and developments of the pension system in Greece over the period 2010-2018 in the light of the objectives and the policies implemented during this period. It covers all three adjustment programmes and all aspects of the programmes with relevance for the pension reforms in Greece during this period, in both design and implementation. The study answers the following questions:

- Question 1: What was the situation of the pension system at the outset of the crisis in terms of sustainability and adequacy?
- Question 2: To what extent has the sustainability of the pension system been restored?
- Question 3: To what extent and how have the envisaged fiscal savings been achieved?
- Question 4: To what extent has the administration of the pension system become more efficient?
- Question 5: What has been the impact of Court decisions on the fiscal targets, on the viability of the pension system and on related reform measures?
- Question 6: How have labour market participation and retirement incentives been affected by the changes?

The study was based on a mixed methods approach comprising the following tasks:

- Semi-structured interviews: 12 in-depth interviews were conducted with key EC officials and Greek stakeholders. In addition, the IMF provided inputs in a written form, based on publicly available information. Other institutions (ESM, ECB) did not contribute.

[1] The institutions are the European Commission, the European Central Bank and, for EAP 1 and 2, the International Monetary Fund.

- Documentation review: An extensive documentation review incorporating, inter alia, programme's documentation, Ageing Working Group reports, Pension adequacy reports, OECD Pensions at a glance reports, existing evaluations relevant for the pension sector, legal documentation and IMF documentation. In addition, some non-publicly available documents to which access was granted by the Steering Group were also reviewed by the study team;
- Data review and analysis: The study team compiled and reviewed key data and indicators from international and national sources including, inter alia, Eurostat, ELSTAT, HELIOS system, OECD Social Expenditure Database as well as data extracted from reports mentioned above (Ageing Working Group reports, Pension adequacy reports, OECD Pensions at a glance reports) ;
- Delphi survey: Two rounds of Delphi survey were completed, by 18 and 10 independent experts respectively. Experts were selected for the panel given their intimate knowledge of the pension reforms in Greece as academics, researchers or experts.
- Critical reviews of the report: Prior to the publication, the report was subject to in-depth reviews involving also comprehensive feedbacks provided by the EC and IMF staff.

The limitations of the study are discussed in Annex 1. Overall, given number of mitigation measures undertaken, the robustness and reliability of the analysis, findings and conclusions are strong.

Study findings

Diagnosis of the pension system

The Greek PAYG pension system prior to the reforms was characterised by its generosity in terms of net replacement rates. As per OECD estimates for 2008, Greece had the highest net replacement rate for mean income for men, equalling 110 per cent. The high pension adequacy was strongly supported by funding from the state budget. Reliance on voluntary occupational and private pension schemes was virtually inexistent. By 2010, public expenditure on pensions amounted to 14% of GDP in 2010 (or twice the OECD average) and pension fund deficits were extensively subsidised by state funding, in part to fill the actuarial deficits fuelled by contribution evasion and undeclared work.

Despite the size of pensions relative to wages, the effectiveness of the system in alleviating old-age poverty was limited even before the crisis (old-age poverty rate of 20.8 per cent in Greece, compared with 15.2 per cent in the EU).

Altogether, the high old-age poverty rate, together with the high average adequacy rate and high public expenditure on pensions, meant that the pension system in Greece was very inequitable and inefficient and partly also reflected the short working careers. The system's fragmentation into a multitude of tripartite funds added to the sources of inequality within the system as certain social security characteristics - such as pension calculation, eligibility and additional benefits – varied between pension funds and remained different across legacy funds even after mergers.

Combined with adverse demographic trends and with insufficient and/or aborted attempts to reform the system in the 1990's and 2000's, these factors led to the production of alarming pension expenditures, projected to reach 24.1 per cent of GDP by 2060 in the 2009 Ageing Working group report.

The need for pension reform was thus identified even before the first EAP. The system was posing an imminent threat for the state's ability to meet its pension obligations and its long-term viability was in jeopardy. However, there was a lack of shared political understanding of the problem and no consensus on the way forward. This translated into a lack of communication on the need for reform on the side of the

Greek authorities and created problems for the subsequent implementation of those reforms.

Implemented reforms

The reform of the pension system was a key element of the three EAPs in Greece, covering three main areas: pension fund consolidation, pension calculation and eligibility rules (see Annex 5).

As from 2010, pension reforms were far-reaching in ensuring long-term sustainability. But the nature and extent of the problem was not fully grasped at the initial stage according to stakeholder interviews, with some funds that formed part of the tripartite public pension system initially considered outside state financing. The unprecedented lack of data and the system fragmentation was making some structural reforms very difficult to design and implement. This triggered the need for further rationalisation of the system as understanding increased later in the programmes.

Besides, over the course of the second and third programme, there were intensifying short-term fiscal pressures on the pension system. This was explained both by (i) the depth of the crisis itself and the associated constant revision of the macro-fiscal projections and (ii) the waves of early retirement, themselves linked to reform design characteristics (pre-legislated harmonisation of public and private sector and grandfathering measures). These short-term fiscal pressures led to the implementation of large and repeated cuts in pensions (14 in number) which have triggered legal challenges with economic implications (as some of the cuts were declared unconstitutional and implied retroactive payments). In this context, there was an increased focus on measures yielding more immediate savings with tangible impacts on pensions spending as from the third programme. A key milestone was achieved in May 2016 when the new Law No. 4387/2016 introduced a unified system for all pensions without any transition period. At the time, the ownership for the pension reforms has substantially increased as many elements of the pension reform that were eventually adopted in 2016 were based on proposals from the Greek stakeholders.

Impact of the reforms on the pension system

Pension reforms have been positive from a financial sustainability point of view. Overall, there is broad consensus that a lot has been achieved in this regard, despite Greece having the worst projected economic dependency ratio. The September 2019 update to the AWG report projected public expenditure on pensions for 2070 to decline to 11.7 per cent of GDP, coming close to the projected EU average. The various sensitivity tests performed as part of the AWG reports provide reassuring messages.

One way financial sustainability is achieved despite the worsening demographics is through an indexation mechanism based on inflation rather than wages. This implies a material decline in the benefit ratio. That said, for now, no major adequacy challenges are flagged in EU level sources (except for some workers, e.g. non-standard workers with short working careers and low earnings), given Greece's starting point. But the issue remains debated in Greece (also in light of the wider context e.g. low spending on Long-Term Care, healthcare issues, housing costs) and calls from the main opposition party are made for further adjustments (indexation of the basic pension with poverty threshold / wages).

The projections are also dependent upon the effective retirement age. Possible sources of concern in this context could be that it remains possible to claim a full pension (i.e. without penalty) once reaching the age of minimum 62 and 40 years of contribution. Besides, Greece has legislated an automatic link of the retirement age to life expectancy but it is not yet clear how this process will work.

Despite the successive pension cuts, pension spending started to decline on a more permanent basis only as from 2017. Moreover, the pension system still requires significant annual transfers from the State budget, to a larger extent than in other EU countries. This is also a reflection of the persistently high unemployment in Greece, which continues to affect the revenues of the social security funds.

Under the first and second EAP, the main drivers of fiscal savings were pension-related fiscal measures. The reduction of the list of arduous and hazardous occupations as well as the reform of the eligibility criteria for disability pensions, part of Law 3863/2010, also impacted positively the public finances in the early years of the programmes. However, volume effects explained the intensifying short-term pressures before the 2015/16 reform. As from 2015, the creation of disincentives to early retirement and the elimination of various pathways and grandfathering rights started to ease the fiscal pressure. The 2016 reform generated significant fiscal savings – the new rules applied fully and automatically to each and every pension application submitted as from the day the law was voted (without pro-rata of acquired pension entitlements). Combined with the 2015 measures and the gradual reduction of EKAS until its final elimination, the 2016 pension calculation rules generated fiscal savings in excess of MoU commitments (decrease by 2.2 p.p. in total public expenditure on old age and survivors between 2016 and 2018). While the ownership of the overall 2016 pension reform was high, some of its fiscal-related aspects, notably the cuts in supplementary pensions and the reform of the survivor pension, posed problems of acceptance at the time and were later reversed.

Over the course of the third programme, there were attempts to further compress the pension-related fiscal spending through a pre-legislated package consisting of applying the new pension calculation rules to existing pensions and using the savings made, provided that fiscal targets would be met, to targeted spending package (Law 4472/2017). We understand that the push for the pre-legislated package was made at the request of the Eurogroup, to accommodate the IMF who (i) had more conservative fiscal projections, (ii) was pushing for the fiscal policy mix to be rebalanced and (iii) expressed concerns over intergenerational equity issues. While there is no doubt that the social welfare system falls short of expectations in Greece in terms of spending levels and redistribution across income groups, the EC was in favour of a more gradual course of events based on the freezing of pensions with positive "personal difference", allowing the "personal difference" to be eliminated over a period of eight to ten years depending on the economy's growth rate. This approach was meant to avoid the social costs associated with a more abrupt reduction in pensions and to avoid possible legal issues. In the end, the recalibration of existing pensions was not applied despite having been legislated. By then, it was clear that the fiscal targets would be achieved even without the cuts. This however remained a disputed issue between the two institutions.

Improved efficiency is recognised as one of the key achievements of the programme. The fragmentation of the pension system at the start of the programmes was a major reform hurdle. Some key milestones (e.g. successive with SSF consolidation, Ariadni and Helios systems in 2013, ATLAS in 2015) enabled deeper structural reform. In the end, efficiency gains are visible in terms of reduced spending on salaries and consumables and stronger arrears collection and the risk of backtracking is understood to be limited at this level, with the benefits of consolidation widely accepted in Greece.

Implications of the Supreme Court decision

- Court rulings 2287/2015 and 2288/2015 declared the 2012 pension cuts unconstitutional on the basis that these had been implemented hastily, without offering sufficient justification for their extent or distribution across the pensioner population. Court rulings 1890/2019 and 1891/2019 confirmed that the 2016 law rectified the unconstitutionality of the 2012 cuts and challenged the constitutional character of some new aspects of the 2016 reform.

- This study analysed the cost implications of the 2015 and 2019 rulings, based on the information available as of June 2020. These estimates will need to be confirmed in light of an ongoing 'pilot trial' decision, which is expected to become available in the summer of 2020.

In total, one-off retroactive payments could amount to EUR 12.9 bln – EUR 14.8 bln. These essentially comprise the retroactive payments for the period 2013 - June 2015 to reverse the unconstitutional 2012 cuts (payable only to those who filed a suit before June 2015).

In addition, the annual costs (linked to addressing the 2019 rulings on the 2016 reform) would increase from EUR 640 mln in the short-term to EUR 2.8 bln in the long-term. Until 2047, these costs would be largely compensated by the cancellation of the 13th payment to pensioners, to limit the net impact of the rulings on the public finances and to earmark more resources for other social spending.

Overall, the expected economic impacts are more limited than initial projections suggested. This is partly linked to restricted eligibility rules (only those who filed a suit were compensated, not all those who were affected). The Court decisions also ruled out the possibility for those affected to be granted further retroactive compensation for the period May 2016 - October 2019.

Impact of the pension reforms on labour market participation and retirement

During the period of EAP implementation (2010-2018), as a result of the economic crisis, employment in Greece fell sharply, from 59.1 per cent of the total population of active age (15-64 years old) in 2010 to 48.8 per cent in 2013, returning to 54.9 per cent in 2018. Meanwhile, the labour force participation rate - which includes unemployed people who are actively seeking employment - remained relatively stable, at around 67-68 per cent while, in other EU countries, participation rates increased. This reflects a structural weakness in Greece, where the labour market lever is not fully exploited for ensuring both the sustainability and adequacy of the pension system – especially when it comes to female labour market participation.

Attributing the observed changes in labour force participation to particular pension system reforms is not straightforward, as, during the same period, the broader economic conditions changed dramatically and there were several channels through which the pension reforms and other reforms promoted by the EAPs (notably the labour market reform) would have impacted various labour market aspects.

First and second EAPs were marked by significant waves of early retirements, leading to cost overruns for the pension system. While anchored in the design of the pension reform, these changes also reflect a policy choice to pursue active early retirement policies during the crisis, especially for women, and the use of early retirement as an adjustment channel for the labour market.

Another channel through which the reforms might have impacted the average labour market exit age is the increase in the link between contributions and pensions. Under the pension system prior to the 2010 reforms, the minimum pension and the income-tested non-contributory benefit to pensioners (EKAS) resulted in a rather flat curve of earnings replacement in relation to years of contribution, especially for workers with low salaries. Even for salaries that were double the minimum wage, under the terms of the pension system prior to the 2016 reform, the design of EKAS meant it was possible - in certain cases – that contributing more years led to a lower pension. With the introduction of the national pension and the abolition of EKAS (from 2020) under Law No. 4387/2016, the incentives to remain in the labour force improved. In addition, the minimum requirement to be pension-eligible is still 15 years but having less than 20 years' contributions reduces the national pension.

There were also attempts to increase female labour force participation through changes in survivors' pensions, also in light of the fact that Greece spends comparatively more than EU countries on survivors' pension. However, for those concerned, transitioning to the labour market was more difficult than assumed in the reform's intervention logic. In a context of low acceptance of this reform in Greece, the age limits of the survivors' pension reform were fully abolished in 2019.

While recognising that the shadow economy cannot be measured directly and the EAPs affected tax evasion and informal employment through measures not related to the pension system (downward revision of the minimum wage, reforms of labour inspection), the pension reforms could, last but not least, have had an impact on labour force participation, through changing the incentives to pay social security contributions and declare activity. This is relevant especially for the self-employed and freelancers, where the rules on social security contribution were radically overhauled with Law No. 4387/2016 (but later amended in Law No. 4578/2018 and changed radically again in Law No. 4670/2020). The net impact of pension reforms on contribution evasion and informal employment is difficult to determine but data on the receipts from social security contributions tend to support the assertion that the situation deteriorated over time for the contributions from self-employed. It is plausible that the changes in the contribution rules implemented in the 2016 reform (which have been associated with a sharp increase in the contribution rates for the self-employed) played a role.

Conclusions

In conclusion, the EAPs brought about far-reaching reforms in the pension system, improving its long-term sustainability, generating fiscal savings and consolidating its fragmented structure. Many of the reforms were unlikely to have been pursued without the impetus of the EAPs.

The pension related fiscal measures included in the initial years of the EAPs though led to an erosion of the public trust in the pension system. The situation is thus paradoxical in the sense that despite the structural progress highlighted in the study's findings, people's perceptions have deteriorated. In this context, the clear lack of communication of the need to reform the system by the authorities did not help. It was common for the authorities to push the responsibility for the pension cuts and reforms on the institutions, which did not help to legitimate the process, even though in 2016 they did take a stronger ownership of the pension reforms. More upfront communication on the fact that the system was unsustainable and overpromised on its capacities would have been helpful.

Further significant changes in the pension system were instituted after the end of the EAPs (e.g. increase of replacement rate of the main pensions, decrease of the contribution rate for employees, eEFKA). Others can be expected in the pension system in the years ahead, given the experts' opinions and the stated intentions by the major political parties in Greece. There is however a continuing lack of consensus on the way forward.

Many experts noted the need to reduce contribution rates and strengthen the fully funded pillars in order to reduce the pension system's burden on the economy. At the time of the EAPs and until now, the reforms focused on pillar 1 only. The possible reinforcement of pillars 2 and 3 would however require an open and extensive dialogue on the future of the pension system as a whole given the important policy trade-offs and societal choices it implies. Others believe that measures should be taken to improve the adequacy of the pension system, such as indexation of the basic pension with the poverty threshold. In parallel, some disagree with the recent removal of the link between contribution and income for the self-employed, freelancers and farmers under Law No. 4670/2020. Pensions in Greece will continue to be a disputed issue on the country's political agenda in the years to come.

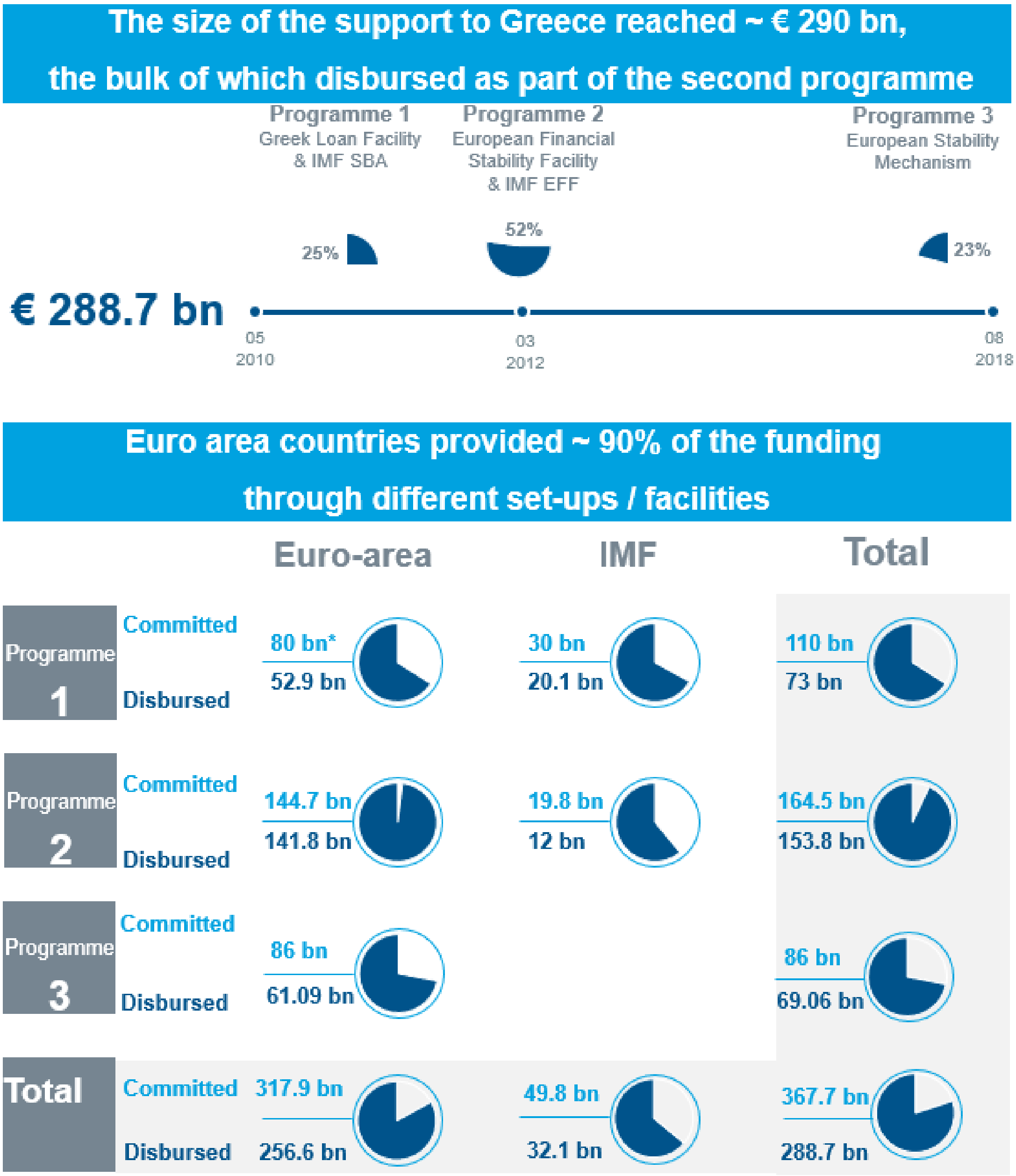
1 Introduction

1.1 Context, scope and purpose of the Study

Three Economic Adjustment Programmes (EAPs) were implemented in Greece over the period 2010-2018. The three programmes consisted of providing loans to Greece in light of the financial difficulties it was facing, conditionally on the implementation of policy measures. The basic underlying implicit ideas behind the programmes were: (i) to avoid the default of a Euro-Area member in light of the perceived contagion risks to other euro-area countries and systemic risks to the financial system; and (ii) to temporarily finance budgetary deficits, in the absence of access to capital markets, with strict limits that decline over time, and until a return to a healthier public finance situation could be achieved.

Over the period from May 2010 to August 2018, a total of EUR 288.7 billion were disbursed to Greece at favourable conditions approximately 90 per cent of which coming from the Euro-Area under various pool of funds. Note that different pools of funds had to be used since in 2009-early 2010, there was no EU-level facility which would allow to provide support to members of the Euro Area. Therefore, following the Greek Loan Facility, specific macrofinancial stability (MFS) instruments were set up, as interim arrangements (European Financial Stability Facility, European Financial Stabilisation Mechanism), before the permanent European Stability Mechanism (ESM) could be established. All, except the European Financial Stabilisation Mechanism (EFSM), have been created outside of the EU budget.

Figure 1.1 Key facts and figures on the Greek programmes



Notes: The commitments coming from the GLF decreased to € 77.3 bn when Slovakia decided not to participate in the GLF and when Ireland and Portugal stepped down from the facility as they became programme countries themselves.

The numbers for the commitments under the second programme need to be verified, making sure the resources rolled over from the first programme are consistently treated for both the Euro-area and the IMF.

Source: ICF based on websites of the Council of the European Union, the ESM and DG ECFIN

All programmes had the same objectives of helping to correct unsustainable imbalances and stabilise the financial sector on the short-term and restore the growth prospects and the country's capacity to finance itself fully on the financial markets (fiscal sustainability) in the medium and long run.

To achieve these objectives, a set of conditions were agreed with the institutions[2] in the programme's respective Memoranda of Understanding on Specific Economic Policy Conditionality (MoU) and served as benchmarks for assessing policy performance as part of the quarterly reviews. In that context, pension reforms were a key focus of the programmes, as from the first programme, given that the pension system had recently been assessed to be unsustainable, based on actuarial studies of the Greek National Actuarial Authorities and long-term projections (Ageing Report 2009).

The study focuses on analysing the characteristics and developments of the pension system in Greece over the period 2010-2018 in the light of the objectives and the policies implemented during this period. It covers all three adjustment programmes and all aspects of the programmes with relevance for the pension reforms in Greece during this period, in both design and implementation.

The study answers the following questions:

- Question 1: What was the situation of the pension system at the outset of the crisis in terms of sustainability and adequacy?
- Question 2: To what extent has the sustainability of the pension system been restored?
- Question 3: To what extent and how have the envisaged fiscal savings been achieved?
- Question 4: To what extent has the administration of the pension system become more efficient?
- Question 5: What has been the impact of Court decisions on the fiscal targets, on the viability of the pension system and on related reform measures?
- Question 6: How have labour market participation and retirement incentives been affected by the changes?

1.2 Structure of this Report

The remainder of this Report is structured as follows:

- Section 2 provides an overview of the main findings by study questions;
- Section 3 concludes.

The main report is supported by the following annexes:

- Annex 1: Methodological annex
- Annex 2: Reviewed documentation
- Annex 3: List of interviews undertaken
- Annex 4: Delphi survey analysis
- Annex 5: Overview of key reforms and implementation status

[2] The institutions are the European Commission, the European Central Bank and, for EAP 1 and 2, the International Monetary Fund.

2 Main findings

2.1 Diagnosis of the pension system and implemented reforms

2.1.1 What were the characteristics of the Greek pension system?

The pension system in Greece consisted of:

- Public schemes, based on a tripartite model of funding by the State, employers and employees;
- Voluntary occupational schemes financed by contributions from employers and employees (since 2002);
- Voluntary group and individual private insurance schemes.

The public pension system in Greece was universal, compulsory and redistributive. It was funded through a pay-as-you-go (PAYG) scheme, where pensions paid to current beneficiaries are funded primarily by contributions paid by current employees and employers. Prior to the recent reforms, other sources of funding of the public pension system were statutory and *ad hoc* transfers from the state budget, third-party levies on transactions (a form of indirect taxation) and income from the use of property owned by the social security funds.

The public pension system had a main component and a supplementary component, together with an income-tested minimum pension and safety net benefits (Table 2.1). Prior to the reforms, the social security funds (SSFs) provided certain social protection benefits and healthcare, in addition to pensions. Both employees and self-employed people were primarily part of a defined benefits system. The supplementary pension was also a defined benefit scheme. Prior to its reform, it was provided by a great multitude of funds, corresponding to professional groups or large state-owned companies.[3]

As of 2008, the social insurance institute and main pension provider for private sector employees – IKA-ETAM - supplied 70-80 per cent replacement of the insured's income for a full 35-year career, while the supplementary pension provided by specialised funds supplied a further 20 per cent replacement, on average. This was further augmented by lump sums on retirement, paid from separation funds and chiefly associated with public sector employees[4].

Occupational social security funds acted as an additional pillar of the pension system in Greece. This type of social security was introduced in 2002 with the adoption of Law 3029/2002. It consisted of voluntary social security schemes, operated by non-profit legal entities and governed by private law. Their scope was to provide additional occupational social security against a number of insurance risks, such as old age, death, disability, occupational accident, sickness and layoff.

[3] The supplementary pension insurance became mandatory in early 1980s for all private sector employees, with certain exceptions (Law 997/1979). According to data from the Helios database, as of April 2020, 1.2 million supplementary pensions were paid to the total amount of EUR 215 million, corresponding to 9.5% of the total pension expenditure. Overall, 47.7% of the pensioners received a supplementary pension in April 2020.

[4] Panageas, S. and Tinios, P. (2017). Pensions: arresting a race to the bottom. In C. Meghir, C. A. Pissarides, D. Vayanos and N. Vettas (Eds.), *Beyond austerity: reforming the Greek economy,* Cambridge, MA: MIT Press, pp. 459–516.

Table 2.1 Snapshot of the public pension scheme for private sector employees (start of work life after 1 January 1993) in Greece prior to 2010

Key feature	Details
Structure	Earnings-related scheme with two components (main and supplementary) Minimum contributory pension Income-tested non-contributory benefit (social solidarity benefit - EKAS)
Qualifying conditions	Normal pension age: 65 for both men and women 60 for women with start of work life before 1 January 1993 Minimum years' contributions: 15 (4,500 days)
Eligibility for EKAS	Low-income pensioners under most public pension schemes Farmers' pension scheme (OGA) is excluded Total net income from all sources less than EUR 7,750.42 Total taxable income not more than EUR 9,042.16 Total taxable family income EUR 14,070.23
Accrual rates	Main: 2 per cent of earnings for each year of contributions up to 35 years (70 per cent replacement rate) 3.3 per cent of earnings for each year from 65-68 years of age 0 per cent beyond 68 years of age (80% maximum replacement rate) Supplementary: 20 per cent of earnings for workers with 35 years' contributions Adjusted by 1/35th for shorter or longer contribution periods Implied linear accrual rate of 0.57 per cent per year of contribution
Earnings measure	Average over the last five years before retirement Adjusted in line with national income policy
Maximum pension	Four times the 1991 Gross National Product (GNP) per capita, linked to the increases in pensions each year For a full-career worker, this is equivalent to a ceiling on pensionable earning of 325 per cent of average earnings
Indexation	Discretionary
Early retirement	Workers with at least 37 years' contribution can retire regardless of age without any reduction Workers with at least 35 years' contribution can retire from the age of 55, with a reduction of 1/200 per month of early retirement (6 per cent reduction per year) Workers with at least 15 years' contribution can retire from the age of 60, with a reduction of 1/200 per month of early retirement (6 per cent reduction per year) Concessions:

	People who work in arduous and hazardous occupations Women with dependent children or children with disabilities Credit is given towards the pension qualifying conditions of one year of the first child and two years for each subsequent child to a maximum of three children
Late retirement	Reduction by 70 per cent of the pension income in excess of EUR 733 per month if still working Increment for dependent children No pension income if working and under 55 years of age.
Survivors	Surviving spouse receives the full (main and supplementary) pension of the deceased if not working or receiving other pensions Otherwise, 50 per cent of pension if survivor is 65 or younger and 70 per cent if older than 65 years of age In case of reduced survivors' pension, the remaining pension can be distributed among the children of the deceased, if they have disabilities, are underage or under 24 and studying in higher education

Note: Information on favourable pension terms for civil servants and self-employed are provided in Boxes 3.1 and 3.2.

Sources: OECD (2009). Pensions at a Glance; Laws 2873/2000, 3655/2008

Private occupational funds may be set up by an undertaking, a sector or a group of industries, on the initiative of employers, workers (or both), the self-employed and farmers. The basic condition for the creation of an occupational fund in a sector, professional organisation or an enterprise is that the number of insured persons should be at least 100. The retirement benefits of the occupational funds are provided on the basis of a fully funded system, i.e. from the contributions of the beneficiaries paid throughout their participation in the scheme and the accrued return on investment of the contributions. Individuals' contributions to the occupational funds and the lump sum received on retirement are exempt from taxation.

The coverage of the occupational funds was extremely limited prior to the pension reforms. The first two such funds were established in 2004 by public sector employees (of the Ministry of Finance and the post office company, ELTA). The occupational fund of Ministry of Finance employees only provided health cover to its members until 2011. It recommenced its operation in October 2017 and, since January 2019, provides old age and disability pensions. The occupational fund of agrotechnicians began its operation in 2007, followed by the fund for police, fire service and coastguard officers in 2009. Some private sector funds (e.g. Johnson & Johnson; Interamerican) were established in 2010, with others created in 2017-2018. According to data from the Greek association of occupational funds, ELETEA, there are currently 19 occupational funds in operation, insuring some 150,000 workers, or around 2.5 per cent of the economically active population in Greece[5].

Pension provision in Greece is supplemented with voluntary, private, fully-funded group and individual insurance schemes. Benefits under these schemes are not dependent on employment considerations. Prior to the recent reforms, tax discounts were applied to individuals' life insurance premiums, including their contributions to long-term saving plans. This type of pension scheme was less developed in Greece than elsewhere in the

[5] Foundation for Economic and Industrial Research (IOBE) 2019. *Συνταξιοδοτική μεταρρύθμιση και ανάπτυξη*. Retrieved from http://iobe.gr/docs/research/RES_04_15042019_REP_GR.pdf

EU. Data from the Greek association of insurance companies (EAEE) show that, in 2014, Greece's average life and pension premiums per capita stood at only EUR 172, compared to about EUR 1,200 in the EU[6].

Given the generosity of the public sector scheme and the relatively high level of mandatory contributions to support it, there was little space for the development of occupational funds and private pension plans in Greece. As a result, the Greek pension system relied heavily on the state-run, PAYG pillar, which was estimated to absorb around 95 per cent of total pension contributions each year[7]. The Greek pension system was also characterised by a high degree of fragmentation (see Box 2.1).

Box 2.1 Highly fragmented public pension system

Prior to the EAP reforms, a great number of funds provided main and supplementary pensions for different sectors and occupational groups under the public pension system. Most private sector employees were insured in IKA-ETAM for their main pensions and in ETEAM for their supplementary pension. Until 2008, the employees of certain state-owned enterprises (Public Power Corporation; the telecommunications company, OTE; the insurance company, Ethniki; Bank of Greece and state-owned banks) were covered under separate special SSFs for main and supplementary pensions. Freelance professionals (engineers, doctors, pharmacists, lawyers) and other occupational groups (e.g. drivers, traders, craftsmen, farmers and journalists) had separate main and supplementary SSFs. In the late 1990s, before a wave of SSF mergers, the number of main and supplementary SSFs in Greece exceeded 300.[8]

Apart from the SSFs, civil servants, military personnel, and the employees of the Greek Parliament, public sector agencies, local authorities, churches and a number of other special cases (e.g. Greek nationals employed in Greek community schools abroad) were eligible for a state pension, under preferential conditions comparable to the IKA pensions for private-sector employees. For instance, eligibility for state pension for civil servants was acquired with 25 years of real pensionable service, reduced to 15 years for mothers with unmarried children with start of work life until 31/12/1982, 15-17.5 years for mothers with unmarried children with start of work life from 1/1/1993, 20 years for widowed or divorced mothers and fathers with at least three children, 20 years for laid-off public servants, 10 years for professors and lecturers of higher education institutions, 8 years for general secretaries of ministries and parliament, etc. Reduced age limits for full pension were applied to mothers with underaged or disabled children (42-50 years, depending on the date when the pension rights were acquired), and primary and secondary education teachers with at least 30 years of service (55-60 years, depending on start of work life), while there were no minimum age limits for members of the judiciary, the main personnel of the Legal Council of the State and the military.

Successive mergers between 1999 and 2008 meant that by the time of the first EAP there were 13 SSFs supervised by the Ministry of Labour - five SSFs for main pensions (IKA-ETAM for employees, OGA for farmers, OAEE for freelance professions, ETAA for self-employed, and ETAP-MME for mass media personnel), six SSFs for supplementary pensions (ETEAM for general-category private-sector employees, TEAIT for various special private sector employees, such as those of insurance companies, retail shops, chemists, petroleum traders, etc., TAYTEKO for employees of certain banks and utilities, TEADY for public-sector employees, TEAPASA for the security forces and ETAT for the employees of Emporiki, Pisteos and Attica banks) and two SSFs for lump-sum pensions (TAPIT for the private sector and TPDY for the public sector), alongside a number of autonomous PAYG funds. Despite the mergers, the terms of pension provisions were

[6] *ibid.*
[7] *ibid.*
[8] Βουρλούμης, Π. (2005). *Το ασφαλιστικό με απλά λόγια (Β΄ έκδοση)*. Αθήνα: Εκδόσεις Ποταμός.

maintained from the legacy funds, thus the pension system remained highly fragmented. The first report from the newly established single pension payment system, HELIOS, in 2013 listed 93 separate public schemes for main and supplementary pensions.

2.1.2 What reforms had been undertaken prior to the crisis?

The problematic state of the Greek pension system was evident well ahead of the recent crisis. Following the rapid increase in its deficit in the 1980s, the Greek government introduced two reform bills in 1990 and 1992. With Law No. 1902/1990 and Law No. 2084/1992, stricter eligibility criteria were introduced for newcomers to the labour market, while the employer and employee contributions were increased to improve cash flow in the system. These reforms were not sufficient to secure the long-term viability of the system, however, as documented in a series of reports issued by Greek and international institutions in the late 1990s[9].

Law No. 2676/1999 initiated the merger of a number of SSFs (the funds of traders, TAE; professionals and craftsmen, TEBE; and drivers, TSA) into a newly established fund for freelancers (OAEE). In addition, a number of assistance funds (*ταμεία αρωγής*) for public servants were abolished and replaced by a new supplementary insurance fund for public servants (TEADY). Finally, some supplementary funds (metal workers, ETEM; employees of professional membership organisations, TEAEYEEO) were incorporated into IKA, while a number of welfare funds were either abolished or merged into other funds.

A more substantial reform push was instigated in the early 2000s. Government proposals in 2001 (to set the retirement age at 65 for men and women, institute a single method for calculating pensions, cap the earnings replacement rate at 80 per cent, consolidate the main and supplementary pension funds into eight institutions, and introduce a basic pension) led to mass protests and were largely abandoned. The following year, the more limited ambition Law No. 3029/2002 was passed, introducing certain parameter changes and distinguishing between those that entered the labour market before and after 31 December 1992. The Law envisaged that certain funds (e.g. those of state-owned firms and banks) would be incorporated into IKA by 2008 (without amending the terms of retirement of their beneficiaries), renamed IKA to IKA-ETAM, separated the supplementary insurance of IKA into an autonomous fund (ETEAM), and legislated the conditions for establishing fully-funded defined-contribution occupational funds. Lastly, the State's participation in a tripartite contribution system for the main pension for private sector employees under the IKA-ETAM scheme[10] was replaced with the obligation for the state to provide IKA-ETAM with an annual contribution of 1 per cent of GDP until 2032. This amount could be adjusted every five years in the event of adverse developments that increase the actuarial deficit of IKA-ETAM. The State also adopted the obligation to cover the deficits of other SSFs, provided that they were in the process of gradual integration with IKA-ETAM.

In 2008, Law No. 3655/2008 legislated the merger of six main insurance funds in IKA-ETAM that was initiated by Law No. 3029/2002. In addition, the pensions branch of the SSF for employees of the Public Power Company was incorporated into IKA-ETAM as an autonomous scheme, with separate financial accounts. A number of SSFs of liberal professions for main, supplementary and lump sum pensions were incorporated into the newly established ETAA. Similarly, a new fund incorporated nine SSFs for supplementary pensions of private sector employees (TEAIT). In each case, the source of ordinary revenue, property income, investment returns, assets and liabilities were incorporated into the merged funds, while the terms and conditions for the existing beneficiaries of each legacy fund were kept unchanged, limiting the benefits of fund consolidation.

[9] Γιαννίτσης, Τ. (2016). *Το ασφαλιστικό και η κρίση. Αθήνα: Εκδόσεις Πόλις.*
[10] 10 per cent contribution rate by the State, 6.67 per cent by the employee and 13.33 per cent by the employer.

2.1.3 Evaluation Question 1: What was the situation of the pension system at the outset of the crisis in terms of sustainability and adequacy?

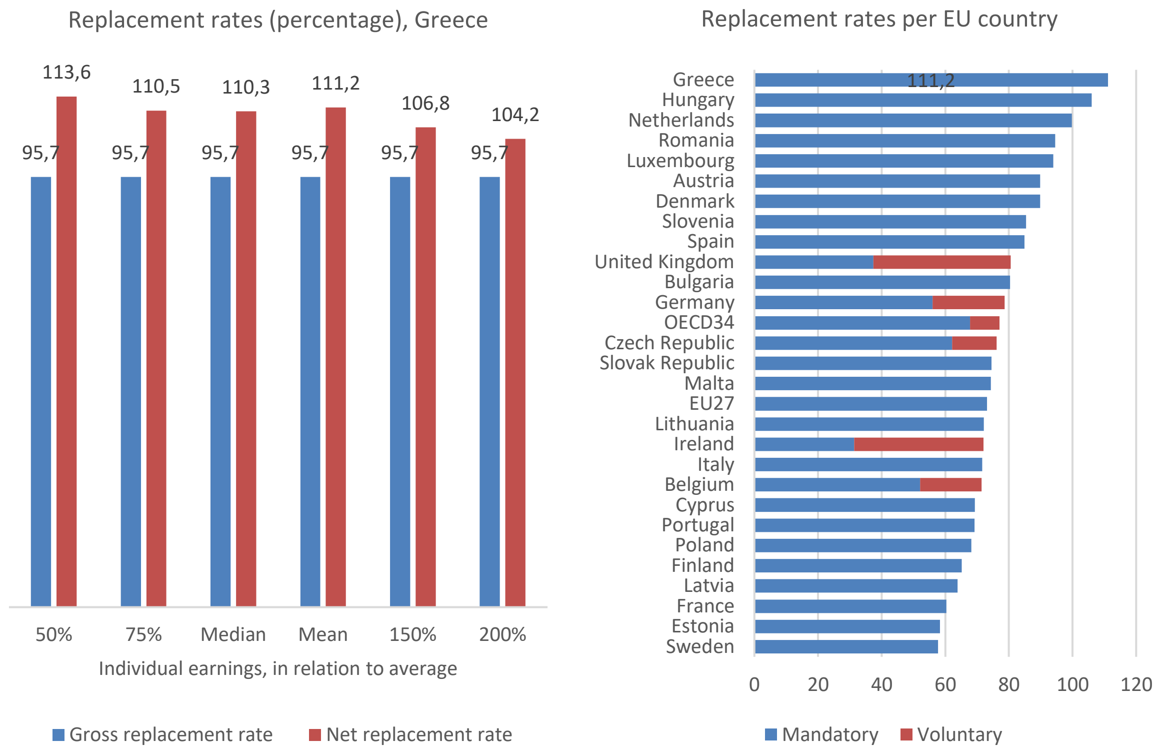
Adequacy: exceptionally high replacement rates, but low impact on old-age poverty

The main strength of the Greek pension system prior to the reforms was the exceptionally high level of pension adequacy, i.e. size of pensions relative to wages. As of 2008, a private sector employee retiring at 65, with 35 years' contributions, would receive a pension equal to 90 per cent of average earnings acquired in the five years prior to their retirement (70 per cent from the main pension and 20 per cent from the supplementary pension). For a private sector employee retiring at 68 with full benefits (at least 35 years of contributions), the gross replacement rate from the main and supplementary pension may exceed 100 per cent (80 per cent maximum from the main pension plus 0.57 per cent for each year of contribution from the supplementary pension). This estimate excludes additional benefits, such as any lump sums from separation or welfare funds (*ταμεία πρόνοιας*).

According to OECD estimates for the Greek pension system in 2008, the gross replacement rate for private sector employees in Greece (calculated over an individual's lifetime earnings) averaged 95.7 per cent. Taking into account the higher burden of social security contributions on employees' earnings, in net terms the replacement rate exceeded 111 per cent for an employee with average earnings. Due to the progressive nature of the income tax system, the net replacement rates exceeded 113 per cent for individuals with earnings at 50 per cent of the average, falling to 104 per cent for individuals with double the average earnings. For the median income, the net replacement rate equalled 110 per cent.

As a result, of the 41 developed and developing countries with available data, Greece had the highest net replacement rate for mean income for men (see Figure 2.1). The heavy reliance on the public pension system as a source of old age income in Greece, and correspondingly low reliance on voluntary occupational and private pension schemes or private savings, also contributed to this result.

Figure 2.1 Pension replacement rates



Source: OECD (2011). Pensions at a glance

Despite the generosity of the Greek pension system in net replacement terms, its effectiveness in alleviating old-age poverty was limited even before the crisis. In particular, Greece's at-risk-of-poverty (AROP) rate among those aged 60+ was substantially higher than the EU average in the years leading up to the crisis (Figure 2.2). In 2010, 20.8 per cent of the population aged 60+ in Greece had an income below the poverty threshold, compared with 15.2 per cent in the EU, giving Greece the fifth highest old-age poverty rate[11].

The high old-age poverty rate, together with the high average adequacy rate and high public expenditure on pensions, meant that the pension system in Greece was very inequitable and inefficient and partly reflected also the short working careers, also due to extensive period of undeclared work . Its fragmentation into a multitude of tripartite funds (in excess of 300 funds were operational in early 2000s)[12] was another key source of inequality within the system. Certain social security characteristics - such as pension calculation, eligibility and additional benefits – varied between pension funds and remained different across legacy funds even after mergers. Privileged sectors and professions, such as employees of state-owned enterprises and banks, were able to secure total (main, supplementary and lump-sum) pensions with earnings replacement well in excess of 100 per cent.[13]

The generosity of some of the SSFs was supported with funding from earmarked taxes on certain transactions. For instance, the major source of revenue for the SSFs of journalists

[11] Of a sample of 33 European countries with available data in 2010.
[12] Βουρλούμης, Π. (2005). *Το ασφαλιστικό με απλά λόγια (Β΄έκδοση). Αθήνα: Εκδόσεις Ποταμός.*
[13] Panageas, S. and Tinios, P. (2017). Pensions: arresting a race to the bottom. In C. Meghir, C. A. Pissarides, D. Vayanos, and N. Vettas (Eds.), *Beyond austerity: reforming the Greek economy*, Cambridge, MA: MIT Press, pp. 459–516.

and other media personnel was a levy on advertisement expenses (21.5% for TV and radio, 20% for Athens daily newspapers, 16% for Thessaloniki daily newspapers, etc.).

The pension age limits also varied within the system, with specific professions negotiating their inclusion in a list of arduous and hazardous occupations or securing reduced retirement ages for full pensions. Indicatively, the insured in SSFs of state-owned enterprises and banks enjoyed similar preferential conditions as civil servants - for example mothers with underaged children that had started their work life until 1982 and had worked for at least 15-20 years (depending on the SSF) until 1997 could retire at the age of 42-45 (depending on the year when the pension rights were acquired).

Sustainability: high and growing dependency on funding from the state budget

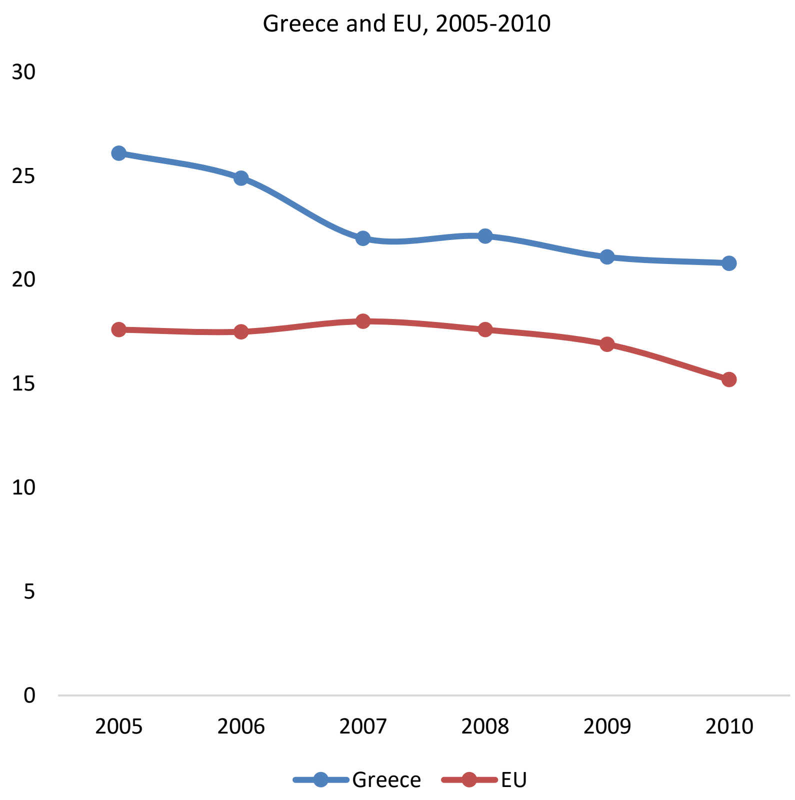
The high pension adequacy was strongly supported by funding from the state budget. Public expenditure on old-age and survivors' pensions from the state budget (for public sector employees) and from the SSFs accounted within the general government increased from 5.2 per cent of GDP in 1980 (below the OECD average of 5.5 per cent) to 14.2 per cent of GDP in 2010 (OECD 7.6 per cent on average) (see Figure 2.3).

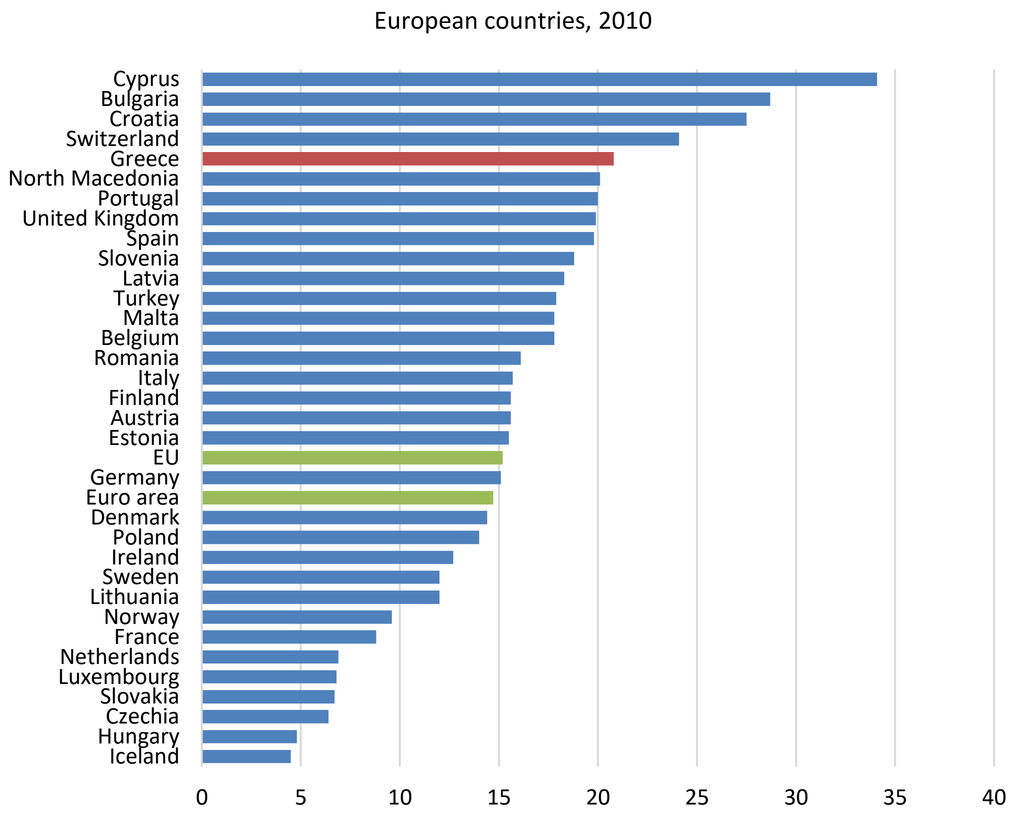
Pension spending from the state budget alone (which includes transfers for civil servants' pensions, statutory obligations as part of a tripartite social security system, and other current and capital transfers from the central government to SSFs, such as to cover deficits) almost doubled, from 5.2 per cent of GDP in 2001 to 10.2 per cent of GDP in 2009 (see Figure 2.4). By contrast, the transfers from the central government to SSFs averaged 3.4 per cent of GDP in 2009 in both the Euro area and the EU as a whole. The large volume of state funding to SSFs was likely driven in part by contribution evasion through undeclared work, leading to actuarial deficits.

In 2009, based on the adverse demographic trends in the country, the National Actuarial Authority projected pension expenditure to increase to 24.1 per cent of GDP by 2060. As a result, Greece posted the highest level of projected public pension spending for that year and the second highest change in the EU over the period 2007-2060[14]. Such projections, coupled with the high share of state-funded expenditure, created serious risks for both the viability of the pension promise and Greece's overall long-term economic sustainability.

[14] European Commission (2009). 2009 Ageing Report: Economic and budgetary projections for the EU-27 Member States (2008-2060). Luxembourg: Publications Office of the European Union. Available at: https://doi.org/10.2765/80301

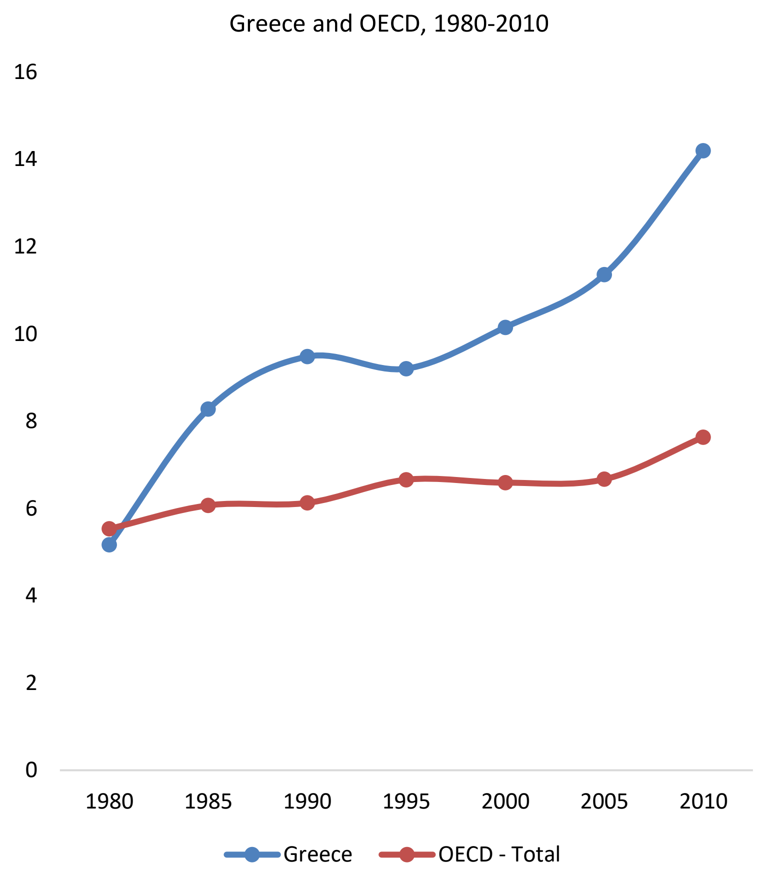
Figure 2.2 At-risk-of-poverty rate, 60 years or older

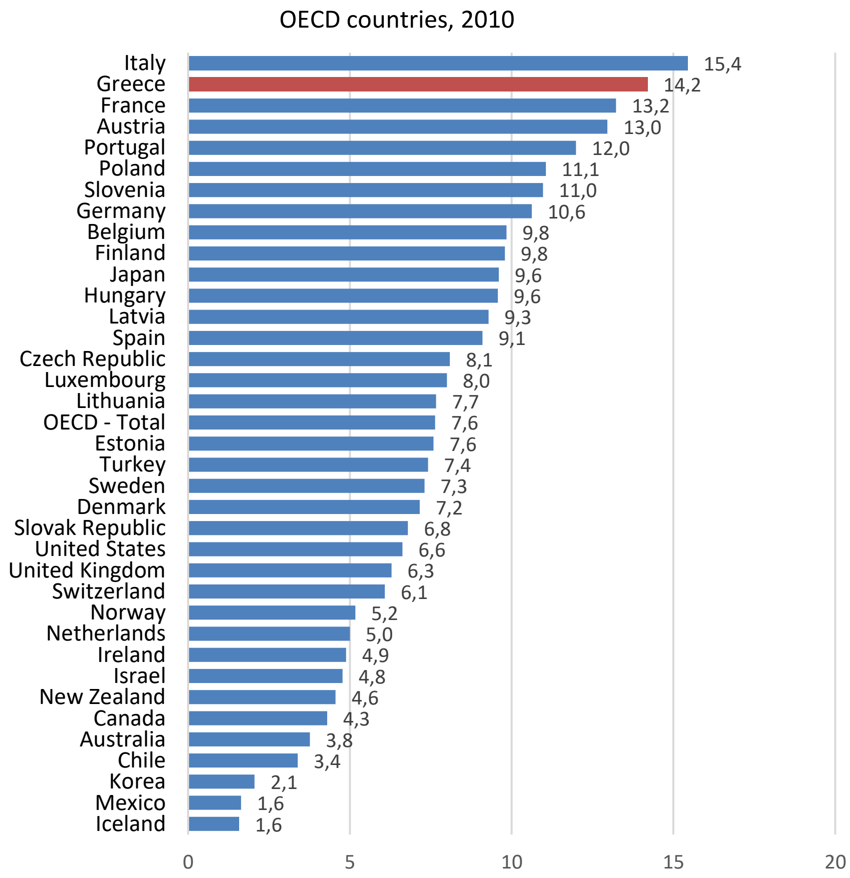




Source: Eurostat

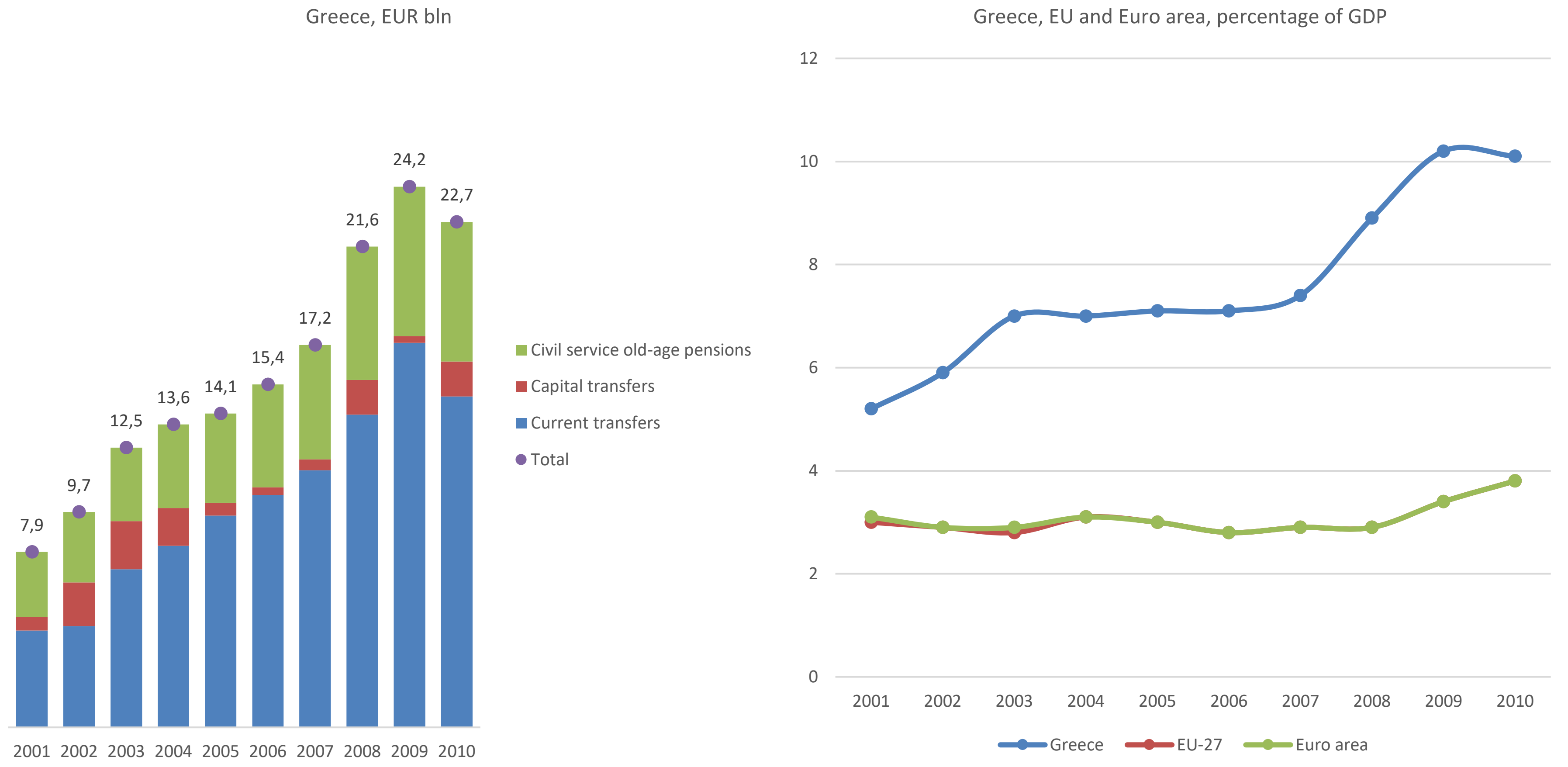
Figure 2.3 Public expenditure on old-age and survivors' pensions, percentage of GDP





Source: OECD Social expenditure database

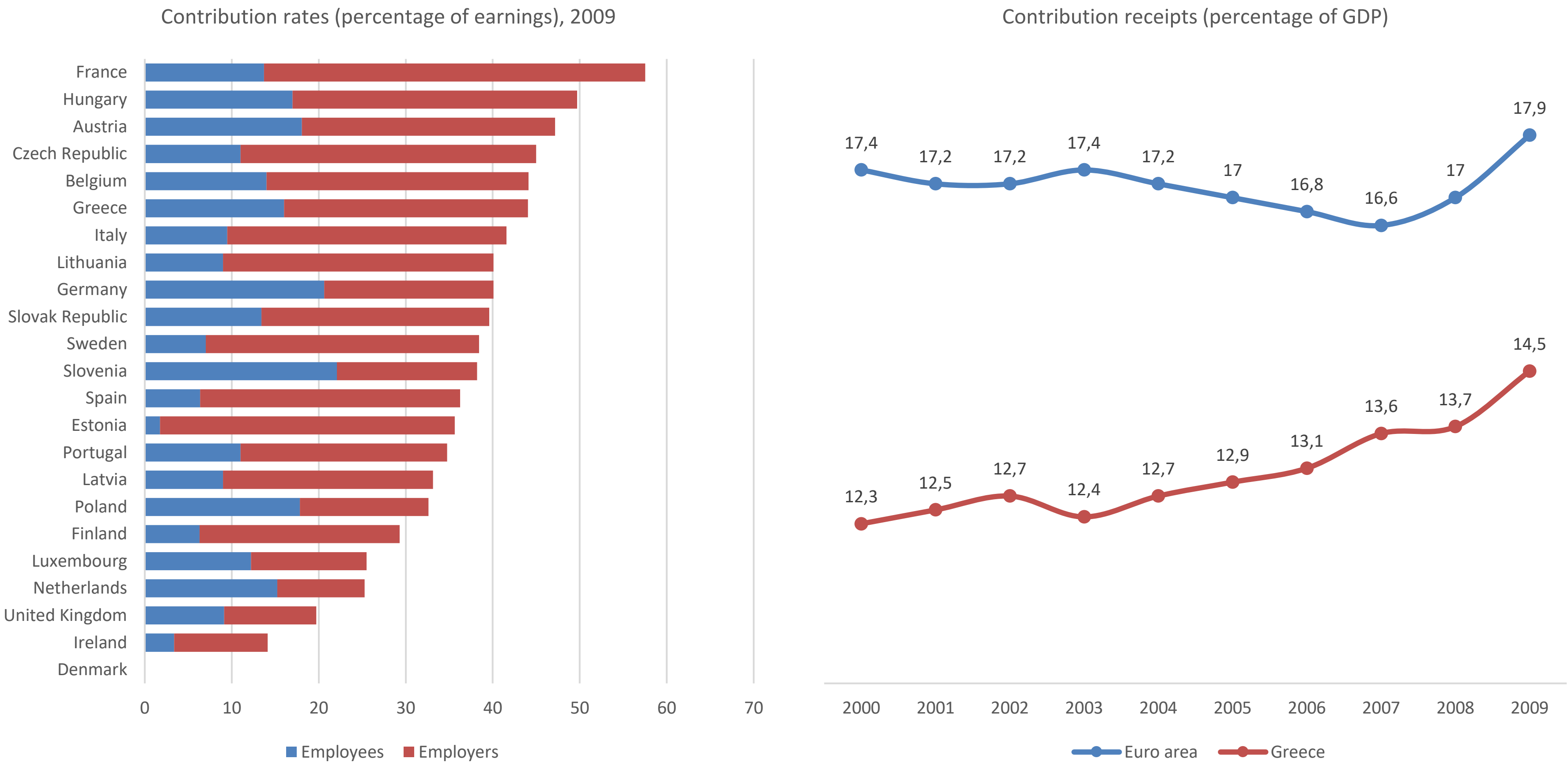
Figure 2.4 Central government spending on pensions, 2001-2010



Source: Eurostat

The series for EU-27 and the Euro area average refer to capital and current transfers from the central government to SSFs and do not include any direct payments of state pensions.

Figure 2.5 Social security contribution rates and receipts



Source: OECD and Eurostat

Adverse effects on contribution evasion and labour market participation

The heavy reliance on the PAYG first pillar, coupled with its substantial fragmentation, created a number of further weaknesses in the Greek pension system prior to 2010. Most notably, the employee and employer contribution rates for pension, health, unemployment and other social security benefits was rather high, at 44.1 per cent of earnings throughout 2003-2010. Among 23 OECD/EU Member States, Greece ranked sixth highest for average earnings and fourth highest for high earnings (defined as 167 per cent of average earnings), with respect to the total social security contribution rate of employees and employers.

Despite the relatively high contribution rates, the receipts from social contributions were relatively low. While these receipts increased from 12.3 per cent of GDP in 2000 to 14.5 per cent of GDP in 2009, they nevertheless remained significantly below the EU benchmarks (17.9 per cent of GDP in 2009 on average in the Euro area, and 16.4 per cent in the EU-27 for both mandatory and voluntary pillars – see Figure 2.5). The discrepancy between the social contribution rates and receipts indicated that contribution evasion was more widespread in Greece than among its EU peers.

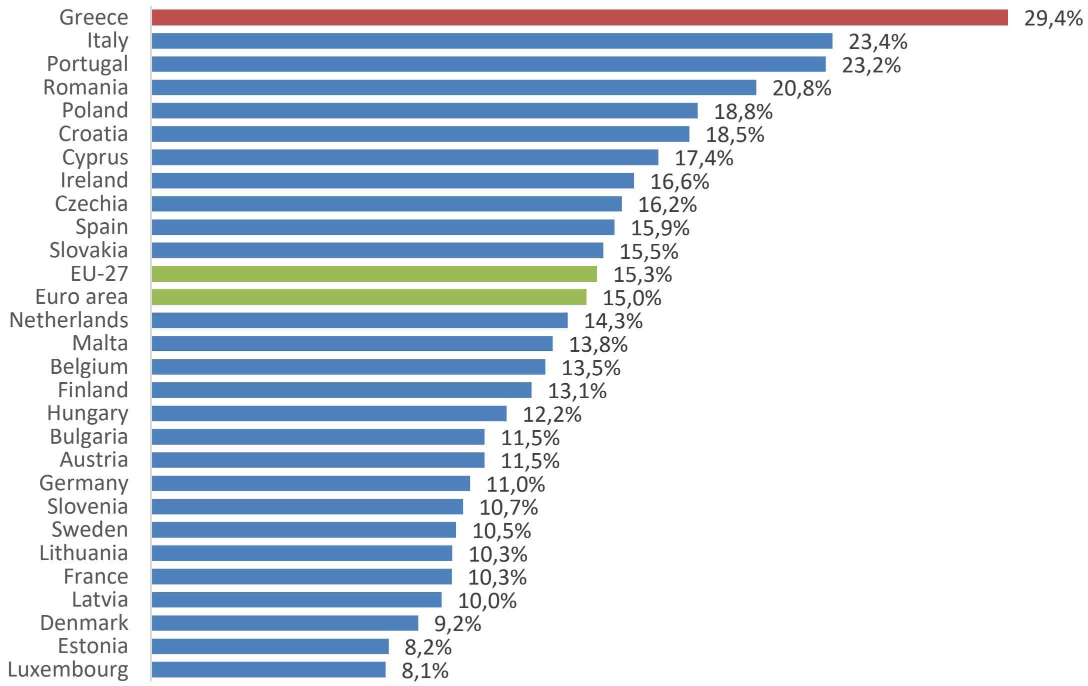
The large share of self-employed also contributed to evasion and undeclared work in Greece. In 2009, Greece had by far the largest share of self-employed in total employment among the EU Member States, at 29.4 per cent (Figure 2.6Figure 2.6). This was almost double the EU average, at 15 per cent in the Euro area and 15.3 per cent in the EU.

The large share of self-employed facilitated stronger tax and contribution evasion, as the self-employed typically have a strong incentive and opportunity to under-declare their real income to the tax authorities in order to lower their tax bill. The fragmented structure of the economy also significantly reduces the ability of audit services to detect evasion.

While the structure of employment affects the performance of the pension system - lower receipts from contributions – there are also causal effects in the other direction. The favourable social security terms for the self-employed prior to the reforms (see Box 2.2), coupled with the relative ease with which income could be hidden (compared to private sector employees) is a likely explanation for the elevated share of self-employed in the country.

The relatively high burden on labour costs from the social contribution rates of employees, together with other problematic aspects of the pension system (such as an extensive list of arduous and hazardous professions and relatively lax early retirement regime) had an impact on the officially recorded labour participation rate as well. In particular, the share of active population in Greece reached 67.4 per cent in 2009, compared to 70.1 per cent on average in the EU (see Figure 2.7). Similarly, the employment rate stood at 60.8 per cent in Greece, against 63.6 per cent in the EU.

Figure 2.6 Share of self-employed in total employment per EU country, 2009



Source: Eurostat

Box 2.2 Terms and conditions for social security of self-employed

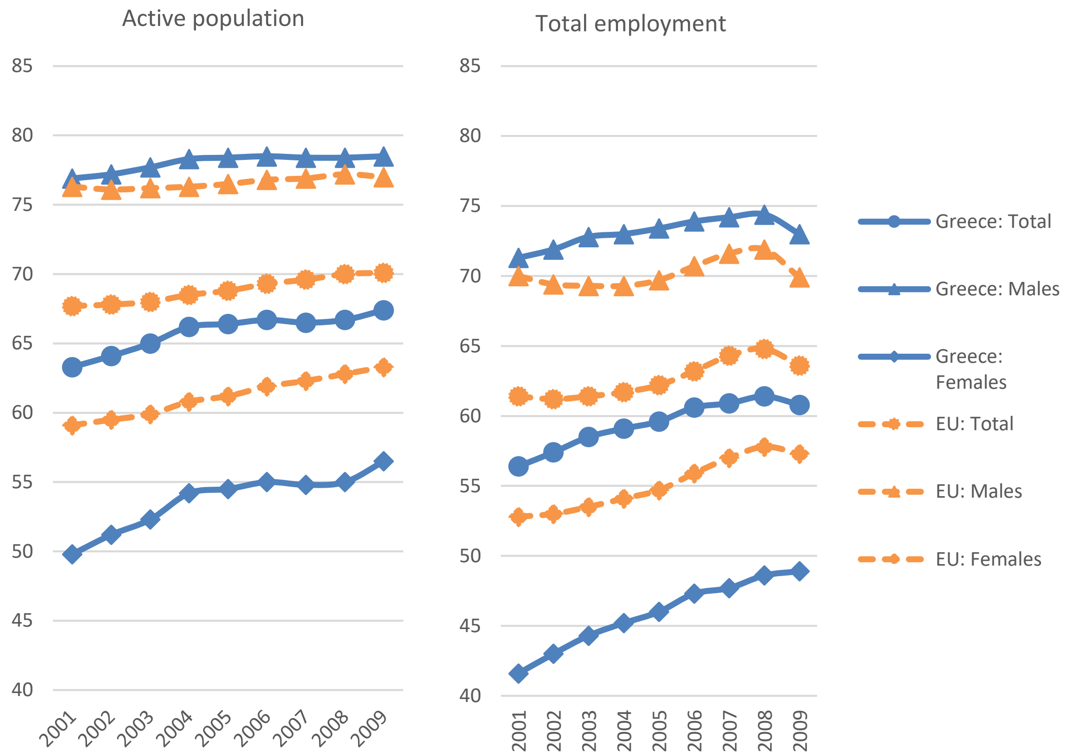
The terms and conditions of social security for the self-employed prior to the reforms were set out in the statutory documents of each fund, usually published in the form of a presidential decree. The contributions of the self-employed did not depend on their income but were fixed by social security category, with workers changing category according to their years of contributions.

Indicatively, the statute of the OAEE fund (issued with Presidential Decree 258/2005) envisaged 10 mandatory and four voluntary social security categories. The self-employed contributed from EUR 122.03 to EUR 410.62 monthly, corresponding to 20 per cent of the implied income corresponding to each social security category. A newly insured worker would start from the lowest category and progress to the next category every three years.

The OAEE accrual rate for the old-age pension was set at 2 per cent of the implied income of each category for each year of service. A minimum pension was set at an amount corresponding to 15 years' insurance at the sixth social security class.

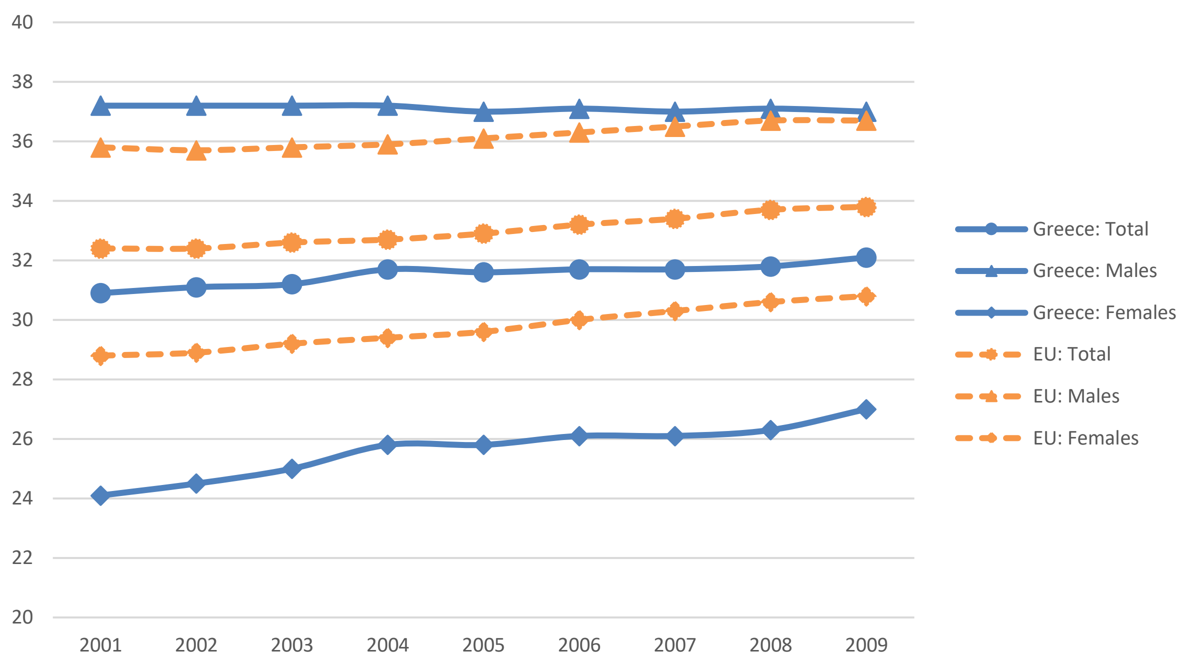
The implied income for calculating contributions was set at EUR 2,053.12 for the top category. By contrast, the upper limit on earnings for calculating social security contributions of private sector employees was set at eight times the average monthly GDP per capita, indexed with public sector wage growth (EUR 5,543.55 at the end of 2008). This implies that the contribution rate calculated over actual earnings (and thus the total labour cost) was substantially higher for employees than for the self-employed, especially for individuals with relatively high earnings.

Figure 2.7 Labour market participation, percentage of total population, 15-64 years old



Source: Eurostat

Figure 2.8 Average duration of working life



Source: Eurostat

The difference between Greece's labour market participation indicators and the EU average stemmed solely from substantially lower activity among the female population in the country. Only 56.5 per cent of females aged 15-64 years were active in the labour market in Greece in 2009, compared to 63.3 per cent in the EU. 48.9 per cent were employed, versus an average of 57.3 per cent in the EU.

The average duration of working life for men and women in Greece shows a similar difference to that of the EU. Women in Greece worked for 27 years, on average, compared to 30.8 years in the EU. By contrast, the duration of working life for men stood slightly above the EU average in 2009, at 37 years (EU - 36.7 years).

2.1.4 Was there a consensus on the need for reforms and on the way forward?

The need for further pension reform was identified before the first EAP but there was a lack of shared understanding of the problem and no consensus on the way forward

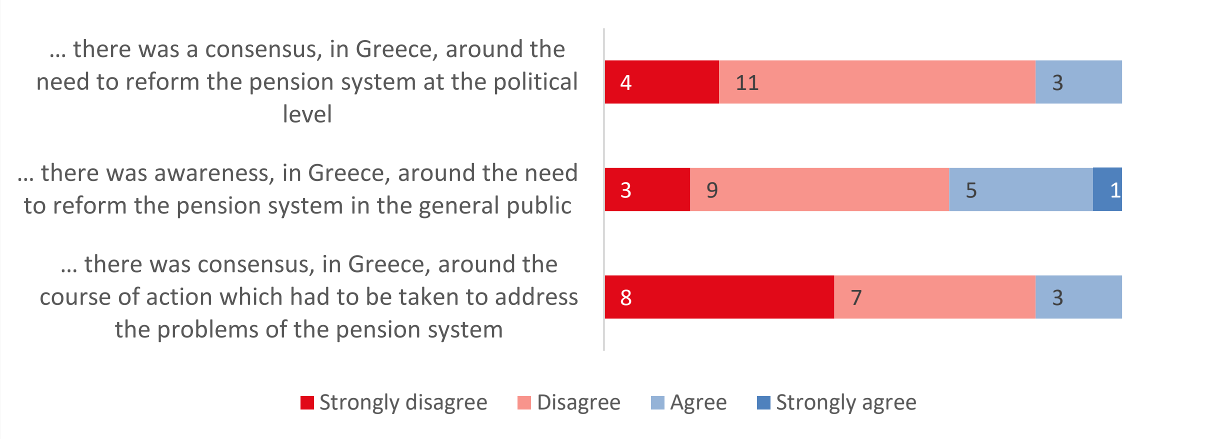
As early as 2009, it was evident to experts that the pension system was in need of further reform. The projections contained in the 2009 Ageing Working Group (AWG) report[15] issued a stark warning on the risks for the long-term sustainability of the pension system and triggered stronger monitoring from the European Commission, as well as discussions with the authorities about their reform plans. In that context, the pension reforms had been discussed prior to the launch of the first EAP.

The responses to the Delphi survey show that there was a lack of political consensus on the need for reform or the course of action to address the pension system problems. More specifically, 15 of the 18 experts disagreed or strongly disagreed with the statement that there was any such consensus, with a higher share of strong disagreement on the question of the future course of action (eight respondents, compared to four for the question on the need for reform). Four (out of 18) Delphi survey respondents believed that while there was a lack of consensus at political level, there was some awareness among the general public of the need to reform the pension system. Nevertheless, several experts stressed that the lack of communication on the need for reform on the side of the Greek authorities created problems for the subsequent implementation of those reforms.

[15] The AWG report presented Greece's first projections of pension-related expenditure over the longer term. Greece had not contributed to the earlier exercises (in 2001, 2003 and 2006) linked to the Stability and Growth Pact and prompted by the launch of the euro and broader efforts to coordinate economic policy across all EU Member States.

Figure A1.1 Awareness of reform need and consensus on way forward

Q. Please indicate the extent to which you agree or disagree with the following statements. Prior to the launch of the first programme...



Base: all (n=18), round 1

2.1.5 Which reforms were promoted as part of the EAPs?

The EAPs triggered a comprehensive set of pension reforms and nominal pension cuts that encountered significant implementation challenges

The reform of the pension system was a key element of the three EAPs in Greece from 2010. A number of major structural changes accompanied the pension cuts (see Annex 5).

The design and implementation of these changes were significantly hampered by the strong degree of fragmentation of the pension system at the start of the reforms. The merged funds were operating with multiple legacy issues, including both IT and paper systems, and ongoing statutory differences in retirement ages, pension entitlements and contribution rates. In addition, according to interviews with institutions, there was a lack of clarity on the funds that formed part of the tripartite public pension system, with some supplementary and separation funds initially considered outside state financing.

The unprecedented lack of data and transparency had implications for the application of pension cuts. For instance, initially, it was not possible to institute cuts centrally at the individual level but, instead, at fund level, which had adverse repercussions for intragenerational equity. It was possible for individuals receiving pensions from different funds to continue to receive considerably higher benefits for the same level of contributions to the system. This issue was only solved later, when all pension payments were centralised under the Helios system.

The 2010 pension reforms were far-reaching in ensuring long-term sustainability, yet more had to be done to improve performance in the short and medium-term

The Memorandum of Economic and Financial Policies was signed on 3 May 2010 and initiated the first EAP. It envisaged consolidation of the existing pension funds into three institutions by 2018, separation of health branches from pension funds into a single institution, stronger link between contributions and benefits, uniform rules applied *pro rata* to all current and future workers, statutory retirement age at 65 by 2015, indexing pensions to prices from 2014, lower incentives for early retirement, and stricter conditions for disability pensions. The Memorandum of Understanding on Specific

Economic Policy Conditionality included the pension reform in the actions that ought to be adopted by the Greek parliament by September 2010.

The international institutions included two safeguard clauses in the first EAP, building options for revisions into the programme:

- Introduction of an automatic adjustment mechanism: starting in 2020, every three years, the (minimum and statutory) retirement age is increased in line with life expectancy at retirement;
- Limit on the overall increase of public sector pension spending (for basic, contributory, supplementary and any other related scheme, including lump sums at retirement) to under 2.5 percentage points (p.p.) of GDP over the period 2009-2060.

To fulfil these commitments, the Greek parliament passed two laws in July 2010. Law No. 3863/2010 established a new pension calculation formula to take effect from 1 January 2015 on a *pro rata* basis, introducing a uniform basic pension and a contributory pension linked to years of employment, with a lower accrual rate. It also raised the minimum and statutory retirement age limits to 60 and 65, respectively, for those who had started their career before 1 January 1993, raised the full contributory period from 35 to 40 years, equalised the retirement age of men and women by 2013, and linked age limits with changes in life expectancy, starting from 2021.

Law No. 3865/2010, passed a week later, covering the pension system for public employees, set out rules indexing pensions from 1 January 2014 in relation to GDP growth and inflation, established the fund for private sector employees (IKA-ETAM) as the pension fund for public sector employees hired after 1 January 2011, harmonised the pension terms for public servants retiring after 1 January 2015 with those in the private sector, and raised the retirement age for certain public sector employees (armed services, police, firefighters) to 60 years.

A joint statement by the European Commission, the ECB and the IMF assessed the 2010 reforms as far-reaching by international standards[16]. In the first review of the EAP, the pension reform was determined to be ahead of schedule, with the three institutions highlighting its impact on the long-term viability of the pension system. However, the review also recognised the need for further amendments in 2011, particularly with respect to the functioning of the supplementary public pension funds and the list of heavy and arduous professions[17]. The strength of the adjustments was to be determined following an assessment of the effects of the reform by the National Actuarial Authority (NAA).

The pace of pension reforms slowed as the first EAP evolved, leaving the reforms of the supplementary pensions for the second EAP

The second update of the Memorandum of Understanding on Specific Economic Policy Conditionality was signed on 22 November 2010 and made the commitments on reforming the supplementary pension funds more specific. It stipulated that the Greek government should introduce a notional defined contribution system in the

[16] IMF (2010). Staff report on request for stand-by arrangement. Country Report 10/110.
[17] European Commission (August 2010), The Economic Adjustment Programme for Greece: First Review – summer 2010. European Economy, Occasional Paper 68.

supplementary pension schemes by the first quarter of 2012, freeze the nominal supplementary pensions, and reduce the replacement rates for accrued rights[18].

The third review was concluded in February 2011 and acknowledged the results of the actuarial analysis of the main pension system by the NAA, which had confirmed the positive impact of the 2010 pension reform on the long-term viability of the system. The Memorandum of Economic and Financial Policies accompanying the third review reconfirmed the pension reform commitments from the second review, adding the need to merge supplementary pension funds[19].

In March 2011, the Greek parliament passed Law No. 3918/2011, separating the health branches of the four major social security funds (IKA-ETAM, OGA, OAEE and OPAD) and incorporating them into the newly formed national health fund, EOPYY. While this reform fell under the health reform chapter of the EAP reviews, it also had an impact on streamlining the financing of the pension funds.

The fourth review was published in July 2011. It noted the delay in the actuarial analysis of the supplementary pension funds and reconfirmed the commitments for the second phase of the pension reform by the first quarter of 2012[20]. Following the fourth review, the focus of the EAP shifted to the need to restructure public debt through Private Sector Involvement (PSI), while the political environment in Greece deteriorated substantially. It also became evident that the funding from the first bailout agreement would not be sufficient and a second EAP would be needed.

More cuts and reforms had to be implemented to reduce the burden on the state budget over the short and medium-term

The reform of the supplementary pension funds was eventually legislated in late February 2012 under Law No. 4052/2012 (published on 1 March), as part of the prior actions to enhance credibility for the second EAP. This particular bill consolidated a number of supplementary pension funds into a newly formed institution (ETEA) and introduced a notional defined contribution system (to take effect from 2014), with individual supplementary pension accounts and pension benefits with a notional rate of return and sustainability factor (no-deficit rule) to reduce the dependence of this segment of the system on support from the state budget.

Pension reform was considered one of the major achievements in the overall assessment of the first EAP[21]. Meanwhile, it was acknowledged at the start of the second EAP that further pension cuts would be needed to achieve the fiscal adjustment targets, but no further substantial structural changes were initially anticipated, beyond the prior actions for the first quarter of 2012. In fact, the passing of the relevant law prior to the disbursement of any funds from the programme and the implementation of its key elements within the first quarter of 2012 was included in the Memorandum of

[18] European Commission (December 2010), The Economic Adjustment Programme for Greece: Second Review – autumn 2010. European Economy, Occasional Paper 72.
[19] European Commission (February 2011). The Economic Adjustment Programme for Greece: Third Review – winter 2010. European Economy, Occasional Paper 77.
[20] European Commission (July 2011). The Economic Adjustment Programme for Greece: Fourth review – spring 2010. European Economy, Occasional Paper 82.
[21] IMF (2013). Greece: *Ex post* evaluation of exceptional access under the 2010 stand-by arrangement. Country Report 13/156.

Understanding on Specific Economic Policy Conditionality of the second EAP, under the heading '*To complete the pension reform*'[22].

While including pension reforms in the success stories of the EAP, the first review of the second EAP acknowledged intensifying short-term pressures on the pension system, as public spending on pensions (as a percentage of GDP) continued to increase. These short-term pressures included rapidly decreasing GDP, high unemployment, a shrinking labour force, lower contribution revenue, unfavourable demographics, and waves of early retirement of civil servants. To address these pressures, the Memorandum of Economic and Financial Policies accompanying the first review stipulated the need for further pension cuts, raising the retirement age by two years and bringing forward its implementation (2013 instead of 2015)[23]. The change in the age limits was legislated in November 2012, with Law No. 4093/2012.

The second and third reviews of the second EAP completed in May and July 2013 did not pay much attention to the pension reform, other than monitoring certain operational commitments (chiefly related to the operation of the new ETEA fund and the ongoing work in rationalising the eligibility for disability pensions). However, structural issues with the pension reform resurfaced in the fourth review, concluded in April 2014.

The fourth review acknowledged that while long-term sustainability had improved substantially, there was a need for further rationalisation of the system. The main pension system remained fragmented, while spending on pensions had been much higher than anticipated initially, due to an unexpected wave of retirements. In the Memorandum of Economic and Financial Policies accompanying the fourth review, the Greek authorities committed to integrating all remaining supplementary pension funds into ETEA, incorporating all lump sum pensions, legislating that all supplementary and lump sum funds would be financed by own contributions only, and legislating changes to consolidate the main pension system by the end of 2014[24].

These commitments were not legislated before the second EAP expired in June 2015, as the reform implementation slowed after the May 2014 European Parliament elections. Instead, commitments to that effect were included in the Memorandum of Understanding between the European Commission (on behalf of ESM) and Greece, signed in August 2015. As prior actions for the start of the third programme, the Greek parliament passed a number of measures (Law No. 4336/2015), including the integration of 12 supplementary funds into ETEA, and changes to the grandfathering of statutory retirement age and early retirement.

The 2016 pension reforms made substantial progress in consolidating the fragmented system

With cooperation between the Greek authorities and the institutions substantially improved after the summer of 2015, pension reforms entered a new phase of planning and implementation. The ownership of the pension reforms also improved markedly in the new phase. Many elements of the pension reform that were eventually adopted in

[22] European Commission (March 2012), The Second Economic Adjustment Programme for Greece. European Economy, Occasional Paper 94.
[23] European Commission (December 2012). The Second Economic Adjustment Programme for Greece: First Review. European Economy, Occasional Paper 123.
[24] European Commission (April 2014). The Second Economic Adjustment Programme for Greece: Fourth Review. European Economy, Occasional Paper 192.

2016 were based on proposals drawn up by a committee comprising pensions system experts and legal scholars[25].

The main instalment of the second phase of the pension reform came with Law No. 4387/2016, passed in May 2016. The new bill scrapped the *pro rata* pension calculation, introducing a unified system for all pensions. Existing pensions were to be recalibrated according to the new system, freezing main pensions at nominal terms (with positive difference) until they reached their statutory level. Law No. 4387/2016 merged the first-pillar separation funds (lump-sum and dividend funds) into ETEA, creating a new institution (ETEAP).

While the ownership of the 2016 reforms was stronger, the degree of consensus within the international institutions had lessened. The IMF continued to have an active role in the negotiations, despite the lack of a follow-up stand-by arrangement. A number of members of the Eurogroup insisted on the IMF's continued participation in the joint review missions, seeing it as an additional guarantee for ensuring strict reform implementation. According to stakeholder interviews, IMF staff had more conservative fiscal projections, insisting on the need to reduce further spending through recalibrating the pensions of old pensioners, with a view to boosting targeted social protection and pro-growth spending with any fiscal space freed up from the pension system. By contrast, according to stakeholder interviews, European Commission representatives were more attuned to the complexities of the political aspects of reform implementation in Greece and were more willing to provide space for reform ownership by the Greek authorities.

The different stance of the two institutions led to disagreements on the way forward with the pension reforms. Most notably, the speed of assimilation of the personal difference was a disputed issue, as also reported in the stakeholder interviews, with the IMF staff making a more forceful argument on the need to eliminate the personal difference through pre-legislated nominal pension cuts, while the European Commission representatives sought to accommodate the social policy priorities set by the Greek authorities.

2.2 Impact of the reforms on the pension system

2.2.1 Question 2: To what extent has the sustainability of the pension system been restored?

Pension reforms have been positive from a financial sustainability point of view

Overall, there is broad consensus that a lot has been achieved in this regard, despite Greece having the worst projected economic dependency ratio[26].

The systemic effects of the successive cuts on pension spending profile and contribution-benefit link were not initially clear. However, the structural changes set in the EAPs (e.g. changes in statutory age limits and pension calculation) brought about rapid

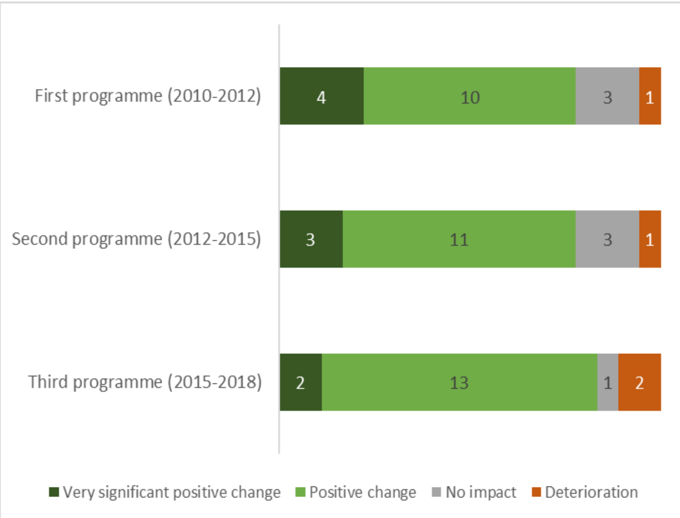
[25] *Πόρισμα Επιτροπής του Υπουργείου Εργασίας, Κοινωνικής Ασφάλισης και Κοινωνικής Αλληλεγγύης για την πρόταση ενός νέου ασφαλιστικού συστήματος. Προς ένα νέο κοινωνικό συμβόλαιο για τις συντάξεις.* October 2015.

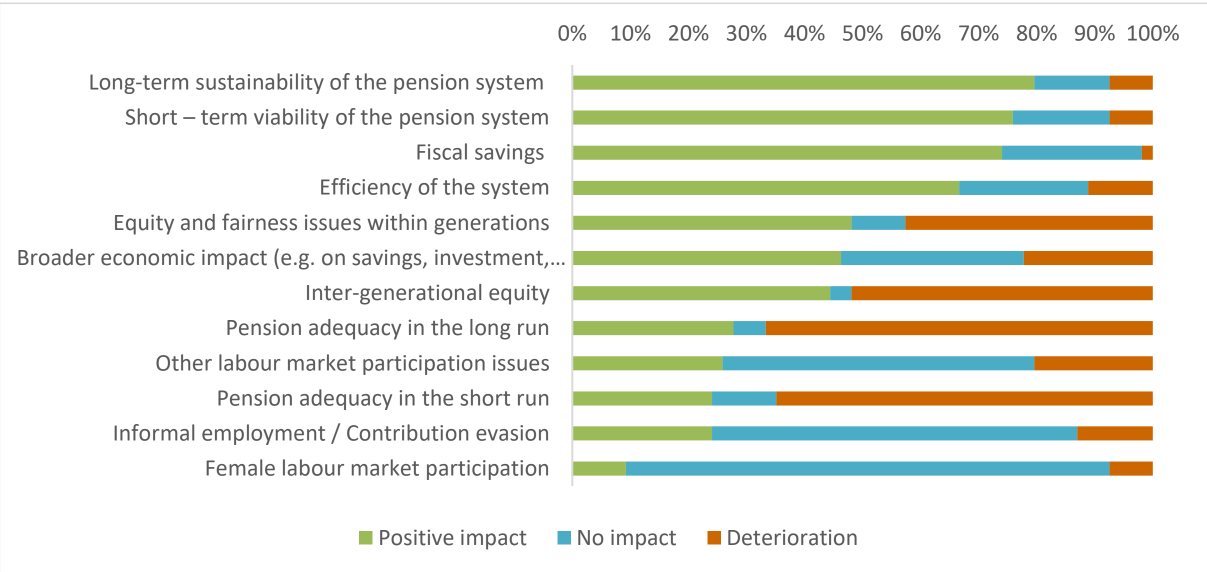
[26] The old-age dependency ratio is expected to increase from 33.4 in 2016 to 71.0 in 2050 and to then decrease to 63.1 in 2070. Source: AWG (2019). Greece country fiche, September 2019 update.

improvement in the system's sustainability. The IMF evaluation of the first EAP[27] described the pension reform as "one of the main achievements of the SBA-supported program" especially with respect to the long-term viability of the system, while noting implementation risks and a lack of communication on the need to reform the system early in the programme.

The amendments enacted during the next EAPs, notably through Law 4387/2016 regarding the pension calculation rules, have preserved this achievement as illustrated by the results from the Delphi survey which show positivity for each of the three programmes. The long-term sustainability impacts of the reforms under all three EAPs is ranked first among reform impacts, aggregating the results across programmes.

Figure 2.9 Expert views on the effectiveness of the reforms in terms of the long-term sustainability impacts of the pension system



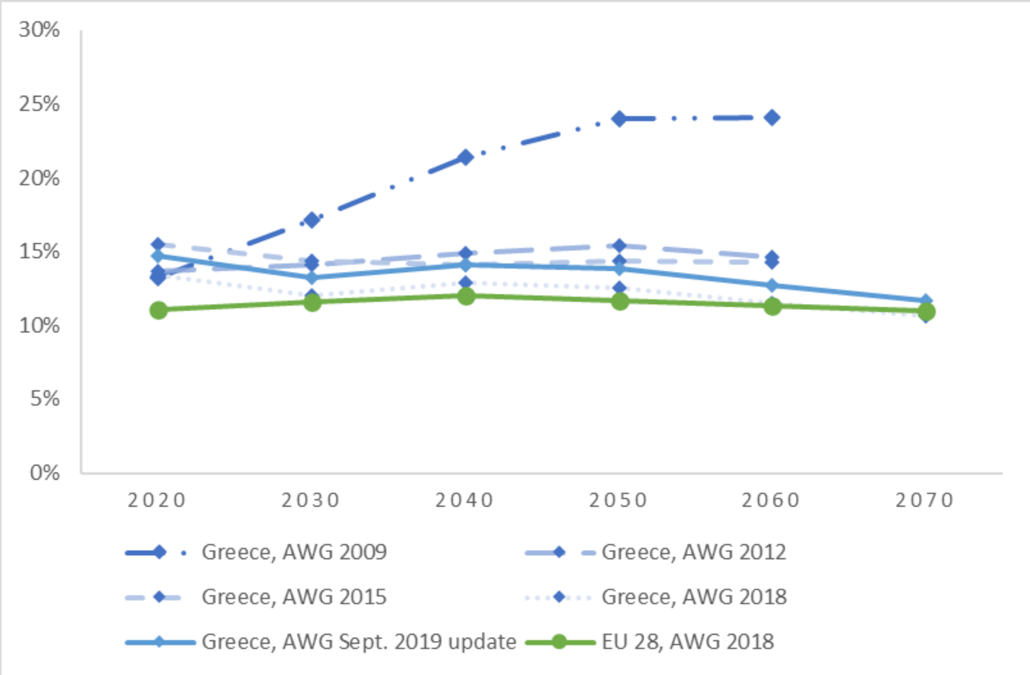


Source: Delphi survey, n=18

[27] IMF (2013). Greece: *Ex post* evaluation of exceptional access under the 2010 stand-by arrangement. IMF Country Report No. 13/156.

The Delphi survey results are confirmed by the AWG projections. By the end of 2018, the projected public expenditure on pensions over the long-term had reduced dramatically. The 2018 AWG report projected public expenditure on pensions for 2070 to decline to 10.6 per cent, coming close to the projected EU average. The figure was updated in September 2019 to 11.7 per cent, factoring in the impact of measures to comply with court decisions[28]. There thus appears to be broad consensus that long-term sustainability is no longer a problem, at least from the pension spending perspective[29].

Figure 2.10 Pension expenditure projections, percentage of GDP



Source: AWG EU-level report (2009, 2012, 2015, 2018), 2019 Greece country fiche

The assumptions behind the projections are sound and subject to sensitivity tests

The AWG age-related expenditure projections are a reliable[30] source of information, produced every three years by the Economic Policy Committee (EPC) since 2001. A more refined methodology has been used since 2006, enhancing comparability between countries, consistency across expenditure items, and the economic basis for the underlying assumptions. The assumptions behind each country's projections are the same.

[28] The latest available is 11.9 per cent, based on the actuarial study accompanying Law No. 4670/2020, published in February 2020.

[29] There would be a case to examine more closely the financials of the public pension system. However financial statements from EFKA and ETEAEP are not made available publicly – see also section 2.2.1.

[30] The crisis could undermine the accuracy of the forecasts made pre-crisis, especially for short to medium-term projections.

The AWG projections were subject to various sensitivity tests [31] for demographic variables (life expectancy, migration flows, fertility) and macroeconomic variables (employment rate, productivity). This addressed some potential concerns in looking at the main drivers of projected pension expenditure. For instance, the increase in employment rates is a key element offsetting the heightened dependency ratio and guaranteeing the sustainability of the system in the longer term. The employment rate is expected to rise from 45-50 per cent to 62-69 per cent, depending on the age group. The AWG sensitivity analysis shows the impact on pension expenditures if the employment rate were to be 2 p.p. lower: the impact would not exceed 0.1-0.3 per cent of GDP in 2020-2060 and would be progressively eliminated, given that lower employment rate also implies lower pension rights eventually. The AWG report does not contain sensitivity tests for an eventuality where employment rates were much lower than expected.

Participation rates are projected using a cohort simulation model (CSM). The model projects current observed dynamics of the employment entry rate into the future, and accounts for the expected effects of legislated pension reforms (higher statutory age limits) on the exit rate of older workers. This approach produces consistent long-term projections but raises questions about how the employment rates would be supported, particularly among older people, as the retirement age increases (to 72.6 by 2070).

In recent years, Greece has tended to over-perform against projections. For example, while the EC's autumn 2017 economic forecast projected an unemployment rate at 20.4 per cent and 18.7 per cent in 2018 and 2019[32], the actual rates were 19.3 per cent and 17.3 per cent, respectively[33].

No major adequacy challenges are flagged despite the expected fall in the benefit ratio, meant to compensate for the worsening economic dependency ratio

A closer look at the factors behind the change in public pension expenditure between 2016 and 2070 shows that Greece offset the deteriorating demographics by a decline in the benefit ratio, which captures how the average public pension develops relative to the average wage.

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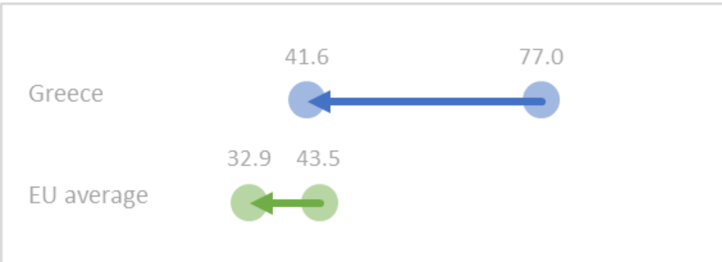
[31] The policy-change scenario is irrelevant for Greece, as the 'change' (automatic rules that would adapt the legal retirement age to changes in life expectancy over time) has already been legislated in Greece and does not change the baseline scenario.
[32] EC (2017) Autumn 2017 economic forecast - Statistical annex. Available at : https://ec.europa.eu/info/sites/info/files/economy-finance/autumn_2017_economic_forecast_-_statistical_annex.pdf
[33] Eurostat data, une_rt_a

Figure 2.11 Decomposition of the change in public pension expenditure as a share of GDP (in p.p.) - change from 2016-2070

Source: AWG (2018). EU-level report

Almost all EU countries have projected declines in benefit ratios as a way to ensure the financial sustainability of their pension systems in the years ahead, but Greece's forecast decline in benefit ratio is unusually sharp (-35 p.p., the largest in the EU). This could raise pension adequacy issues in the future. However, when compared to the rest of the EU, Greece had the highest public pension benefit ratio in 2016 and its benefit ratio will remain well above the EU average in 2070 (see Figure 2.12).

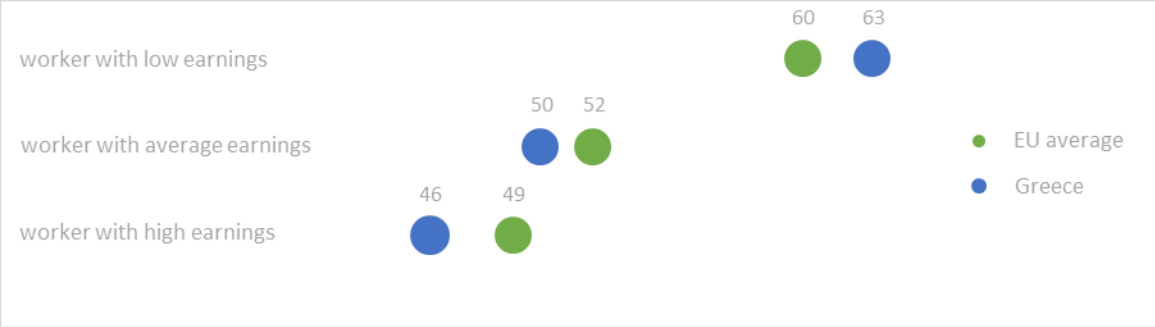
Figure 2.12 Evolution of benefit ratio (public pensions), percentage, 2016-2070



Source: AWG (2018). EU-level report

One particular feature of the Greek pension system should help to ensure pension adequacy in the future: workers with low earnings (i.e. 50 per cent of average earnings) - and a full working career (i.e. 40 years' contributions) - have replacement rates that are higher (standing at 63 per cent) than standard workers with average or high earnings (50 per cent or 46 per cent, respectively) and above the average rate of the EU countries (60 per cent). This does not mean that ensuring adequate pensions for all - including for non-standard workers with short working careers and low earnings - will be without its challenges but, compared to other systems in the EU, Greece's public system is more favourable for low-income earners.

Figure 2.13 Gross pension replacement rates by earnings, mandatory schemes



Source: OECD (2019). Pension at a glance

The current status may not be the final word on Greece's pension reforms. Should further policy steps be taken (e.g. linked to basic pension indexation or automatic linking of the statutory retirement age to life expectancy), their implications would need to be assessed

Notwithstanding the quality of the AWG projections, the assessment of the sustainability of the system can only take into account legislated pension reforms. Greece's current status may not be the final word on its pension reforms and further policy steps cannot be ruled out, especially given that pension expenditure is expected to experience a material decline (the largest in the EU), despite the worsening economic dependency ratio (also among the largest in the EU).

A key factor driving the decline in the benefit ratio - and thus guaranteeing the sustainability of the pension system - is the application of an indexation mechanism based on inflation rather than wages. More precisely, Greece's pension indexation mechanism entails an annual increase in pensions-in-payment, which will be calculated on the basis of 50 per cent of GDP growth and 50 per cent of the change in the consumer price index (CPI, capped at 100 per cent of inflation). It will be effective as from 2023, as all pensions in payment have been frozen since 2010. Since May 2016 (under Law No. 4387/2016), pension indexation can only be positive. The Greek legislation does not foresee differentiated indexation methods depending on the pension component (see Table 2.2). Historically, however, there have been many cases where, for adequacy purposes, minimum or basic pensions were revised in line with wages rather than prices, regardless of the legislation. In that context, the AWG projections use wages as part of the indexing formula for minimum pensions, even when, per the law, it should be inflation. This does not apply to the flat component/basic pension, which means that its value will be dramatically reduced (in relation to wages) over time.

Table 2.2 Components of the public pension system and indexation: rules as per legislation and methods used for projections

Components of the public pension	Description	Indexation method as per legislation	Indexation method used for the projections
Minimum pension (non-contributory)	The means-tested social solidarity allowance is set at EUR 360 per month for uninsured elderly persons	Pension freeze until 2022	Wages

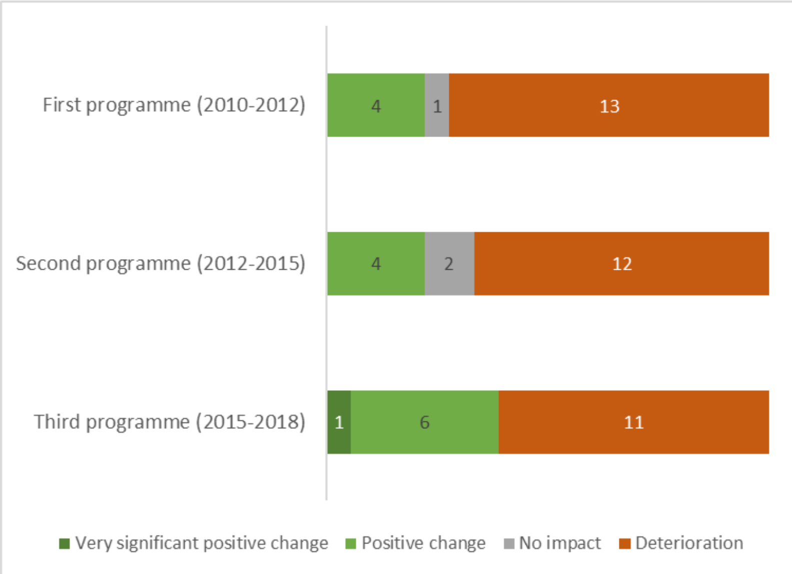
Components of the public pension	**Description**	**Indexation method as per legislation**	**Indexation method used for the projections**
Flat component/basic pension (contributory)	The state-funded national pension is set at EUR 384 per month for 20 years of contributions. It is reduced by two p.p. for every year less than that. The amount corresponds to the AROP threshold for a single person for 2016. 15 years is the minimum contributory period to be eligible for the national pension	From 2023, calculation based on price development and GDP growth (max 100 per cent prices, negative indexation ruled out)	Inflation as per legislation
Earnings-related pension (contributory)	The contributory pension, which is added to the national pension, is the product of the multiplication of the pensionable salary by the sum of the annual replacement rates. For employees: pensionable salary is based on the average salary over the whole working life; for self-employed: pensionable salary is based on the average monthly taxable income over the whole working life[34]		

Source: Pension adequacy report 2018, Volume II, Greek country fiche; the 2018 Ageing Report

Currently, the cross-country reports focused on future pension adequacy do not raise particular serious adequacy challenges for Greece (except for some workers, e.g. non-standard workers with short working careers and low earnings). Adequacy issues remain the subject of debate, however, with the reforms believed to have undermined pension adequacy (see Figure 2.14). When prompted more on this, Delphi experts largely reckon the cuts were inevitable but notably explain that other important social assistance items are underfunded (e.g. the low spending on long-term care) in Greece and this is a source of concern (on this topic see also Box 2.6).

[34] For the self-employed, this was changed with Law 4670/2020, linking pensionable salary to an, imputed income corresponding to insurance classes chosen by the self-employed itself.

Figure 2.14 Expert views on the effectiveness of the reforms for long-term pension adequacy



Source: Delphi survey, n=18

In that context, there are calls from the main opposition party SYRIZA as reported by stakeholders in Greece to index the basic pension to wages or poverty levels in order to avoid the forecasted erosion of benefits. The implications of such indexing are not yet fully understood, however, as this policy option does not appear to have been costed.

Box 2.3 Adequacy aspects of 2016 reform and calls for further adjustments

While many aspects of the reforms had positive redistributive characteristics (introduction of a means-tested social solidarity allowance for all uninsured elderly persons, introduction of a basic pension, comparatively higher replacement rates for workers with low income, exclusion of negative pension indexation), some other aspects are considered detrimental from an adequacy purpose:

- Reduction in replacement rates for all pensions from January 2019 onwards;
- Calculation of pension benefits on the basis of average lifetime earnings, instead of the years of highest earnings;
- Phasing out of the means-tested Pensioners' Social Solidarity Benefit (EKAS) by the end of 2019.

Opposition party, SYRIZA, continues to push to link the basic pension to poverty levels. As reported by stakeholders in Greece, this was part of the original 2016 reform proposal but was not adopted, given the concerns of the institutions. In essence, this proposal is similar to linking it to wages (given that the poverty threshold is defined as 60 per cent of median income).

Those opposed to an indexation that would surpass inflation are concerned that the sustainability of the system would be undermined in cases where the basic pension is adjusted faster than inflation. From their perspective, the system would be generous enough and adequacy needs would be tackled through other means (e.g. expanded working life, incentives for complementary pensions schemes).

Retirement age could also have an effect on financial sustainability. Greece has adopted rules that link the statutory retirement age to life expectancy, meaning that, given the projected life expectancy increases, the retirement age is expected to increase. It will, however, remain possible to claim a full pension (i.e. without penalty) once reaching the age of minimum 62 and 40 years of contribution, implying the effective retirement age might be below that expected in AWG report. The average entry age in the labour market is increasing over time, together with the age of degree completion. Now, the average entry age still lies below 25 for Greece[35], implying retirement before 65 will on average remain possible. In that context raising the statutory retirement age, without changing this rule, might not be enough to secure sustainability. Greece's normal retirement age, as defined by the OECD, is fixed at 62, even for longer-term projections and despite the higher statutory retirement age[36]. The indicator capturing the average effective age of labour market exit will need to be closely monitored in the years ahead. For now, it is closer to 62 (61.7 for men and 60 for women), but the latest available estimate uses data from 2013-2018[37] and does not fully reflect the latest changes to the Greek pension system.

Although Greece is not the only Member State that has legislated an automatic (or other kind of) link to life expectancy[38], some countries have since abolished that rule (Slovakia) or suspended it for some occupations (Italy)[39]. In Greece, the first revision of the retirement age (in light of the life expectancy) is planned for 2024 but the details of the revision process are not yet fully clear. In the first round of the Delphi survey, many respondents highlighted that the automatic adjustment of retirement age with life expectancy would certainly not have been adopted without the EAPs. In round 2, experts were thus prompted about likelihood of a policy reversal for automatic adjustment retirement age, given the sustainability implications it may have. Views on this are divided but many experts still consider a policy reversal as likely: out of the 10 answers, six find it likely (5) or very likely (1). Comments point towards the need for these adjustments to be gradual to be accepted and actually implemented. Other experts mentioned that, provided that alternative funding sources are found, this provision may be eliminated. On the other hand, during the data collection process, the fact that there is an understanding in Greece that the country needs a pension reform break was mentioned several times. Interviewees in Greece made reference to both (i) reform fatigue (in case the envisaged reforms would imply changes to the levels of the first pillar pension at the risk of being perceived as yet another cut); and (ii) eroding trust.

2.2.2 Question 3: To what extent and how have the envisaged fiscal savings been achieved?

In order to assess the impact of the pension reforms on fiscal savings, a three-step approach has been applied:

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[35] European Commission (2018) EU Pension Adequacy Report

[36] This is linked to the fact that normal retirement age is calculated for individuals after a full career from labour market entry at age 22.

[37] OECD estimates based on the results of national labour force surveys and the European Union Labour Force Survey. Available at: https://www.oecd.org/els/emp/average-effective-age-of-retirement.htm.

[38] Other countries include Italy, Finland, Cyprus, Denmark, the Netherlands, Portugal, Slovakia, Malta.

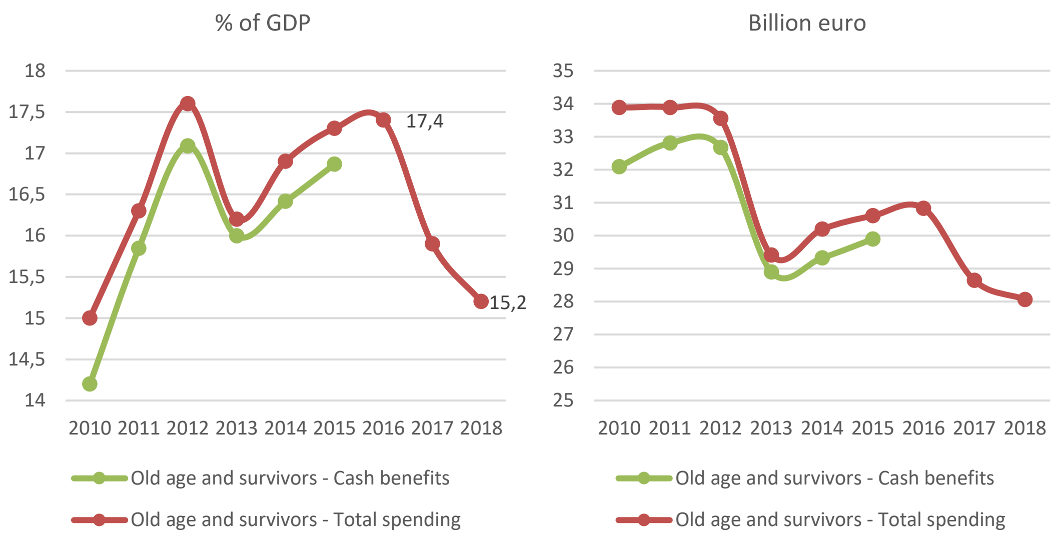
[39] OECD (2019). Pensions at a glance.

- Step 1: Setting the scene by examining the key trends in public spending during the EAP implementation period
- Step 2: Analysing the main drivers behind the observed changes
- Step 3: Discussing specific aspects of the pension reforms which were aimed at creating extra fiscal room

2.2.2.1 Step 1: Setting the scene by examining the key trends in public spending during the EAP implementation period

Despite the successive pension cuts, public expenditure on old age and survivors cash benefits (from the state budget and from the SSFs) did not decline as fast as GDP during the first two economic adjustment programmes and returned to nominal growth in 2014-15, after a significant drop in 2013 due to the 2012 cuts (see Figure 2.15). Pension spending started to decline on a more permanent basis only as from 2017.

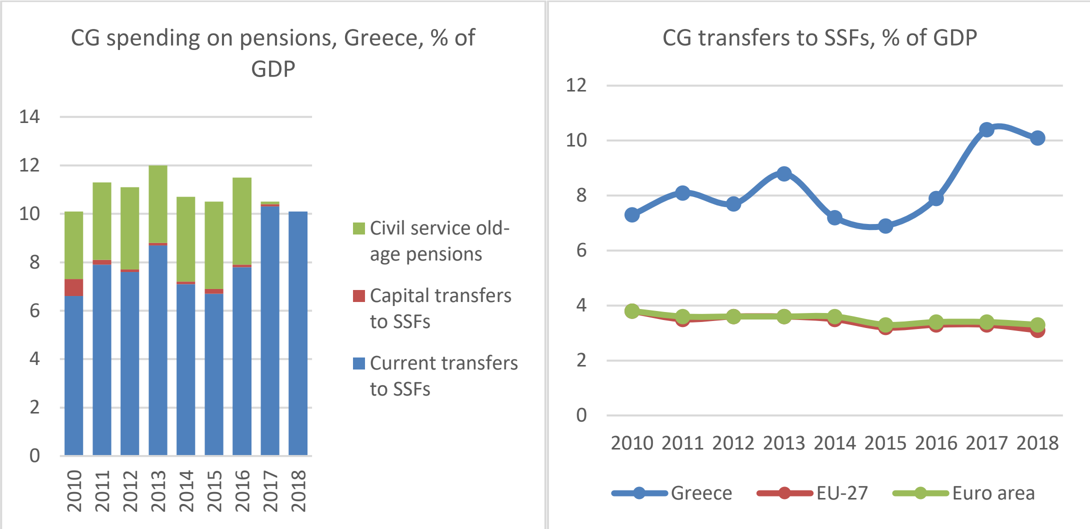
Figure 2.15 Cash benefits, public expenditure on old age and survivors' benefits and total pensions, 2010-2018



Source: OECD Social Expenditure Database, Eurostat and Ministry of Finance

Looking at the evolution of pension spending from the state budget alone, there is however no clear decreasing trend, suggesting that the pension system still requires significant annual transfers from the State budget, to a larger extent than in other EU countries (Figure 2.16). The persisting need for the state subsidisation of pensions is to be put in perspective with the persistently high unemployment in Greece, which mean that the revenues of social insurance funds are still affected.

Figure 2.16 Central government spending on pensions, 2010-2018



Source: Eurostat

Note: There is a break in time series for these two graphs in 2017.

For Greece, the data show that the pensions paid out by the state budget dropped sharply in 2017 and were eliminated since 2018. Correspondingly, the transfers from the central government to SSFs increased from 2017. We understand that up to 2016, the state was paying (main) pensions to the civil servants directly without paying contributions (for this group of public sector employees) to an SSF. Since 2017, with the integration of the public sector social security scheme into EFKA, the main pensions of civil servants are paid out by EFKA, while the state pays social contributions for its currently employed civil servants to EFKA (showing up as a bump in the current transfers from CG to SSFs).

2.2.2.2 Step 2: Analysing the main drivers behind the observed changes

Under the first and second EAP, the main drivers of fiscal savings were pension-related fiscal measures

The ambition, as from the first programme, was to reform the system structurally and achieve savings through structural means. However, initially, attempts to achieve fiscal savings had to rely on pension cuts (e.g. the Christmas, Easter and summer bonuses were first reduced before being eliminated completely). Pension-related fiscal measures were not part of the pension reform itself but had to be implemented for two main reasons.

- The 2010 pension reform was a structural reform but with a very long-term focus and a long grandfathering period. This meant that few aspects of the 2010 reform would have led to immediate savings even if the reform had been fully implemented. In that context, the years 2011-13 were a period during which there were several ad-hoc pension cuts.
- At the beginning, the depth of the crisis was unknown. Key macro-fiscal projections were revised every quarter in 2010, opening further and further a fiscal gap, which had to filled through ad-hoc quick measures, including pension related fiscal measures.

The second programme in particular was seen as not balanced between reduction of pensions in the short-term and more structural/ long-term reform of the system (see Figure A4.4). This is related to the low number of structural reforms that were taken during the second programme (most of which were pending from the first, and implemented as prior actions to approve the second, see reform tables in Annex 5). A more balanced approach towards pension-related fiscal measures and structural reforms was achieved once Greece began hitting the fiscal targets in 2016/17.

In that context, in the first years, the main drivers of the savings were fiscal related measures such as the cancelation of the 13th and 14th monthly payment (€1.9 billion of savings for a full year), freeze in the indexation of pensions (€100-250 million for a full year) and various pension cuts[40].

Box 2.4 Overview of major pension cuts

The major cuts are as follows:

- May 2010: The 13th and 14th monthly payment (corresponding to Christmas, Easter and summer bonuses) for main pensions was replaced with a single 800 euro payment.
- September 2010 (Law 3869/2011): "Solidarity levy" on income from pensions with rates ranging from 3% for pensions above 1400 euro to 13% for pensions above 3500 euro per month. The supplementary pensions were cut with immediate effect, starting from 3% for monthly supplementary pension of 300 euro, up to 10% for supplementary pension above 650 euro.
- July 2011 (Laws 3986/2011 & 4002/2011): Cuts in pensions for those aged up to 60 (6%-10% for pensions above 1700 euro)
- October 2011 (Law 4024/2011): 40% cut for those aged below 55 with a pension above 1000 EUR. 20% cut for those aged 55-60 with a pension above 1200 EUR. 30% cut for supplementary pensions above 150 euro of ETEAM. 15% cut for supplementary pensions of other SSFs of private sector employees (regardless of pension amount). 20% cuts in the secondary supplementary pension of civil servants.
- March 2012 (Law 4046): 12% cuts in main pensions above 1300 euro and 10-20% cuts in supplementary pensions above 250 euro.
- November 2012 (Law 4093): 5%-20% cuts for total (main + supplementary) pensions above 1000 euro. The 800 euro payment for the main pensions and the 13th and 14th supplementary pensions were scrapped.
- July 2014: The zero-deficit rule, adopted with Law 4254/2012 was applied for the first time, leading to 5.2% cut to all supplementary pensions of ETEA.
- August 2015 (Law 4336/2015): Increase in health contributions of main pensions (from 4% to 6%) and levy of health contributions on supplementary pensions (from 0% to 6%). 10% cut in pensions of those that retired earlier. Minimum on pensions scrapped for new pensioners younger than 67, until they reach 67. Lower minimum pension (392 euro from 486 euro).
- May 2016 (Law 4387/2016): EKAS is abolished. Lower accrual rate in the DB segment of supplementary pensions (for pension rights acquired prior to

[40] European Commission, October 2011, The Economic Adjustment Programme for Greece: Fifth Review, European Economy, Occasional Paper 87.

31/12/2014) as long as the sum of the main and supplementary pension exceeds 1300 euro.

The reduction of the list of arduous and hazardous occupations as well as the reform of the eligibility criteria for disability pensions, part of Law 3863/2010, also impacted positively the public finances in the early years of the programmes

Some structural aspects of the reforms can also be reasonably expected to have had tangible impacts on fiscal savings, namely (i) the reduction of the list of arduous and hazardous occupations; and (ii) the reform of the eligibility criteria for disability pensions.

(i) Provisions in force for those workers, regarding pension entitlement, funding arrangements and accrual rights are more favourable compared to other workers. During the period 2009-2014, the total number of workers in arduous and hazardous jobs decreased twice more than the total number of IKA insured people (decrease by 40%, vs by 20%)[41]. While the decrease in the overall number of insured people was mostly driven by the recession, the comparatively higher decrease in number of workers in arduous and hazardous jobs was driven by the publication of a new and much shorter list of arduous and hazardous jobs in 2011. The number of workers in arduous and hazardous jobs still represented 30% of the total number of IKA insured people, while in practice in the EU, the share of workers in arduous and hazardous jobs is closer to 10%[42].

(ii) The analysis of available data suggests that disability pension was *sometimes* used as path to early retirement in Greece. This is illustrated by the comparatively higher spending on disability pension in Greece (see Figure 2.17). Besides there is a high prevalence of disability pensions among certain categories of pensioners, notably among IKA pensioners from jobs other than arduous and hazardous jobs (19% of them had a disability pension)[43]. The fact that half disability benefits recipients consider themselves as retired or inactive rather than disabled is also illustrative[44], although this could stem from a reticence to be labelled as "disabled". The fiscal impact of the disability benefits reform (rationalising the whole set of disability benefits which includes reform of the disability pension but is a broader task) has been estimated to lie between 0.3-0.6% of GDP[45]. Over the course of the EAP, the gap between Greece and the EU in terms of disability pension spending tightened to 0.3 p.p. of GDP as compared to 0.4 or 0.5 p.p. of GDP in earlier years.

[41] Ziomas D., Theodoroulakis M. (2016), ESPN Thematic Report on Retirement regimes for workers in arduous or hazardous jobs (Greece), European Social Policy Network, Brussels: European Commission.

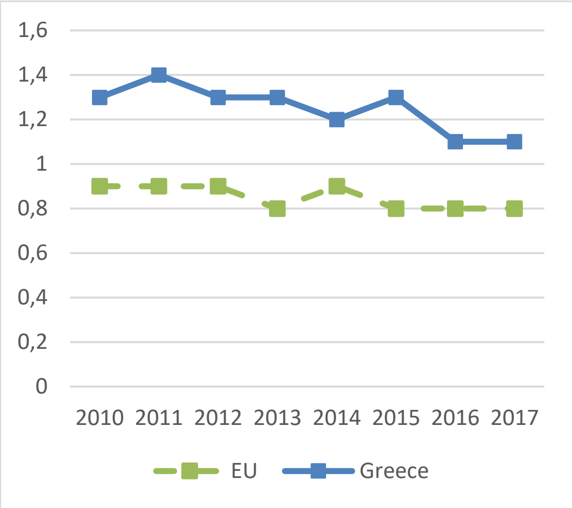
[42] European Commission, July 2011, The Economic Adjustment Programme for Greece: Fourth Review, European Economy, Occasional Paper 82.

[43] Ziomas D., Theodoroulakis M. (2016), ESPN Thematic Report on Retirement regimes for workers in arduous or hazardous jobs (Greece), European Social Policy Network, Brussels: European Commission.

[44] OECD (2013) OECD Public Governance Reviews Greece: Reform of Social Welfare Programmes

[45] OECD (2013) OECD Public Governance Reviews Greece: Reform of Social Welfare Programmes

Figure 2.17 Expenditures on disability pensions as a share of GDP



Source: Eurostat

Volume effects explain the intensifying short-term pressures before the 2015/16 reform

Despite these efforts and the pension-related fiscal measures mentioned above, short-term pressures intensified on the pension system in relation to waves of early retirement (volume effect). These waves of early retirement were in turn related to (i) the depth of the crisis, (ii) policy choice made encouraging early retirement and (iii) the design of the 2010 reform (e.g. pre-legislated harmonisation of public and private sector, grandfathering measures) (see also section 2.4). Pension spending started to decline on a more permanent basis only as from 2017.

There was an increased focus on measures yielding more immediate savings as from the third programme

As a prior action to the ESM programme's launch, in August 2015, the creation of disincentives to early retirement and the elimination of various pathways and grandfathering rights was one element from which major fiscal savings were expected (amounting to 0.5 per cent of GDP in 2016 when combined with some measures regarding health contributions).

The 2016 reform went further, without any transition period – the new rules applied fully and automatically to each and every pension application submitted as from the day the law was voted (no pro-rata of acquired pension entitlements). The fiscal impacts were in that context expected to be immediate and significant: combined with the 2015 measures, the 2016 reform was expected to deliver fiscal savings of 0.9% of GDP in 2016, 1.8 % in 2018, 2.2% in 2020, and 3.0% of GDP by 2025-2030[46]. This goes beyond MoU commitment of reaching savings of ⅓ percent of GDP in savings in 2016 and 1 percent of GDP in pension savings by 2018 (including about 0.9 percent from spending measures)[47].

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[46] European Commission, 2017, Greece, First & Second Reviews July 2017 Background Report

[47] https://ec.europa.eu/info/sites/info/files/economy-finance/technical_memorandum_of_understanding_-_1st_review.pdf

In terms of the fiscal savings over the period 2016-2018, there is consensus that Greece performed according to the plans made at the time of the reform adoption and thereby exceeded expectations (decrease by 2.2 p.p. in total public expenditure on old age and survivors between 2016 and 2018, as seen in Figure 2.15).

The main short-term driver of the savings was the gradual reduction of EKAS until its final elimination (which had targeted savings of €570 million by 2017; €808 million by 2018; and €853 million by 2019)[48].

2.2.2.3 Step 3: Discussing specific aspects of the pension reforms which were aimed at creating extra fiscal room

The push for the pre-legislated package was made at the request of the Eurogroup, to accommodate the IMF

Over the course of the third programme, there were attempts to further compress the pension-related fiscal spending through a pre-legislated package (Law 4472/2017). The aim was to deliver net savings of 1% of GDP in 2019 and over the medium term, mainly through the immediate reduction of existing pensions in line with the new rules adopted in 2016. Should the primary surplus target of 3.5% of GDP be achieved, the savings made through the application of nominal cuts would have been redirected towards a targeted spending package (targeted welfare benefits, public infrastructure investment and active labour market policies).

This requirement was introduced "*at the request of the Eurogroup in order to facilitate the IMF coming on board with a programme*" (…) to provide "*additional guarantees to the achievement of the fiscal targets in the medium term, while helping to restructure public finances in a more growth-friendly manner and bringing pension expenditure and the tax-free threshold closer to the European average*" , as per the programme documentation[49].

According to our own analysis of available documentation and stakeholder interviews, IMF insistence on the pre-legislated package seemed to be linked to:

- *More conservative fiscal projections*. Several aspects seem to have fed into the discrepancies in projections, including substantial differences in pension spending projections. There is however no shared understanding on the origin of those differences in pension spending projections. The IMF points towards differences in taking account demographic trends[50], while the Greek stakeholders referred to (i) an overestimate of the number of pending pension applications and (ii) misconceptions on the size of state transfers to the pension system for Greece[51]. In the end, spending on social benefits was 0.8% lower than projected by the IMF (as a share of GDP) with delays in the processing of claims and fewer eligible retirees being given as possible explanations by the IMF for the discrepancy between outturn versus projection[52] (suggesting that point (i) mentioned above may have played a role).

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[48] https://ec.europa.eu/info/sites/info/files/economy-finance/technical_memorandum_of_understanding_-_1st_review.pdf

[49] European Commission The ESM Stability Support Programme for Greece – First and Second reviews - July 2017 Background Report – page 3/4

[50] IMF Country Report No. 17/229 – page 28

[51] Statement by the Minister of Finance Mr Euclid Tsakalotos On the Ex Post Evaluation of 2012-16 Program attached to IMF Country Report No. 17/44

[52] IMF Country Report No. 18/248 – page 7

- *An assessment that the fiscal policy mix needs to be rebalanced*. IMF notably argued on the need to lower excessive taxation on narrow bases and to increase spending on targeted social transfers and spending on other essential public services (notably heath) and investment (including transportation), through lowering pension spending[53]. While the objectives of an increased spending on targeted social transfers, health and transportation are quite consensual, there is no consensus on the ways through which it could be achieved or financed.
- *Concerns over intergenerational equity issues*. Without the pre-legislated package, the 2016 reform costs are largely borne by the new generations of retirees[54]. Main pensions of current retirees are temporarily protected through the pension freeze.

The EC was in favour of a more gradual course of events based on the freezing of pensions

As expressed during interviews, the EC would have preferred to avoid recalibration of existing pension as proposed by the Greek authorities in 4387/2016. In case the retiree would lose from the new rule, his/her pension would have been frozen in nominal terms until it would have reached the statutory level. This process is referred to as the elimination of the positive "personal difference" through slow erosion due to indexation of the statutory pensions based on GDP and inflation. Depending on the economic assumptions, the process would have taken some eight to ten years.

The EC's line of argument was as follows:

- it shared the opinion of the Greek authorities that making fiscal room was not needed (while IMF had concerns that the fiscal targets would be missed). In the end, the 3.5% target was over-achieved without the additional savings being made;
- the pre-legislated measures would have no impact on the steady-state in the long-term but simply advance some fiscal savings, with Greece's pension expenditures coming in line with EU average in 2024 instead of 2027[55]. A September 2019 updated AWG country fiche exists for Greece which factors in the impact of repealing the pre-legislated cuts package. It shows an impact on pension expenditures as a share of GDP between 1.1 and 1.3 percentage points. However, not all the extra cost is to be attributed to the repeal of the pre-legislated cuts[56].
- from an inter-generational fairness point of view, it would take a reasonable amount of time to eliminate the positive personal difference, between eight to ten years for a GDP growth rate of 2% on average, according to stakeholders.
- recalibration of existing pensions would have had a high social cost affecting directly the lives of those concerned and their families; EC analysis shows that some 1.4 million retirees (out of two million) would have been affected by a nominal cut in their pensions of an average of 14%, leading to a significant increase in the number of pensioners at risk of poverty. Besides, low-income

[53] IMF Country Report No. 17/40, page 7-8
[54] IMF Country Report No. 17/41, page 43.
[55] European Commission (2018), Enhanced Surveillance – Greece, November 2018
[56] Other measures have been costed as well in the September 2019 country fiche, including measures which are still valid (the cancellation of the cuts in auxiliary pensions for the cases that the sum of pension amounts -main and auxiliary - is lower than €1300, the reversal of the reform of the survivor pension) and measures which no longer apply e.g. the reintroduction of the 13th pension payment.

pensioners earning less than EUR 700 per month (500,000 of them) would not be spared and be subject to cuts averaging around 10%[57];

- there was a need to check compliance of the recalibration of existing pensions with the EU law (see Box 2.5);
- the claim that the pensioners had been spared thus far was largely over-inflated. Old-age poverty has fallen only because the country as a whole is poorer and other segments of the population have been hit more than pensioners (poverty measures used such as the at-risk-of-poverty rate are relative and depend on the country's overall median income). In absolute terms, the situation of older people still worsened in Greece over the lifetime of the EAPs;
- the package was a potential fiscal risk – in case the extra-expenditure was implemented in any case (while the cuts would not be symmetrically implemented).

In the end, the recalibration of existing pensions was not applied despite having been legislated. By then, it was clear that the fiscal targets would be achieved even without the cuts (the one-off cuts of the positive personal difference were scrapped through Law 4583/2018). This however remained a disputed issue between the two institutions. The IMF assesses that the Greek authorities have overperformed on the fiscal target at the expense of growth-friendly measures and reiterates that Greece spends too much on pensions and needs to recalibrate the pensions of existing retirees to immediately direct more resources to public investment and targeted social spending[58].

Box 2.5 Insights from the Cypriot programme - "Ledra" case

The "Ledra" case, decided by the Grand Chamber of the Court of Justice on 20 September 2016, is a milestone case for the design of post-crisis European financial assistance[59]. It emerged following the Cyprus programme in relation to the fact that the Cypriot government agreed to target deposits in March 16 2013, as part of a bailout agreement.

The case confirms that the Commission is bound to uphold its principles in the context of its financial assistance programmes even when acting outside the EU legal framework. Key references in that context are[60]:

- Article 17(1) TEU, which confers upon it the general task of overseeing the application of EU law,
- Article 13(3) and (4) of the ESM Treaty, which requires it to ensure that the memoranda of understanding concluded by the ESM are consistent with EU law and the fundamental rights guaranteed by the Charter of Basic Human Rights

The Ledra case confirmed that, in case it does not uphold its principles, the Commission risks being exposed to legal challenges and can be held liable for damages. The Commission did not incur any damage following the Ledra case as the adopted measures were understood as having been undertaken in pursuit of an objective of

[57] European Commission (2018), Enhanced Surveillance – Greece, November 2018
[58] IMF Country Report No. 19/340, page 13
[59] Poulou, A (2017) *"The Liability of the EU in the ESM framework"*, https://journals.sagepub.com/doi/10.1177/1023263X17693198
[60] https://charter.humanrights.at/caselaw/detail/67

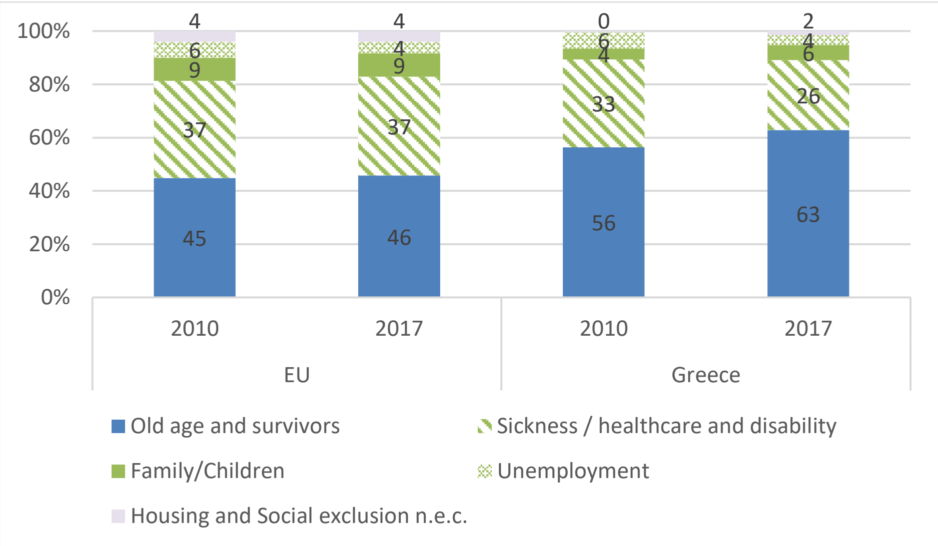
general interest and in that context constituted a permitted limitation to the appellants' property rights.

In that context, requesting nominal cuts of existing pensions was seen as risky from a legal perspective and the EC worked on applying the IMF requirements with some damage control provisions, ensuring the cuts would not go beyond a certain threshold to limit their potential impact for instance. The one-off cut of the positive difference requested to be applied from 1/1/2019 could not have exceeded 18% of the pension amount.

Greece's targeted social protection interventions indeed need to be reinforced, but not at the cost of more pension cuts

It is commonly accepted that the social welfare system falls short of expectations in Greece in terms of spending levels and redistribution across income groups. More should be allocated towards targeted social protection interventions. Besides, data analysis tends to confirm that the composition of the government's public expenditures is disproportionately oriented towards pensions in Greece (see Figure 2.18). This reflect that in Greece, pensions not only serve to protect incomes in old age, but also act as an informal social safety net given the shortcomings of the social welfare system.

Figure 2.18 Composition of social benefits (percentage of total benefits)



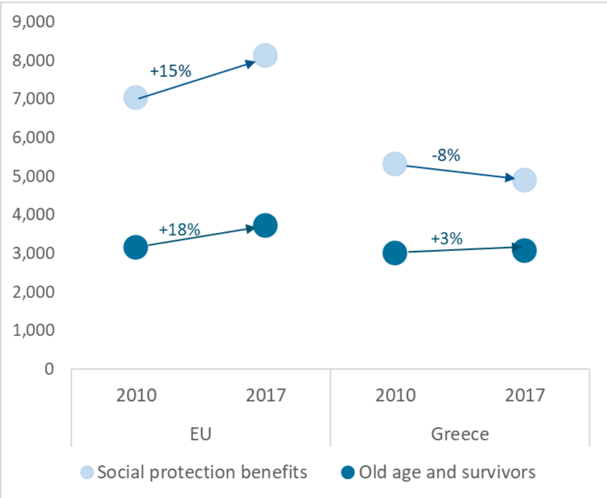
Source: Eurostat

16 out of the 18 Delphi experts supported the statement that "the composition of the government's public expenditures is too much oriented towards pension, more should be allocated towards targeted social protection interventions" (see also Figure A4.17 of the Delphi annex). The favoured approach in Greece however is that the rebalancing of public expenditures needs to be gradual, and resources ideally need to be found outside the pension envelope.

One main reason is that pensions in Greece have already been severely impacted by the cuts mentioned above (see Box 2.4). Comparing spending trends in Greece versus the EU using purchasing power parities, pension spending has increased slightly in Greece,

+3% between 2010 and 2017, looking at the data per inhabitant[61]. This is however to be put in perspective with pensioner demographics data: population aged 65 years or above increased by 8% over the same period. Greece spends less than the EU average on old-age and survivor pension (3,100 Euros per inhabitant in 2017 in Greece vs 3,700 Euros in the EU, or 82% of the EU average)[62]. This is despite the less favourable population structure, the share of the population aged 65 or above representing 21.5% of the population in Greece in 2017, versus 19.5% in the EU. The gap with the EU average widened over 2010-2017 as, in 2010, Greece was spending 95% of the EU average on pensions.

Figure 2.19 Spending trends: Pensions vs total social protection benefits (Euro per inhabitant, in purchasing power parities)



Source: Eurostat

Furthermore, Greece may rely on high *relative* income to try and keep old-age income poverty *comparatively* low but many other aspects of the situation in Greece are negatively affecting pension adequacy, including high housing costs and the lack of adequate public services to support the quality of life of pensioners throughout retirement (see Box 2.6). This explains that there were major concerns associated with the fast elimination of the personal difference in Greece prescribed under the third programme.

Box 2.6 Factors affecting adequacy, beyond replacement rates

The living standards of pensioners are influenced, inter alia, by access to services, in particular health and long-term care. In the case of Greece, these indicators are worrying. 12%- 17% percent of the population aged 65 and above have difficulty in affording health care (as evidenced in the share of respondents self-reporting unmet needs for medical examinations because they were too expensive), while the EU

[61] Over the same period of time, overall spending has contracted by 8%, explaining why old-age and survivor pension now represent an even larger share than in 2010.

[62] The gap with EU average is wider for other expenditure items – overall, Greece spends only 60% of the EU average.

average lies at 2%-3% only. Besides, public spending on long-term care is also very low in Greece (0.5% of GDP vs an average of 1.6% in the EU).

At the same time, many older people are overburdened with housing costs in Greece and spend *on average* more than 35 percent of their equivalised disposable income on housing, while 40 per cent is recognised as being the threshold at which households are considered to be overburdened with housing costs. The housing costs make up a substantially higher income share among older people at risk of poverty (more than 65 percent of income).

Source: EC (2018) Pension adequacy report

Despite the absence of the pre-legislated package, several steps have been made in the 2019 budget to increase social benefits other than pension (reform of family benefits, introduction of a housing benefit), for a value estimated to additional spending of 0.35% of GDP, or half of the increase foreseen in the 2017 pre-legislated package[63]. Besides, the 2020 law also states that the savings from the elimination of the 13th month pension will be used first to address the court rulings and second to address other social needs.

In addition to the 2017 pre-legislated package, the fiscal-related aspects of the 2016 reforms also posed problems of acceptance

Two main aspects were flagged by stakeholders in Greece as being problematic in the sense that these created huge public acceptance issues for the 2016 reform as a whole, in exchange of fiscal savings which were limited and not needed in the first place. These measures were later reversed without creating sustainability issues, namely:

- The cuts in supplementary pensions for pensioners who received total pension income of more than €1,300 per month, for an annual cost of 290 million (see section 2.3)
- The reform of the survivor pension (see discussion on its impact in 2.4), whose reversal was estimated to cost 0.1% of GDP[64]

The gradual elimination of EKAS was also sometimes raised as problematic and raising acceptance issue given its welfare characteristics, but less frequently. Other stakeholders - and the study team - recognise that EKAS was creating major labour market distortions (namely a completely flat system for low incomes and even a downward slope for a range of low-to-average incomes, as shown in Figure 2.29).

2.2.1 Question 4: To what extent has the administration of the pension system become more efficient?

The fragmentation of the pension system at the start of the programmes was a major reform hurdle, with subsequent consolidation milestones enabling deeper structural reform

Fragmentation into a multitude of funds, pension rules and IT systems obscured the pension system in a way that facilitated malpractice, impeded the conduct of timely actuarial studies, prevented the adoption of more rational methods of fiscal saving and slowed down the pace of reform. The lack of data and the system's fragmentation made some structural reform in relation to supplementary funds very difficult to design and implement (see section 2.1.1). For example, according to stakeholder interviews the number of supplementary funds and the extent to which they were an integral part of the

[63] European Commission (2018), Enhanced Surveillance – Greece, November 2018
[64] European Commission (2019), Enhanced Surveillance – Greece, June 2019

public system was unclear in 2010. Pension fund consolidation was therefore a key feature of the three adjustment programmes.

It took three waves to consolidate the supplementary funds during the programme period. This was because some funds that were initially considered financially autonomous in fact formed an integral part of the public system, as they received funding directly from the state budget or through earmarked levies collected by the state. Funds that had remained outside the scope of the consolidation were discovered years after the start of the reforms. The slow progress of the process was seen not only coming from the lack of ownership, especially in the earlier reform years, but also as a function of the system's complexity and fragmentation.

A major milestone in consolidating the supplementary pension funds involved the merger of several funds to establish ETEA under Law No. 4052/2012. The second consolidation wave involved the incorporation of additional 12 supplementary funds into ETEA with Law No. 4336/2015. The third wave saw the establishment of ETEAP through a merger of ETEA and a number of additional supplementary funds, primarily providing supplementary lump sum pensions on retirement (Law No. 4387/2016).

It was important that the integration of funds into single entities should go beyond name changes, as was often the case with SSF consolidation prior to the programmes. The development of integrated IT systems and processes, such as the Ariadni, Helios and Atlas systems and the establishment of the single collection centre KEAO, were major milestones in effecting real reform.

The Ariadni system became operational in 2013 and enabled the flow of civil registry data (deaths, marriages, divorces, etc.) into the pension payment system. This allowed for better control of malpractice, such as the collection of old-age pensions for deceased pensioners. The same year saw the Helios system for monitoring pension payments come into effect, which interconnected 93 different pension payment IT systems with the Ariadni system.

Conditions linked to the ESM programmes included the completion of the registration of all social security contribution (SSC) arrears in a single SSC debt database, managed by the single collection centre (KEAO), established in 2013. Another significant milestone was the launch of a new system for tracking contributions and acquired pension rights (ATLAS) in 2015.

Key milestones in relation to pension administration

Separation of social health insurance from pension insurance functions (2011);

Consolidation of many of the supplementary PAYG public pension funds into a newly formed institution (ETEA - 2012);

Pension payments conditional on the use of SSN, allowing for the production of reliable pension statistics (2013);

Ariadni system for exchange of civil registry data with SSFs, the employment agency (OAED) and the tax authorities (2013);

Establishment of a single collection centre for outstanding social security obligations (KEAO - 2013)

Helios system for monitoring pension payments, with detailed monthly reports on beneficiaries and payments (2013);

New hire of civil servants insured in the private sector fund, IKA (2013);

'Social security CV' (new system for tracking contributions and acquired pension rights - ATLAS) becomes operational, laying the ground for speedier issuance and granting of pensions (2015);

Merge of first-pillar lump sum funds into ETEA (renamed ETEAP) (2016);

Merger of ETEAP and EFKA into e-EFKA (2020);

Progress in merging databases and systems (ongoing).

Institutional and operational consolidation substantially improved the availability of data to monitor the pension system. This was a big step forward from the situation where the General Accounting Office (GAO) controlled the payments of main pensions for public sector retirees only, while the remaining expenditure (by SSFs) was not readily visible to the state. Now, all pensions are paid through a single entity, with the state paying contributions for its employees to EFKA. This has also facilitated more reliable projections for pension-related expenditure.

While there has been significant progress with data processing and availability, there is still a need for more regular and transparent reporting on the financials of the public pension system in Greece. In particular, EFKA has not yet published financial statements for any of its financial years in operation. The reporting on the public pension system should go beyond data on pension spending and include indicators on assets, liabilities and contingencies to allow for a more comprehensive assessment of the fiscal risks. Indicatively, the latest actuarial analysis of the National Actuarial Authority that accompanied Law 4670/2020 noted that data on payables and receivables were not made available from EFKA and ETEAEP.

The process of consolidating the pension system is still ongoing. EFKA has availed of EU technical support for different aspects of organisational development since 2016 (through SRSS/DG REFORM) and the project is expected to last until mid-2021.

In 2020, ETEAP and EFKA merged into e-EFKA, with the aim of speeding up the consolidation and digitalisation of all pension system data and shortening the time for approving pension applications. The digital pension process began its pilot operation in mid-April 2020. During its pilot phase, 4 out of 5 steps in the process of granting pensions are executed automatically for all new survivors' pensions and the old-age pensions coming from the OGA fund. From June 2020, the fifth step – issuing the pension granting decision after a check by an e-EFKA employee - will be automated and pensions in the pilot category will be granted at the touch of a button, rather than months later[65]. The digital process will be rolled out to more pension categories throughout 2020 and 2021. Important next steps in the consolidation process include the operational integration of ETEAP into e-EFKA, setting up a new structure for the local offices of e-EFKA, and the development of regional inspection offices.

Improved efficiency is recognised as one of the key achievements of the programme

Stakeholders view the progress in consolidating the pension system administration as significant. Of the 18 experts that took part in the Delphi survey, 11 gave a positive assessment of the impact of the reforms on the efficiency of the system for the first EAP, 14 for the second EAP and 13 for the third EAP. Only two of the 18 experts agreed that the EAP reforms had reduced the efficiency of the pension system. Improved efficiency

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[65] When a person is insured by more than one SSF, the average time to grant a pension is typically prolonged, as checks need to be done in different paper archives.

was the fourth most positively viewed impact, after the improvement in long-term sustainability, short-term viability and fiscal savings (see also Figure A4.13). The risk of backtracking is understood to be limited at this level, with the benefits of consolidation widely accepted in Greece.

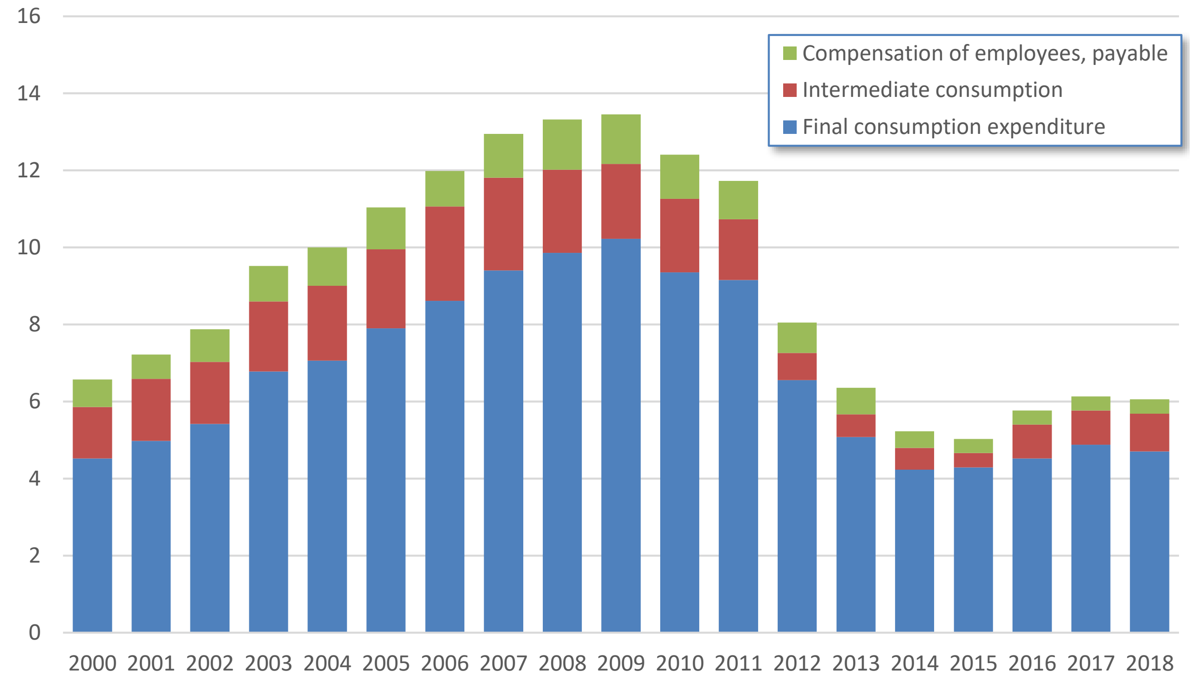
The efficiency of the pension system administration showed marked improvement in terms of reduced spending on salaries and consumables and stronger arrears collection, yet the outstanding balance of SSC debt has continued to grow

The assessment of improved efficiency is supported by savings in SSF expenditure on salaries and consumption (see Figure 2.20). For instance, the final consumption expenditure of the SSF sector declined from EUR 9.4 bln in 2010 to EUR 4.7 bln in 2018 (54 per cent reduction). Over the same period, SSF sector spending on intermediate consumption fell by 49.4 per cent (from EUR 1.9 bln to EUR 983 mln), while the compensation of employees declined by 71.3 per cent (from EUR 1.1 bln to EUR 369 mln).

Improvements were also recorded in arrears collected through the single collection centre KEAO. The total amount of collected arrears reached EUR 1.4 bln in 2018, from EUR 1.1 bln in 2017 and EUR 333 mln in 2014. As a result, the operational targets of KEAO were over-achieved for another year (114 per cent of the collection target).

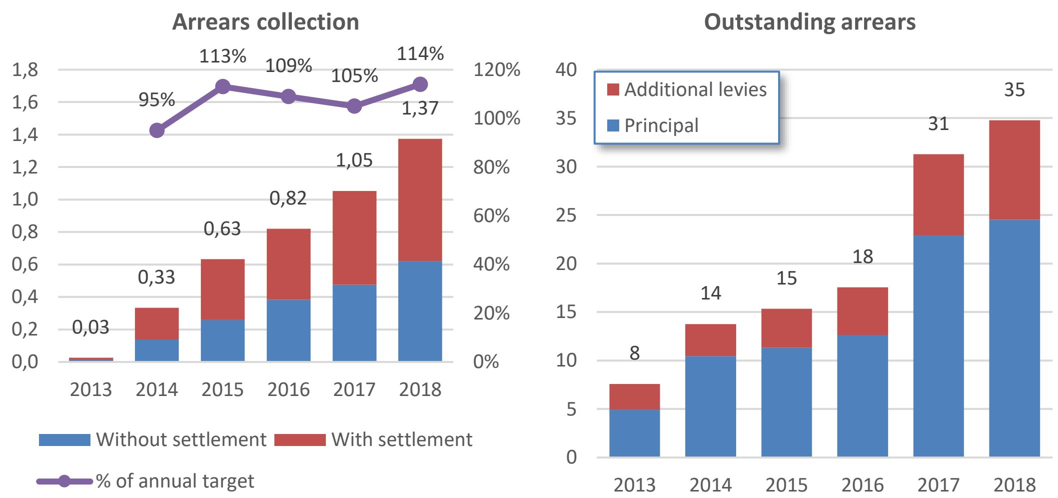
The total amount of outstanding SSC arrears continued to increase, however. In 2018, it reached EUR 34.8 bln (EUR 24.5 bln principal and EUR 10.3 bln additional charges), from EUR 31.3 bln in 2017 and EUR 13.8 bln in 2014 (see Figure 2.21). According to KEAO, 77.6 per cent of the outstanding debt at the end of 2018 came from debtors that generated their first arrears before 2010. This points to an endemic problem with the payment culture in Greece. The problem was exacerbated by a wave of successive legislative interventions (e.g. Law No. 4152/2013, Law No. 4305/2014, Law No. 4321/2015 and Law No. 4469/2017) that introduced new settlement schemes to ease the payment obligations of debtors. A new draft bill that would overhaul the bankruptcy laws in Greece (earlier harmonisation with changes in EU rules) may help in this regard.

Figure 2.20 Consumption expenditure and compensation of SSF employees, current prices, EUR bln



Source: Eurostat

Figure 2.21 Outstanding arrears and collection, EUR bln



Source: KEAO (2019). Operational action plan

2.3 Implications of the Supreme Court decision

Question 5: What has been the impact of Court decisions on the fiscal targets, on the viability of the pension system and on related reform measures?

2.3.1 Scope of the assessment

This question focuses on the economic impacts of successive rulings in the pension sector:

- Court rulings 2287/2015 and 2288/2015 – declaring the 2012 pension cuts unconstitutional;
- Court rulings 1890/2019 and 1891/2019 – confirming that the 2016 law rectified the unconstitutionality of the 2012 cuts but challenging the constitutional character of some new aspects of the 2016 reform.

The economic impact of the absence of the pre-legislated package of pension cuts (elimination of positive personal differences) is analysed under Question 3.

2.3.2 Background to the rulings

The Council of State issued rulings 2287/2015 and 2288/2015, on the 18 June 2015 and 22 June 2015, respectively, declaring that the cuts under Article 6 paragraph 2 of Law No. 4051/2012 and Article 1 paragraph IA.5 of Law No. 4093/2012 were unconstitutional. More specifically, it found that the cuts contradicted Article 2 paragraph 1, Article 4 paragraph 5, and Article 25 paragraphs 1 and 4, referring to:

- 2.1. 'Respect and protection of the value of the human being constitute the primary obligations of the State';
- 4.5 'Greek citizens contribute without distinction to public charges, in proportion to their means';
- 25.1 'The rights of the human being as an individual and as a member of society and the principle of the welfare state rule of law are guaranteed by the State. All agents of the State shall be obliged to ensure the unhindered and effective exercise thereof. These rights also apply to the relations between individuals to which they are appropriate. Restrictions of any kind which, according to the Constitution, may be imposed upon these rights, should be provided either directly by the Constitution or by statute, should a reservation exist in the latter's favour, and should respect the principle of proportionality';
- 25.4. 'The State has the right to require of all citizens to fulfil the duty of social and national solidarity'.

The central argument for challenging the constitutionality of the cuts was the failure to conduct a study to assess the effect of the cuts on the living conditions of those affected. The pension cuts were implemented hastily, without offering sufficient justification for their extent or distribution across the pensioner population. It was also argued that the cuts were agreed more than two years after the crisis hit the country, when other measures had already been taken to counter its effects. The 2012 cuts were the last of a series of cuts affecting pensioners. While the pension cuts up to 2012 were deemed justified and constitutional, subsequent cuts saw the particular group of pensioners targeted excessively and unjustifiably by the State[66].

As per the Court rulings 2287/2015 and 2288/2015, pensions had to be paid retroactively to compensate for the 2012 cuts. In an effort to limit the fiscal impact of the decisions, however, the rulings specified that the retroactive force of the unconstitutionality only applied to those that had filed claims prior to the publication of the decision (June 2015), thus it did not hold for all those who had been affected. For those who filed claims after the publication of the decision, the unconstitutionality of the cuts would apply only from the date of publication of the decision[67].

The third EAP thus had to square the Court rulings with fiscal targets, while seeking to implement the new pension reforms with greater transparency. For instance, some of the conditions called for a detailed quantitative assessment of the redistributive impact of pension reforms and detailed explanatory notes accompanying the reforms. It also sought to secure *ex ante* buy-in of key stakeholders through, for instance, requesting opinions from the Court of Auditors and the Scientific Council of the Parliament on the reforms.

Despite these precautions, Court cases have sought to challenge the constitutionality of the 2016 pension reform. On the one hand, the 2019 Council of State rulings confirmed that the 2016 law is appropriate to remedy the unconstitutionality of the 2012 cuts (meaning that a 10-month legal gap remained, between the issue of the 2015 ruling and the passing of the 2016 law). On the other hand, some new elements were ruled unconstitutional. One factor adding to the confusion and uncertainty was that two different institutions in Greece were looking at the 2016 pension reforms in parallel[68]: (i) the Council of State, and (ii) the Court of Auditors, responsible for social security of civil servants more specifically.

i. The Council of State has already reached its conclusions and recently confirmed the constitutionality of core aspects of the 2016 pension reform, such as the integration of all pension funds in EFKA and the application of the new pension calculation rules to both current and existing pensioners. However, it ruled that some elements were unconstitutional, including the provisions for supplementary pensions and accrual rates for long careers in the main pension for certain categories, such as the self-employed and freelance professionals. While this called for further reforms with budgetary implications, the Council ruled out the possibility for those affected to be granted retroactive compensation (rulings 1880/2019, 1888/2019, 1890/2019 and 1891/2019)[69];

ii. In parallel, however, in April 2019, the Second Chamber of the Court of Auditors found key aspects of the reform – that were accepted by the Council of State (ruling 930/2019) - unconstitutional. This concerns the pension rights of public sector officials (including the solidarity levy for public sector pensioners, the replacement rates of 2016 pension reform and the integration of civil servants and public sector pensioners into EFKA). As the case has yet to be adjudicated, the next step for the Court of Auditors is for its plenary formation to reach a

[66] See actual ruling 2287/2015 of the Supreme Court, at: https://www.taxheaven.gr/laws/circular/view/id/21132

[67] http://www.adjustice.gr/webcenter/portal/ste/ypiresies/nomologies?_adf.ctrl-state=4h3gv4hal_4&_afrLoop=5587492073546150#!

[68] DG ECFIN (2019). Enhanced surveillance report – Greece, November 2019.

[69] https://www.taxheaven.gr/news/news/view/id/46352#

conclusion. Should it reach the same conclusion as the Second Chamber, it will be up to an ad hoc Supreme Special Court of Article 100 of the Greek Constitution to settle the conflict.

Given the uncertainties in relation to eligibility for retroactive payments and periods and amid discussions on whether it was consistent with the European Convention of Human Rights (ECHR) that pensioners who had not filed a petition before the 2015 Council of State ruling were excluded from receiving the full retroactive amount, an estimated number of 2.5 million of cases have subsequently been filled against the Ministry. Noting that the lower courts in the country had started to issue contradictory decisions, the Ministry asked for a 'pilot trial'[70], to set a precedent and ensure a harmonised approach. The case was heard in January 2020 and a decision remains pending (media reports suggest the summer of 2020).

2.3.3 Cost analysis

This section analyses the cost implications of the 2015 and 2019 rulings, based on the information available as of June 2020. Note that the outcome of the Pilot Trail remains unknown at this stage[71] and may have a bearing on the estimations presented here.

Court rulings 2287/2015 and 2288/2015 – declaring the 2012 pension cuts unconstitutional

The 2015 rulings had fiscal implications linked to retroactive obligations for two distinct periods:

i. January 2013-June 2015 (until the publication of the 2015 decision);
ii. June 2015-May 2016 (between the publication of the 2015 decision and the adoption of the 2016 reform).

The annual fiscal impact of the 2015 rulings for (i) the period January 2013-June 2015 is estimated to be about EUR 4.3 bln, according to General Directorate Services' estimations of the Ministry of Labour[72] (i.e. EUR 10.7 bln in total). It concerns only those that had filed a suit prior to June 2015 (as stipulated in the 2015 rulings).

The fiscal impact of the 2015 rulings for (ii) the period June 2015-May 2016 is estimated to lie within the range EUR 2.1 - 4 bln. Mirroring the situation for the period January 2013-June 2015, only those who had filed a suit prior to the publication of the decision were eligible[73] (to be confirmed in the pilot trial decision, expected to be published in the summer).

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[70] The 'pilot trial' procedure was introduced in Greece under Law No. 3900/2010. It consists of sending a case, normally judged by the lower Administrative Courts to the Supreme Court in order to establish case-law and provide guidance for the Administrative Courts.
[71] It is expected to become available over the summer of 2020.
[72] No publicly available reference document is available. It was recorded in an internal letter to the legal unit of the Ministry of Labour, based on discussions held in Greece as part of this study.

[73] Information on eligibility made available to be media can be found at: https://www.capital.gr/oikonomia/3447378/apofasi-bomba-apo-to-ste-anadromika-11-minon-upsous-4-dis-euro-stous-suntaxiouxous

Court rulings 1890/2019 and 1891/2019 – challenging aspects of the 2016 reform

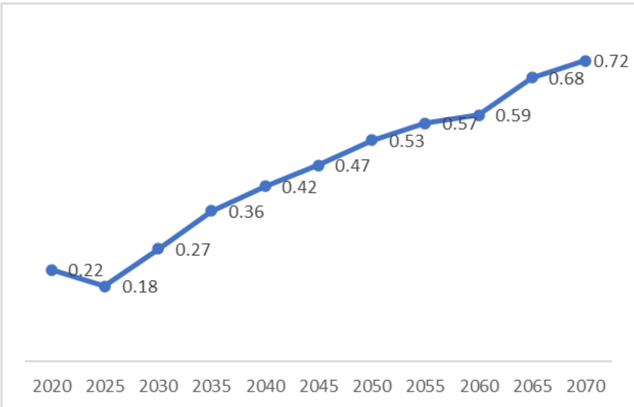
As stipulated in the 2019 rulings, no retroactive payments for the period May 2016-October 2019 will be made (this would have entailed major fiscal risks, creating obligations estimated to be in excess of EUR 12 bln).

The new pension reform bill that passed through parliament (Law No. 4670/2020) in February 2020 contains an outline of the measures taken to comply with the Council of State 2019 decisions on the unconstitutional aspects of the 2016 pension reform. It also pursues broader objectives (e.g. regarding digitalisation) (see Annex 5).

Law No. 4670/2020 clarifies the funding source which will be used to finance the compliance cost of the 2019 court rulings. The extra pension benefit, known as the '13th pension', introduced in May 2019 by Law No. 4611/2019 was cancelled. Instead, there is a provision that 0.5 per cent of GDP will be earmarked in the social protection budget of the Ministry of Labour and Social Affairs, 1 January 2020 to cover the cost of complying with court rulings 1890/2019 and 1891/2019 in the first place, and other social protection spending subsequently.

The new law was accompanied by two studies on the impact of said reforms on the sustainability and adequacy of the system. As per the Actuarial Study, the cost of complying with the court rulings through the measures introduced in the draft bill is estimated to range between 0.18-0.22 per cent of GDP in 2020-2025 and then grow gradually to 0.70 per cent of GDP in 2070 (see Figure 2.22). In absolute terms, it represents EUR 350 mln to EUR 2.5 bln each year.

Figure 2.22 Additional pension expenditure to apply Council of State decisions 1890/2019 and 1891/2019 (percentage of GDP)



Source: NAA (2020). Actuarial study of the primary and supplementary pension scheme for the period 2018-2070

Figure 2.23 presents the cost impact of the 2020 reform. Until 2047, the cost impact is positive, given that the savings on the cancellation of the so-called 13th payment to pensioners exceed the compliance costs linked to the 2019 Court rulings[74]. More details are presented below:

[74] While the first two points are unanimously seen as directly addressing the 2019 Court rulings, the (re)introduction of social contribution classes for the self-employed is more controversial. For some stakeholders in Greece, the point of the Court saying that equal treatment of unequal

In relation to main pension:

- Cancellation of the reintroduction of the 13th payment to pensioners: This was to consist of an annual payment – equivalent to 30-100 per cent of current pensions (depending on pension levels). Its cancellation – intended to absorb the compliance costs linked to the 2019 Court rulings and accommodate further social spending - creates fiscal space of about EUR 0.8 bln a year[75].
- Increase in the accrual rates after 30 years' contribution to be introduced retroactively from 1 October 2019: This is the main driving factor behind the increase in expenditure. It affects expenditure progressively, together with the gradual increase in average insurance years (as retirement age and employment rate increase)[76]. From 2047, the cost exceeds 0.5 per cent of GDP and expenditure is not fully compensated by the financing source identified by the authorities (cancellation of the re-introduction of the 13th payment to pensioners).
- Reintroduction of social contribution classes for the self-employed: The impact of this provision that de-links contributions from income will depend on the contribution class selected by the insured. The authorities expect that the 80 per cent of the self-employed who currently pay the minimum contribution of EUR 130 per month will chose the new lowest level of contributions (EUR 155 per month)[77]. The impact should thus not be detrimental from a fiscal point of view. Sensitivity analyses performed by the NAA show that the results are affected to a very limited extent when the share of those opting for the first contribution class is increased to 90 per cent (compared to 80 per cent in the baseline scenario)[78].

In relation to supplementary pension:

- Abolition of cuts in supplementary pensions, which were introduced following Article 96 of Law No. 4387/2016 (for pensioners who received total pension income of more than EUR 1,300 per month). Law No. 4670/2020 implies retroactive payments from October 2019 (date of the 2019 rulings) until the publication of Law No. 4670/2020. The retroactive payments for the final three months of 2019 would cost EUR 72 mln, while the annual cost stands at EUR 290 mln[79]. This is the main cost driver over the period 2020-2025. However, it relates to a closed group[80] of pensioners that have acquired supplementary pension rights during the period 2002-2014 (when the defined benefit formula with fixed accrual rate was still applied) and the impact of this cost driver will phase out gradually. The impact of the measure is expected to be covered through the sale of a part of the assets of the supplementary pension fund (ETEAEP)[81].

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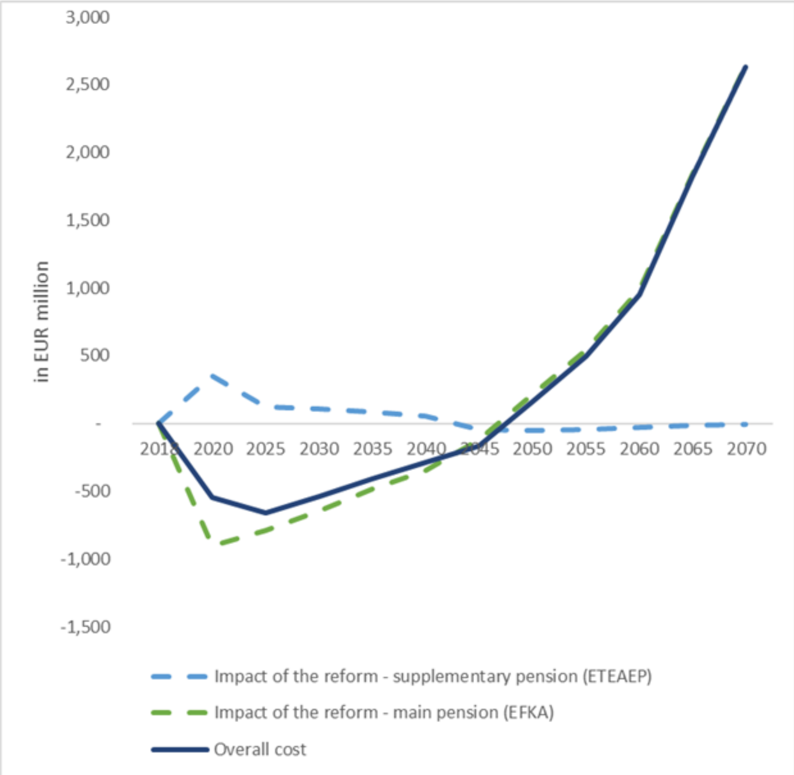
categories was problematic had already been addressed when the contribution rates were revised downwards to 13.3 per cent.

[75] European Commission (2019). Enhanced surveillance report: Greece, November 2019.
[76] Average period of insurance exceeds 30 years for the first time after 2040.
[77] European Commission (2020). Enhanced surveillance report: Greece, February 2020.
[78] NAA (2020). Actuarial study of the primary and supplementary pension scheme for the period 2018 2070.
[79] European Commission (2020). Enhanced surveillance report: Greece, February 2020.
[80] Around 465,000 pensioners.
[81] European Commission (2020). Enhanced surveillance report: Greece, February 2020.

Figure 2.23 Differences between pension expenditure in the baseline and reform scenarios (EUR mln)



Source: NAA (2020). Actuarial study of the primary and supplementary pension scheme for the period 2018-2070

2.3.3.2 Conclusions and remaining uncertainties

Table 2.3 summarises the cost impact of all items linked to the Court rulings on 2012 cuts and the 2016 reform.

In total, one-off retroactive payments could amount to EUR 12.9 bln – EUR 14.8 bln. These essentially comprise the retroactive payments for the period 2013 - June 2015 to reverse the unconstitutional 2012 cuts (payable only to those who filed a suit before June 2015).

In addition, the annual costs (linked to addressing the 2019 rulings on the 2016 reform) would increase from EUR 640 mln in the short-term to EUR 2.8 bln in the long-term. Until 2047, these costs would be largely compensated by the cancellation of the 13th payment to pensioners, proposed by the authorities to limit the net impact of the rulings on the public finances and to earmark more resources for other social spending.

Overall, the expected economic impacts are more limited than initial projections suggested. This is partly linked to restricted eligibility rules (only those who filed a suit will be compensated, not all those who were affected). The Court decisions also ruled out the possibility for those affected to be granted further retroactive compensation for the period May 2016 - October 2019.

The cost impacts presented here are estimates and will need to be confirmed in light of the 'pilot trial' decision, which is expected to become available in the summer of 2020. Similarly, decisions on the modalities and phasing of retroactive payments will also be needed (for the period June 2015 - May 2016).

Looking at the estimates for Greece in the context of the economic impacts of Constitutional Court rulings against pension measures taken in times of crisis in other EU countries, the fiscal impact in Greece is at the higher end, similar to Italy (see Box 2.7)

Table 2.3 Summary overview of the costs linked to the rulings on 2012 cuts and 2016 reform

Underlying aspect	Period	Estimated cost	Remaining uncertainties
2012 cuts	January 2013 – June 2015	One-off retroactive payment: EUR 10.7 bln *Paid out gradually with the conclusion of the corresponding (lower) court individual cases and class actions*	To be confirmed in the 'pilot trial' decision (summer 2020) if it was indeed consistent with the ECHR that pensioners who had not filed a petition before the 2015 Council of State ruling were excluded from receiving the retroactive amounts
	June 2015 - May 2016	One-off retroactive payment: EUR 2.1 - 4 bln *Decisions on the modalities and phasing of retroactive payments still to be made*	To be confirmed in the 'pilot trial' decision (summer 2020) if only those who had filed a case before the date of the publication of the 'pilot trial' decision are eligible. Regardless of the legal obligations, in cases where the government would grant a retroactive payment to all pensioners and not only those that have filed a suit (to satisfy the demands of parts of the population), and the payments include the EUR 800 'bonus' that replaced the 13^{th} and 14^{th} monthly pension payments for a period of time, the cost would increase to EUR 9.4 bln, as estimated in media reports[82]
2016 reform	May 2016 - October 2019	No retroactive payments to be made as per 2019 rulings	To be confirmed in the 'pilot trial' decision if no retroactive payments are to be made for the period of May 2016 to the January 2019 Two institutions were looking at constitutionality of the 2016 reforms: (i) the Council of State and (ii) the Court of Auditors. Law No. 4670/2020 explicitly addresses the Council of State rulings by adjusting parameters of the system. It also adds a paragraph stating that the

[82] https://eleftherostypos.gr/oikonomia/asfalisi-syntaxeis/572043-epistrofes-eos-9-427-eyro-kleidonoun-dikaiouxoi-ika-deko-trapezon-nat-kai-oaee-analytikoi-pinakes/

Underlying aspect	Period	Estimated cost	Remaining uncertainties	
			recalculation of pensions	Court of Auditors remains the competent authority for disputes regarding pensions of public servants, public sector employees and military personnel, as envisaged in the Greek constitution. Presumably, this addresses possible charges that equating the rules of public and private sector without consulting with the Court of Auditors violated the constitution. It is understood in Greece that the potential fiscal risks stemming from Court of Auditors' rulings are limited
	From October 2019	One-off retroactive payment: EUR 72 mln and annual cost of EUR 290 mln for the abolition of cuts in supplementary pensions *Execution of retroactive payments for main and supplementary pensions planned for October 2020* Increase in accrual rates: 0.18-0.7 per cent of GDP per year (or EUR 350 mln to EUR 2.5 bln a year in absolute terms)	It should be the final word on the impact of the rulings linked to the 2016 reform, provided that the new legislation Law No. 4670/2020 holds up against new potential legal challenges	
Total		One-off retroactive payments: EUR 12.9 bln – EUR 14.8 bln Annual: EUR 640 mln – EUR 2.8 bln	Based on available information in May 2020. See remaining uncertainties above for each cost element	

Box 2.7 Examples of economic impacts of Constitutional Court rulings against pension measures taken in times of crisis in other EU countries

Italy

Following the 2015 Constitutional Court ruling against the freezing of pension indexation in 2012-2013, the Court mandated the government to grant retroactive one-off payments (in the order of EUR 18 bln), with forward-looking implications (i.e. with a basis for future indexation higher than initially forecasted).

Source: Merler, S. (2015). What are the implications of Italy's pension ruling? World Economic Forum. Retrieved: https://www.weforum.org/agenda/2015/05/what-are-the-implications-of-italys-pension-ruling

Portugal

Following the 2013 Constitutional Court ruling against the cuts of the 13th and 14th monthly payments to pensioners and public employees, the Court imposed full reinstatement of these payments from 2013 (estimated cost: 1.5 per cent of GDP for one year). A measure entailing the reduction of survivors' pensions benefits was also rejected in 2014.

Source: European Commission (2014). Ex post evaluation of the Economic Adjustment Programme: Portugal, 2011-2014.

Latvia

Following the 2009 Constitutional Court ruling against the 'June pension cuts', the Court imposed the obligation to resume payment of pensions in full from February 2010 (estimated cost: 1 per cent of GDP for one year) and to grant retroactive payment for withheld pensions during part of 2009 (estimated cost: 0.5 per cent of GDP for one year).

Source: World Bank (2010). Programme document for a special development policy loan to the Republic of Latvia to support a safety net and social sector reform programme.

Lithuania

Following the 2012 Constitutional Court ruling against the pension cuts in 2010 and 2011, the Court mandated the reimbursement of the non-paid amounts of reduced pensions (idea that the cuts were temporary). Retroactive payments started at the end of 2014 (EUR 289 mln or about 12 per cent of annual expenditure on social insurance pensions had to be paid back). Pension (and wage) restoration also took place.

Source: European Commission (2015). The 2015 Pension Adequacy Report: current and ruture income adequacy in old age in the EU, volume II. 'Country Profiles' – Lithuania. Publications Office of the European Union: Luxembourg.

Romania

Following the 2010 Constitutional Court ruling on the package of expenditure cuts agreed as part of the EAP, the Court rejected the constitutionality of the 15 per cent reduction in pensions (representing 0.7 per cent of GDP).

Source: IMF (2014). IMF Staff Country Reports: Romania. Country Report 10227.

2.4 Impact of the pension reforms on labour market participation and retirement

Question 6: How have labour market participation and retirement incentives been affected by the changes?

A two-step approach was used to assess the impact of the pension reforms on labour market participation and retirement:

- Step 1: Setting the scene by examining the key trends in labour market participation and retirement during the EAP implementation period;
- Step 2: Assessing the potential role of specific aspects of the pension reforms on observed changes.

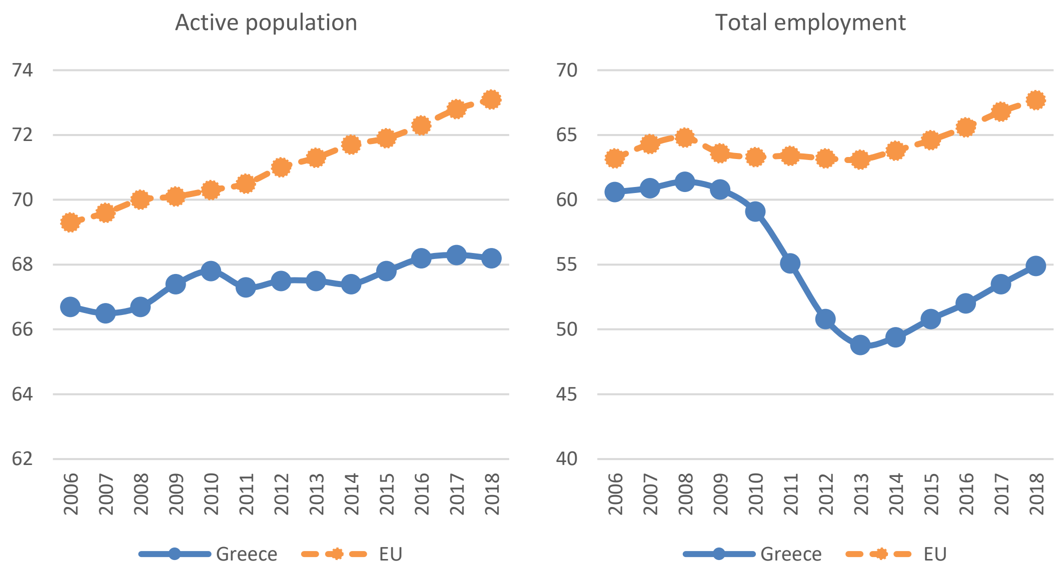
2.4.1 Step 1: Setting the scene by examining the key trends in labour market participation and retirement

Sharp decline in employment and stagnation in labour market participation

The expansion of employment through greater participation in the labour market and longer careers is a lever for ensuring both the sustainability and adequacy of the pension system. The evolution of labour market participation – in addition to being a desired policy outcome on its own - is also an important indicator of the performance and prospects of the pension system.

During the period of EAP implementation (2010-2018), employment in Greece fell sharply, from 59.1 per cent of the total population of active age (15-64 years old) in 2010 to 48.8 per cent in 2013, returning to 54.9 per cent in 2018 (see Figure 2.24). Meanwhile, the labour force participation rate - which includes unemployed people who are actively seeking employment - remained relatively stable, at around 67-68 per cent throughout this period.

Figure 2.24 Labour market participation, percentage of total population, 15-64 years old, 2006-2018



Source: Eurostat

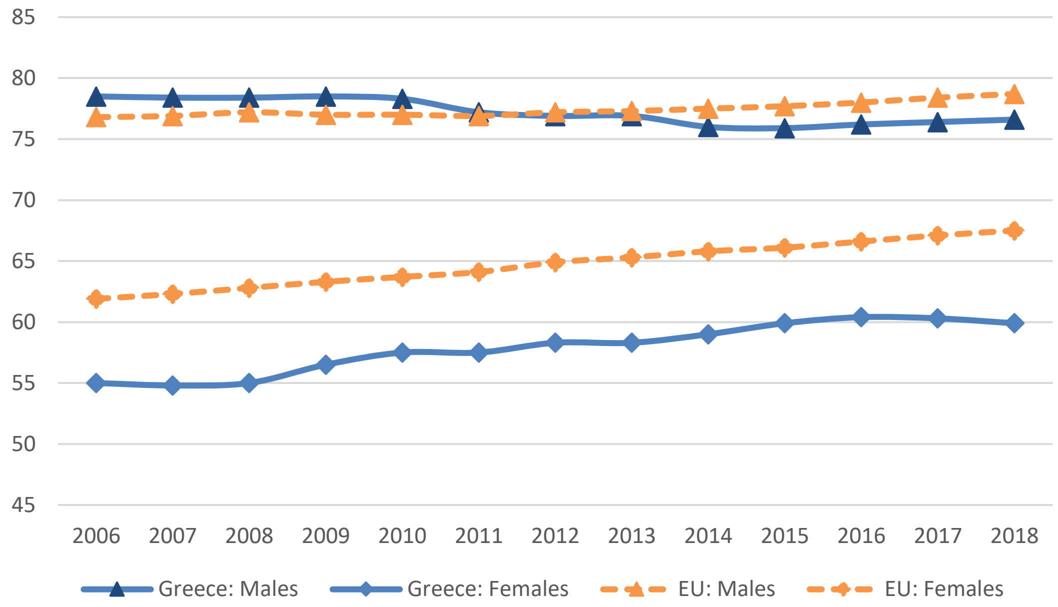
Evidently, the economic crisis that pushed the unemployment rate up to 27.5 per cent in 2013 had a more limited impact on labour force participation. Nevertheless, the relative stability of the participation rate in Greece is also a sign of structural weakness, given the secular trend of rising participation rate in the EU, which increased over the same period from 70.3 to 73.1 per cent.

Male participation declined, while the growth of female participation stalled

The trends in labour force participation showed a divergence by gender (see Figure 2.25). Male participation, which was quite stable prior to 2010 (at around 78.4 per cent) declined to 76 per cent by 2014 and then began gradually to recover (76.6 per cent in

2018). Meanwhile, female participation increased in 2012 (to 58.3 per cent) and in 2014-2016 (60.4 per cent), after which it started to decline, falling to 59.9 per cent in 2018.

Figure 2.25 Male and female labour force participation, percentage of total population, 15-64 years old, 2006-2018



Source: Eurostat

In the EU, by contrast, both male and female labour force participation continued to increase on average, with female participation growing at a faster rate. Increasing women's labour force participation, for example via the provision of adequate childcare, is key to addressing sustainability issues (as more contributions flow into the system) and adequacy issues (e.g. reducing the gender pension gap). To date, Greece has not fully exploited this so-called 'third and a half pillar'[83] to address the challenges in its pension system.

2.4.2 Step 2: Assessing the potential role of specific aspects of the pension reforms on observed changes

Attributing the observed changes in labour force participation to particular pension system reforms is not straightforward, as, during the same period, the broader economic conditions changed dramatically and there was comprehensive labour market reform. There were several channels through which the pension reforms (and other reforms) promoted by the EAPs would have impacted various labour market aspects. Labour force participation issues received the most 'no impact' responses in the question on the effectiveness of the reforms from the Delphi survey (11-16 of 18 responses, depending on the EAP and the particular labour market issue). The following subsection examines specific aspects of the pension reforms on certain aspects of the labour market by juxtaposing the dynamics in the composition of the inactive population aged 15-64 with specific changes in the pension system.

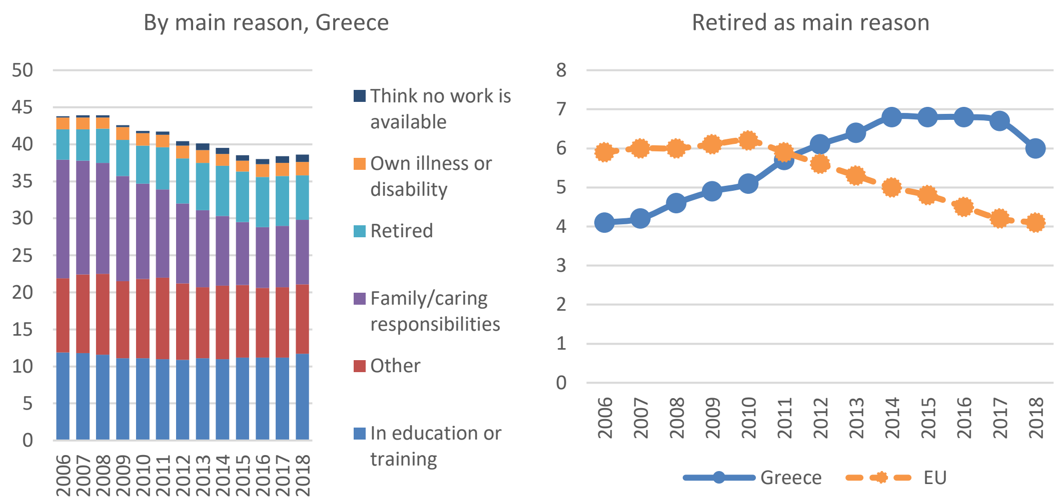
[83] Panageas, S. and Tinios, P. (2017). Pensions: arresting a race to the bottom. In C. Meghir, C. A. Pissarides, D. Vayanos and N. Vettas (Eds.), *Beyond austerity: reforming the Greek economy,* Cambridge, MA: MIT Press, pp. 459–516.

Changes in survivors' pensions were not sufficient to prevent the decline in female labour force participation

One measure aiming to strengthen female labour market participation was introduced with Law No. 4387/2016, which tightened the conditions on receiving survivors' pensions – surviving spouses younger than 55 would receive the survivors' pension for three years, rather than indefinitely. The reform targeted increased labour market participation of active age surviving spouses (and would thus have impacted female labour market participation, assuming the surviving spouse is more likely to be a woman).

Following the introduction of the measure, the share of women aged 15-64 not taking part in the labour market due to retirement declined, from 6.8 per cent in 2016 to 6 per cent in 2018. However, the share of women that were inactive due to family or caring responsibilities increased by 0.5 p.p. (from 8.2 per cent to 8.7 per cent), similar to the increase in the share of those in education (from 11.2 per cent to 11.7 per cent), which explains the overall decline in female labour participation in 2016-2018.

Figure 2.26 Inactive female population as a percentage of total female population, 15-64 years old, by main reason



Source: Eurostat

The reform might not have had long-lasting impacts. The impact of the survivors' pension reform is unclear from the trends. The Delphi survey experts assessed the changes in survivors' pension eligibility as having relatively low impact (if any). The rationale to reform the survivors' pension was that Greece spends comparatively more than EU countries on survivors' pension. Survivors' pension represented between 9% and 10.5% of total social protection benefits in Greece while in the EU, the corresponding share was 5-6%. However, the intervention logic of the reform was questionable, as, according to stakeholder interviews, it was unrealistic to expect women who had been away from the labour market for long periods of time (sometimes their entire life) to return to work at a time of crisis. The active labour market policies designed to support this transition (e.g. state subsidisation of social security contributions in the private sector) did not work as expected (as evidenced by the low take-up). In that context, the age limits of the survivors' pension reform were fully abolished in 2019[84].

[84] Article 19 of Law No. 4611/2010: '1. The age restrictions of the first, second and third subparagraphs of subparagraph A of paragraph 1 of Article 12 of Law No. 4387/2016 (A'85)

Aspects of the pension reforms in the first and second EAP led to a wave of early exits from the labour market

The first and second EAPs were marked by significant waves of early retirements, leading to cost overruns for the pension system. While there were attempts to increase the prevalence of formal work in the population, at the same time according to stakeholder interviews the authorities pursued active early retirement policies, especially for women. For example, those who were close to retirement age in 2010 were given the option to 'buy-in' up to seven years of contributions, while mothers were granted an extra five years. In parallel, indirect incentives to early retirement came from 'grandfathering' measures (incentive to retire during the transition phase, before pension rights become affected by the reforms), leading to greater than expected demand for pensions and a faster than expected reduction in contribution revenue. As a result, the share of the inactive population due to retirement of total female population of active age (already growing before the crisis) accelerated from 5.1 per cent in 2010 to 6.8 per cent in 2014.

The start of the third EAP in August 2015 saw the scrapping of grandfathering of statutory retirement age for those that entered the labour market before 1 January 1993, while other measures, such as a rationalisation of the list of occupations considered hazardous and arduous eliminated other early retirement pathways. The conditions for receiving disability pensions were also tightened.

Following the adoption of these measures, the share of inactive individuals aged 15-64 due to retirement declined to 6.5 per cent (6 per cent for women), with further positive trends supported by data analysis (see Box 2.8). The Delphi survey experts viewed the closing of early retirement pathways (together with changes to the statutory age limits and years of contribution) as having the strongest positive impact on labour force participation.

Box 2.8 Data trends on early retirement

Between 2010 and 2014, the share of inactive population due to retirement of total population of active age increased from 5.8 to 7.6 per cent (see Figure 2.27). Following the adoption of the 2015/16 measures, the share of inactive individuals aged 15-64 due to retirement declined to 6.5 per cent (6 per cent among the female population). Combined with the decline of this indicator in the EU, the share of early retirement in Greece is now higher than in the EU for women and in total (by 1.9 and 2.7 p.p., respectively). Meanwhile, the share of inactive population due to illness or disability declined from 2.1 per cent in 2011 to 1.8 per cent in 2015, returning to 2.1 per cent in 2017-2018, remaining substantially below the EU average (4 per cent in 2018).

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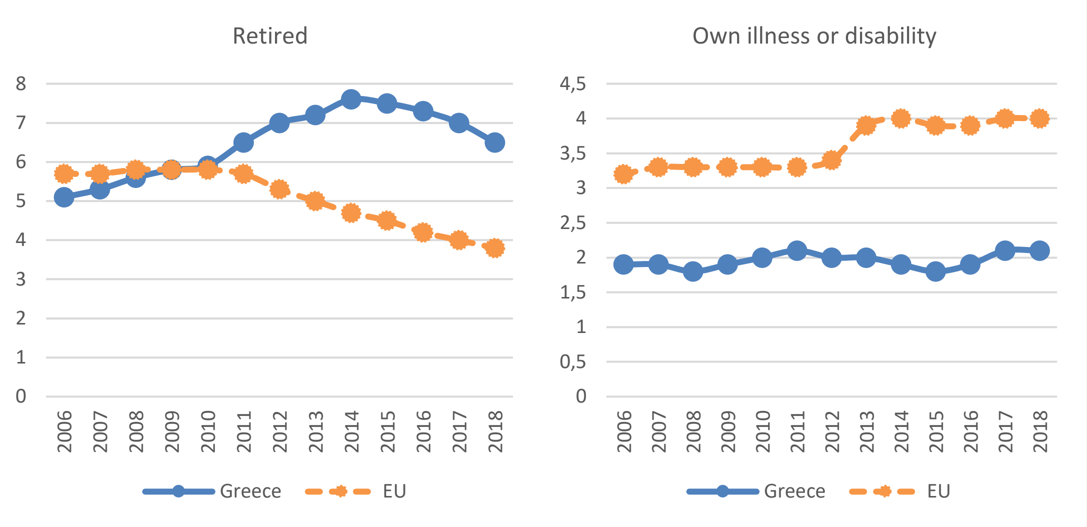
are abolished. Pensions on the death of a pensioner or an insured person shall be paid to surviving spouses regardless of their age, even after three years.'

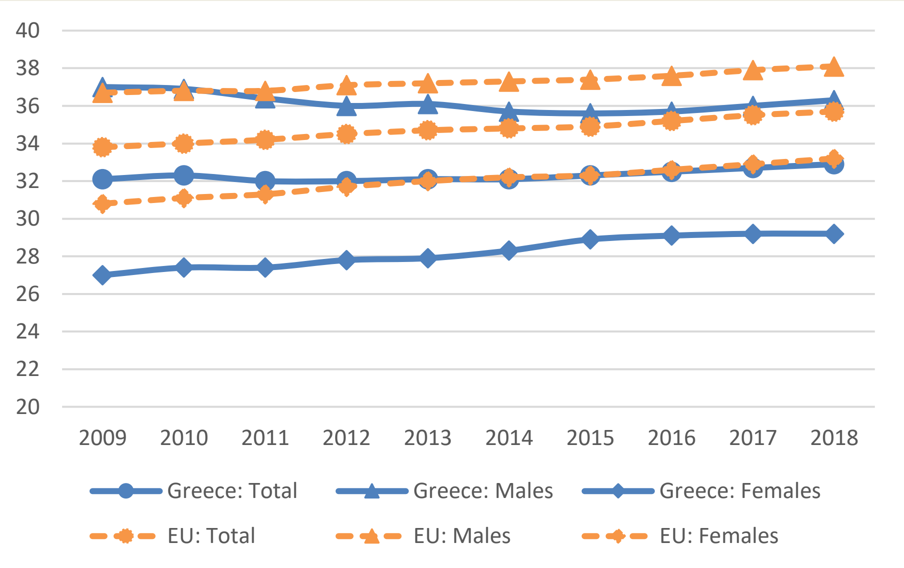
Figure 2.27 Inactive population as a percentage of total population, 15-64 years old



Source: Eurostat

The trend towards early retirement was also reflected in the average duration of working life, to a stronger degree among men. It declined from 36.8 years in 2010 to 34.9 years in 2015, but then gradually returned to 36.3 years in 2018. Over the same period, the indicator was steadily growing in the EU (from 36.8 years in 2010 to 38.1 years in 2018), with Greece now lagging behind the EU average for men. Among women, the average duration of working life continued to grow over the same period, part-driven by demographics, with newer female generations tending to have a longer employment history on average. Nevertheless, the gap compared to the EU average increased slightly (from 3.7 years in 2010 to 4 years in 2018).

Figure 2.28 Average duration of working life by gender, Greece and EU, 2009-2018



Source: Eurostat

This raises the question of why the early retirement issue was not effectively tackled earlier than 2015/16. The elimination of grandfathered retirement ages and early retirement pathways was not fully tackled before the third programme for a number of reasons:

- It was a policy choice by the Greek authorities to pursue active early retirement policies during the crisis, especially for women;
- It was considered the best course of events, given the circumstances:
  - Enacting pension reforms with immediate effect is not common practice in the EU and the world. Rather, pension reforms typically come with long implementation periods, especially for increasing retirement ages. In addition to the obvious political reasons, there was a need to mitigate the risk of legal challenges (e.g. related to legitimate expectations);
  - Blocking options to retire early and enacting it together with the reform package was theoretically possible, as according to stakeholder interviews, the European Commission was aware of the risk of a possible rush to early retirement. The downside, however, would be to remove early retirement as an adjustment channel for the labour market. Had the exit to the pension system been blocked, it would have been necessary to increase spending on unemployment benefits. Early retirement actively pursued in 2011-12 as a way to solve the problem of redundant employees in the public sector helped to achieve savings in the public sector wage bill.
- The complexity of the system itself, in particular the lack of transparency around the early retirement rules, contributed to the early retirement waves, with some early retirement pathways[85] only discovered - and thus addressed - further down the line, according to stakeholder interviews.

Changes in other labour market incentives built into the pension system could also have had an impact

Beyond the elimination of the grandfathering of statutory retirement age and early retirement pathways, another channel through which the reforms might have impacted the average labour market exit age is the increase in the link between contributions and pensions. This type of measure typically impacts those close to retirement who are calculating whether to retire now or later.

Under the pension system prior to the 2010 reforms, the minimum pension and the income-tested non-contributory benefit to pensioners (EKAS) resulted in a rather flat curve of earnings replacement in relation to years of contribution, especially for workers with low salaries (see Figure 2.29). Even for salaries that were double the minimum wage, under the terms of the pension system prior to the 2016 reform, the design of EKAS meant it was possible - in certain cases - for contributing more years to lead to a lower pension[86].

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[85] Law No. 4336/2015 explicitly mentions public servants, employees of local authorities, employees of other public sector entities (Public Law Legal Entities – NPDD) and the staff of the railways company, OSE.

[86] For a range of years of contributions and for certain wage levels, the loss of not receiving the full EKAS amount for working more years was not offset by the corresponding increase in the main pension.

Box 2.9 describes the advantages and disadvantages of a basic pension, based on the literature and empirical data from other countries. It supports the idea that the combination of a basic pension with an earnings-related component may be optimal, allowing labour market incentives to work while still providing an insurance against labour market risk.

Box 2.9 Review of the literature - interactions between basic pension systems and labour market participation

There were concerns among some stakeholders that the reformed pension system in Greece may still not bring enough incentives to participate in the labour market and that the relatively flat slope of the replacement curve may in the long run encourage early retirement.

Flat pension regimes imply lower overall employment. A system that relies on a flat pension alone makes early retirement more attractive, as it makes the total pension benefits independent of the years of service for protected individuals, which reduces the average labour market exit age. By contrast, under a purely earnings-related system, the pension contributions can be seen as implicit savings, which grow with the years of service, although the extent to which this is recognised by the workers depends on the credibility of the pension promise.

Under a mixed system, a minimum pension can create work disincentives by flattening the relation between benefits and years of service for the protected individuals. A basic pension that provides the same benefit for all does not flatten the relationship between total benefits and years of service, yet the need for its financing through contributions, budget transfers or lower earnings-related benefits, can be seen as an implicit tax on labour. In that context, several studies, e.g Jaag et al. (2010) and Fisher and Keuschnigg (2010), confirmed that a strong link can be observed between own contributions and incentives to work (see also Lindbeck and Persson 2003; Cigno 2010).

Now, in their discussion on the German pension system, Fehr, Kallweit and Kindermann (2013) noted that adding a flat pension component to the earnings-related pension system would be optimal from a welfare / economic efficiency perspective. Labour market distortions may be higher than in a purely earnings-related pension model but the disadvantages from the increased labour market distortion would be outweighed by the welfare gains from having an insurance against labour market risk. A higher flat pension is helpful to mitigate the negative income shocks which may be encountered during the employment phase, which would otherwise directly be transmitted to the retirement phase and imply higher risk of old-age poverty in the longer term. Securing the positive effects of this insurance against labour market risk seems particularly relevant in the case of Greece, given the lasting impacts of the crisis on contribution history.

In addition, a system with a basic pension does not systematically lead to low labour market participation rates. The case of the Netherlands, which has a public basic pension for all and mandatory private occupational collective schemes (mostly providing defined-benefit earning-related pension with fixed accrual rates that vary across funds at around 2%), is illustrative in that regard. The participation rate reaches 70.8% in 2016 in the Netherlands, vs 63.3% in Greece for the age group 20-74[87], while the basic pension in the Netherlands represents a

[87] AWG report 2018

higher share of the gross average earnings (29% against 21.7%)[88]. Several factors would come into play. The workers in the Netherlands have enjoyed substantially higher accrual rates from the mandatory private occupational pension schemes, compared to the earning-related first pillar pensions in Greece. Besides, for the Netherlands, there is no early retirement, and the normal retirement age is 65.8[89].

In the case of Greece, the latest reforms, which changed the shape of the curve for low-to-average incomes from flat and even downward sloping, to upward sloping (see Figure 2.29), have improved labour market incentives. The accrual rate, which in the absence of income-tested minimum benefits such as EKAS represents how much benefits increase with each year of additional service and thus provides an indication on the incentives to remain in service, was raised substantially to nearly 2% for those with years of service between 30 and 33, to 2.5% with 34-36 years of service and to 2.55% for 37-40 years. Nevertheless, the accrual rates for years of service less than 30 and more than 40 have remained relatively low, compared for example with the Netherlands, where the accrual rates in the mandatory DB career-average pay occupational schemes do not vary with the years of services and tend to be close to 2% (Figure 2.30).

The impacts of these reforms are however not visible as yet. The lower participation rates in Greece thus reflect the impact of the incentive built in the old-system (characterised – pre-2016 reform - by the high prevalence of early retirement pathways and the distorting high means-tested non-contributory EKAS benefit), as well as cultural aspects regarding the gender gap in labour-force participation rates (female participation rate of 55.7% vs 63.7 in the Netherlands)[90].

Sources:

Cigno, A. (2010). How to avoid a pension crisis: a question of intelligent system design. *CESifo economic studies*, *56*(1), 21-37.

Fehr, H., Kallweit, M., & Kindermann, F. (2013). Should pensions be progressive? *European Economic Review*, *63*, 94-116.

Fisher, W. H., & Keuschnigg, C. (2010). Pension reform and labour market incentives. *Journal of Population Economics*, *23*(2), 769-803.

Jaag, C., Keuschnigg, C., & Keuschnigg, M. (2010). Pension reform, retirement, and life-cycle unemployment. *International Tax and Public Finance*, *17*(5), 556-585.

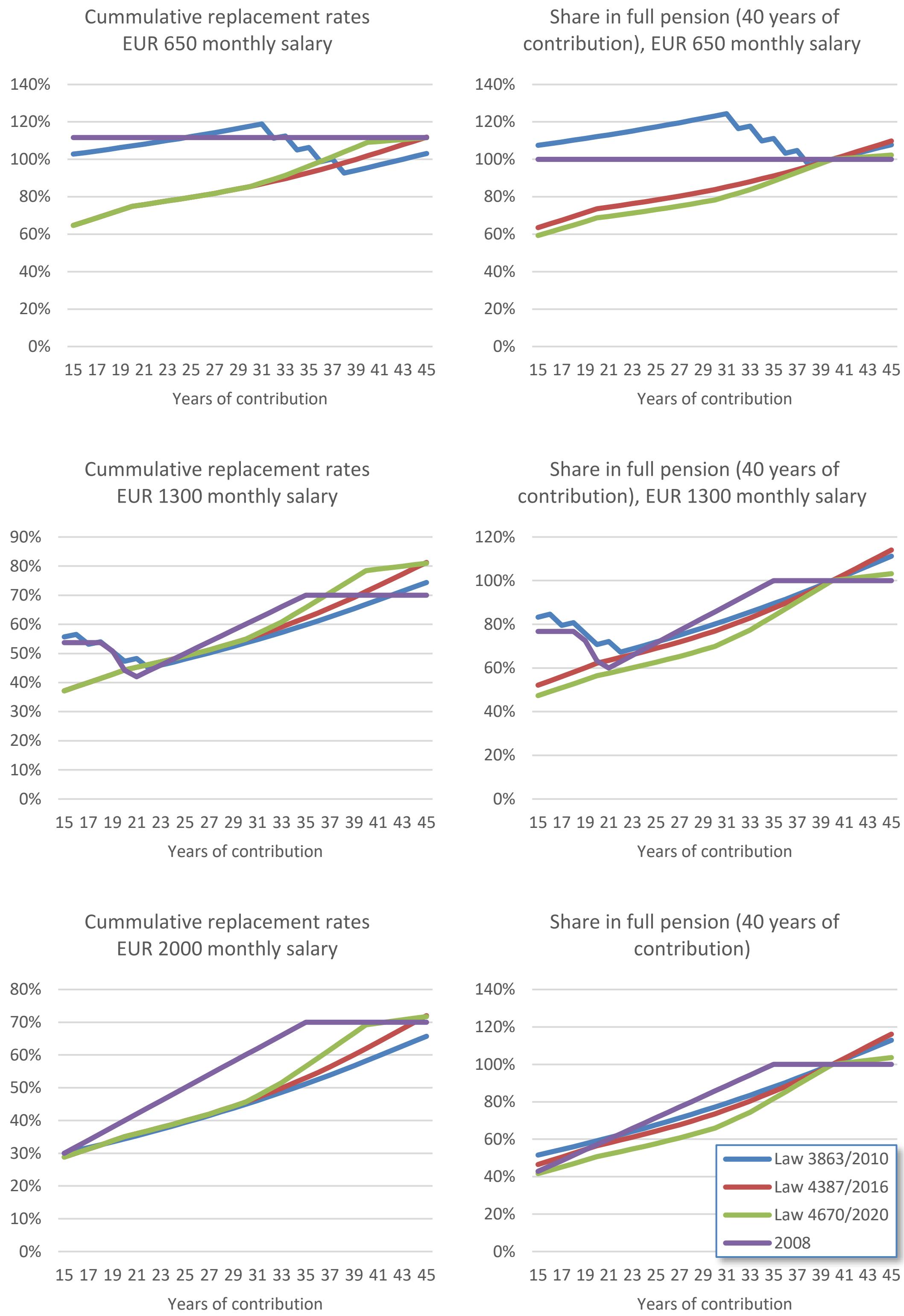
Lindbeck, A., & Persson, M. (2003). The gains from pension reform. *Journal of Economic Literature*, *41*(1), 74-112.

With the introduction of the national pension and the abolition of EKAS (from 2020) under Law No. 4387/2016, the incentives to remain in the labour force improved. The new system removed the risk of a reducing replacement income despite increasing years of contribution that was possible under EKAS. In addition, the minimum requirement to be pension-eligible is still 15 years but having less than 20 years' contributions reduces the national pension. This creates a slightly steeper replacement curve, which is associated with stronger incentives to remain in the labour force. This effect was further

[88] OECD (2019), Pensions at a glance
[89] OECD (2019), Pensions at a glance
[90]AWG report 2018

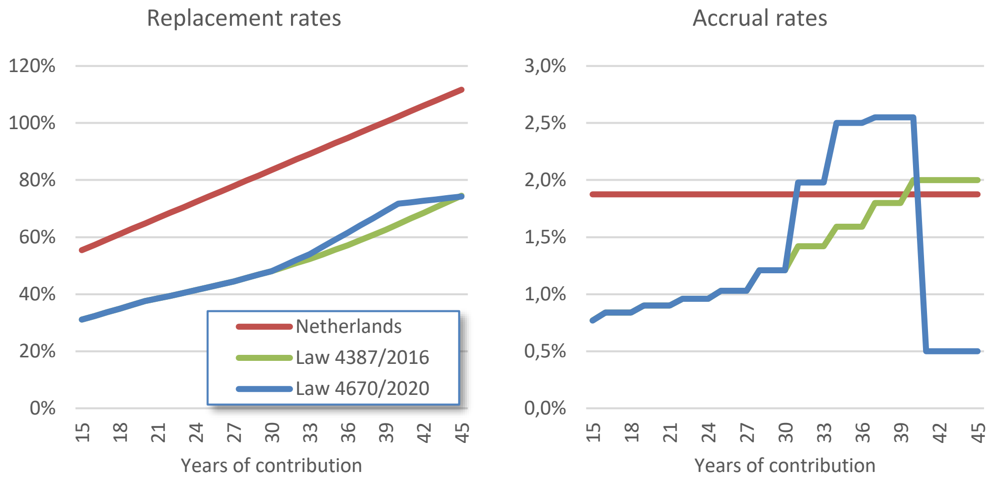
strengthened with Law No. 4670/2020, which upped the replacement rates for the earnings-related part of the main pension for those with 30-45 years of contributions. The Delphi experts took a positive view of these more recent changes, most notably the impact of the reduction in the contribution rate and the increase in replacement rates on overall labour participation (9 and 8 positive answers, respectively, out of 10 total answers).

Figure 2.29 Replacement rates and share in full pension per year of contribution, main pension and EKAS, as per the three latest laws on this subject



Note: Assuming fixed wage throughout life. Source: OECD (2011). Pensions at a glance (authors' estimates)

Figure 2.30 Accrual and replacement rates at average worker earnings for 2018, Greece and Netherlands



Note: Estimated at average worker earnings for 2018 (EUR 51,567 for the Netherlands, EUR 21,214 for Greece), assumed fixed throughout life. For the Netherlands, the estimates include basic pension of EUR 1173.33 per month and a private DB career-average pay pension with an accrual rate of 1.875% per year of service.

Source: OECD (2019). Pensions at a glance (authors' estimates)

Possible impact on undeclared income and contribution evasion by the self-employed

Apart from exiting the labour market through retirement, the pension reforms could have had an impact on labour force participation by changing the incentives to pay social security contributions and declare activity. This was particularly pertinent to the self-employed and freelancers, where the rules on social security contribution were radically overhauled with Law No. 4387/2016, amended in Law No. 4578/2018 and changed radically again in Law No. 4670/2020 (see Box 2.10).

Box 2.10 Reforms of contribution collection among the self-employed

With the 2016 reforms, contribution and accrual rates were harmonised across the two categories of employment - the self-employed were asked to contribute the same amount in percentage terms as employees and employers combined. This led to a sharp increase in the contribution rates of most self-employed, as the reforms saw their contributions linked to declared income, rather than to social contribution classes fixed according to years of contributions. This created a strong disincentive to declare activities.

The harmonisation of the pension rules and the move from nominal to actual income was endorsed by the expert committee consulting the Ministry of Labour.[91] It also

[91] Επιτροπή του Υπουργείου Εργασίας, Κοινωνικής Ασφάλισης και Κοινωνικής Αλληλεγγύης για την πρόταση ενός νέου ασφαλιστικού συστήματος (2015), Προς ένα νεο κοινωνικό συμβόλαιο για τις συντάξεις, p. 17.

formed part of the Memorandum of Understanding of the European Commission with the Greek authorities signed at the start of the third EAP. Despite the fairly strong degree of ownership and cross-institutional agreement on this issue, according to stakeholders, there were some differences in the stance between the European Commission representatives and the IMF staff.

In particular, the IMF flagged that the reduced rates and discounts for certain highly qualified self-employed with few years of contributions, set in the law with the objective to counteract their migration abroad (brain drain), were "not common practice in other euro area countries and risk perpetuating both the financial imbalances of the pension funds and the perception of lack of fairness of the system as a whole".[92] The fund recommended to strengthen the contribution-benefit links by removing these exemptions, lowering the tax wedge as fiscal space allows and reviewing over the medium- to long-run the level of the basic pension.

By contrast, as per the stakeholder interviews, while the European Commission was in agreement with harmonising the rules of calculating benefits, its representatives recognised that for the calculation of the contributions, there was room for differentiation, given substantive differences between the self-employed and the salaried employees in terms of risks (the self-employed do not have as steady stream of income), obligations (not always possible to differentiate business from personal expenses) and assets (offices and equipment that the self-employed have accumulated to perform their tasks, which can be sold at retirement).

Eventually, the contribution rates for the self-employed were amended by Law No. 4578/2018. In particular, the contribution rate for the main pension was reduced from 20 per cent to 13.33 per cent, corresponding to the share paid by employers.

Recent Council of State decisions (1890/2019 and 1891/2020) stated that the self-employed paying higher rates than the employee contributions of salaried workers (6.67 per cent) violated the constitutional principle of equality. Law No. 4670/2020, adopted largely to address these court decisions, foresees that the self-employed and freelancers will have a choice of six (not income-related) contribution classes, and an option to pay 'minimum' contributions, resembling the model that existed prior to the 2016 reform, yet maintaining the link between pension calculation and actual contributions uniform with that of the employees.

Some of the pension reforms promoted by the EAP could have had a positive effect on reducing contribution evasion and informal employment. The changes in pension calculation strengthened the link between contributions and pension rights, as shown earlier. In addition, pension fund consolidation facilitated the discovery of inconsistencies in tax return filings. Lastly, the improved long-term sustainability should - in principle - strengthen the credibility of the pension promise.

However, a number of changes in the pension system could have played a negative role. The successive pension cuts eroded trust in the pension system, while the pension cuts that targeted the higher end of pensions dampened the incentives for high earners to contribute. Finally, the changes in the contribution rules for the self-employed in the 2016 reform (which linked their contributions to declared income) led to a sharp increase in the contribution rates for the self-employed. Six of the 10 Delphi survey experts considered these changes to lead to a significant (four experts) or some (two experts)

[92] IMF (2017), Greece: Selected Issues. IMF Country Report 17/41. Page 42

deterioration in contribution evasion. In that context, the net impact of pension reforms on contribution evasion and informal employment is difficult to determine.

It is likely that the EAPs affected tax evasion and informal employment through measures not related to the pension system. For instance, the downward revision of the minimum wage could have increased the likelihood that a larger part of the salary was undeclared. Conversely, measures such as reforms of labour inspection, amendments of rules for fines, and incentives promoted through a three-year action plan[93] could have addressed tax evasion and informal employment during the same period of time. Box 2.11 below provides some trend data on undeclared work in Greece prior to, during and after the EAPs, based on successive waves of Eurobarometer data.

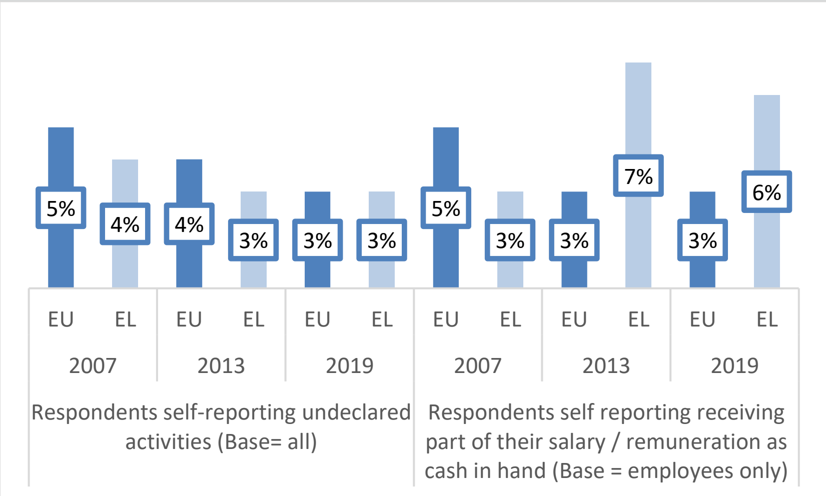
Box 2.11 Trends in undeclared work – Eurobarometer data

The levels of undeclared work, self-declared by respondents to the Eurobarometer surveys, did not change over time in Greece and the percentage is very much in line with the EU average. Looking at the share of employees who are self-reporting that they received part of their salary / remuneration as cash in hand, it increased from 3% to 7% in Greece. The lowering of the minimum wages promoted as part of the EAPs may have played in that context (see Figure 2.31)

Figure 2.31 Prevalence of undeclared work

Q. Have you yourself carried out any undeclared paid activities in the last 12 months, either on your own account or for an employer?

Q. Sometimes employers prefer to pay all or part of the salary or the remuneration (for extra work, overtime hours, the amount above the legal minimum wage or bonuses) in cash and without declaring it to tax or social security authorities. Has your employer paid you any of your income in the last 12 months in this way?



Source: Special Eurobarometer: Undeclared work in the European Union - 284, 402 & 498 for 2007, 2013 & 2019 respectively. Available at: https://data.europa.eu/euodp/en/data/dataset?q=undeclared+work&ext_boolean=all&sort=

Note that the number of respondents to the three waves vary depending on the question. The question on self-reported activities was asked to all (~1,000 in Greece and ~25,000 in the EU);

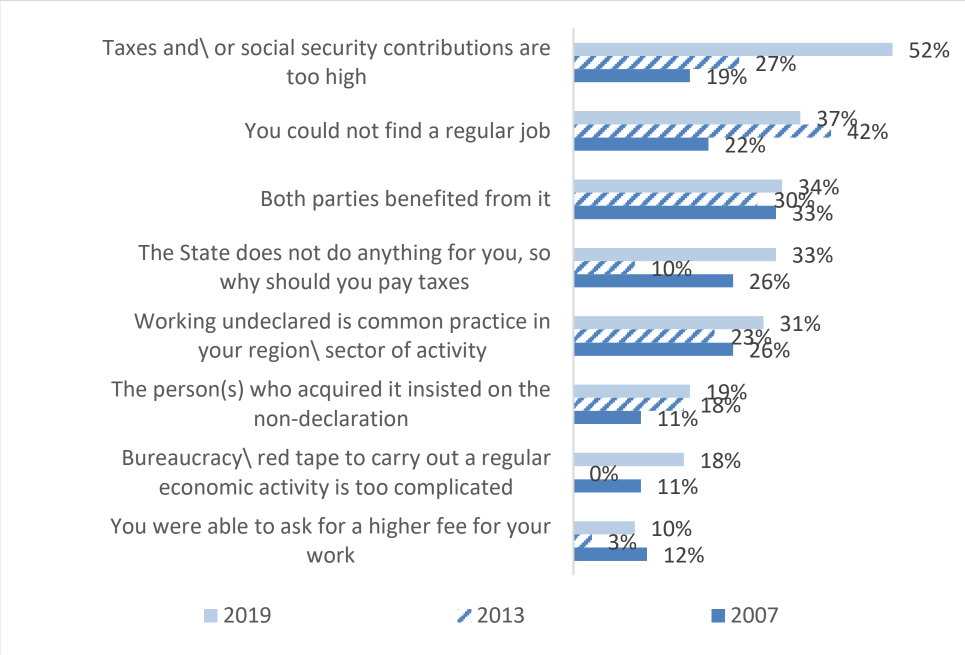
93 See 2016 Roadmap for fighting undeclared work. Available at: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/genericdocument/wcms_533853.pdf

the question on salary / remuneration in cash was only asked to wage earners (~300 respondents in the Eurobarometer).

Considering the reasons for doing undeclared work, Figure 2.32 shows that in 2019, after the EAPs, most respondents felt taxes and/or social security contributions were too high (52%). This was not the case in the previous editions of the Eurobarometer surveys (19% and 27% in 2007 and 2013 respectively). Besides, inability to find a regular job had become the main reason for doing undeclared work over the course of the implementation of the programmes (in 2013). Other smaller variations in the indicators should not be further interpreted given the smaller sample sizes for this question (the question on reasons for doing undeclared work was only asked to a sub-set of respondents declaring that they perform undeclared work themselves).

Figure 2.32 Reasons for doing Undeclared Work.

Q. Among the following, what were the reasons for carrying out these activities undeclared or partly undeclared? (multiple choice)



Source: Special Eurobarometer: Undeclared work in the European Union - 284, 402 & 498 for 2007, 2013 & 2019 respectively. Available at: https://data.europa.eu/euodp/en/data/dataset?q=undeclared+work&ext_boolean=all&sort=

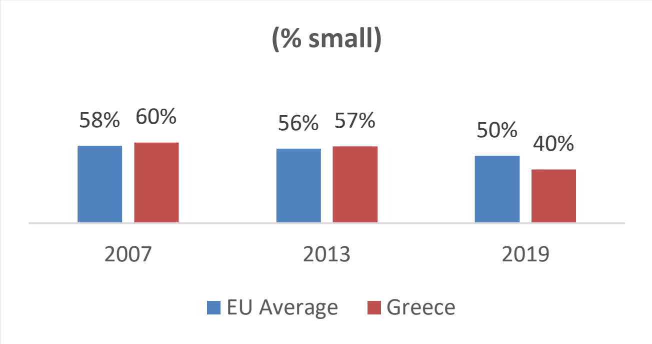
Note: N = 35 for 2007; 29 for 2013 & 30 for 2017

Only answer modalities which are common to all 3 years are displayed to ensure comparability

Lastly, Figure 2.33 shows that, in 2007, the majority of respondents in Greece considered the possibility of being detected for undertaking undeclared work to be small. The results were in line with the EU average. In 2013, the proportions had not evolved much. By 2019 however, only 40% of the respondents in Greece considered the risk of detection to be small. This suggests that the risk of being detected must have gone higher between 2013 and 2019, or at least that is one perception. This trend is more pronounced in Greece than in the EU as whole.

Figure 2.33 Risk of being detected

Q. How would you describe the risk of being detection for undertaking undeclared work?



Source: Special Eurobarometer: Undeclared work in the European Union - 284, 402 & 498 for 2007, 2013 & 2019 respectively. Available at: https://data.europa.eu/euodp/en/data/dataset?q=undeclared+work&ext_boolean=all&sort=

Note: Base = all (~1,000 in Greece and ~25,000 in the EU)

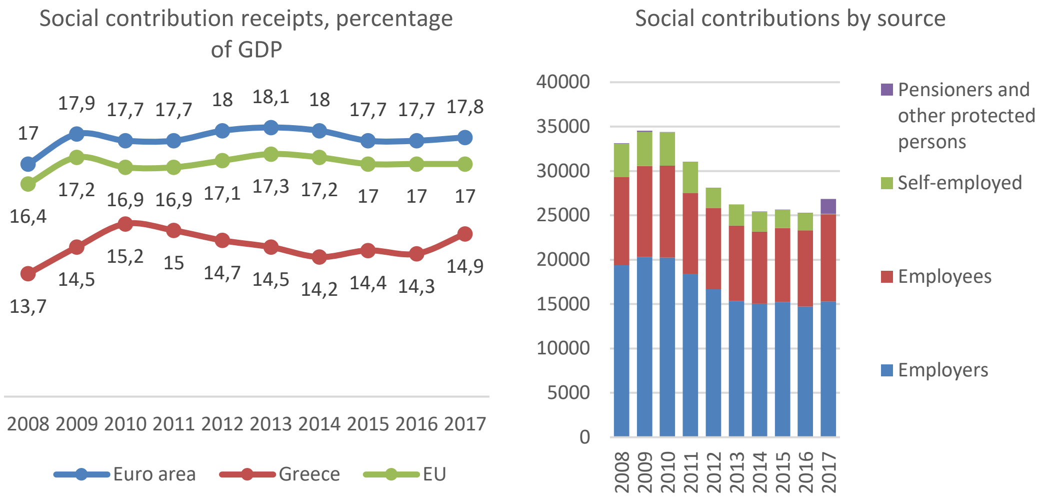
While the shadow economy cannot be measured directly, some indication of the direction of change can be gauged from the dynamics of the receipts from social security contributions. These declined from 15.2 per cent of GDP in 2010 (EUR 34.4 bln) to 14.2 per cent of GDP in 2014 (EUR 25.4 bln). They then steadied, at around 14.3 per cent of GDP (about EUR 25.5 bln) before recovering to 14.9 per cent (EUR 26.9 bln) in 2017 (see Figure 2.34).

The changes were more abrupt within the self-employed, where contribution evasion and undeclared work is easier and thus, perhaps, more prevalent. While the share of the self-employed in employment was relatively steady, the share of self-employed in the receipts from social security contributions declined over time. In particular, their share in employment increased from 29.9 per cent in 2010 to 32.1 per cent in 2013, falling back down to 29.8 per cent in 2018. Meanwhile, the share of the self-employed in contributions fell abruptly, from around 11 per cent in 2009-2011 to 7.9 per cent in 2012, hovering around 7.7-9 per cent in 2013-2016.

In 2017– the first full year after the significant change in the rules for self-employed, instituted with the 2016 reforms - the social security contributions of the self-employed declined, according to Eurostat data, from EUR 1.9 bln in 2016 to EUR 59 mln in 2017. Most of this decline came, according to stakeholders, from operational issues with EFKA during the first year of its operation. The observation that the sharp decline in social security contributions from self-employed was largely not due to contribution evasion is also supported by the sharp increase in the receipts from 'pensioners and other protected persons', from EUR 21.4 mln to EUR 1.7 bln. Nevertheless, the receipts from these two categories combined recorded a drop of 12 per cent in 2017, a year when the receipts from employees and employers increased by 14.4 per cent and 3.8 per cent, respectively.

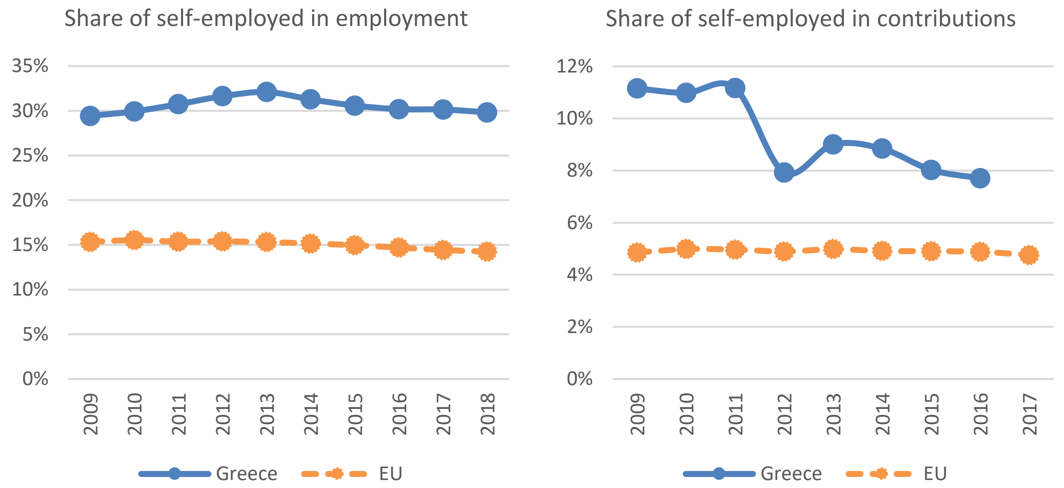
These results support the assertion that the situation deteriorated, and it is plausible that the changes in the contribution rules for the self-employed implemented in the 2016 reform played a role.

Figure 2.34 Social contribution receipts, 2008-2017



Source: Eurostat

Figure 2.35 Share of self-employed in employment and social security contributions



Source: Eurostat

3 Conclusions

The EAPs provided impetus and direction for the implementation of a comprehensive set of pension reforms, with positive impact on the system itself but at the cost of an eroded trust.

The programmes instigated far-reaching reforms that consolidated a highly fragmented pension system. The need to reduce the burden of the pension system on public finances was pressing and the objective difficulties from the lack of information and transparency due to the high degree of fragmentation were high, as widely acknowledged. Despite the enhanced degree of ownership of the 2016 pension reform, as evident from the Delphi survey results, and given the apparent lack of consensus on the way forward at the political level, many of the reforms were unlikely to have been pursued without the impetus of the EAPs (see Figure A4.10).

In the initial years of the EAPs though, the programme assumptions kept being revised, triggering a vicious circle of series of ad-hoc quick measures to fill the fiscal gap, including pension related fiscal measures. In the end, the pension cuts led to an erosion of the public trust in the pension system as highlighted by almost all of the Delphi survey experts (17 out of 18). Moreover, despite that the assessment of the pension reforms' impact is generally positive, notably in terms of sustainability, 14 of the 18 experts still disagreed with the statement that the reforms increased the credibility of the pension promise (see Figure A4.17).

These results point to a paradoxical situation whereby despite the progresses highlighted in the study's findings, people's perceptions have deteriorated. This deterioration of people's perceptions has been evidenced in other sources as well, including in a survey of a representative sample of 1,000 people conducted in 2017 by MRB Hellas for the Hellenic Association of Insurance Companies. According to the survey, 86% of the respondents notably felt that the pension system's future was not secure, 78% expected the finances of the SSFs to deteriorate and 84% that the pensions in the future would not be adequate94.

In this context, the clear lack of communication of the need to reform the system did not help. It was common for the authorities to push the responsibility for the pension cuts and reforms on the institutions, which did not help to legitimate the process, even though in 2016 the authorities did take a stronger ownership of the pension reforms. More upfront communication on the fact that the system was unsustainable and overpromised on its capacities would have been helpful.

The need to reform the pension system did not end with the conclusion of the programmes

Further significant changes in the pension system were instituted in early 2020 (see Annex 5). In order to address the court rulings that deemed elements of the 2016 reforms unconstitutional, the replacement rate of the main pensions was increased so that the earnings-related component achieves 50 per cent replacement for full career (40 years' contributions). The retroactive cuts in supplementary pensions were lifted, while the contribution rate for employees was reduced by 0.9 p.p.

For the self-employed, freelancers and farmers, their contributions to the pension system no longer depend on their declared income but are determined according to six

[94] http://www.ekathimerini.com/223150/article/ekathimerini/business/state-insurance-system-seen-struggling-in-future-survey-finds

contribution classes, chosen by the insured. The earnings-related component of the main pension continues to be determined through the same formula as that for employees.

The ETEAP fund is consolidated into e-EFKA, which now has three branches (main, supplementary and lump sum), with financial, accounting and asset-ownership autonomy. Meanwhile, participation in the supplementary and lump sum branches of e-EFKA is extended to all, on an opt-in basis.

Further changes can be expected in the pension system, given the experts' opinions and the stated intentions by the major political parties in Greece. Many experts noted the need to reduce contribution rates and strengthen the fully funded pillars in order to reduce the pension system's burden on the economy. At the time of the EAPs and until now, the reforms focused on pillar 1 only. To some extent, this is understandable given the time and fiscal pressure during the crisis period.

The reinforcement of pillars 2 and 3 imply important policy trade-offs and societal choices that should be implemented only following an open and extensive dialogue on the future of the pension system as a whole. For instance, to free up disposable income for the development of pillar 2 & 3, there would be a need to lower pillar 1 contributions. On the one hand, this would lower labour cost and potentially raise economic growth and income. On the other, redirecting resources into pillars 2 & 3 creates a funding gap for pillar 1, which may impose a burden on the transitional generation to finance both their own and their parents' pensions. Furthermore, lower pillar 1 contributions imply lower public pensions, which may push up income inequality.

The likelihood of changes in the direction of fully funded pillars are strengthened by the commitment set in Law No. 4670/2020 to reduce the contribution rate for employees by up to 5 p.p. in the coming years. In addition, mandating a fully funded supplementary pension for newcomers to the labour market - in place of the current NDC scheme – remains a commitment of the governing party.

In parallel, some experts believe that measures should be taken to improve the adequacy of the pension system. For the main opposition party SYRIZA, this should come from pillar 1 though, and notably the indexation of the basic pension with the poverty threshold.

Finally, a number of experts disagree with the recent removal of the link between contribution and income for the self-employed, freelancers and farmers under Law No. 4670/2020. This issue is likely to remain contentious in the coming years and may trigger further changes.

In conclusion, the EAPs brought about far-reaching reforms in the pension system, improving its long-term sustainability, generating fiscal savings and consolidating its fragmented structure. Nevertheless, the need for the Greek economy to grow and for Greek society to recover from the crisis may result in further reforms. The continuing lack of consensus on the way forward and the eroded trust in the pension promise imply that pension system reforms will continue to be a disputed issue on the country's political agenda in the years to come.

Annex 1 Methodological approach

A1.1 Methods and data sources

The table below provides a high-level overview of the data collection methods and analytical techniques that are being used to address each study question. A description of how each of these methods are applied to this evaluation is provided in the sub-sections that follow.

Table 3.1 Overview of the methods and techniques used for the study

	Q1	Q2	Q3	Q4	Q5	Q6
Document and data review	●●●	●●●	●●●	●●●	●●●	●●●
Key informant / stakeholder interviews	●	●●	●●	●●	●●	●●
Delphi survey	●	●	●	●		●

●●● *a very important method for addressing the study question*

●● *an important method for addressing the study question*

● *a complementary method*

A1.1.2 Document and data review

Table 3.2 provides an overview of the main publicly available documentation collected and reviewed, together with their usefulness. A list of reviewed documentation is available in Annex 2.

Table 3.2 Overview of documentation reviewed

Type of documentation	List of documentation	Usefulness
Programme's documentation	Memoranda of Understanding; Directorate General Economic and Financial Affairs (DG ECFIN) implementation reviews underpinning the first two EAPs; European Stability Mechanism (ESM) compliance reports underpinning the third programme;	●●●
Other EC documentation related to EU assistance in Greece	Enhanced Surveillance reports of DG ECFIN, published as Institutional Papers (2018-2019-2020) Joint papers e.g. Joint Paper on Pensions 2019 ESPN Flash reports	●●●
Key EU level reports giving the cross-country perspective	Ageing Working Group reports Pension adequacy reports in the European Union	●●●
Existing evaluations relevant for the pension sector	European Court of Auditors evaluation of Commission's intervention (2017),	●

Type of documentation	List of documentation	Usefulness
	ESM evaluation of the adjustment programs (2017), IMF's Ex-Post Evaluation of Exceptional Access Under the 2012 Extended Arrangement (2017), IMF's Ex Post Evaluation of Exceptional Access under the 2010 Stand-By Arrangement (2013)	
Legal documentation	Laws 3863/2010, 3865/2010, 3918/2011, 4051/2012, 4052/2012, 4093/2012, 4336/2015, 4387/2016, 4583/2018, Law 4670/2020; Council of State rulings 2287/2015, 2288/2015, 1880/2019, 1888/2019, 1890/2019 and 1891/2019; Court of Auditors ruling 930/2019.	●●●
IMF documentation	Country reports (2010-2019); Selected issue papers on Greece	●●
Other reports from multilateral institutions	OECD Pension at a Glance reports ILO reports on undeclared work WB report on pension reforms OECD Economic surveys	●●
Other ad-hoc sources	Academic and grey literature: on implementation of pension reforms in Greece; literature on social impact of reforms; literature on pension reforms in other countries. Sample of articles from economic and financial press: articles from Financial Times and The Economist on current affairs in Greece	●

In addition, the study team was granted access to limited non-publicly available documents, notably extracts from policy briefs prepared by DG ECFIN staff following subsequent reviews of the EAPs.

Table 3.3 below provides an overview of key data and indicators compiled and reviewed as part of this study.

Table 3.3 Key Indicators and Data Sources

Component	Data Type	Description	Key data source(s)
The Real Economy	National accounts	Indicators of macroeconomic performance	Eurostat, ELSTAT, Central Bank and major international sources (e.g. IMF and World Bank)

Component	Data Type	Description	Key data source(s)
Pension system sustainability	Government finance statistics	Indicators of public spending on the pension system	Ministry of Finance, Eurostat, OECD Social Expenditure Database (SOCX), Ageing Working Group
Pension system adequacy and effectiveness	Social protection statistics	Indicators of the adequacy and effectiveness of the pension system (earnings replacement rates, old-age poverty rate, etc.)	Eurostat Social Protection Database, , HELIOS system, Ageing Working Group reports, Pension Adequacy reports, OECD Social Expenditure Database
Pension system design	Policy indicators	Indicators on the design of the pension system, such as social contribution rates	OECD Social Expenditure Database, OECD Pension at a Glance reports
Labour participation	Labour Force Survey and Survey of Income and Living Conditions	Indicators of employment and labour market participation	Eurostat, EU-SILC microdata, ELSTAT

A1.1.3 Interview program

Overall, 12 in-depth interviews were conducted with the key informants and stakeholders. Interviews were conducted either face-to-face, namely scoping interviews with the EC officials based in Brussels and the interviews with the Greek stakeholders based in Athens during 3 days' mission that took place in March 2020, or over the phone with all other stakeholders. The interview transcripts were validated by the stakeholders prior to the final analysis and on a number of occasions, the study team followed up with additional questions to clarify and/or expand on selected issues discussed.

The interviews were generally of high quality, with the interviewees proving well informed, well prepared and candid in expressing their perspectives.

Stakeholder consultation followed the principles set out in the *Better Regulation Guidelines*[95].

[95] European Commission, 2016. Better Regulation Guidelines. Available at: http://ec.europa.eu/smart-regulation/guidelines/toc_guide_en.htm

Table 3.4 shows the number and type of stakeholders interviewed throughout the programme (see Annex 3 for details on topics of discussion by stakeholder type).

Note that in addition, the IMF provided inputs in a written form, based on publicly available information.

Representatives from the ESM did not respond to the invitation to contribute to the study. Staff from the ECB also declined our invitation on the grounds that the current crisis demands them to focus on this immediate priority.

Table 3.4 Overview of interviews

Stakeholder Group	No of interviews	No of interviewees
European Commission	4	8
Ministry of Labour	4	6
National Actuarial Authority	1	3
Relevant national associations	2	4
Other	1	1
Total	**13**	**23**
IMF	Written inputs based on publicly available information	

A1.1.4 Delphi survey

The objective of the Delphi survey was to explore certain aspects of the pension reforms in view of an independent panel of experts. Issues around the relevance of the promoted reforms for the Greek pension system at the time, the effectiveness of the reforms and their broader implications were notably explored.

The structure of the questionnaire was largely driven by the study questions and the insights gathered during the initial stages of the study through key informant interviews, discussions with the Steering Group, review of the key data and indicators, and consultations with local economic experts. It was divided in five sections: Section A: Diagnosis of the situation; Section B: Implementation of the reforms; and Section C: Impact of the reforms; Section D: Economic implications of the legal challenges and Section E: Outlook for the future.

The recruitment to the panel was carried out under the guidance of IOBE and with advice from the Steering Group, targeting the following categories:

- Academic experts (based in Greece or of Greek origin and with strong links with the country in case they are currently based abroad);
- Researchers from think tanks with solid grounding in pension system in Greece;
- Macroeconomic analysts from the private sector (e.g. research departments of commercial banks and investment funds familiar with the macro-context but also nuances of pension reforms);
- Experienced commentators of Greece’s economic policies (i.e. specialized press);
- Independent social policy experts;
- Relevant experts from international organisations like the OECD and WB;

- Relevant country analysts from the main credit rating agencies;
- Civil society representatives.

Out of 42 invitations sent, 18 experts from different organisations participated in the first round of the survey (circa 43% response rate). The first round was followed by a second round, open only to those experts who had responded to the first round. The second round was launched to examine some particular issues at a more granular level of details (e.g. labour market implications of the reforms or pension adequacy issues) or to prompt the wider pool of experts on suggestions made via open comments (e.g. views on alternatives ways to design the pension cuts in the early years of the EAPs). 10 answers to the second round were received.

Annex 4 provides a detailed overview of the results of the survey.

A1.2 Methodological limitations

Table 3.5 discusses the limitations that emerged in relation to particular elements of the methodology, the mitigation measures and the judgment on the overall impact of those limitations.

Table 3.5 Overview of the main methodological limitations

Elements of the methodology	Issue	Mitigation measures	Judgment
Study overall design	**Need to conduct the study on a tight budget** As every other assignment, this study had to be conducted within the boundaries set by the budget.	Identification of reliable secondary data complementing primary data collection activities Choice of more economical data collection methods (i.e. Delphi) Focus on priority information needs Triangulation	*Limited*
Interviews with key informants (1)	**Unavailability of some key stakeholders for the interviews** Some organisations were unavailable for the interviews, most notably the ESM and ECB. We understand that the unfolding pandemic negatively impacted on their availability.	Use of the written material produced by those institutions Triangulation	*Moderate*
Interviews with key informants (2)	**Inability to recall the details** This was linked to the some 10 years which elapsed since the start of EAP 1	Circulation of topic guides prior to the interview Option for follow-up exchanges when finalising the write-up Cross-verification of material insights with other primary/ secondary data	*Limited*
Delphi Panel	**Reliability of the judgment provided by Delphi experts** *Main risks included* *Lack of stability of the answers in the context of a small sample*	Very thorough selection of the panel of the expert using strict inclusion criteria (intimate knowledge of the reforms while not having been directly involved in the reform	*Limited*

Elements of the methodology	Issue	Mitigation measures	Judgment
	Inability to recall the details and provide disaggregated views for each programme (as there has been also 10 years since the start of EAP 1) *Provision of views ignoring the real-life constraints (e.g. overlooking that there are trade-offs which are inherent to some policy choices and one cannot win on all counts)*	implementation process) Close follow up work to increase the response rate Second round to explore further some issues Links to reform tables in the survey itself to clarify which reform was undertaken under which programme Cross-verification of material insights with other primary/ secondary data Contextualisation of expert views in light of real life constraints	
Availability of some documentation	**Limited access to non-publicly available sources of information** Access to non-public information was limited with some exception such as extracts from policy briefs and some internal documents such as the paper on merging funds and moving to NDC system produced by the EC in 2013. Non-public information would have helped to understand the reform process and its sequencing and be better able to take into account the 'hindsight bias' once the comprehensive picture of the context and information available at the time would have emerged	Reliance on public sources and key informant interviews	*Limited*

Elements of the methodology	Issue	Mitigation measures	Judgment
Availability / Reliability of the data	**Unavailability of some key indicators to set the scene / measure impact of reforms** By definition, the level of evasion in pension contributions, or data on informal employment is not readily available	Identification of reliable data (e.g. data on contribution collection rates, Eurobarometer surveys) with clear caveating of the limitations of the data Clarification of the priority information needs with the Steering Group	*Limited*

Source: ICF & IOBE

Despite the above mentioned caveats and limitations, we are confident that the reliability and validity of the overall findings of this Study is strong given the systematic triangulation using a variety of sources (including reliable statistical data and insights from interviews / Delphi survey from purposefully selected stakeholders / experts) and the careful review by the EC and IMF staff prior to its publication.

Annex 2 List of assembled documentation

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- International Monetary Fund (2013b) – "Ex-Post Evaluation of Exceptional Access Under the 2010 Stand-By Arrangement", Country Report No. 13/156, June 2013

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Court of Auditors ruling

- 930/2019

Annex 3 Anonymised list of completed interviews and issues covered

	Institutions	Main issues covered
Face-to-face and phone interviews	DG ECFIN	Design and negotiations of the programmes, Sequencing of the reforms, Implementation issues, Impacts of the reforms, Remaining challenges and outlook for the future
	DG EMPL	Labour market impacts, Impacts on contribution evasion, Equity and fairness issues, pre-legislated package
	SRSS / DG REFORM	Impacts in terms of efficiency of the administration of the pension system and implementation issues, technical support provided on the establishment of EFKA
	Greek desk	Design and negotiations of the programmes, Sequencing of the reforms, Implementation issues, Impacts of the reforms
Mission in Greece	MoL (current and former)	Design and negotiations of the programmes, Implementation issues, Impacts of the reforms, Status and impacts of the Court rulings, Remaining challenges and outlook for the future
	NAA	Sustainability issues, Assumptions behind the projections in actuarial studies, Impacts of the Court rulings
	Hellenic Union of Institutions for Occupational Retirement Provision (HUIORP)	Design and broad orientation of the programmes, Impacts of the reforms, Remaining challenges and outlook for the future
	Hellenic Association of Insurance Companies(HAIC)	Design of the programmes, Impacts of the reforms, Remaining challenges and outlook for the future
	INSETE	Design and broad orientation of the programmes, Labour market impacts, Impacts on contribution evasion, Equity and fairness issues

Annex 4 Delphi survey

A4.1 Introduction

The objective of the Delphi survey was to explore certain aspects of the pension reforms in view of independent panel of experts.

Out of 42 invitations sent, 18 experts from different organisations participated in the first round of the survey (circa 43% response rate). The first round took place between 3 April 2020 and 17 April 2020. It was followed by a second round launched on 27 April 2020, to examine some particular issues at a more granular level of details. The second round remained open until 6 May 2020. Efforts were made to increase the response rate including sending of email reminders, extension of the deadline and follow-up through the phone.

The survey questionnaire was divided in five sections: Section A: Diagnosis of the situation; Section B: Implementation of the reforms; Section C: Impact of the reforms; Section D: Economic implications of the programmes and Section E: Outlook for the future.

A4.2 Profile of respondents

The recruitment to the panel was carried out under the guidance of IOBE and with advice from the Steering Group, targeting the following categories:

- Academic experts (based in Greece or of Greek origin and with strong links with the country in case they are currently based abroad);
- Researchers from think tanks with solid grounding in pension system in Greece;
- Macroeconomic analyst from the private sector (e.g. research departments of commercial banks and investment funds familiar with the macro-context but also nuances of pension reforms);
- Experienced commentators of Greek's economic policies (i.e. specialized press);
- Independent social policy experts;
- Relevant experts from international organisations like the OECD and WB;
- Relevant country analysts from the main credit rating agencies;
- Civil society representatives.

Out of 42 selected experts, 18 have provided complete answers which resulted in a 43 per cent response rate in the first round of the Delphi survey. Only those who participated in the first round were invited to the second round. 10 complete answers were received.

Table A4.1 provides the details of the background of respondents by type of organisation.

Table A4.1 Details of the Delphi Panel that were invited and responded

Type of organisation	Number of invitees	Number of respondents 1st round	Number of respondents 2nd round
Academia	17	11	4
Actuarial	5	2	2

Type of organisation	**Number of invitees**	**Number of respondents 1st round**	**Number of respondents 2nd round**
Civil society	3	2	2
Financial sector	2	1	1
Insurance sector	2	1	1
Pension Press	2	0	0
Policy Maker	2	2	2
Private sector	3	1	1
Regulator	2	1	1
Research	10	3	1
Total	**42**	**18**	**10**

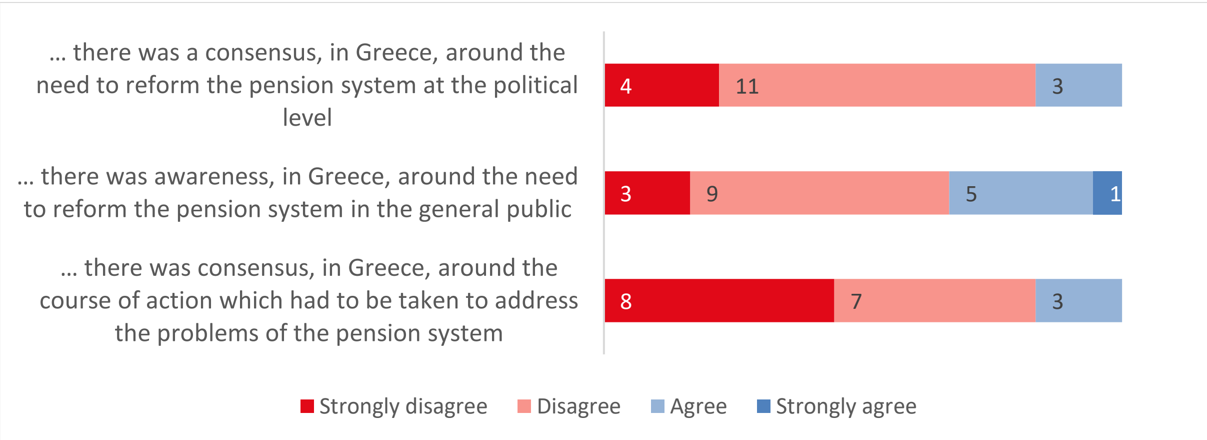
A4.3 Section A: Diagnosis of the situation

A4.3.1 Awareness of reform need and consensus on way forward

Figure A4.1 reveals that political leaders in Greece had no proper understanding of the need to reform the pension system and did not agree on the way forward at the start of the programme either, according to 15 of our experts. There was also a lack of awareness in the general public about the need to reform the pension system (12 experts).

Figure A4.1 Awareness of reform need and consensus on way forward

Q. Please indicate the extent to which you agree or disagree with the following statements. Prior to the launch of the first programme…



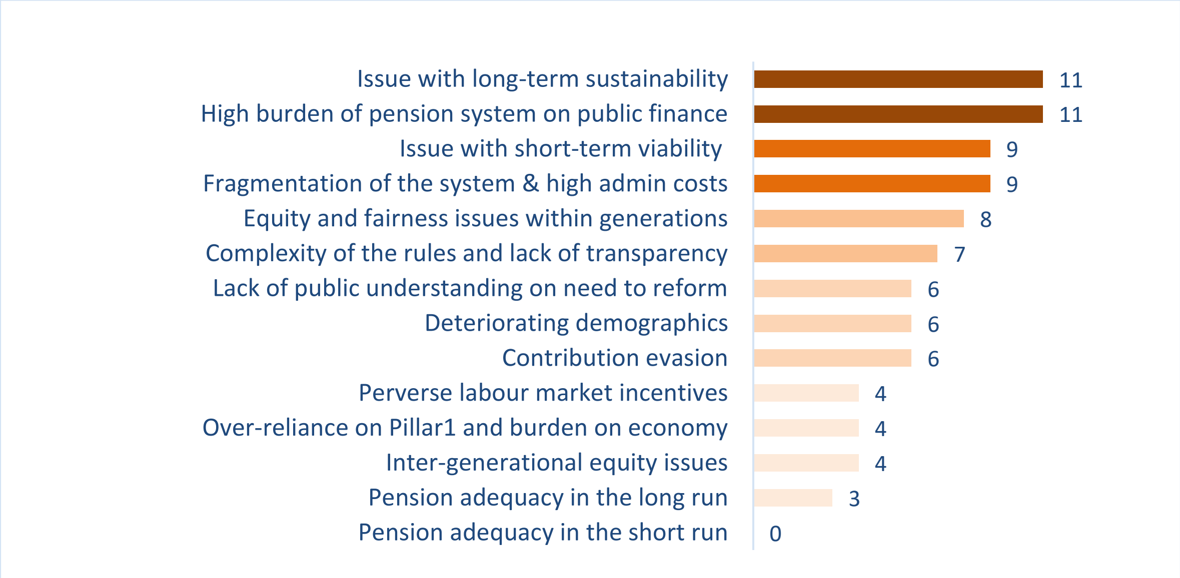
Base: all (n=18), round 1

A4.3.2 Main challenges of the pension system

Our panel of experts were prompted on the main challenges facing the pension system prior to the programmes. Main challenges included long-term sustainability as well as short-term viability of the system (11 and 9 experts, respectively, the burden on the public finances (10 experts), and generational equity and fairness within generations (6 experts).

Figure A4.2 The 5 main challenges at the outset of the First Program

Q. At the outset of the 1st program, the Greek pension system was confronted with different challenges. Please choose what in your opinion were the 5 main challenges.

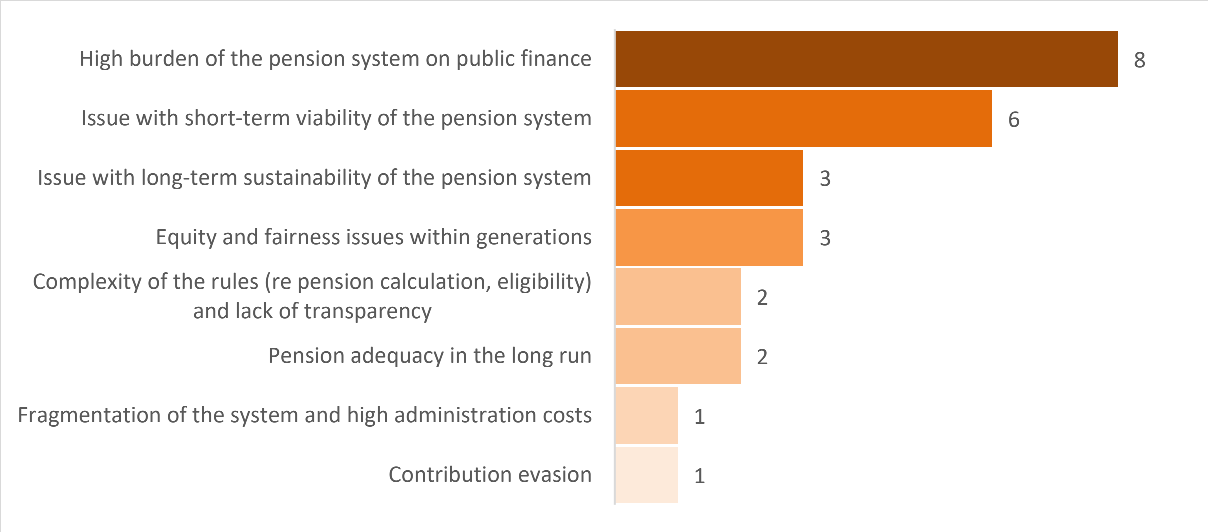


Base: all (n=18), round 1

Once asked to rank those main challenges, one notices that the experts frequently chose in the top 2 challenges short-term issues, i.e. the high burden on the public finances (8 experts) or the issue with the short-term viability of the system (6 experts).

Figure A4.3 Top 2 main challenges at the outset of the First Program

Q. Please rank your five chosen items in order of importance with #1 being the most important obstacle to #5 being the least important obstacle...



Base: all (n=18), round 1

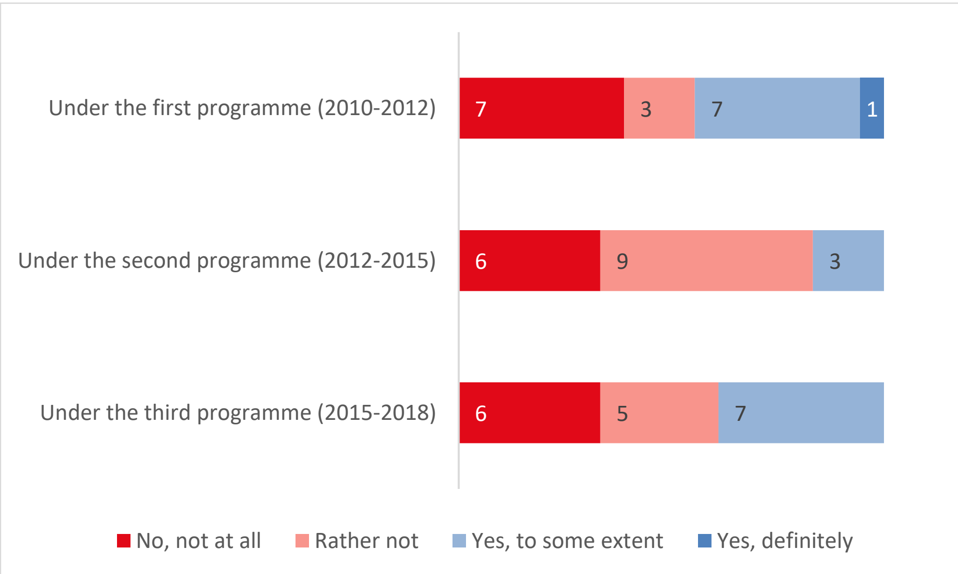
A4.4 Section B: Implementation of the reforms

A4.4.1 Overall balance between fiscal-related measures vs structural/ long-term reform of the system

The majority of our Delphi experts does not support the assertion that there was an overall good balance between fiscal-related measures vs structural/ long-term reform of the system. Experts are particularly doubtful of the balance achieved as part of the second programme with 15 respondents, considering that goal was not met.

Figure A4.4 Overall balance between fiscal-related measures vs structural/ long-term reform of the system

Q. Was the right balance found between reduction of pensions in the short-term and more structural/ long-term reform of the system?



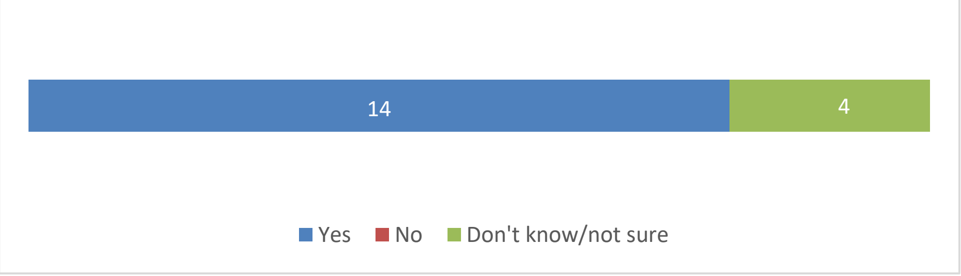
Base: all (n=18), round 1

A4.4.2 Available options at the time

Those who are not sure aside, all respondents (14) claim that reforms could have realistically been implemented differently.

Figure A4.5 Available options at the time

Q. Was it realistically possible to do the reforms differently?



Base: all (n=18), round 1

The details provided in the open answer question include the following aspects:

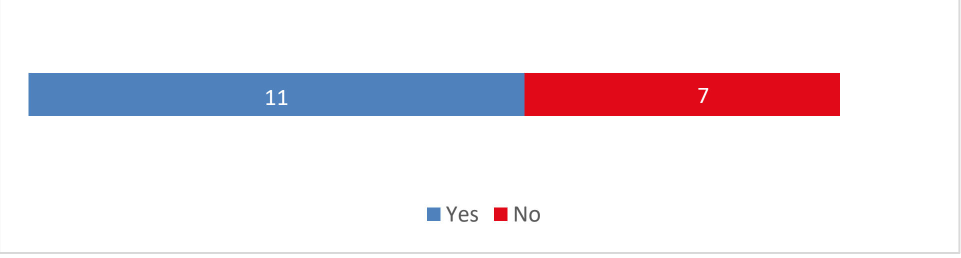
- The need for reforms should have been better communicated to the public
- The cuts were not optimally designed – see also next question
- A broad reform should have been implemented immediately. This would have avoided the waves of early retirement as well as the need to repeatedly reform the system (associated with an erosion of public acceptance)
- Many experts would have favoured the introduction of a funded second pillar. Reflecting on why this was not part of the reform objectives, respondents indicated that the parties involved in the implementation of the programmes may have been overwhelmed by the short-term problems at the time. The institutions may also have felt constrained about the scope of the reform to push for.
- Finally several experts added that the lack of consensus around the need for reform was the major impediment for implementing the reforms differently, that the pension reforms had been pushed back for too long and that the timing of the pension reform, in the middle of a crisis, did not help.

A4.4.3 Fairness of the pension cuts

The distribution of pension cuts was considered as fair by 11 respondents against 7, for which it was not the case.

Figure A4.6 Fairness of the pension cuts

Q. Given the circumstances, was the distribution of pension cuts fair in your view (lowest pensions have been safeguarded vs proportionately highest cuts for the highest pensions)?



Base: all (n=18), round 1

The comments of the experts illustrate that fairness is a subjective concept. Many experts did highlight that the cuts, aimed at highest pensions, were fair from a social justice point of view. The rationale behind the design of the pension cuts was to preserve basic income. However, from the perspective of those seeing their pensions cut, the cuts cannot be labelled as fair as those created labour market distortions (flattening of the curve, risk of fostering contribution evasion) and undermined trust in the system.

Some experts nuanced that the cuts should have been proportional to contributions for reciprocity purposes, implying deeper cuts for lower pensions. Others regretted that low pensions were cut as well (lowest income brackets receiving a pension reduction by 14% from scrapping the Christmas, Easter and summer pension payments). There is the idea that the programmes should have – and could have - preserved pensioners' basic income differently (further questions were developed on this aspect in round 2 – see below).

Some equity issues were also raised. Across the board, cuts were perceived as unfair. Experts explained reforms should have tackled better more specific issues of equity within generations (e.g. focusing on PPC and OTE funds).

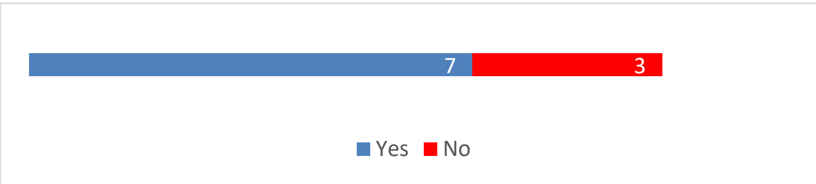
Inter-generational equity was sometimes raised as an issue here – certainly in relation to the one-off cuts in the personal difference that were not implemented.

One expert rejected the idea of pension cuts altogether for welfare/adequacy purposes, specifying new economic resources could have been found to finance the pension system. In that context, conducting actuarial studies would have helped identifying ways to safeguard the viability of pension system without pension cuts. In the same vein, one expert mentioned that there should have been an increased focus on raising revenues as opposed to lowering pension expenditures.

Following this discussion in round 1, the experts were asked as part of round 2 whether the efforts to preserve basic income through the chosen distribution of pension cuts was effective. Most of the respondents (7) agreed that this worked.

Figure A4.7 Effectiveness at preserving basic income despite the cuts

Q. Was the distribution of pension cuts effective at preserving pensioners' basic income?

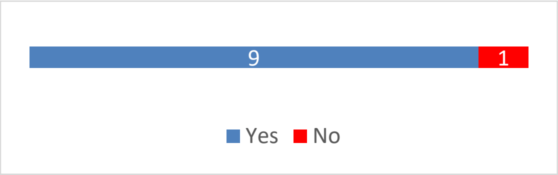


Base: all (n=10), round 2

Despite their agreement that pension cuts as they were designed were rather effective at preserving basic income, most experts agreed it would have been *desirable* (9 experts), and *feasible* (7 experts) to preserve pensioners' basic income differently. Many experts think that income support measures should have focused on people whose total income was below a certain target point, rather than the people who had low income from pensions. A stronger and more targeted EKAS would have been a sound alternative (5 experts), followed by means-tested minimum pension / allowance for elderly (4 experts) and basic or national pension implemented earlier (3 experts). In contrast, a guaranteed minimum income, a new allowance supplementing low pensions and a universal basic income were not often or not at all put forward.

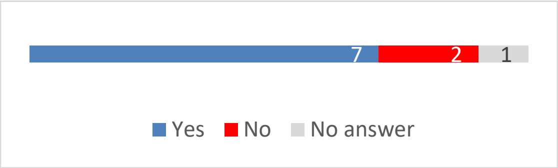
Figure A4.8 Desirability and feasibility to preserve pensioners' basic income differently

Q. Would it have been desirable to preserve pensioners' basic income differently?



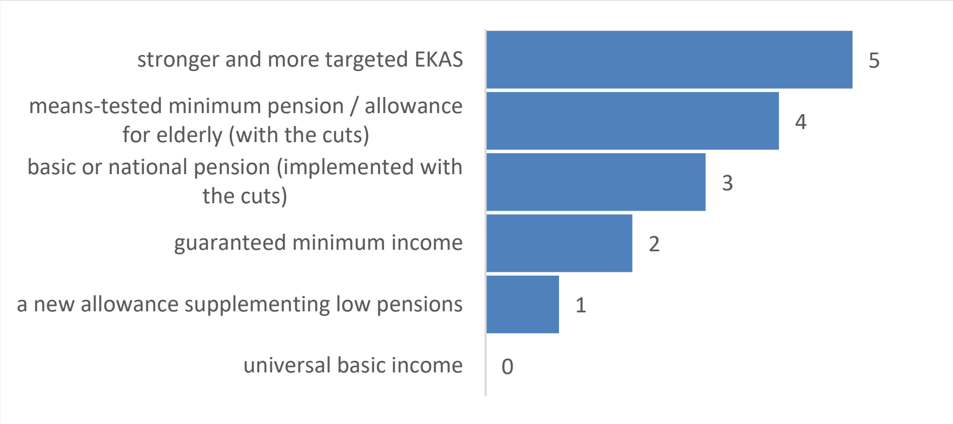
Base: all (n=10), round 2

Q. A Would it have been feasible to preserve pensioners' basic income differently?



Base: all (n=10), round 2

Q. Which instruments would have constituted better alternatives?



Base: all (n=10), round 2

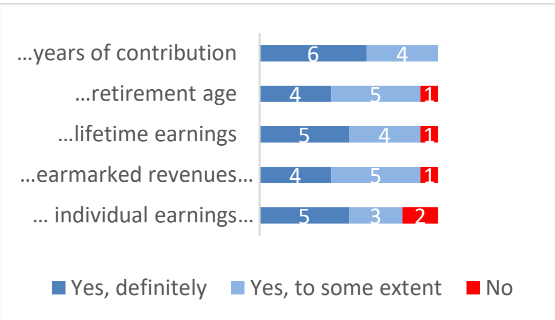
Regardless of the extent to which the distribution of the cuts preserved basic income effectively, the answers to the first round of the Delphi clearly communicate that cutting the pensions of those who had contributed more (sometimes voluntarily) had negative side effects for the reciprocity of the system and the incentives to contribute. The key objective here would have been to try and focus the cuts on those having high benefits compared to their lifetime contributions.

In the second round, many experts agreed that it would have been *desirable* and *feasible* that the pensions cuts take better account of the years of contribution, life earnings, earmarked revenues from special levies on consumption, retirement age and individual earnings across different funds. Taking better into account years of contribution and retirement age would have been the easiest from the experts' point of view (judging from their open comments).

Overall, the answers of the Delphi experts do not flag major feasibility issues in this context, at least to take into account these aspects *to some extent*. In their open comments to this question, respondents still flag a few possible issues with availability of the data e.g. on lifetime pension contributions, and difficulties doing calculations before 2013 (when Atlas and new computerized systems were not yet in place). In that context, one comment pointed towards ways to estimate lifetime contributions in the absence of the full data (e.g. based on retirement age, years of contributions, and available data for lifetime earnings).

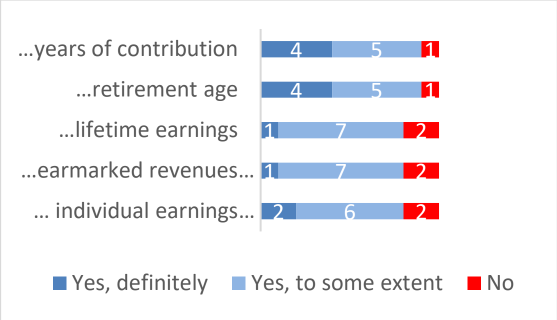
Figure A4.9 Desirability and feasibility to preserve pensioners' basic income differently

Q. Would it have been desirable that the pension cuts take better account of..



Base: all (n=10), round 2

Q. Would it have been feasible that the pension cuts take better account of...



Base: all (n=10), round 2

A4.4.4 The authorities' agenda and reforms targeted by EAP programmes

Among the 11 reforms proposed in question 7, 5 of them would have been pursued by the government even without the EAP programmes, according to the Delphi experts. Among them are the closing of early retirement pathways, increase in length of required contribution period, the consolidation of pension funds, the increase in retirement age to 67 and the changes in pension recalculation.

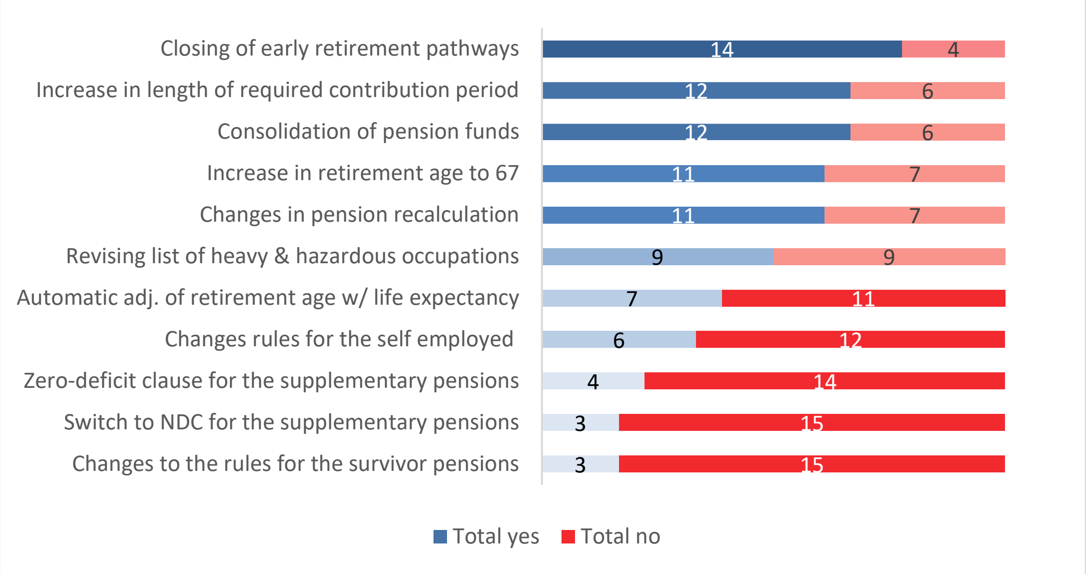
Regarding the revision of the list of professional groups/ heavy & hazardous occupations that benefitted from special treatment, experts' views were divided equally. However, for the other reforms, respondents considered that they would not have been implemented by the government without the push of the EAP programmes: the automatic adjustment of retirement age with life expectancy, the changes to the rules for the self-employed (linking contributions with income), zero-deficit clause for the supplementary pensions, the switch to notional defined contribution for the supplementary pensions and the changes to the rules for the survivor pensions.

In their open comments, respondents explained that it is unlikely that all reform aspects would have been implemented, as evidenced by the fact that earlier reform attempts had been abandoned given the low awareness among the public about the actual issues with the pension system, and the populist solutions typically favoured when it comes to pensions. Some aspects would certainly have been implemented, under fiscal pressures.

Regarding the reform of the survivor pension and the changes of rules for the self-employed, Delphi experts confirmed that this would not have been implemented as evidenced by the reversal of these policies in 2019. Many comments pointed towards the negative side-effects of the changes of rules for the self-employed in relation to contribution evasion.

Figure A4.10 Role of the EAPs in the completion of reforms

Q. We would want to assess whether the reform targeted by Economic Adjustment Programmes were also on the authorities' agenda. Could you speculate whether, in the absence of the programmes, the Greek authorities would have pursued any of the following reforms anyways?

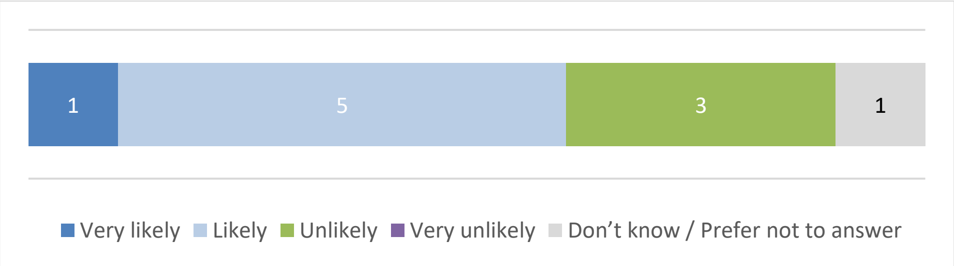


Base: all (n=18), round 1

In the first round of the survey, many respondents highlighted that the automatic adjustment of retirement age with life expectancy would certainly not have been adopted without the EAPs. In round 2, experts were thus prompted about likelihood of a policy reversal for automatic adjustment retirement age, given the sustainability implications it may have. Views on this are divided but many experts still consider a policy reversal as likely (5) or very likely (1). Comments point towards the need for these adjustments to be gradual to be accepted and actually implemented. Other experts mentioned that, provided that alternative funding sources are found, this provision may be eliminated.

Figure A4.11 Likelihood of a reversal concerning automatic adjustment of retirement age with life expectancy

Q. We now ask you to speculate how likely you would consider a policy reversal with regards to this specific provision.



Base: all (n=10), round 2

A4.4.5 Additional reforms which would have been needed

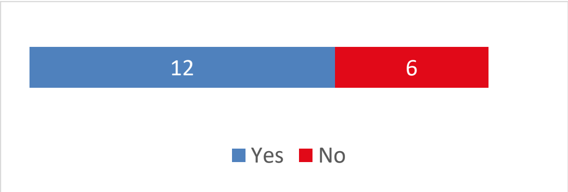
Most of the experts (12) asserted that some areas of reforms were missing in the EAPs programmes. More details are provided in the following open question. The missing elements of the EAPs according the Delphi respondents are strengthening the second and third pillar (often quoted) and reducing the contribution rates / reducing non-wage costs (quoted less often).

Besides, experts flagged that efforts, or more efforts, should have been made to:

- Better communicate
- Give more visibility, ex-ante, on future pension entitlements
- Increase faster the efficiency of the administration of the system (e.g. solving the delays in issuing pensions)
- Better address equity issues within and between generations, which (for some only, opinions are divided here) would mean implement in full the 2016 reform and the 2017 pre-legislated package
- Better tackle contribution evasion (by increasing the minimum years of contributions - which currently still stands at 15).

Figure A4.12 Additional reforms which would have been needed

Q. Is there any reform area – in relation to the pension system - which was not targeted by the Programmes but should have been?



Base: all (n=18), round 1

A4.5 Section C: Impact of the reforms

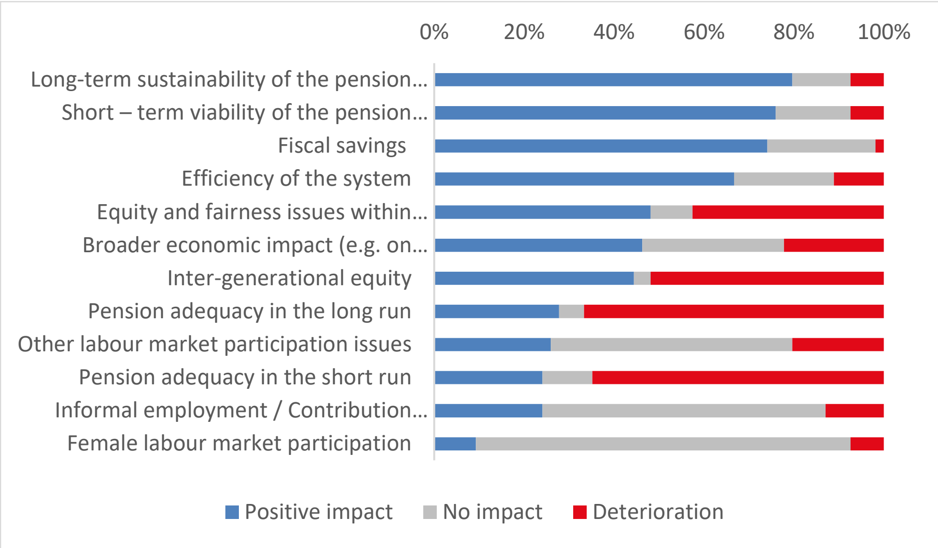
A4.5.1 Overall effectiveness of the reforms

The Delphi experts were asked to assess separately the impact of the main reforms implemented under the 3 Economic Adjustment Programmes (2010- 12, 2012-15, 2015-18). Aggregating their views across programmes, one can deduce that respondents considered that reforms were more effective in terms of long-term sustainability of the pension system, short-term viability of the pension system, fiscal savings and efficiency of the system. At the lower end of the spectrum, the reforms were found to be the detrimental in terms of pension adequacy and not having clear impact on various labour market issues. Looking at the effectiveness of each of the three programmes separately (see Figure A4.14), there are no major differences.

Figure A4.13 Aggregated expert views on the impacts of the programmes (all 3 programmes)

Q. Overall, what is your view on the effectiveness of the reforms in terms of…

Note that an overview of the key reforms promoted under each programme can be found following this link.



Base: all (n=18), round 1

A4.5.2 Specific reform impacts on labour market issues

As one can see from Figure A4.13, the labour force participation issues collected the most "no impact" responses in the question on the effectiveness of the reforms from the first round of the Delphi survey (11-16 out of 18 responses, depending on the EAP and the particular labour market issue). A significant exception to this concerns the impact on informal work and contribution evasion from the reforms of the third EAP. Here only 6 out of 18 experts stated that the pension reforms had no impact, while among the remaining experts the opinion was evenly split among those stating improvement and deterioration (6 experts each).

In that context, to better understand through which channels the pension reforms would have impacted various labour market aspects, the experts were prompted to respond at a more granular level as part of Round 2.

On the question regarding the impact of particular aspects of the pension reform on informal work and contribution evasion, the opinions remained fairly evenly split, with the exception of the evaluation of the impact of the changes in the contributions of the self-employed. Here, 6 out of the 10 experts considered these changes to lead to a significant (4 experts) or some (2 experts) deterioration in contribution evasion, with 3 experts providing a positive assessment and 1 "no impact" answer.

Regarding the remaining aspects of the pension reform, the positive assessment on labour force participation was strongest for the closing of early retirement pathways and the changes to the statutory age limits and years of contribution. The eligibility rules for receiving the national pension (reduced pension from 15 years of contribution and full pension from 20 years of contribution) were the aspects with the most negative assessment. The consolidation of the pension funds received the most "no impact" responses with respect to the impact on labour market participation (7 out of 10).

The changes in survivor pension eligibility were also assessed as having relatively low impact (if any). Regarding overall participation, 5 out of 10 experts considered that they had no impact, 3 experts had no opinion and 2 experts were evenly split between significant positive change and some deterioration.

In the question on the impact on female labour market participation, the assessment was slightly more positive (3 positive answers, 1 negative, 3 "no impact" and 3 no answers), yet it was not as strong as the assessment of the impact of changes in the statutory age limits and of the closing of early retirement pathways (4 or 5 overall positive responses). One open comment highlighted that no specific reform had been made specifically to increase women labour market participation.

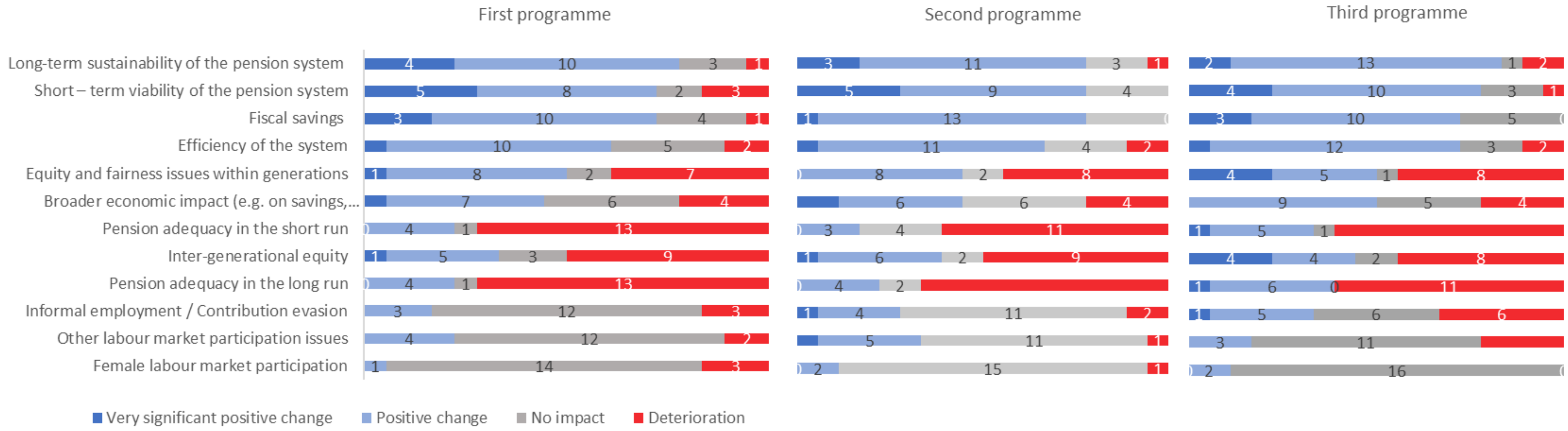
Regarding the more recent changes, most experts assessed positively the impact of the reduction of the contribution rate and the increase in the replacement rates, as legislated in Law 4670/2020 (9 and 8 overall positive answers respectively, out of 10 total answers), on overall labour participation. These changes were also assessed to affect positively the issue of informal employment and contribution evasion (8 overall positive answers), with somewhat weaker assessment on their effects on female labour market participation (7 and 6 overall positive answers).

Looking ahead, regarding ways to incentivise further labour market participation through changes in the pension system, a number of experts stressed the importance of strengthening the reciprocity between contributions and benefits. The proposals on how this can be achieved include making the national pension proportional to years of contribution (with a flat rate), raising the accrual rates with age and/or length of contribution period, removing biases against older people participating in the labour market, changing the earning-related tier to a notional defined contribution formula and strengthening the fully funded occupational pillar.

Figure A4.14 Expert views on the impacts of the programmes

Q. Overall, what is your view on the effectiveness of the reforms in terms of…

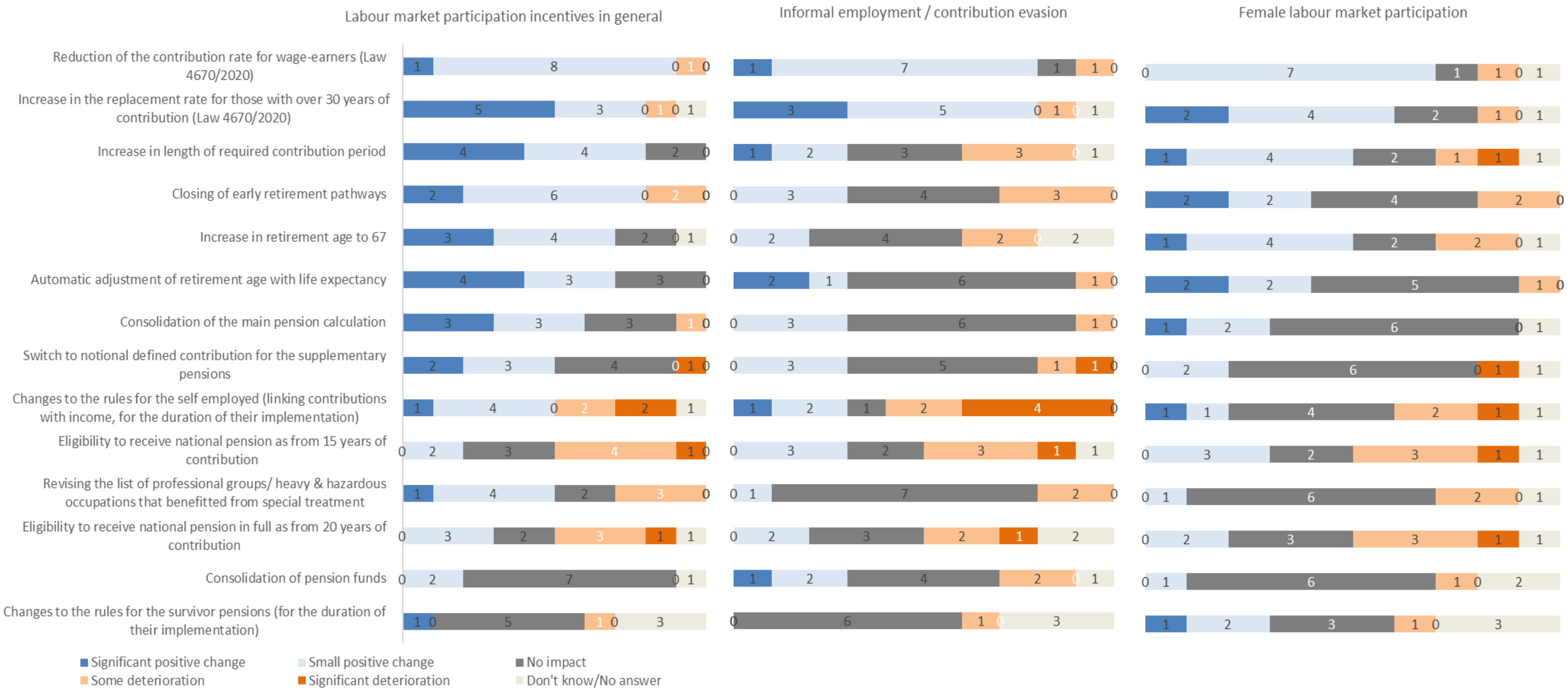
Note that an overview of the key reforms promoted under each programme can be found following this link.



Base: all (n=18), round 1

Figure A4.15 Impact of various aspect of labour market reforms

Q. Overall, what is your view on the effectiveness of specific aspects of the pension reforms on specific labour market aspects?



Base: all (n=10), round 2

A4.5.3 Exploring adequacy issues

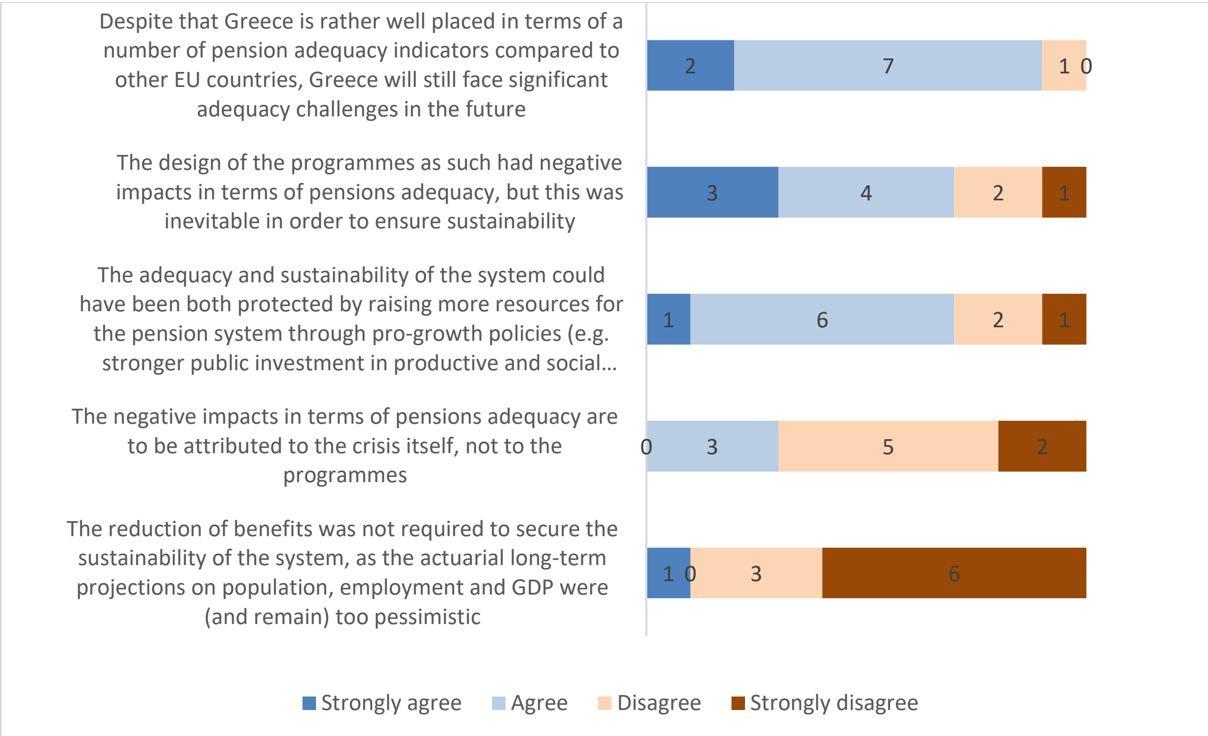
In a nutshell, the Delphi results of the first round tend to say that the reforms have restored long-term sustainability of the system but have had negative impacts in terms of adequacy. Exploring this further in the second round, it seems that experts indeed do foresee adequacy challenges (9 experts), despite the fact that Greece seems to be rather well placed in comparison to other EU countries in terms of adequacy indicators. When prompted more on this, Delphi experts mentioned the low spending on long-term care in Greece, the significant demographic challenges, the decrease in supplementary pensions following the move to the NDC system as well as the lack of measures to raise revenues of the pension system.

Many Delphi experts also reject the statement that the negative impacts in terms of pensions adequacy are to be attributed to the crisis itself, not to the programmes, thereby attributing the negative impacts in terms of pensions adequacy to the design of the programmes at least in part (7 experts). Many Delphi experts however reckon that the reduction in benefits was inevitable to guarantee the financial sustainability (7 experts) and reject the idea the cuts were made simply because of the too pessimistic projections (9 experts).

Now many experts (7) also think that more resources for the pension system could have been raised through pro-growth policies (e.g. stronger public investment in productive and social infrastructure, adoption of comprehensive agricultural, industrial and technology policies, and labour productivity upgrade through training, education and stronger social safety net). Based on the above answers, it would have been a helpful move, in complement to the reductions in pension, which were inevitable.

Figure A4.16 Exploring adequacy issues

Q. To what extent would you agree / disagree with the following statements?



Base: all (n=10), round 2

A4.5.4 Experts views on common remarks on the impact of the promoted pension reforms

The following question explores some common remarks that have been raised about the impact of reforms. The following statements seem to be rather consensual:

- Pension cuts eroded trust in the pension system (17 respondents) and did not increase the credibility of the pension promise (14 respondents). Delphi experts called for more communication on the merits of the reform towards the general public, to avoid this would lead to an increase in undeclared work;
- More public expenditures should be allocated to targeted social protection for 16 respondents. We explored this issue further in second round (see next section)
- Reforms strengthened the link between contribution and pension rights (13 experts)

Views are more mixed on other issues, namely:

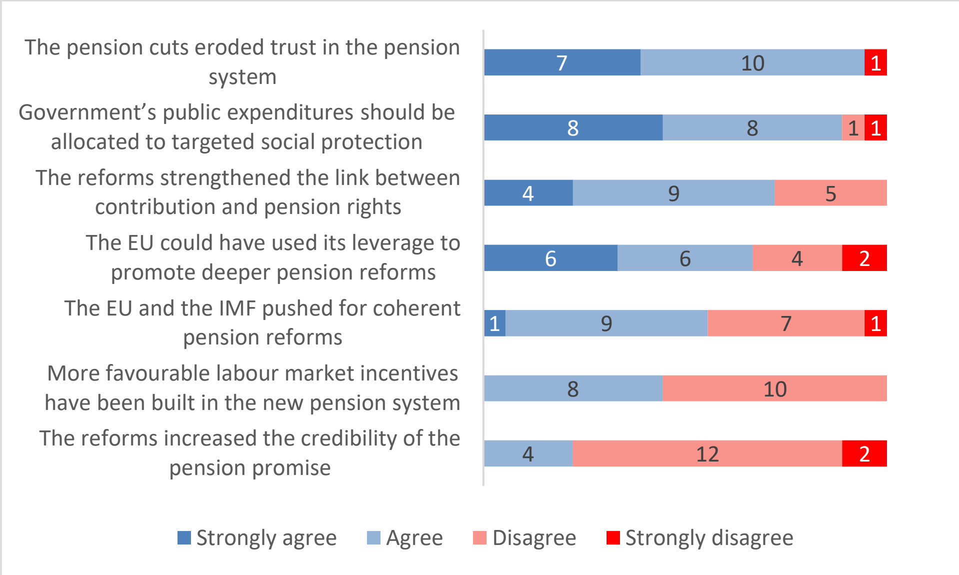
- whether EU and IMF had coherent positions on pension reforms
- what was the overall impact on the labour market (see discussion in previous section)

Furthermore, 12 experts flagged that the EU could have used its leverage to promote deeper pension reforms. By deeper reforms, Delphi experts mean different things. Many Delphi experts meant reforms covering all three pillars. Others mentioned a full move to an NDC system. Besides, a few experts would have liked to see the EU taking a tougher stance on the authorities, i.e. insisting on a shorter implementation period for the 2010 reform, closing doors for renegotiation of earlier commitments in 2015/16, insisting on eliminating numerous loopholes that favoured various groups of pensioners, insisting on the pre-legislated cuts to be implemented. Others would have favoured pro-poor, growth-friendly reforms minimizing the tax burden and the adverse impacts on employment and migration of young people.

Finally, in their open comments, some experts again mentioned the need to accompany the reforms with appropriate communication and actuarial studies / studies on redistributional impacts.

Figure A4.17 Experts views on common remarks on the promoted pension reforms

Q. Please indicate the extent to which you agree or disagree with the following statements. When answering this question, please bear in mind that we are only referring to pension reforms.



Base: all (n=18), round 1

A4.6 Section D: Economic implications of the legal challenges

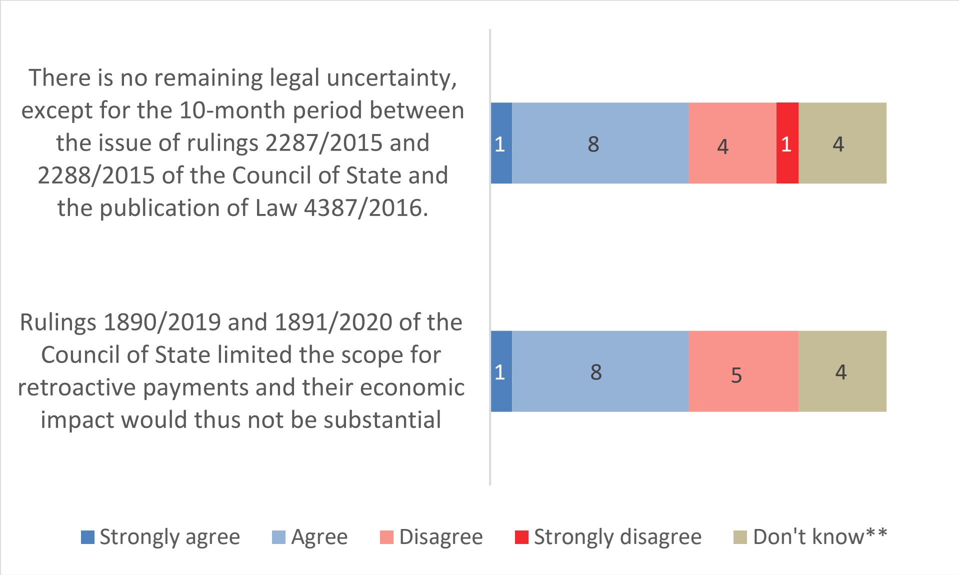
As part of the first round, the experts have been prompted on the extent to which they agree or disagree with the following statements

- There is no remaining legal uncertainty, except for the 10-month period between the issue of rulings 2287/2015 and 2288/2015 of the Council of State and the publication of Law 4387/2016.
- Rulings 1890/2019 and 1891/2020 of the Council of State limited the scope for retroactive payments and their economic impact would thus not be substantial

Experts had to make a choice on both statements as the answer modalities did not include the "Don't know" option. However, several experts (4 of them) commented in the open box that they did not feel well equipped to answer the question, given the technicality and unpredictability of the subject matter. In the graph below, we reclassified (ex-post) the answers of these experts as "Don't know". We also did not use further the answers to these questions in the rest of the study.

Figure A4.18 Economic implications of the legal challenges

Q. Some elements of the pension reforms promoted during the programme have been legally challenged. Please indicate the extent to which you agree or disagree with the following statements. When answering this question, please bear in mind that we are only referring to pension reforms.



A4.7 Section E: Outlook for the future

When prompted about remaining priority reforms for the future, many experts noted the need to reduce contribution rates and strengthen the fully funded pillars in order to reduce the pension system's burden on the economy. Reinforcing the second pillar in particular was frequently mentioned.

Besides, some experts called for further changes on the rules for the self-employed, freelancers and farmers compared to employees, with respect to their contribution obligations.

Furthermore, some experts believed that measures should be taken to improve the intragenerational equity of the pension system (e.g. ensure there are no remaining loopholes in the system, apply the same rules to all EFKA pensioners, further tighten the list of arduous and hazardous jobs, make sure that the zero-deficit rule for supplementary and lump-sum pensions continues to apply).

Better tackling contribution evasion as well as improving the adequacy was also mentioned as a priority. There was also the idea that more should be done to restore intergenerational equity. Finding new economic resources and promoting increased birth rates also belongs to the mentioned priorities.

Annex 5 Overview of key reforms and implementation status

Table A5.1 Key pension reforms

Reform area	Reform	Law number (publication date)	Implementation status
1st adjustment program (June 2010 – March 2012)			
Pension fund consolidation	IKA-ETAM would carry the main pension insurance of newly hired public sector employees.	3865/2010 (21 July)	Implemented from 1 January 2011. Amended with Laws 3996/2011, 4002/2011 and 4387/2016.
	The health branch of the three major social security funds (IKA-ETAM, OGA and OAEE) were separated from the pension branch and together with the health fund of the civil servants (OPAD) were consolidated in the newly formed national health service EOPYY.	3918/2011 (2 March)	Implemented from 1 January 2012
Pension calculation	The pension benefits would be calculated based on the life-time earnings of the employees. A flat-rate “basic pension” is established, to start from 1 January 2015, set at EUR 360, funded by the state budget, together with a proportional part linked to the number of years of contribution. The earnings replacement rate is set to depend on the years of employment. The new system is to be applied on a pro-rata basis, with the new rules applying only for the years that a retiree has been employed under the new system.	3863/2010 (15 July)	Amended with Law 4387/2016
	Rules on indexing pensions (50 per cent GDP growth and 50 per cent CPI change for the previous year, with a cap at the annual CPI change).	3865/2010 (21 July)	Amended with Law 4042/2011, 4387/2016 and 4472/2017. To start from 1 January 2023.
Eligibility	The minimum age for securing full pension rights is set to increase gradually	3863/2010 (15 July)	Amended with Laws 4093/2012 and 4336/2015

Reform area	Reform	Law number (publication date)	Implementation status
	from 58 to 60 years by 2015, with the minimum period of required contributions raised from 35 to 40 years. The overall retirement age limit is set at 65 years with minimum 15 years of contributions. Provisions are made for changing the two age limits in accordance with age expectancy. The list of arduous and hazardous occupations is reduced, aiming to lower its coverage to 10 per cent of the employees. The criteria for disability pensions are unified across funds.		
	The pension terms for public servants retiring after 1 January 2015 are harmonised with those of the private sector, causing a wave of early retirement in the public sector[96]. The retirement age limits for men and women in the public sector are also harmonised. The age limit for securing full pension rights for members of the armed forces, the security services and the fire service is also set at 60 years.	3865/2010 (21 July)	Amended with Laws 3996/2011, 4002/2011 and 4387/2016
2nd adjustment program (March 2012 – July 2015)			
Pension fund consolidation	The supplementary insurance fund ETEA is established, incorporating a number of pre-existing funds (ETEAM, TEAIT, TEADY, ETAT and others).	4052/2012 (1 March)	Amended with Laws 4336/2015 and 4387/2016
Pension calculation	The notional defined-contribution system is introduced for supplementary pensions of ETEA for those that entered the social security system	4052/2012 (1 March)	Amended with Laws 4254/2014 and 4387/2016 (change in the cut-off date from 1 January 2001 to 1 January 2014).

[96] Γιαννίτσης, Τ. 2016. *Το ασφαλιστικό και η κρίση*. Αθήνα: Εκδόσεις Πόλις

Reform area	Reform	Law number (publication date)	Implementation status
	after 1 January 2001. For those that entered the system earlier, the system is applied for their contributions after 1 January 2015.		
Eligibility	The age limits are raised by two years (to 67 / 62) for all those insured in IKA, the funds of the state-owned enterprises (DEKO) and the Bank of Greece.	4093/2012 (12 November)	Amended with Law 4336/2015. To be fully implemented from 1 January 2022.
3rd adjustment program (August 2015 – August 2018)			
Pension fund consolidation	Further 12 supplementary insurance funds were incorporated in ETEA	4336/2015 (14 August)	Implemented with the law's publication
	Most main pension funds were incorporated in the newly established fund EFKA, while ETEA was transformed into ETEAEP with the merger of most remaining supplementary pension funds, including funds providing lump-sum pensions upon retirement.	4387/2016 (12 May)	Implemented from 1 January 2017
Pension calculation	A zero-deficit rule is introduced to the supplementary pension funds, ensuring that no funds are transferred from the state budget to fund supplementary pensions.	4336/2015 (14 August)	Implemented from 1 September 2015
	Consolidation of the main pension calculation across generations is introduced, applying to both new and old retirees, scrapping the pro-rata provision of Law 3863/2010. A "national pension" is established, set at EUR 384, funded entirely by the state budget. The full amount is provided to beneficiaries with at least 20 years of insurance. Beneficiaries with at least 15 years of contributions receive a national pension,	4387/2016 (12 May)	Implemented

Reform area	Reform	Law number (publication date)	Implementation status
	reduced by 2% for each year below 20.		
	The new method of pension calculation is applied to current pension beneficiaries as well, with provisions for gradual reduction of differences. In case of positive difference, the beneficiary would not receive raises from pension indexation, until the positive difference is eliminated. If the difference is negative, the pension is raised by one fifth of the personal difference per year from 2019, so that in five years the negative difference is eliminated.		Amended with Law 4472/2017 (one-off cut of the positive difference from 1/1/2019, with a ceiling of the one-off cut at 18% of the pension amount) and Law 4583/2018 (the one-off cuts of the positive personal difference were scrapped).
	The notional defined contribution system was extended to lump-sum pensions.		Implemented
	The social security contributions of self-employed, free-lancers and farmers for main pension was set at 20% (with a transition period for certain categories) of their net taxable earnings from the previous year.		Amended with Law 4578/2018 (contribution rates lowered at 13.33% for self-employed and free-lancers) and abolished with Law 4670/2020
Eligibility	Elimination of the grandfathering of statutory retirement age and early retirement pathways	4336/2015 (14 August)	Implemented
	Age limits are introduced for survivor pensions. Surviving spouse younger than 55 receives the survivor pension for a period of three years.	4387/2016 (12 May)	Abolished with Law No. 4611/2019

Source: IOBE

Table A5.2 Key elements of the reforms in Law 4670/2020

Reform area	Reform
Pension fund consolidation	All PAYG pension funds are consolidated into EFKA, which becomes e-EFKA, achieving operational and administrative unification. Its three branches (main pension, supplementary pension and lump-sum pensions) maintain financial, accounting and asset ownership autonomy. The aim here is to speed up the consolidation and digitalisation of all pension system data and to shorten the time for approving pension applications.
Pension calculation	The contributions of self-employed, free-lancers and farmers to the system no longer depend on their income. Instead, these occupations have a choice of six contribution classes. The beneficiaries can choose their contribution class for the following year. Lower contribution rates are set for newly insured (up to five years of contributions). The earnings-related component of the main pension that the beneficiaries will receive is calculated based on the contributions that they have made. For employees, the contribution rate is gradually reduced (by up to 5 percentage points), starting from June 2020 (0.9 percentage-point cut). To address the recent court decisions, the replacement rate of the main pensions is changed, aiming at achieving 50% replacement rate of the earnings-related component of the main pension (i.e. excluding the "national pension") for beneficiaries with 40 years of contributions. The supplementary pensions are paid at the amount calculated under the legislation in force on 31 December 2014, with a retroactive implementation from 1 October 2019, but not less than the amount paid up until 30 September 2019 (in gross terms).
Eligibility	The option to participate in the supplementary and lump-sum branches of e-EFKA is extended to all (on a voluntary basis). Three categories are established for the supplementary and lump-sum voluntary contributions. The requirement for minimum years of contributions in order to receive lump-sum pension entitlement is scrapped.

Source: IOBE

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