THE EFFECTS OF PENSION-RELATED POLICIES ON HOUSEHOLD SPENDING

SUMMARY OF BANCO DE ESPAÑA WORKING PAPER Nº 1913

SUSANA PÁRRAGA RODRÍGUEZ

This study analyzes empirically the direct effects of income changes on the elderly and pensioners' spending behavior. The identification method exploits the introduction of a new pension system in Spain during the 1980s and 1990s and constructs a narrative series of legislated pension changes, which is used in an instrumental setting (CQIV). My findings imply that increases in the average pension have strong positive effects on pensioner spending, particularly on the pensioners with the highest levels of expenditure, income, and wealth.

Introduction

Given the public policy open debate on pension systems reforms, this paper provides relevant insights for the design of policies that address the concerns about the financial sustainability of pension systems and the projected population ageing. In fact, although previous studies have found limited aggregate effects of fiscal actions involving old-age pensions (Romer and Romer 2016; Párraga-Rodríguez 2016, 2018), these estimates cannot fully explain the distributional impact of changes in benefits in pay-as-you-go systems. Thus, the question concerning what are the direct effects of pension-related policies on household spending remains open.

This paper presents evidence on the impact of unexpected permanent changes in public pensions on net recipients (pensioners). Consistent with the lifecycle/permanent-income hypothesis of consumption theory, some estimates imply that increases in the average pension have a roughly one-for-one effect on pensioner spending. To gain insights into the components of these high responses, I also look into the effects for different categories of expenditure, and across the distribution of pensioners' spending, income and wealth.

The estimation method exploits the significant deviation in pensioners' spending relative to working-age individuals caused by the introduction of a new welfare state legislation in Spain at the onset of Democracy. The identification strategy bases on a narrative analysis of legislated changes in public pensions adopted in Spain between 1979 and 1997. The result of the analysis is a record of likely exogenous pension-related policies that is used as an instrumental variable for aggregate expenditure in public pensions to estimate the effects of changes in the average allowance on household-level spending. This strategy circumvents the lack of data on household income in the surveys covering the essential pre-treatment years.

A new narrative series of pension-related policies

Directly using benefits income to estimate the impact of pension-related policies on household spending would fail to isolate other disturbances, therefore producing biased estimates. A narrative analysis categorizes policies as either exogenous or endogenous based on their motivation - assessed through a careful examination of multiple sources. I establish three exogenous motivations: i) ideological changes for reasons such as fairness or redistribution (for example, the introduction of non-contributory pensions); ii) purchasing power adjustments beyond (or below) the yearly change in CPI inflation; and, iii) structural reforms with long-run objectives or the result of a court ruling. Other policies, particularly those in compensation for other fiscal actions, or to boost economic growth in the short run, were considered endogenous.

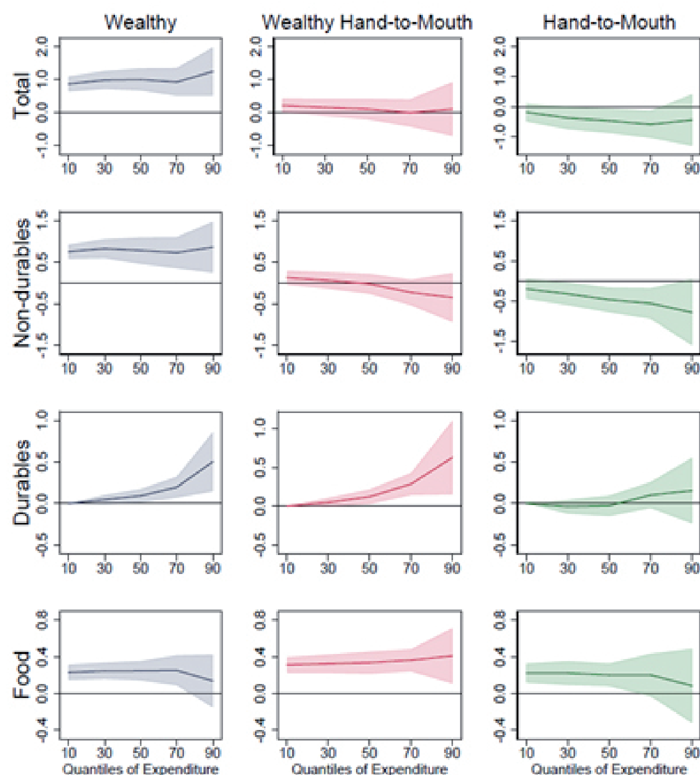
In total, 27 exogenous fiscal shocks were identified. Their cumulative yearly impact is on average 4,552 pesetas (about 28 euros) per beneficiary, at 1992 prices. Considering only net increases, the impact rises to 6,676 pesetas per beneficiary or a little below 0.1% of GDP.

The direct effects of pension-related policies on household spending

Figure 1 shows the different effects that pension-related policies have on pensioners' spending, grouping them according to their level of income and wealth. 'Wealthy' pensioners own real state and report relatively high levels of capital income. Conversely, 'wealthy hand-to-mouth' pensioners report no or little capital income but own housing, while 'hand-to-mouth' pensioners report none. Overall, the estimates suggest that pensioners with high levels of income and wealth benefit the most out of pension increases. However, the impact varies with the expenditure category. Particularly, the effects on durables expenditure (third row) are similar for the 'wealthy' and 'wealthy hand-to-mouth' – and even slightly stronger on the latter. When it comes to food

EFFECTS ON EXPENDING BY QUANTILE OF HOUSEHOLD EXPENDITURE. PENSIONERS GROUPPED BY INCOME AND WEALTH

FIGURE 1



NOTES: (censored) quantile estimates for the pesetas increase in expenditure caused by a unit increase in the average pension. Shaded areas represent 95 percent confidence level intervals. Estimation sample 1977Q2 to 1997Q1; observations 130,321.

(bottom row), I do not find significant differences across groups, with the most substantial effects again on the 'wealthy hand-to-mouth'. Finally, to the exception of durables, the effects are not significantly heterogeneous across quantiles of expenditure for either group.

The paper explores further the heterogeneous effects of benefit increases with regressions that break down expenditures in more detail and for alternative groupings of pensioners. These results confirm that the strongest effects are on the pensioners with the highest levels of expenditure, income, and wealth. At the same time, pension-related policies targeted to pensioners with low-income levels affect spending on non-durables and necessities such as food positively. In turn, these results support the implicit assumption made in empirical analysis using aggregate data that recipients of social security benefits have high marginal propensity to consume, especially for expenditure on durables.

My findings have significant implications for the growing macroeconomic literature on the heterogeneous effects of fiscal policy. Notably, a simple classification concerning net worth suffices to obtain significant heterogeneous effects out of benefit increases. This contrasts with recent advances in quantitative macroeconomic models with heterogeneous agents (Kaplan and Violante 2014; Eggertsson and Krugman 2012). The results also contrast with previous empirical analysis of the heterogeneous effects of temporary tax changes (Cloyne and Surico 2016; Misra and Surico 2014). A comparison with these papers points to the lower outstanding debt of the elderly, compared to working-age individuals, as the primary explanatory factor for the divergences.

Conclusions

Summing up, this paper presents evidence that pension-related policies have significant real direct effects on household spending, particularly on the pensioners with the highest levels of expenditure, income or wealth. Thus, my findings suggest that recent international efforts to address the financial sustainability

of pension systems with policies that lower pension benefits will result in a substantial drop in pensioners' spending, with an associated fall in their welfare and living standards, while suggesting non-negligible adverse effects on the aggregate economy. However, further analysis on the aggregate impact of transfer changes would be necessary to draw a firmer conclusion on the aggregate effects of pension-related policies.

REFERENCES

CLOYNE, J., and P. SURICO (2014). "Household debt and the dynamic effects of income tax changes". Review of Economic Studies, 84:1, 45-81.

EGGERTSSON, G., and P. KRUGMAN (2012). "Debt, deleveraging, and the liquidity trap: A Fisher-Minsky-Koo approach". Quarterly Journal of Economics, 127, 1469-513.

KAPLAN, G., and G. VIOLANTE (2014). "A model of the consumption response to fiscal stimulus payments". Econometrica, 82:4, 1199-1239.

MISRA, K., and P. SURICO (2014). "Consumption, income changes, and heterogeneity: evidence from two fiscal stimulus programs". American Economic Journal: Macroeconomics, 6:4, 4-106.

PÁRRAGA-RODRÍGUEZ, S. (2016). "The aggregate effect of government income transfers shocks - EU evidence". Banco de España working paper 1629.

PÁRRAGA-RODRÍGUEZ, S. (2018). "The dynamic effects of public expenditure shocks in the United States". Journal of Macroeconomics, 56, 340-360.

ROMER, C., and D. ROMER (2016). "Transfer payments and the macroeconomy: the effects of social security benefit increases, 1952-1991". American Economic Review, 8:4, 1-42.