Discussion on "Public Pension System and Labor Market" in Spain

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- August 4, 2017

Summary on the pension system in Spain

- Is the pension system (PAYG) in Spain sustainable?
- → Demographic Reasons (not only in Spain but also in most developed countries)
- → What are specific problems in Spain? Not much

Sustainability of "Pay-as-yougo" (PAYG) system

Government's budget deficit or surplus:

$$d_{t} = N_{t}\tau_{t}w_{t} - N_{t-1}e_{t} + T_{t} - G_{t} - r_{t}D_{t}$$

Evolution of government debt:

$$D_{t+1} = D_t - d_t$$

The sustainability of PAYG system

- Note that if the government balances its pension system, e_t = N_t/N_{t-1} τ_tw_t
 So, pension payment increases with wages
- So, pension payment increases with wages (labor productivity), contribution rates, and old-age support ratio (N_t/N_{t-1})
- The key problem is that old-age support ratio will decrease significantly in the future.
- The good news is that labor productivity (?) may increase significantly: 4th industrial revolution (?)

Why N₁/N₁₋₁ will decrease significantly in the future?

- Demographic reason:
 - Longer life expectancy
 - Lower fertility rates

Possible solutions

- 1. Decrease pension benefits: *e*_t (limited)
- 2. Increase contribution rates: limited
- 3. Increase in government's borrowing (increase in the government deficit): limited
- 4. Increase in young population (N_t)
 - Work longer : retire later
 - More immigration
 - More incentives to have children
- 5. Increase in private savings
- 6. 4th industrial revolution

Conclusions

- Not enough to rely on pension payment
- May need to increase in private savings
- Wish a good luck about the influence of 4th industrial revolution.

Labor market in Spain

Labor market issues in Spain

- 1. High unemployment rates: 20% (What about Korea?)
- 2. High youth unemployment rates:40% (What about Korea?)
- 3. High share of temporary contracts: 26%:
- 4. High share of long-term unemployment: this may be related to the long duration of unemployment insurance

Why have temporary contracts increased?

- After a radical two-tier labor market reform in 1984 (or early 1n 1990s) in Spain to fight high unemployment and to avoid high firing costs
- After the Asian financial crisis in 1997 (in Korea)
- Advancement in information technology (financial industry)

Labor market duality

- High share of temporary contract is viewed as an impediment to social stability and productivity growth→ As a firing cost gap between permanent and temporary workers increases, firms tend to less likely convert temporary workers to permanent workers and to reduce the on-the-job-training investment for temporary workers. By knowing this, temporary workers tend to make less efforts. In turn, a firm's TFP (which combines productivities of temporary and permanent workers.) will decrease.
- This mechanism can be tested using firm level data: e.g. Ahn and Moon (2015) for Korean labor markets and Dolado et. al. (2013) for Spanish labor markets

Relatively high unemployment rates in Spain and Relatively low unemployment rates in Korea

- Need to consider the combined effect of the under-ground economy and generous unemployment insurance (duration and magnitude) in Spain: unemployment rates may be overestimated.
- Need to consider the effect of "economies of scale by a family" in Spain: the effects of unemployment rates may be over-evaluated.

- In Korea, the number of "unpaid family workers" is large. These are considered as employed. → unemployment rates are likely to be underestimated.
- In Korea, a sizable number of people belongs to "쉬었음". They are considered as "not in the labor force". → unemployment rates are likely to be underestimated.
- In Korea, the duration of unemployment is very low: no incentive to declare "being unemployed" → unemployment rates are likely to be underestimated.

High youth unemployment rates both in Korea and in Spain

 More serious problem in Spain is that high ability young workers do not tend to stay in Spain (Going to Germany, France, or UK among EU)