

Behavioral Economics & Consumer Empowerment in Online Lending

LendIt Conference 2014

Michael S. Barr

University of Michigan Law School

msbarr@umich.edu

Classical model



E. MARY GUTTERZ/LAUREN PHOTO GROUP/REUTERS/NYT/CHARGE

It took forever to find those perfect shades.



Fortunately, it only takes 15 minutes to see how much you could
SAVE WITH GEICO.

Aviators. Polarized. Rimless. Wraparounds. You tried on a million pairs and, Bro, you got it right. Fortunately, it only takes 15 minutes to get your insurance right with GEICO. You could slip on some big savings that will make you feel great, and make your wallet look amazing.

Get a free quote. **GEICO**
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for GEICO Individually Compares Homeowners, renters,

Behavioral Economics

❑ Information vs understanding

❑ Intention vs. behavior

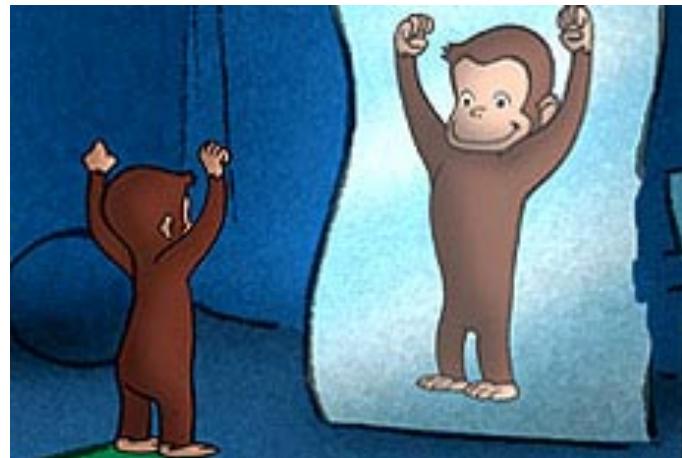
❑ Predictable biases

- ❑ Misperception
- ❑ Misforecasting
- ❑ Myopia
- ❑ Decisional conflict
- ❑ Mental accounting
- ❑ Attention constraints, local focus, information overload
- ❑ Procrastination, inertia

❑ Context & Institutions

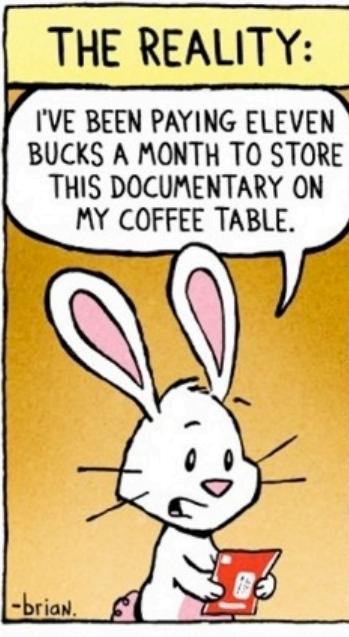
- ❑ Defaults, framing, hassle factors
- ❑ Behavior
- ❑ Planning

*See Barr, Mullainathan & Shafir, The Case for Behaviorally Informed Regulation (2009)



- **Misperception**
- Misforecasting
- Myopia
- Decisional conflict
- Context
- Present bias
- Poor monitoring
- Mental accounting
- Attention constraints
- Information overload
- Procrastination

MAIL ORDER MOVIE RENTALS



- Misperception
- **Misforecasting**
- Myopia
- Decisional conflict
- Context
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- Misforecasting
- **Myopia**
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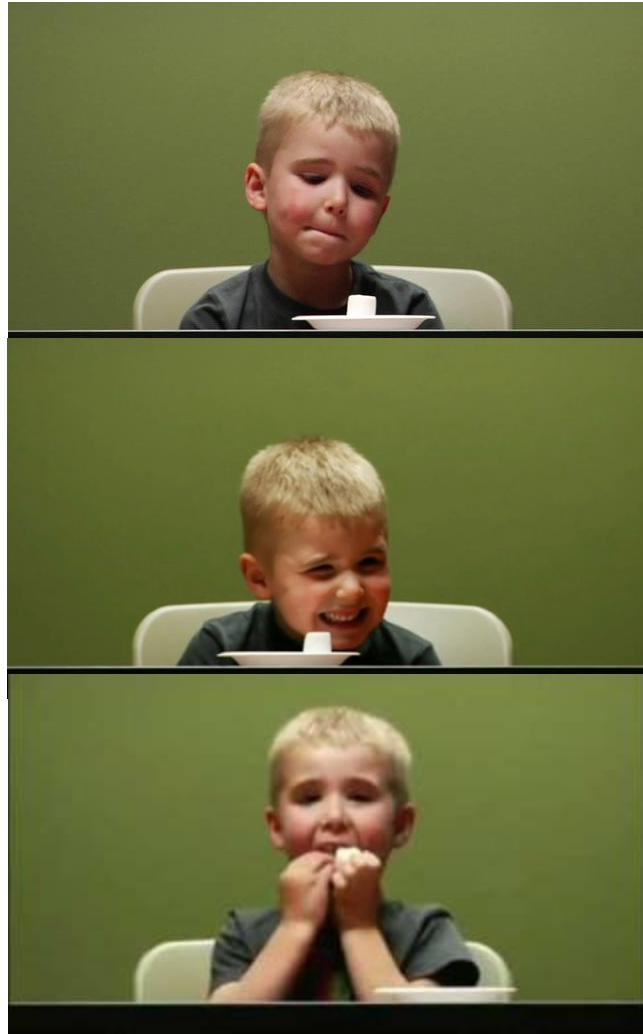


- Misperception
- Misforecasting
- Myopia
- **Decisional conflict**
- Context
- Present bias
- Poor monitoring
- Mental accounting
- Attention constraints
- Information overload
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<http://feedbacksolutions.wordpress.com/2012/02/02/improving-healthy-food-beverage-choices-through-choice-architecture/>



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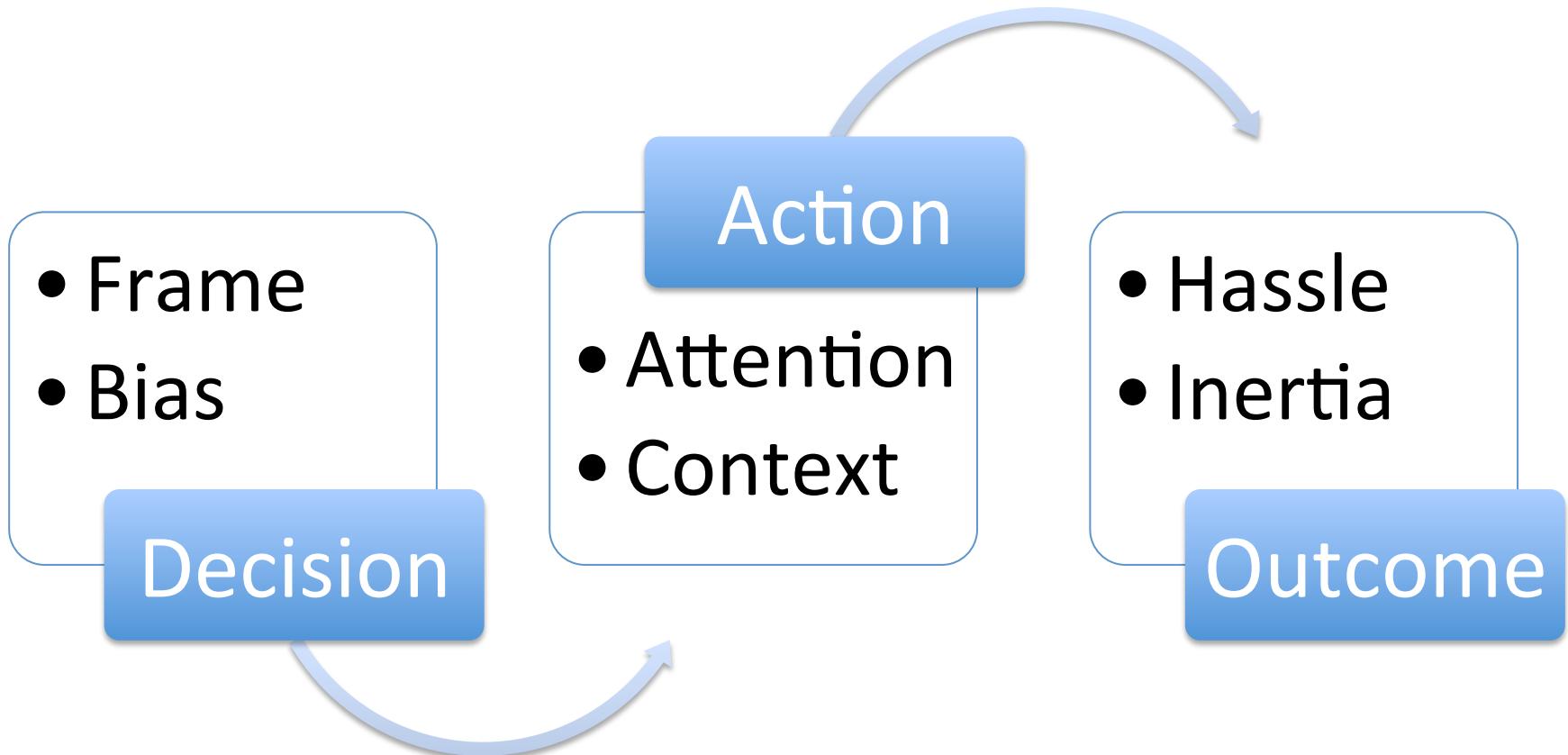


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Behavioral model



Michael S. Barr

NO SLACK

The Financial Lives of
Low-Income Americans



Market Structure

- ❑ Competitive markets
- ❑ When does behavioral agent matter more? For example:
 - ❑ Shrouding
 - ❑ Mortgage contracts
 - ❑ Contingent payments
 - ❑ Credit card late fees, debit overdraft
 - ❑ Cell phone contracts with penalty rates over min.
 - ❑ Agency costs/side-payments/low-monitoring
 - ❑ Mortgage brokers
 - ❑ Securities brokers
 - ❑ Sometimes, bundling purchase & loan reduces debt discipline
 - ❑ Buy here, Pay here Used Car Dealers/Lenders
 - ❑ Rent to Own
 - ❑ High Switching Costs (e.g., from bill pay)

Price Shrouding



Buy here/pay here



The firm & the individual

Market Neutral to Consumers

Consumers misunderstand compounding in savings

- Banks would like to reduce this to increase savings base

Consumers misunderstand compounding in borrowing

- Banks would like to exploit this to increase borrowing

Market Exploits Consumers

Consumers procrastinate in signing up for EITC

- Tax filing companies would like to reduce this to increase number of customers

Consumers procrastinate in returning rebates

- Retailers would like to exploit this to increase revenue

The firm & the individual

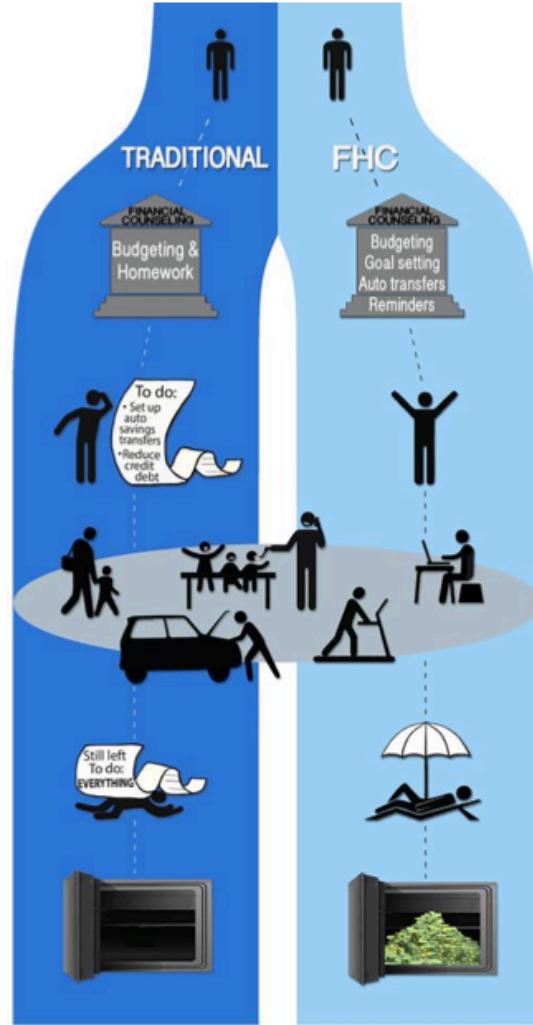


THE CRISIS



THREE LEGGED STOOL





Antoinette Schoar and Piyush Tantia, *The Financial Health Check: A Behavioral Approach to Financial Coaching* (New America Foundation, 2014) 4.

Financial Regulation: what values?

- Simplicity
- Transparency
- Honesty
- Fairness
- Trust
- Empowerment
- Performance, cost, resiliency

How can financial regulation better serve households and the economy?

CARD Act

- ❑ Disclosure enhancements
- ❑ Debiasing
 - ❑ Fees (misforecasting)
 - ❑ minimum payments (misperceiving)
- ❑ Opt-in for over-limit transactions
- ❑ Excess payments pay off highest rate first
- ❑ Reasonable time to pay/stable due dates
- ❑ Bans on double-cycle billing
- ❑ Bans on late fee traps, retroactive rate hikes
- ❑ Penalty fee “reasonable & proportional”

CREDIT CARD ACT



Manage your account online:
www.chase.com/britishairways

Additional contact information
conveniently located on reverse side

ACCOUNT SUMMARY

Account Number:	[REDACTED]
Previous Balance	\$663.57
Payment, Credits	-\$823.88
Purchases	+\$985.15
New Balance	<u>\$824.84</u>
Opening/Closing Date	04/19/10 - 05/18/10
Credit Access Line	\$20,000
Available Credit	\$19,175
Cash Access Line	\$4,000
Available for Cash	\$4,000

PAYMENT INFORMATION

New Balance	\$824.84
Payment Due Date	06/15/10
Minimum Payment Due	\$16.00

Late Payment Warning: If we do not receive your minimum payment by the date listed above, you may have to pay up to a \$39.00 late fee and your APRs will be subject to increase to a maximum Penalty APR of 29.99%.

Minimum Payment Warning: If you make only the minimum payment each period, you will pay more in interest and it will take you longer to pay off your balance. For example:

If you make no additional charges using this card and each month you pay...	You will pay off the balance shown on this statement in about...	And you will end up paying an estimated total of...
Only the minimum payment	11 years	\$1,444
\$28	3 years	\$1,005 (Savings=\$439)



If you would like information about credit counseling services, call 1-866-797-2885.

Dodd-Frank Act

- ❑ Mortgage regulation
 - ❑ Mortgage broker regulation
 - ❑ YSPs
 - ❑ Ability to pay
 - ❑ Ban on steering
 - ❑ Licensing, registration
 - ❑ Enhanced disclosures
 - ❑ Escrow requirements
 - ❑ “Plain vanilla” sticky default
 - ❑ QRM Risk Retention Rule
 - ❑ QM Ability to Pay Rule
 - ❑ GSE Credit Box

MORTGAGE RULES

TRUTH IN LENDING DISCLOSURE STATEMENT (THIS IS NEITHER A CONTRACT NOR A COMMITMENT TO LEND)

LENDER: Ficus Bank

Preliminary Final
DATE 09/14/2012

BORROWERS: John A. and Mary B.

LOAN
CASE NO. 123456789

ADDRESS 123 Anywhere Street
CITY / STATE / ZIP Anytown, ST 12345
PROPERTY 456 Somewhere Avenue, Anytown, ST 12345

ANNUAL PERCENTAGE RATE	FINANCE CHARGE	Amount Financed	Total of Payments
The cost of your credit as a yearly rate. 4.441%	The dollar amount the credit will cost you. \$123,997.58	The amount of credit provided to you or on your behalf. \$156,964.47	The amount you will have paid after you have made all payments as scheduled. \$292,420.88

INTEREST RATE AND PAYMENT SUMMARY:

First 78 Payments			Last 2 Payments
Principal and Interest	\$761.78	\$761.78	
Mortgage Insurance	82.35	82.35	
Property Tax and Insurance (Escrow)	206.13	206.13	
Total Monthly Payment	\$1,050.26	\$967.91	

Truth in Lending Disclosure Statement

Closing Disclosure

This form is a statement of final loan terms and closing costs. Compare this document with your Loan Estimate.

Closing Information		Transaction Information		Loan Information	
Date Issued	4/15/2013	Borrower	Michael Jones and Mary Stone	Loan Term	30 years
Closing Date	4/15/2013		123 Anywhere Street	Purpose	Purchase
Disbursement Date	4/15/2013		Anytown, ST 12345	Product	Fixed Rate
Settlement Agent	Epsilon Title Co.	Seller	Steve Cole and Amy Doe	Loan Type	<input checked="" type="checkbox"/> Conventional <input type="checkbox"/> FHA
File #	12-3456		321 Somewhere Drive	VA	<input type="checkbox"/>
Property	456 Somewhere Ave		Anytown, ST 12345	Loan ID #	123456789
	Anytown, ST 12345	Lender	Ficus Bank	MIC #	000654321
	\$180,000				

Loan Terms	Can this amount increase after closing?	
Loan Amount	\$162,000	NO
Interest Rate	3.875%	NO
Monthly Principal & Interest	\$761.78	NO
See Projected Payments below for your Estimated Total Monthly Payment		
Prepayment Penalty	Does the loan have these features?	
	YES • As high as \$3,240 if you pay off the loan during the first 2 years	
Balloon Payment	NO	

Projected Payments		
Payment Calculation	Years 1-7	Years 8-30
Principal & Interest	\$761.78	\$761.78
Mortgage Insurance	+ 82.35	+ —
Estimated Escrow	+ 206.13	+ 206.13
Amount can increase over time		
Estimated Total Monthly Payment	\$1,050.26	\$967.91
Estimated Taxes, Insurance & Assessments	This estimate includes <input checked="" type="checkbox"/> Property Taxes <input checked="" type="checkbox"/> Homeowner's Insurance <input type="checkbox"/> Other Homeowner's Association Dues Amount can increase over time See page 4 for details	
	In escrow? YES YES NO See Escrow Account on page 4 for details. You must pay for other property costs separately.	

Costs at Closing		
Closing Costs	\$9,712.10	Includes \$4,694.05 in Loan Costs + \$5,018.05 in Other Costs – \$0 in Lender Credits. See page 2 for details.
Cash to Close	\$14,147.26	Includes Closing Costs. See Calculating Cash to Close on page 3 for details.

CLOSING DISCLOSURE

PAGE 1 OF 5 • LOAN ID # 123456789

Dodd-Frank Act

- CFPB
 - Unfair, abusive, deceptive acts/practices
 - Consumer protection rules
 - Supervision
 - Enforcement
 - Information, Education, Counseling, Complaints
 - Empirical testing/safe harbors for pilots
 - Disclosure

The logo consists of the lowercase letters "cfpb" in a bold, sans-serif font. The letters are primarily a medium green color. The "c" and "f" are a darker shade of green, while the "p" and "b" are a lighter shade. The "p" has a vertical bar extending from its top right corner.

■ Payday lending regulation

- Online payday lending regulation
- Debt collector supervision



- Payday lending regulation



- **Online payday lending regulation**

- Debt collector supervision



- Payday lending regulation
- Online payday lending regulation
- **Debt collector supervision**



- Payday lending regulation
- Online payday lending regulation
- Debt collector supervision
- Peer-to-peer lending?
- JOBS Act & crowdfunding?

Behaviorally Informed Regulation

- ❑ Financial regulation, education and private sector innovation needs to take account of behavioral economic insights.
- ❑ Psychology & industrial organization.
 - ❑ Individual behavior
 - ❑ Market context
 - ❑ Regulatory response
- ❑ Behaviorally informed equilibrium model of intersection of firms and individuals
- ❑ Policies (regulation, access, technology)



Peer-to-Peer Lending



Risks and Opportunities





A minister holds a sign during a rally concerning predatory lending legislation in Montgomery, Ala. (Photo: Julie Bennett, AP)



Financial innovation: what values?

- Simplicity
- Transparency
- Honesty
- Fairness
- Trust
- Empowerment
- Performance, cost, resiliency

How can innovation better serve households and the economy?

Financial innovation: what values?

- Disclosure can (mistakenly) increase trust
 - Behaviorally Informed Regulation (Barr Mullainathan & Shafir 2007)
 - The Dirt on Coming Clean (Cain et al. 2005)
- Smart Disclosure
- Trust is earned
- Social networks
 - Peer to peer

YOUR LOAN EXPLAINED
Truth in Lending Disclosure

Dynamic TIL Disclosure

Lender: WebBank (in partnership with Lending Club)
215 South State Street, Suite 800, Salt Lake City, UT 84111

Borrower: Ashley Rho
123 Pine Street, APT 3B, San Francisco, CA 94109

Loan Amount	\$15,000 Edit
Annual Percentage Rate	12.49% Why?
Loan Term	36 months Edit
Monthly Payment	\$481.69 Edit
Dollar amount you will receive (Loan amount - One-time origination fee)	\$14,400 Edit (\$15,000 - \$600)
Total cost of your loan (Interest ultimately paid to the investors who enable your loan + One-time origination fee)	\$2,941 (\$2,341 + \$600) Learn how to reduce your loan costs
Total amount you will pay (Fixed monthly payment x Loan term)	\$17,341 (\$481.69 x 36)
	<input checked="" type="radio"/> Select Loan

Your payment schedule will be as follows:

Number of payments	Amount	When payments are due
35	\$481.69	Your first payment will be due one month after your loan is issued and then monthly thereafter. Payments are on the same date each month. If your due date is the 29th, 30th or 31st, and the current month is shorter, your payment will be on the last day of the month.
1	\$481.60	Your last payment will be due 36 months from the issuance date of your loan.

See your borrower membership and loan agreements for any additional information about nonpayment, default, or other matters related to your loan.

Understanding Potential Fees

Prepayment	No prepayment penalties apply. You may partially or fully prepay your loan at any time with absolutely no prepayment penalty or fee. Full prepayment: At the time you prepay your loan, you owe only the interest that has accrued up until that point in time. Paying off early eliminates future interest payments thereby lowering the total cost of your loan. Additional payments: Any additional payments you make will reduce the outstanding principal on your loan, thereby reducing future interest payments. Note that additional payments will not reduce your monthly payment amount, but they will save you money by allowing you to complete repayment of your loan early.
Late charges	If your payment arrives after your 15 day grace period, you will be charged either 5.00% of the late payment amount or \$15, whichever is greater. This fee is charged only once per late payment. For instance, a \$400 payment that arrives after your grace period would be subject to a \$20 late fee. A \$100 payment that arrives after your grace period would be subject to a \$15 late fee.
Unsuccessful payment fee	If a payment fails and is rejected by your bank, you will be charged an Unsuccessful Payment Fee of \$15 to cover the cost Lending Club incurs on the transaction. Each attempt to collect a monthly payment is considered a separate transaction, so an Unsuccessful Payment Fee will be assessed for each failed attempt. For instance, if your payment fails in January and is rejected by your bank, you will be charged a \$15 unsuccessful payment fee. If the same happens in February, you will be charged another \$15 unsuccessful payment fee.
Check Processing Fee	If you elect to make payments by check, there will be a \$15 processing fee per payment.

You are not required to complete this agreement merely because you have received these disclosures or signed a borrower membership agreement.

[Continue](#)

How can I get the right loan?

Loan Amount	\$15,000	Edit
Annual Percentage Rate	12.49%	Why?
Loan Term	36 months	Edit
Monthly Payment	\$481.69	Edit
Dollar amount you will receive (Loan amount - One-time origination fee)	\$14,400	Edit (\$15,000 - \$600)
Total cost of your loan (Interest ultimately paid to the investors who enable your loan + One-time origination fee)	\$2,941	(\$2,341 + \$600) Learn how to reduce your loan costs
Total amount you will pay (Fixed monthly payment x Loan term)	\$17,341	(\$481.69 x 36)
	 Select Loan	

Why is this my rate?

Loan Amount
Annual Percentage
Loan Term
Monthly Payment
Dollar amount you will pay back
(Loan amount - One-time origination fee)
Total cost of your loan
(Interest ultimately paid to investors who enable you to get a loan. One-time origination fee)
Total amount you will pay back
(Fixed monthly payment x number of months)
Your payment

What factors affected your interest rate?
Your rate is based on a variety of factors relating to your credit as well as the specific loan offer you have selected. See below for more details on some of these factors.

APR
12.49%

FICO

- 1. Proportion of loan balances to loan amounts is too high
- 2. Length of time revolving accounts have been established
- 3. Too many accounts with balances

Increased Deposit
\$15,600 Edit
12.38% Why?
36 months Edit
\$500.93 Edit
\$15,000 Edit
\$15,600 - \$600)
\$3,033
(\$2,433 + \$600)
Learn how to reduce your loan costs
\$18,033
(\$500.93 x 36)
Select Loan

How to reduce your loan costs?

Get started by clicking one of these three options to see how you can reduce your loan costs.

1

[Increase monthly payment](#)

2

[Pay a lump sum](#)

3

[Pay off early](#)

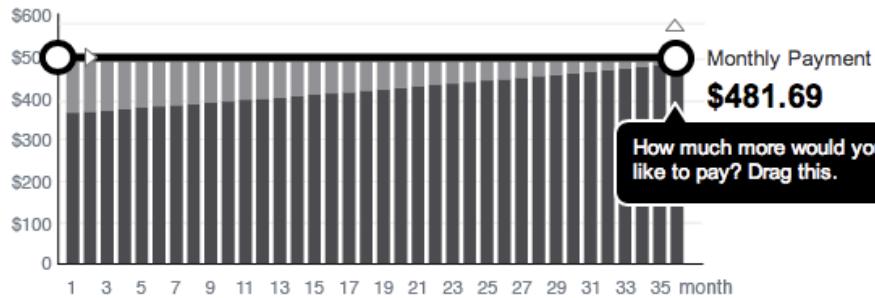
Total Loan Cost

You save \$0

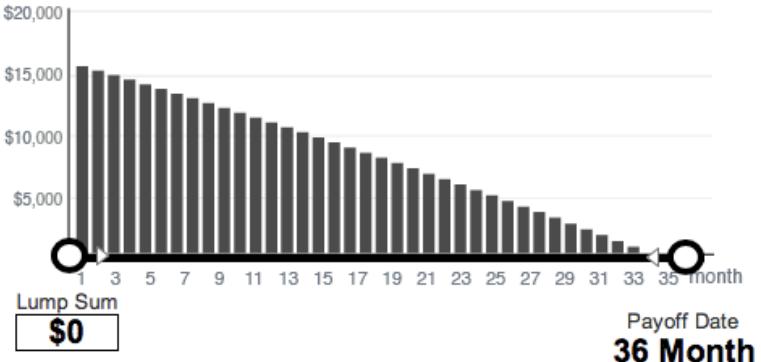
Total Loan Cost: \$2,941



Monthly Payments



Remaining Balance


[Print](#)

Payment Detail

	Payment	=	Interest	+	Principal	Remaining Balance
1	\$XXX.XX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
2	\$XXX.XX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
3	\$XXXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
4	\$XXX.XX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
5	\$XXX.XX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
6	\$XXX.XX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
7	\$XXX.XX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
8	\$XXX.XX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
9	\$XXX.XX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
10	\$XXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
11	\$XXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
12	\$XXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
13	\$XXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
14	\$XXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
15	\$XXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
16	\$XXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
17	\$XXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
18	\$XXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
19	\$XXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
20	\$XXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
21	\$XXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
22	\$XXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
23	\$XXX.XX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
24	\$XXX.XX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
25	\$XXXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
26	\$XXXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
27	\$XXXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
28	\$XXXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
29	\$XXXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
30	\$XXXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
31	\$XXXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
32	\$XXXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
33	\$XXXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
34	\$XXXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
35	\$XXXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX
36	\$XXXXXX		\$XXX.XX		\$XXX.XX	\$XX,XXX.XX

[Download Spreadsheet](#)

