

Why Don't ARM Borrowers Understand their Interest Rates?



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Note: the views in this talk are not necessarily those of the Board of Governors of the Federal Reserve Board or its staff (except me)

What borrowers seem to understand

- Borrowers understand basic mortgage terms, but appear to underestimate or not know the amount their interest rates can change (Bucks and Pence, 2006)
- Why?

Borrowers appear to know basic mortgage terms

	Lender	Lender	Borrower
<i>Type of mortgage</i>			
Fixed	86	83	87
Variable	11	13	11
<i>Amortization period (years)</i>			
1–15	23	25	27
16–20	4	4	5
21–25	1	1	2
26–30	70	69	64

ARM borrowers underestimate how much their interest rates can increase

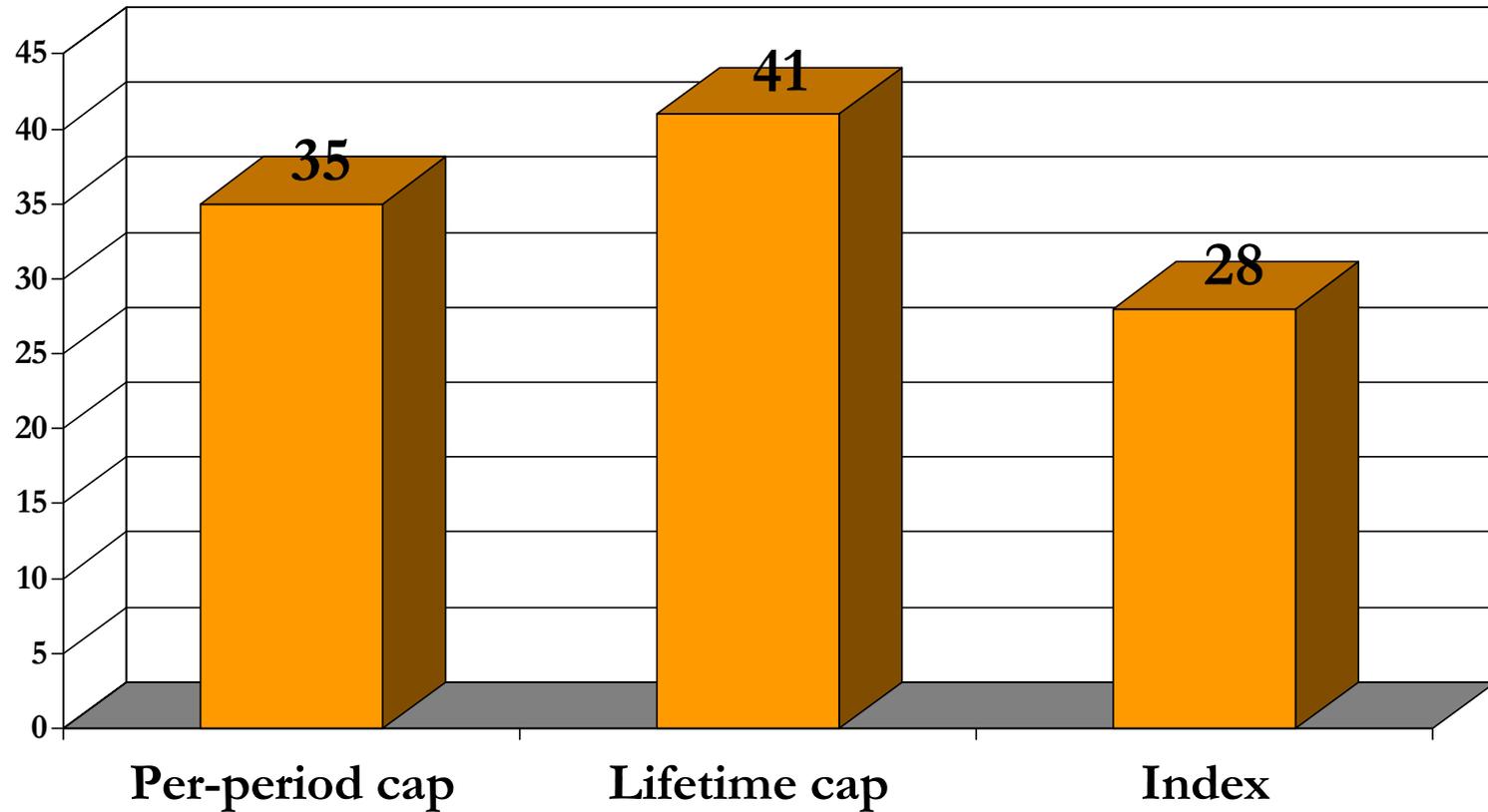
Lender data

Borrower data

Cap on interest rate change per period

1 ppt or less	1.5	40
Between 1 & 2 ppts	5	3
2 ppts	47	23
More than 2 ppts	28	26
No per-period cap	18	7

Share of ARM borrowers that don't know their...



Possibility One

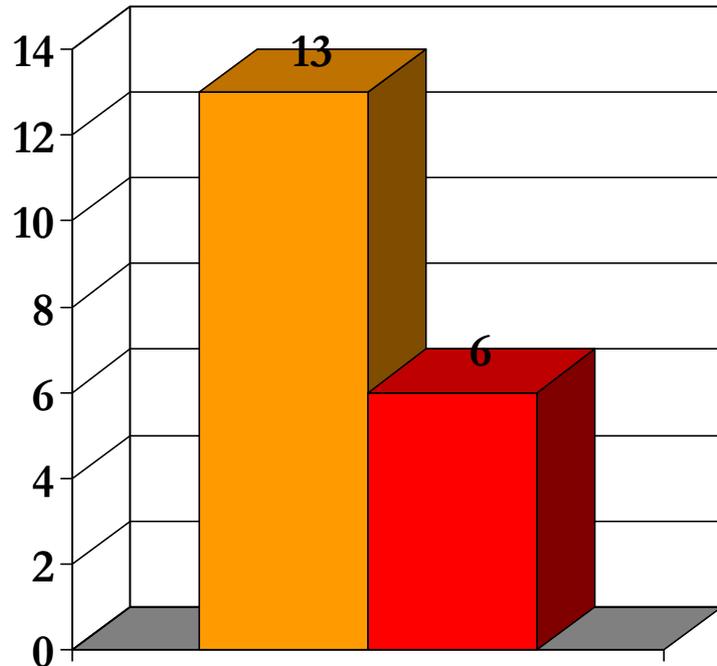


The benefit of acquiring the
knowledge is small

Overview

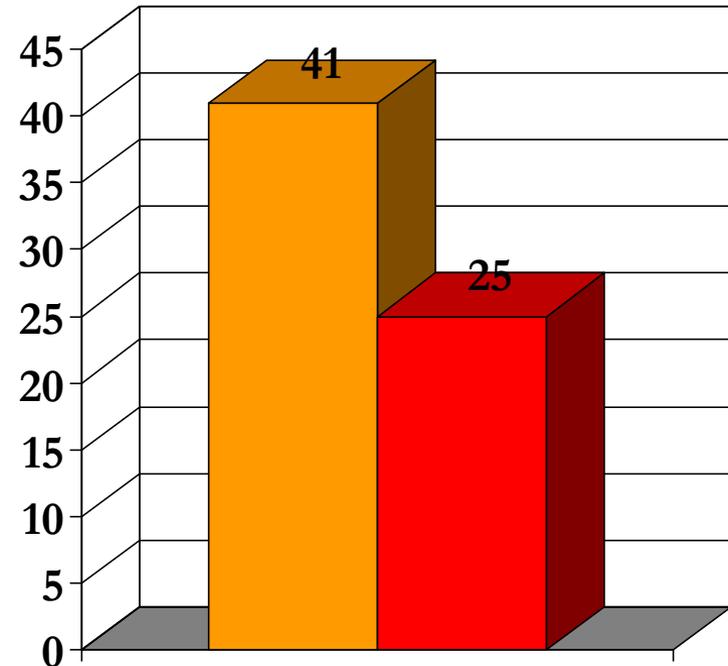
- Borrowers may know that changes in interest rates will not have a big effect on their finances
- Agarwal, Chomsisengphet, Liu, and Souleles (2006): as the financial penalty for choosing the wrong credit card contract increases, more borrowers choose the right contract.

Sensitivity to payment shocks by position in the income distribution



90th percentile, change in payment relative to income

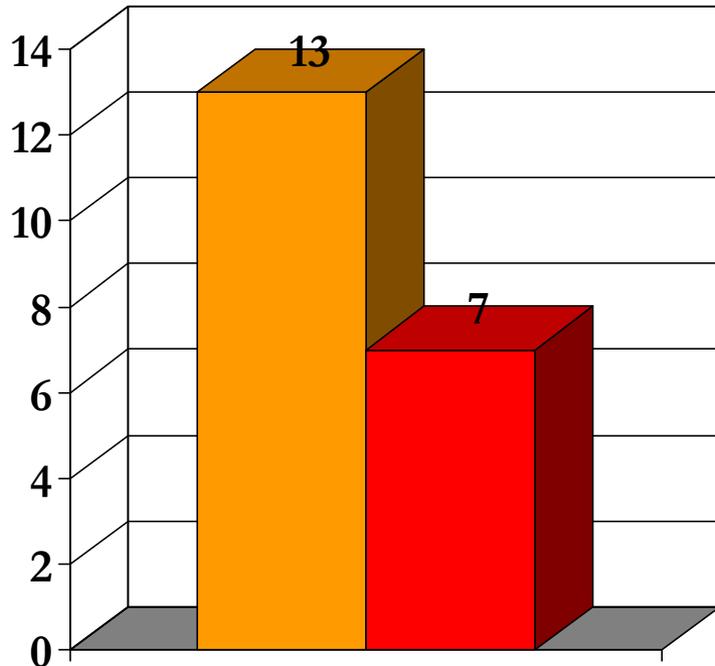
■ Bottom half ■ Top half



Share saying "don't know" per-period cap

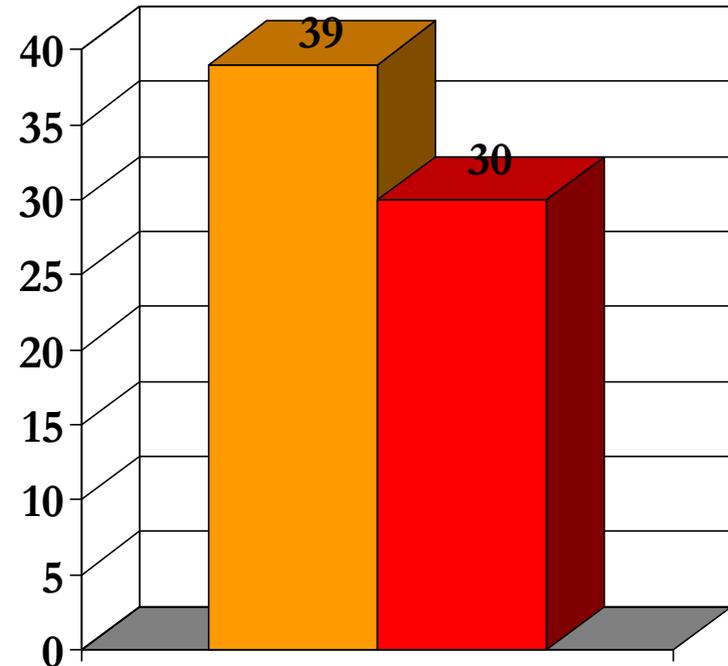
■ Bottom half ■ Top half

Sensitivity to payment shocks by year of mortgage origination



90th percentile, change in payment relative to income

■ Last two years ■ Earlier



Share saying "don't know" per-period cap

■ Last two years ■ Earlier

Possibility two

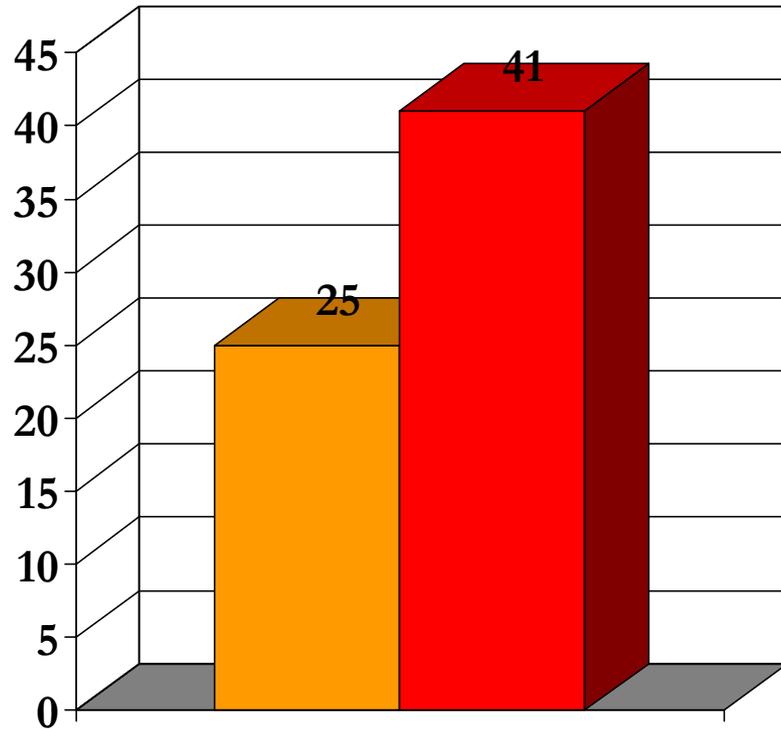


Understanding mortgage terms
is difficult

Overview

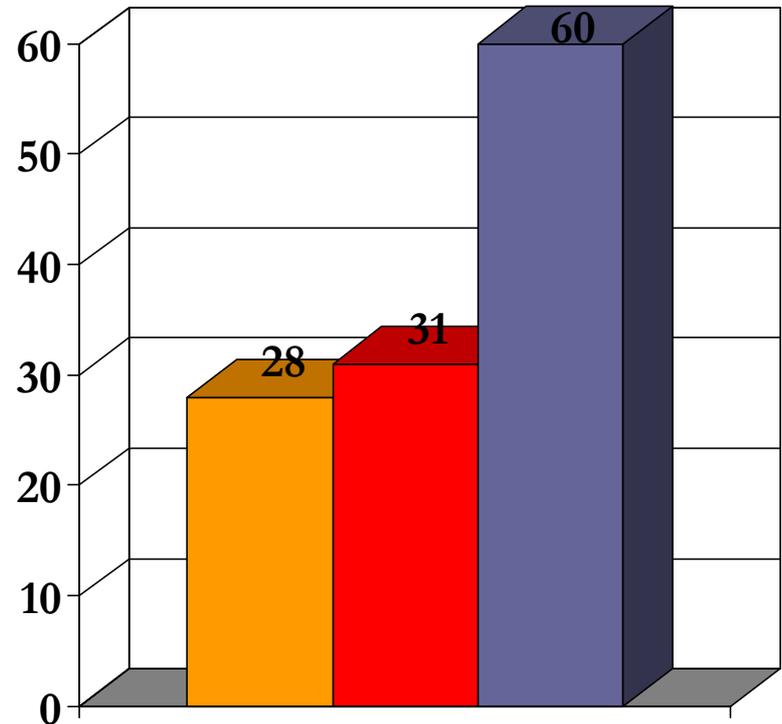
- Some borrowers may have low levels of cognition or financial literacy
 - Borrowers with less income and education and older borrowers appear to have more difficulty (Hilgert, Hogarth, and Beverly, 2003; Lusardi and Mitchell, 2006; Agarwal, Driscoll, Gabaix, and Laibson, 2007)
- Interest rates appear to be particularly difficult for borrowers (Campbell, 2006; Stango and Zimmerman, 2006)

Share of ARM borrowers who don't know their per-period caps



Education

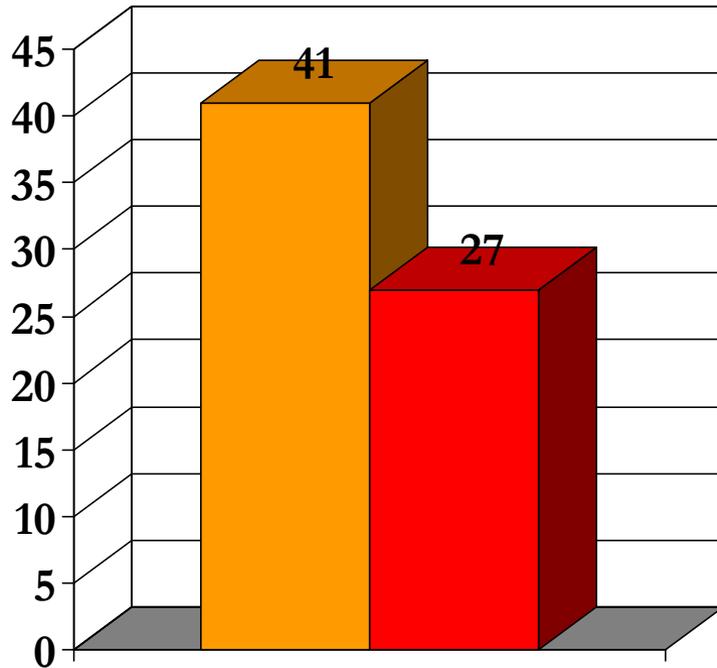
College Less than college



Age

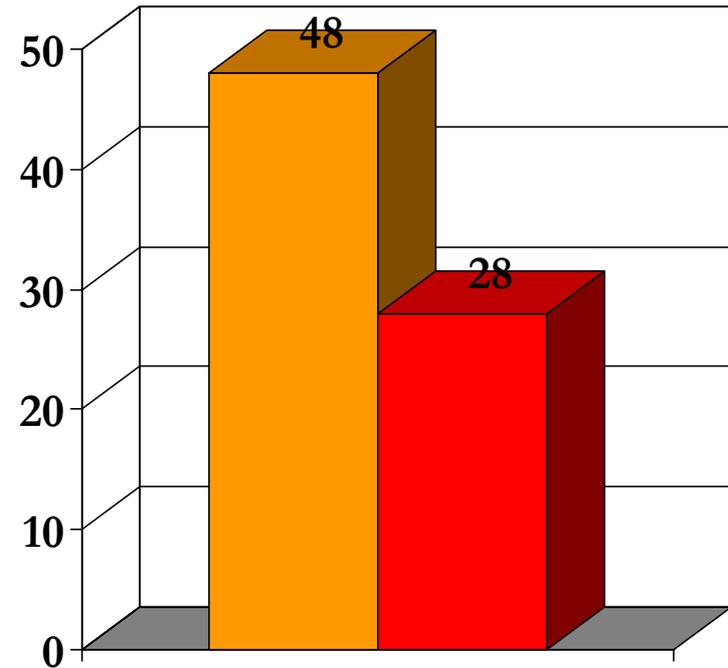
40 or younger 41-64 65 or older

Share of ARM borrowers who don't know their per-period caps



Difficulty comprehending survey

Yes No



Not willing to take risk with investments

Yes No

Possibility three

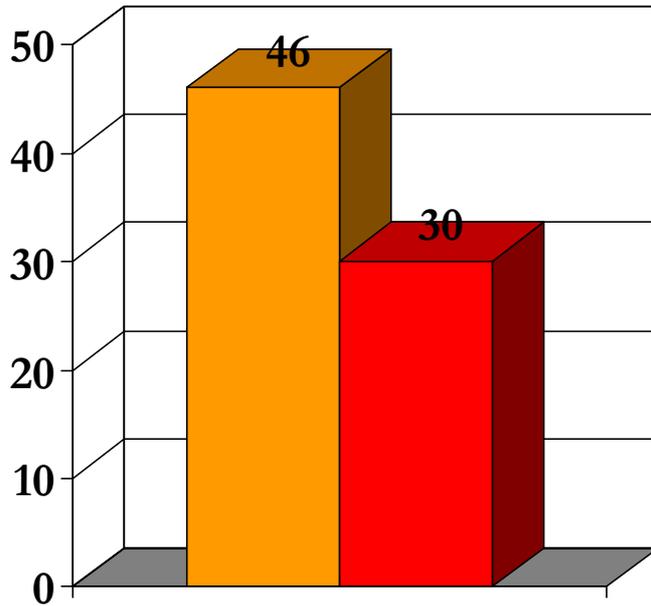


Borrowers are focused on short-term payments, not long-term financial consequences

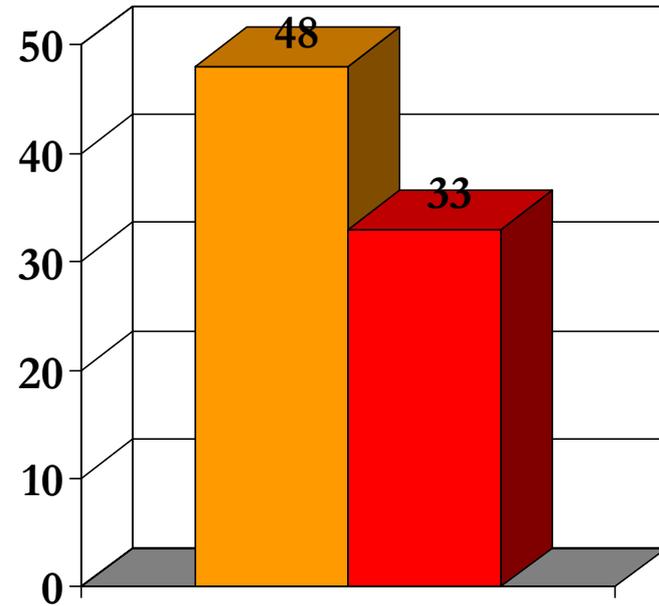
Overview

- Borrowers may consider only the near-term payment when choosing a mortgage
- Borrowers may be impatient by nature, or may need money badly and have few good options
- Many subprime borrowers report feeling desperate and powerless (Moore, 2003; Lacko and Pappalardo, 2007)

Share of ARM borrowers who don't know their per-period caps



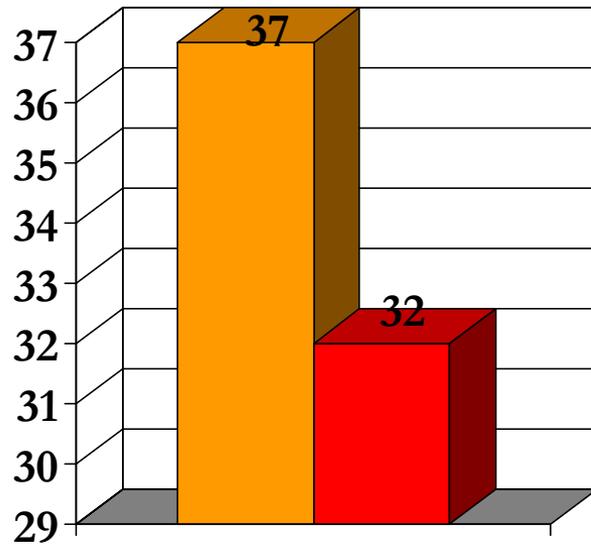
Did not apply for loan
because thought might be
turned down



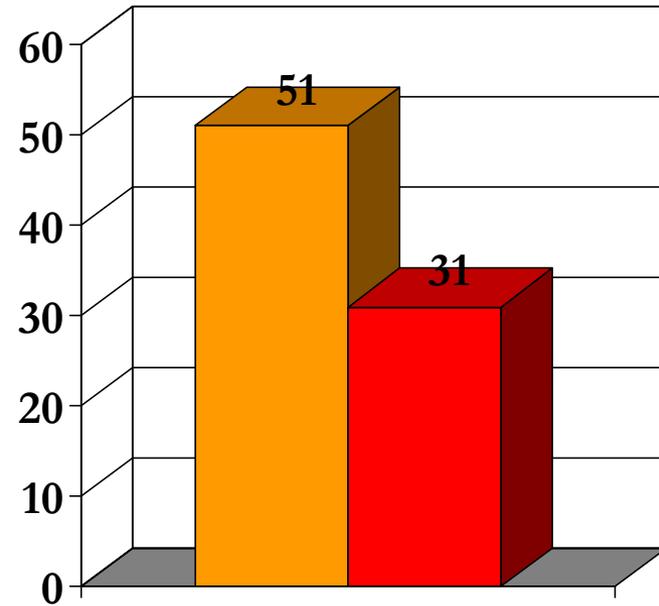
Could not borrow \$3,000
from family or friends in
emergency



Share of ARM borrowers who don't know their per-period caps



Focus on next few months in planning saving and spending decisions



Do almost no comparison shopping when shopping for loan



Conclusions

- Financial literacy and short time horizons appear to be the main reasons why ARM borrowers don't know their interest rate caps
- "It doesn't matter" seems to be a less plausible explanation
- Consumer information and disclosures can help address financial literacy shortcomings, but not short time horizons