



Spain

Public Pension System and Labor Market

Some observations

August 2017



The views expressed in this presentation are those of the presenter and do not necessarily represent the views of the IMF, its Executive Board, or IMF management.

Pension facts (1)



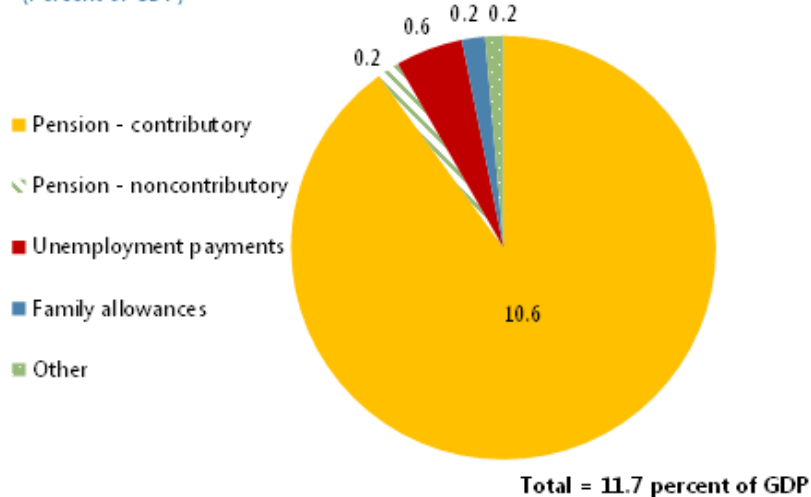
- Mandatory public pension
- Earning-related defined benefit system
- 46 million population and 11 million pensioners
- Pension coverage: 80 percent of population over
- Minimum contribution of 15 years
- Statutory retirement age: 65 in '12 to be raised to 67 by '27

Pension facts (2)



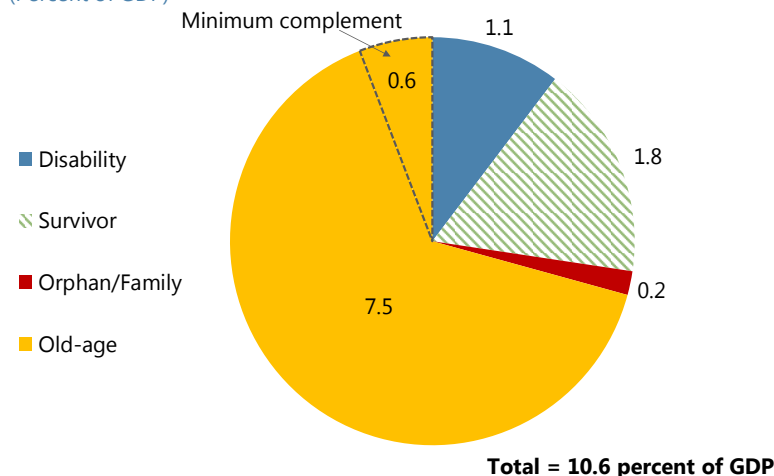
- Contributory pension absorb about 90 percent of social security spending.
- Contributions provide about 85 percent of non-financial resources.
- Central budget finances minimum complement (and non-contributory pensions).
- Average monthly pension: slightly less than €1,000 with the max of around €3,000

Social Security Spending (Budget 2017)
(Percent of GDP)



Source: Spanish authorities.

Contributory Pension Spending (Budget 2017)
(Percent of GDP)



Source: Spanish authorities.

Pension facts (3)

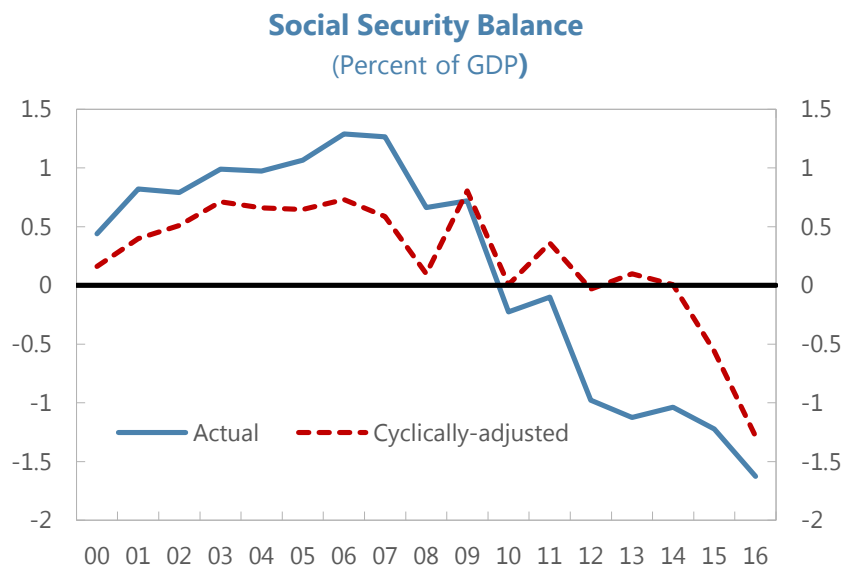


- Pension contributions: 4.7 percent by employees and 23.6 percent by employers (total 28.3 percent of covered earnings)
- Pension contributions cover sickness, maternity, paternity, and work injury benefits.
- Maximum monthly earning base for contribution: 1.7 times of average monthly wage (€3,642 in 2016)
- Maximum pension benefit is adjusted as needed.

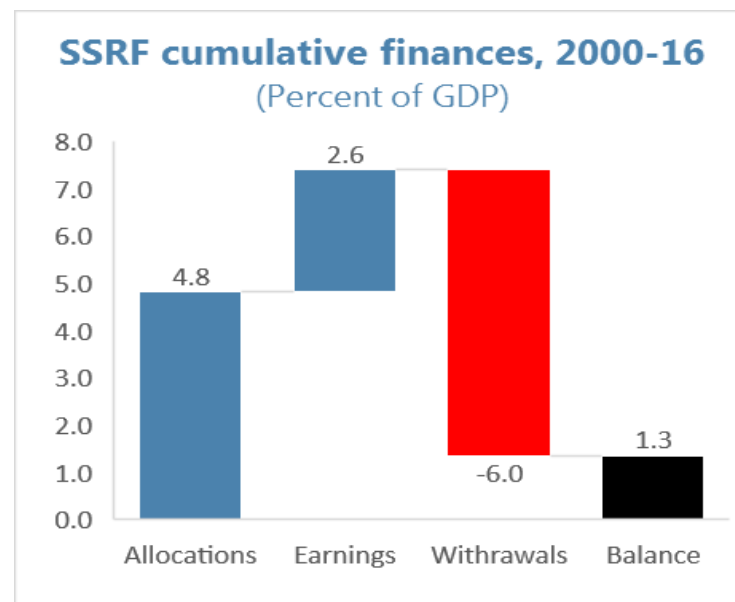
Social security balance



- Social security deficits were largely cyclical through 2014.
- Deficits were financed by drawing down Social Security Reserve Fund.
- Projected deficit in 2017 of 1.4 percent of GDP to also be financed by borrowing.



Sources: Spanish authorities; IMF staff calculations.



Sources: Spanish authorities; IMF staff calculations.

Re-emergence of sustainability concern



- Running out of the Reserve Fund triggered public's concerns about pension sustainability (late 2016).
- Start re-examining pension challenges, past reforms, and further actions.
 - Timely analysis by BdE, think-tanks, academia received public attention
 - Parliament formed pension committee, initiating public debate
- Our view was:
 - Not sustainability issue, but liquidity issue
 - Financing with general revenue is not unusual
 - Time to discuss “social” sustainability

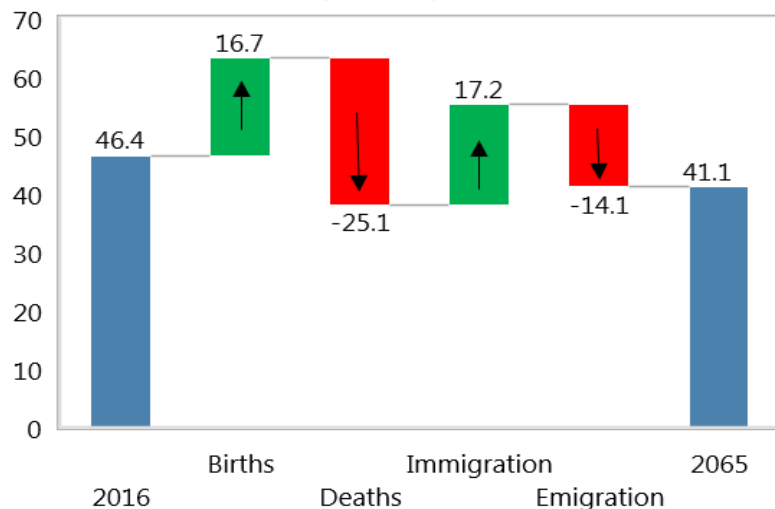
Demographic pressure on pension balance



- Similar to many advanced countries, population is shrinking and aging.
- **Decline in fertility rate** since at least 1950 to 1.3/woman of childbearing age.
- **89 is the new 65**: When the retirement age of 65 was set, 33 percent of each generation reached age 65. Now 33 percent reach age 89 (FEDEA).

INE Population Projections, 2016-65

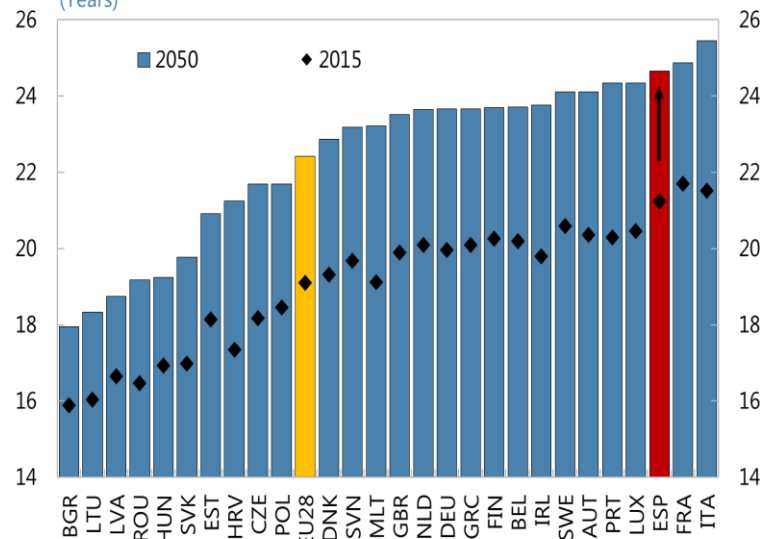
(Millions)



Sources: Spanish authorities (INE) and IMF staff estimates.

Life Expectancy at Age 65

(Years)



Sources: UN Population Projections (2015) and IMF staff calculations.

Simple pension arithmetic



- When PAYG system was introduced initially, pension was built on a simple assumption:
 - Average life after retirement = 15 years
 - Start to work at 20
 - Contribute 25 percent of income for 45 years
 - Retire at 65
- Under a stable demographic structure, PAYG system under these assumptions will allow:
 - Pension equivalent to 75 percent of the average wage (benefit ratio)
 - 100 percent of wage net of social contributions
- Changes to demographic structure will affect the sustainable level of pension benefits under a PAYG system.

Pension reform in 2013



- Sustainability Factor (SF): an automatic link between the initial pension benefit and the life expectancy at the time of retirement. Effective from 2019.
 - Applied once for new retirees. The SF is updated every 5 year.
 - $SF_t = SF_{t-1} \cdot e_{67}^*$, where e_{67}^* = the average annual change in life expectancy at 67 in a previous period of 5 years
- Index for Pension Revaluation (IPR): an automatic link between annual pension index and the development key indicators that affect pension sustainability.
 - Applies to all pensioners.
 - Min = 0.25 percent.
 - Also known as an Automatic Balancing Mechanism
- Tighter early retirement conditions
- Expanding the pensionable earnings reference period from 15 to 22 years by 2022

Selected pension parameters



Selected Pension Parameters in Large Euro Area Countries

	Statutory retirement age linked to life expectancy	Ceiling on earnings base for contributions	Pensionable earnings reference period
Austria	No	None	Best 40 (as of 2028)
Belgium	No	None	Full career
Denmark	Yes	TBC	Years fo residence
Finland	Yes	None	Full career
France	No	TBC	Best 25
Germany	No	2 x average wage (2014)	Full career
Greece	Yes	TBC	Full career
Italy 1/	Yes	None	Full career
Netherlands	Yes	TBC	Years of residence
Portugal	Yes	TBC	Full career
Spain	No	1.7 x average wage (2016)	Last 25 (as of 2022)
Sweden 1/	Yes	None	Full career

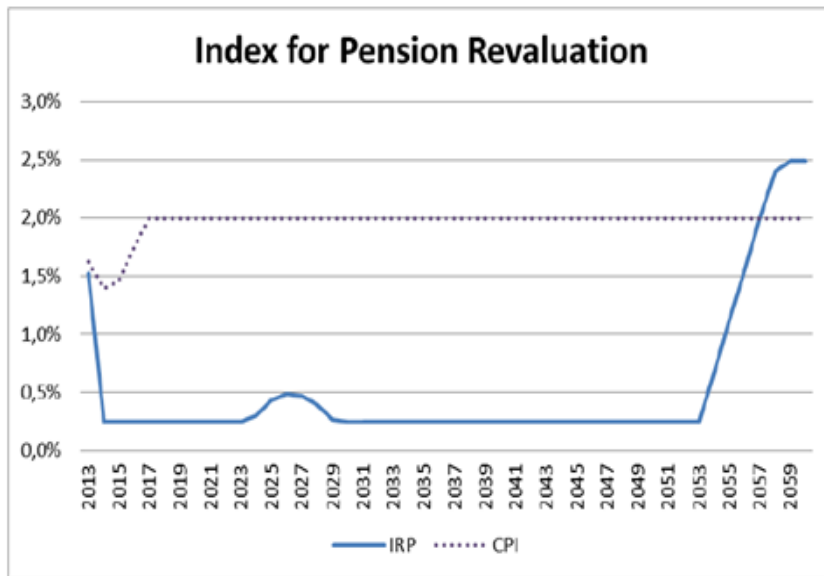
Sources: European Commission; OECD Pensions at a Glance (2015).

1/ Notional defined contribution system.

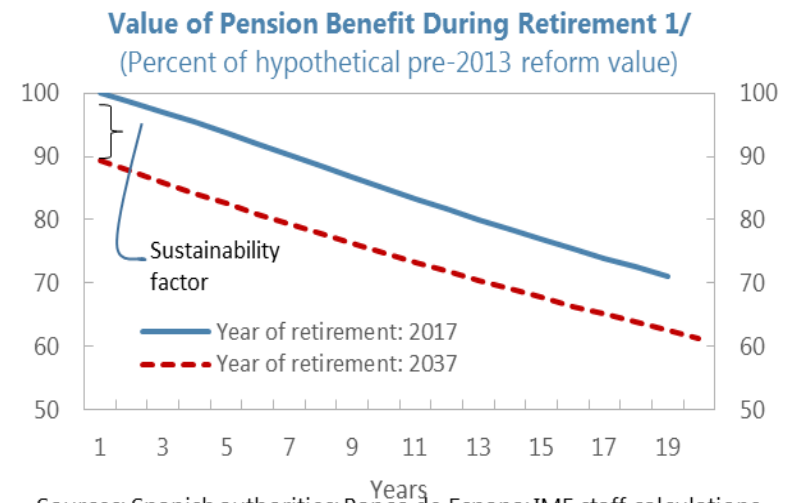
Impacts of SF and IPR



- Pensioner's could experience a steady drop in purchasing power.
- (Note: Productivity growth would lessen the loss in purchasing power.)
- The IPR and SF are considered to ensure the financial sustainability of the pension system.



Sources: European Commission 2015 Ageing Report.



Sources: Spanish authorities; Banco de España; IMF staff calculations.
1/ Assumes a gradual rise in inflation to its long-run level of 2 percent p.a. by 2022 and an annual pension benefit increase of 0.25 percent.

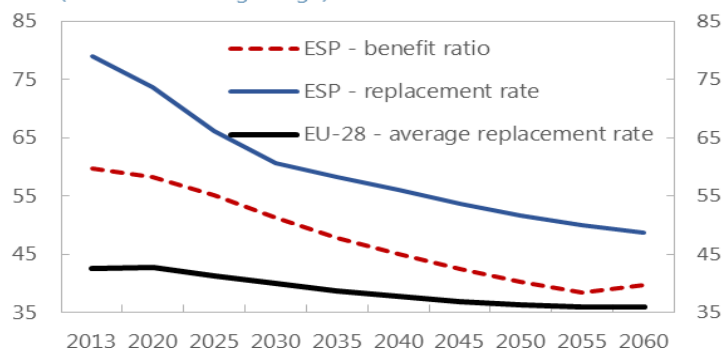
Social sustainability



- Strict application of IPR will lead to 40-year consecutive loss of real pension.
- IPR and SF will lower the benefit ratio by 20 ppt from 60 percent to 40 percent by 2060.
- Still better than the average Europe but the largest decline anticipated
- Is the society ready to endure such a long and gradual adjustment?

Pension Benefits

(Percent of average wage)



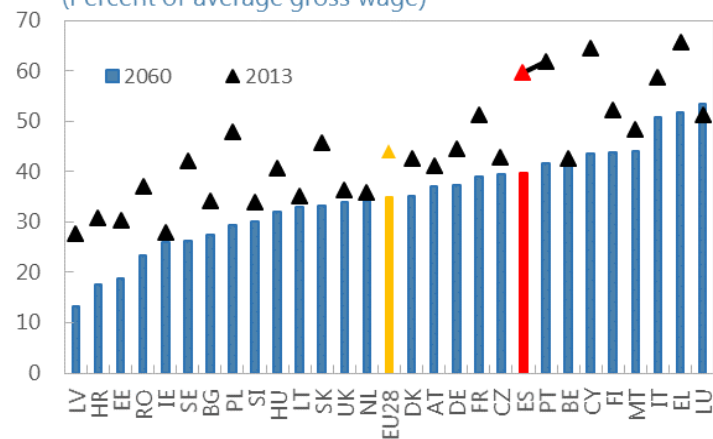
Source: EC 2015 Ageing Report

Benefit ratio = Average benefit in payment / Average wage

Replacement rate = Average initial benefit / Average wage

Benefit Ratio, 2060

(Percent of average gross wage)



Source: EC 2015 Ageing Report.

Unpleasant pension arithmetic



- $\frac{PE}{Y} = d \cdot b \cdot \alpha \cdot \frac{1}{e}$
- $\frac{PR}{Y} = \tau \cdot \alpha + \beta$
- Pension Expenditure to GDP share (PE/Y) = dependency ratio * benefit ratio * labor share in GDP / employment rate
- Pension revenue to GDP share (PR/Y) = effective social contribution rate * labor share + other revenue
- Constant pension expenditure to GDP: the only pension policy parameter to ensure this is the benefit ratio (b)
- Financial sustainability: $\{b, \tau, \beta\} = \arg(PE = PR, \text{given } d, \alpha, e)$

Pension policy options to support higher retirement income



Tradeoffs

Pension system		Other changes			
Contributions (rate/base)	Length of work life	General taxes	Labor productivity	Private savings	Migration (15-65)
↑	↑	↑	↑	↑	↑

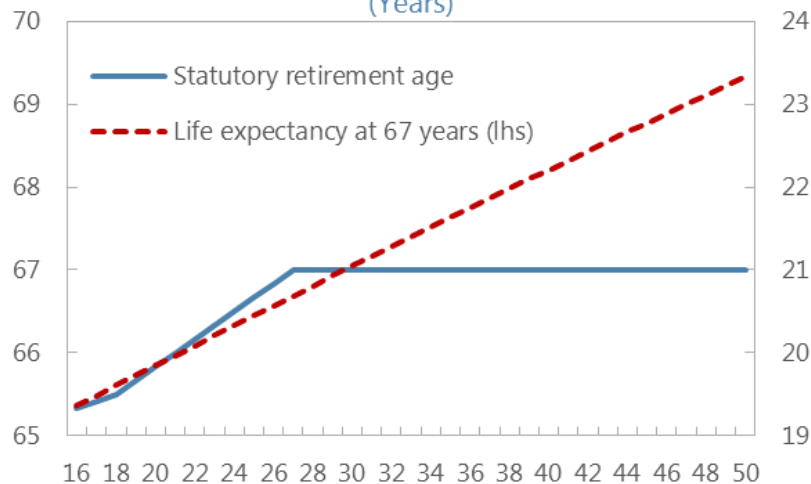
Option 1: Work longer



- Link statutory retirement age to changes in life expectancy at age 67.
- Complement by increasing minimum contributory period to earn a full pension.
- Review and tighten disability qualifications, if appropriate.

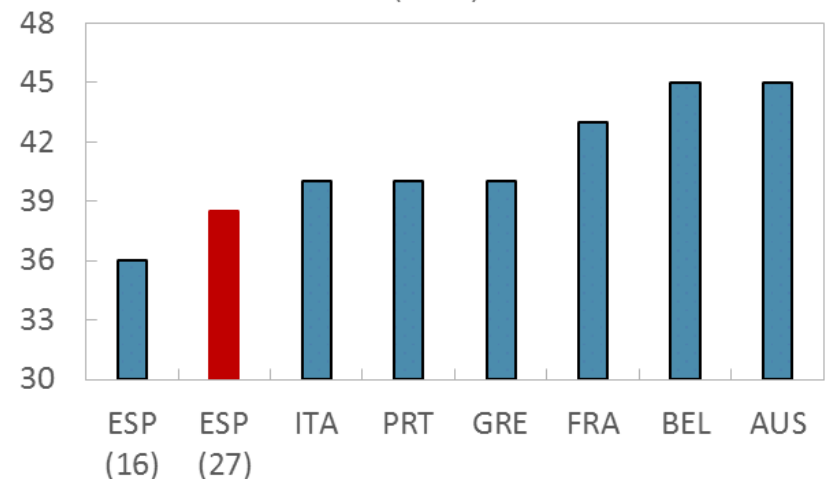
Reforms incentivize longer work lives

Statutory retirement age
(Years)



Sources: Spanish authorities; IMF staff calculations

Minimum contributory period for full pension
(Years)



Sources: Spanish authorities; European Commission

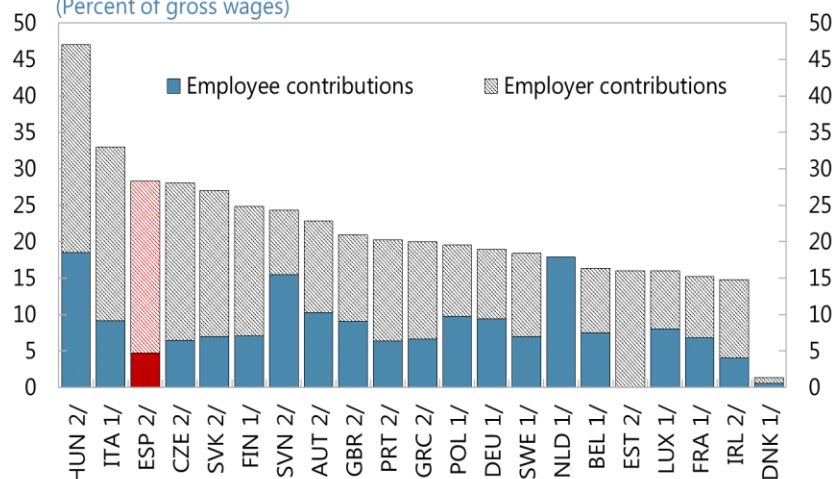
Option 2: Contribute more



- Statutory contribution rates are relatively high in Spain.
- Remove ceiling on wage subject to contributions; keep cap on max pension.
- Called **"a silent reform"**

Public Pension and Social Insurance Contributions, 2014

(Percent of gross wages)

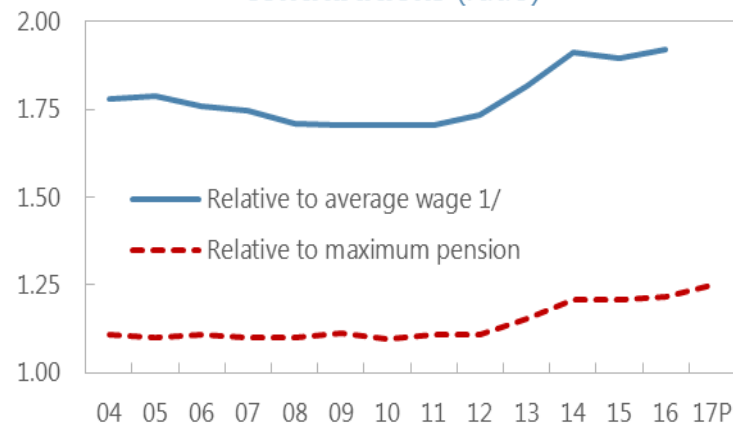


Source: OECD.

1/ Mandatory pension contributions.

2/ Social insurance contributions.

Ceiling on earnings subject to contributions (ratio)



Sources: Spanish authorities; IMF staff calculations.

1/ Average wage (INE survey).

Other options to support higher retirement income

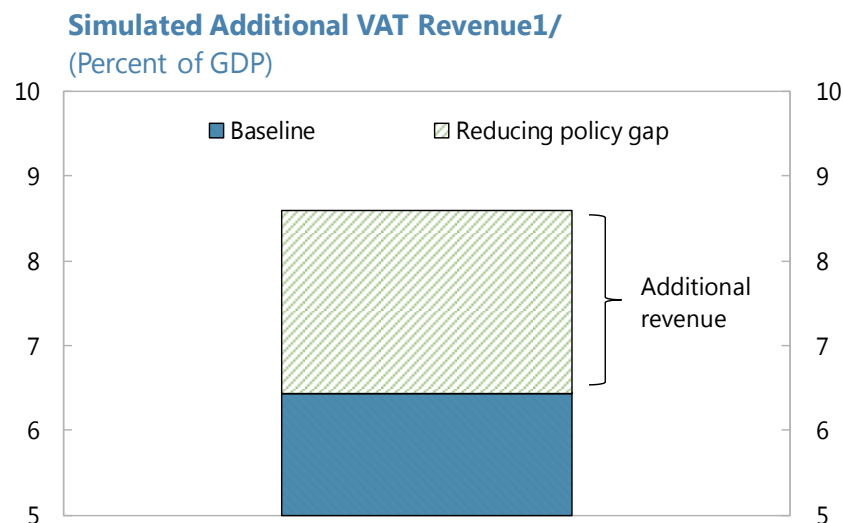


Pension system		Other changes			
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↑	↑	↑	↑	↑	↑

Option 3: General tax



- Spain could adjust VAT preferential rates and exemptions which could raise VAT revenue by over 2 percent of GDP.
- State transfer for pension deficit is not unusual.
- Pension often serves as social protection, justifying the use of general revenue.
- Who pays pension—workers or consumers, including pensioners?
- Social assistance programs can't be financed by direct taxes.



Sources: EC "Study to Quantify and Analyse the VAT Gap in the EU Member States (2016)", and IMF staff calculations and estimates.

1/ Estimated increase in VAT in a scenario in which the compliance gap reaches the pre-crisis (2004-07) average and the policy gap the EU average.



VAR Rate at end-2014

Country	Standard Rate (SR)	Reduced Rate(s) (RR)	Super Reduced Rate
Belgium	21	6 / 12	-
Bulgaria	20	9	-
Czech	21	15	-
Denmark	25	-	-
Germany	19	7	-
Estonia	20	9	-
Ireland	23	9 / 13.5	4.8
Greece	23	6.5 / 13	-
Spain	21	10	4
France	19.6	5.5 / 10	2.1
Croatia	25	5/13	-
Italy	22	10	4
Cyprus	19	5 / 9	-
Latvia	20	12	-
Lithuania	21	5 / 9	-
Luxembourg	15	6 / 12	3
Hungary	27	5 / 18	-
Malta	18	5 / 7	-
Netherlands	21	6	-
Austria	20	10	-
Poland	23	5 / 8	-
Portugal	23	6 / 13	-
Romania	24	5 / 9	-
Slovenia	22	9.5	-
Slovakia	20	10	-
Finland	24	10 / 14	-
Sweden	25	6 / 12	-
UK	20	5	-



- Structural reforms to boost productivity.
 - Will increase retirement income but not necessarily improve financial sustainability given the benefit ratio.
 - But what matters is the income, not the ratio.
- Private savings
 - Caution! Tax incentive for the second pillar can weaken public finances
- Migration



- Need to make clear that population changes will require pension system to evolve over time.
- Also pension is not meant to be sole source of retirement income.
- Explain trade-offs (financial and social sustainability; intra- and inter-generational equity considerations) inherent in reforms of pension system parameters and revenue measures.
- Send annual investment reports to contributors documenting past contribution history and expected old-age pension benefit.
- Publish annual calculation IPR and underlying components. (This was done for first time in 2017.) Do the same for SF when implemented.

Should NDCs be in the reform package?



- Finland, Italy, Sweden have notional defined contribution systems (NDCs)

Potential benefits

- Could incentive people to work longer to avoid “low” pension benefit.
- *Provides degree of fiscal balancing.* as life expectancy grows, the benefit available at a given retirement age tends to fall because the account balance is divided by a longer life expectancy.

Potential risks

- Many individuals could end up with minimum pension if they do not contribute for long, earn low returns, or contribute on the basis of low wages.
- Reduces intra-generational redistribution present in current system.

Conclusion



- Sustainability of pension system requires financial viability and social acceptability, which frequently require tradeoffs.
- Pension system needs to evolve as population ages.
- Key decisions: what is acceptable level of retirement income and public pension role in providing that income.
- Package of refinements is possible to address concerns about pension generosity.
- For any reforms to be successful, transparency is critical.
- No reform reversals.

Labor market issues

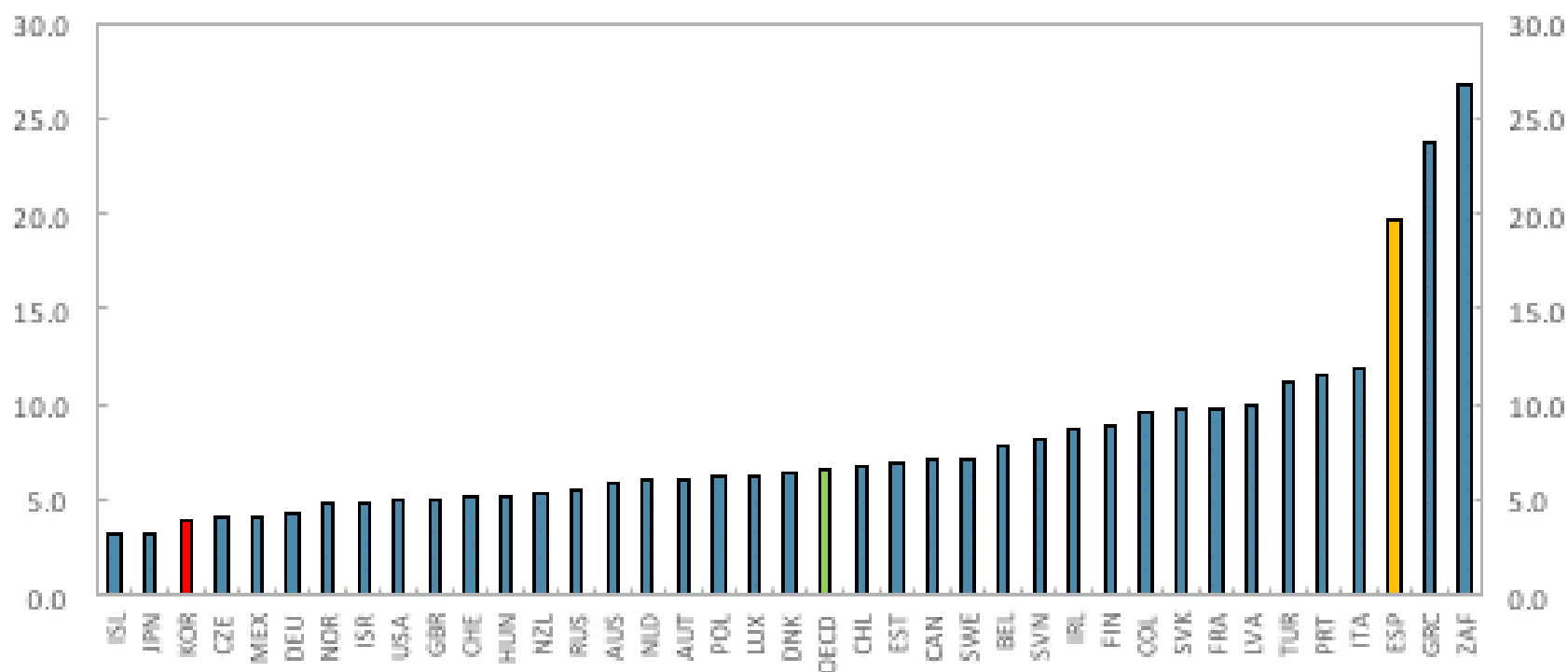


- High unemployment: 20 percent
- High youth unemployment: 40 percent
- Share of long-term unemployment: a half of the unemployed remains jobless for a year or more; 40 percent for two years or more
- High share of temporary contract: 26 percent
- LT unemployment and labor market duality are considered as key facts contributing to low labor productivity in Spain

Unemployment rate



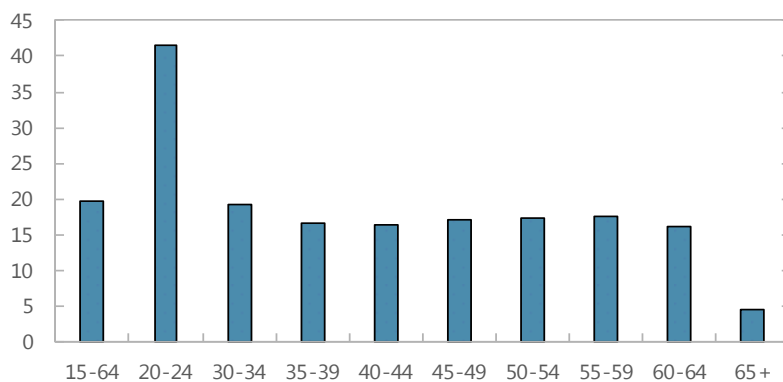
Unemployment rate in 2016



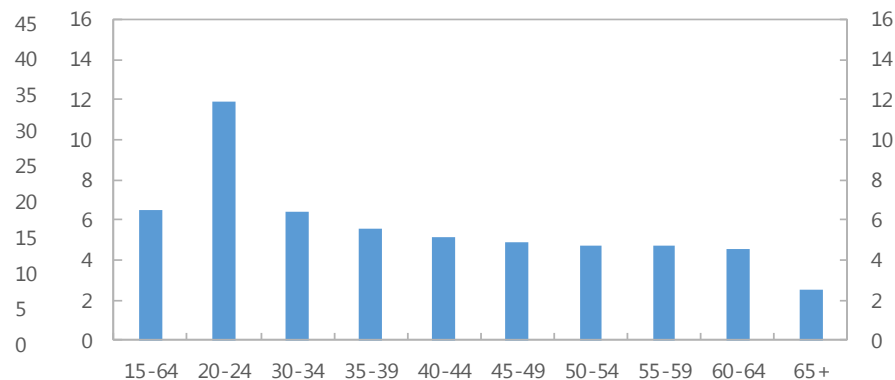
Unemployment by age group



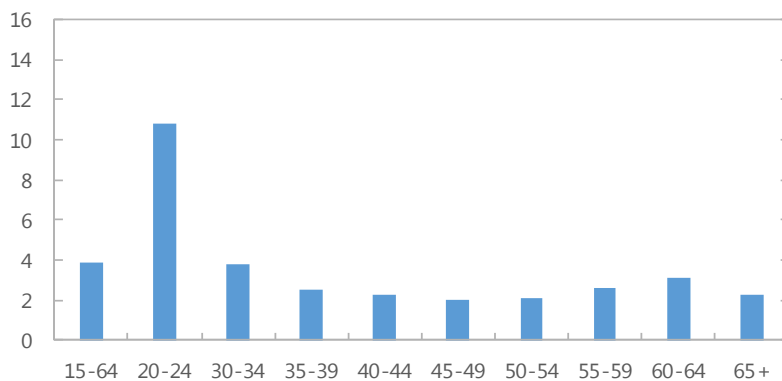
Spain: unemployment



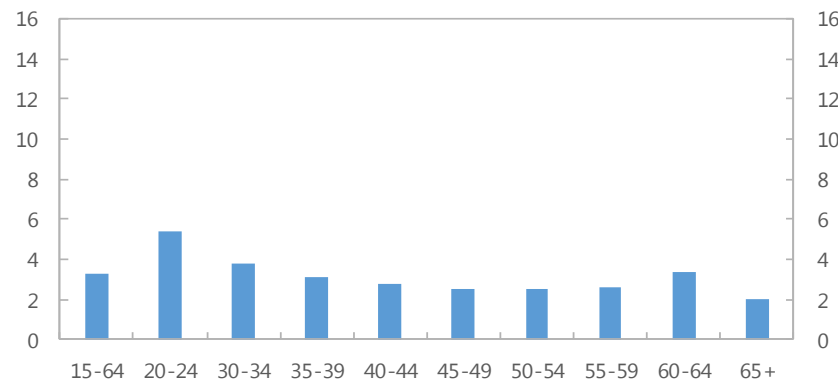
OECD: unemployment



Korea: unemployment



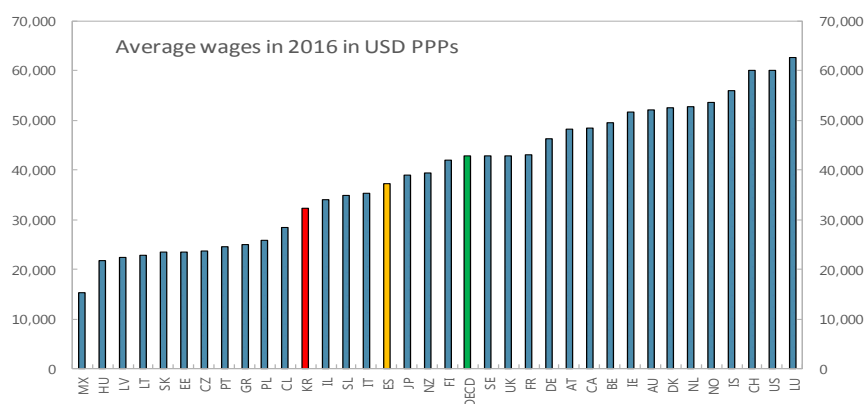
Japan: unemployment



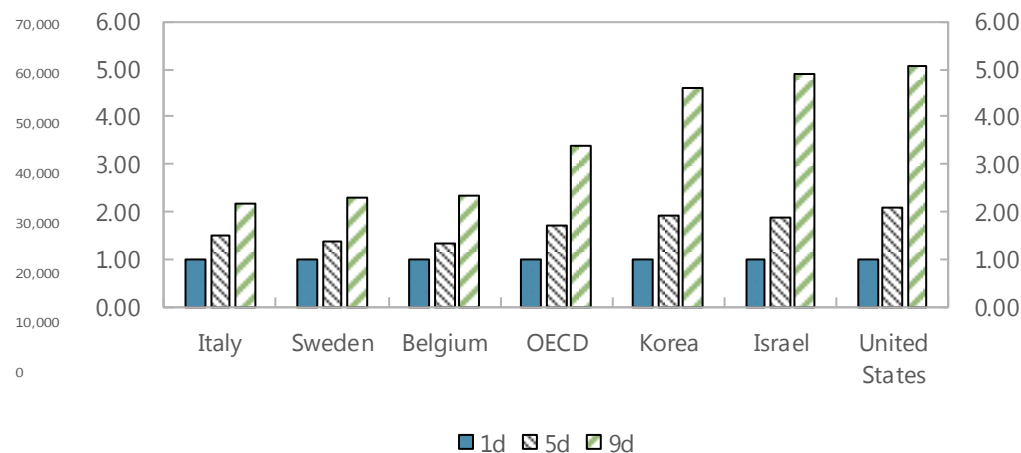
Wage distribution



- Spain is below OECD average in PPP terms.
- Wage inequality is also below average.
- 3 most equal countries: all European
- 3 most unequal countries: US, Israel, and Korea
- What explains the wage inequality in Korea?



Wage distribution: deciles

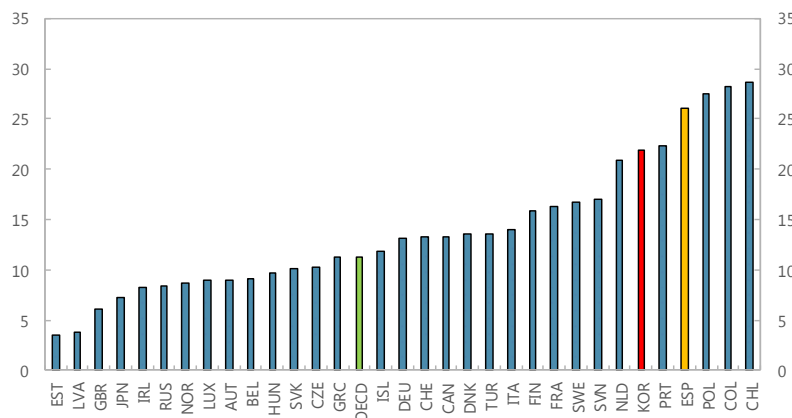


Labor market duality

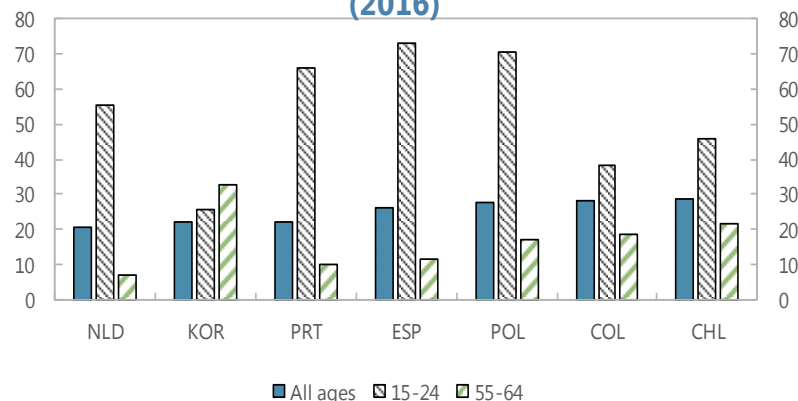


- Share of temporary contracts in Spain is high and procyclical.
- High duality is viewed as an impediment to social stability and productivity growth.
- The Spanish authorities argue that this is based on a social agreement:
 - Temporary contract is a step to permanent contract
 - Tourism and agriculture sectors are highly seasonal, relying more on temporary contracts.

Share of temporary contract (2016)



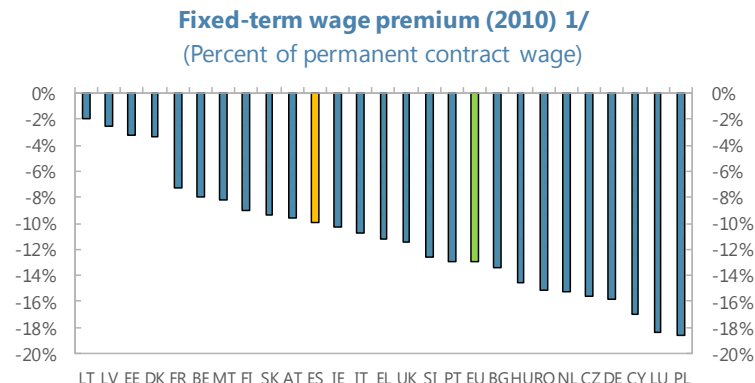
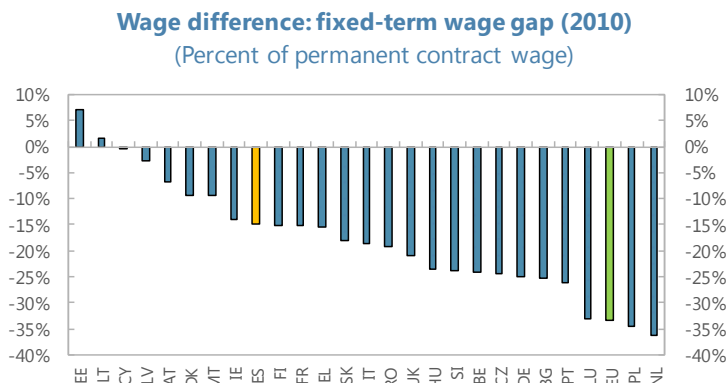
Share of temporary contract by age group (2016)



Wage differences by contract type (2010)



- EU average in 2010: wage of temporary workers is 33 percent lower than that of permanent workers.
- Cross-country variations are large, from a positive gap in Estonia to 36 percent in Netherlands.
- Controlling for individual characteristics (age, education, ...), the gap is lower than the wage differential.
- EU average in 2010: “adjusted” wage of temporary workers is 13 percent lower than that of permanent workers.
- Cross-country variations are still significant, from 2 percent in Latvia to 18 percent in Poland. In Spain, the temporary contract wage premium is -10 percent.



Wage difference by contract type



- “Equal pay for equal job in the same establishment” is considered as a “basic human right.”
- Controlling for individual characteristics, the wage of temporary workers should not be “significantly (or unjustifiably)” lower than that of permanent workers.
- European Court of Justice ruling on substitution teachers was a clear example.
- Why temporary contract is used in practice?
 - More flexible responses to business needs?
 - Lower wage cost?
- Should policy focus on higher job stability or lower wage differential?