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Cognitive Ability, Cognitive Aging, and Debt Accumulation

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While a large literature has examined savings behavior and accumulation among older adults, relatively little research has explored older adults' debt behaviors and outcomes. Recent work by Lusardi, Mitchell, and Oggero (2020) documents that older adults from recent generations tend to hold more debt than their predecessors, particularly mortgage debt. Holding large debt loads near retirement age may increase financial insecurity — borrowers may be adversely impacted by rising interest rates and at higher likelihood of declaring bankruptcy. Additionally, highly indebted seniors may have to devote a larger fraction of their retirement income to servicing their debts, leaving them particularly vulnerable to income or asset shocks, as well as to unexpected, large medical expenses.

One possibile driver for rising debt is the surge in financial product complexity observed in the past two decades. Complex mortgages with zero or negative amortization (such as interest-only and negative-amortization mortgages) surged in the early 2000s and subsequently contracted sharply after the financial crisis. Other financial instruments targeted at households, particularly retailed structured products, also increased in complexity during the early-to-mid 2000s.

Increasing product complexity may be a particularly important driver for debt accumulation among older individuals, who may have more difficulty managing their debt burdens and selecting appropriate financial contracts. Agarwal et al. (2009) document that financial sophistication follows an inverse U-shaped pattern, peaking in middle age and then declining. Difficulty navigating the increasingly complex financial landscape may be particularly acute for individuals with low cognitive ability and older individuals experiencing cognitive decline. As the financial landscape has become progressively more complex, the rise in debt burdens may be concentrated on those less cognitively able, raising concerns about the economic security of individuals who may not be adequately equipped to navigate the system.

We explore these questions using data from the Health and Retirement Study (HRS). We create three age groups, 56 to 61 (preretirement age), 62 to 67 (retirement age), and 68 to 73 (post-retirement age) in 1998, 2006, and 2014.

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The difference between time periods allows us to compare cohorts relatively unexposed to a surge in financial product complexity (1998), those exposed to increasing complexity, yet observed prior to the financial crisis (2006), and those who faced increasing complexity and observed after the crisis (2014).

Similar to prior research, we find that debt burdens among those approaching retirement age have increased substantially in the past couple of decades. We also show that this pattern extends to individuals who are post-retirement age (68 to 73). The fraction of individuals holding debt in this age group increased from 37% in 1998 to 54% in 2014, and average debt burdens more than doubled.

Of central interest to this paper, we find that cognitive ability is an important predictor of debt burdens in older age, and that this relationship has changed over time. In particular, those with higher cognitive ability have taken on higher debt levels relative to individuals with lower cognitive ability as the financial environment has become more complex. This pattern holds across age groups, and is particularly pronounced post-financial crisis. Much of the increase in total debt is due to higher cognitive ability individuals taking on more mortgage debt. We find evidence that older adults with higher cognitive ability take on more mortgage debt in response to increasing local home prices than their counterparts with lower cognitive ability. However, these patterns are not confined solely to housing debt — we also find that older adults with higher cognitive ability take on more "other debt," including credit card debt, in more complex financial environments.

We complement this analysis with additional data drawn from the Understanding America Study (UAS) that span 2015 to 2019. Our UAS data contain a wealth of additional characteristics, including financial literacy, enabling us to examine the extent to which the relationship between cognitive ability and debt exposure is driven by financial sophistication. After controlling for financial literacy, the relationship between debt burdens and cognitive ability essentially vanishes, highlighting the fact that it is the more financially sophisticated who appear to be taking on more debt in increasingly complex financial environments.

Broadly, our findings are inconsistent with a story that financial intermediaries are pushing increasingly complex financial products onto unsophisticated borrowers. However, we find evidence that even higher cognitive ability individuals may have difficulty managing their debt burdens in more complex environments. After the increase in financial complexity, and particularly after the financial crisis, individuals with higher cognitive ability hold less total wealth, less liquid wealth, and are more likely to have debt levels that exceed half their assets than their higher cognitive ability counterparts prior to the expansion in complexity. All told, we find that individuals with higher cognitive ability disproportionately increased their debt burdens during the increase in financial product complexity, and that subsequently, they were more financially fragile than similar individuals in previous cohorts. ❖

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