Putting Consumers "Back" Into Finance

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Today's talk

- The curious absence of consumers from modern academic finance
- Bringing consumer finance into the classroom: HBS-HLS Consumer Finance course
- · New research on consumer finance
- · New experiments and entrepreneurship

Consumer Finance: Absent from HBS and other top MBA Programs

Top 20 US Business Schools*	Banking and Financial Institutions	Behavioral Finance	"Personal" Taxation	Microfinance	Money Management	FS Marketing	Residential Real Estate	Consume Finance
Berkeley (Haas)	×	х	х	×			х	
Carnegie Mellon (Tepper)	х	8 2	X					
Chicago	×				4 S S S S S S S S S S S S S S S S S S S			
Columbia	×				x			
Cornell (Johnson)	×	×		SAME OF THE PARTY	x			
Dartmouth (Tuck)	×	\$3500000		×	х			
Duke (Fuqua)		×						
Harvard	×	×	x	х	×			×
Indiana (Kelley)	×	×					х	
Michigan (Ross)	×		х	×				
MIT (Sloan)		and an early		Secretary and				
Northwestern (Kellogg)	x			х				
NYU (Stern)	x	×	х		×	×		
University of Pennsylvania (Wharton)		2000	x				×	
Stanford								
UCLA (Anderson)	×	×						
University of North Carolina (Kenan-Flagler)							KERSON I	
University of Texas-Austin (McCombs)	×							
University of Virginia (Darden)				2007/00/00				
Yale	x	×		×				
Top 5 European Programs**	Banking and Financial Institutions	Behavioral Finance	"Personal" Taxation	Microfinance	Money Management	FS Marketing	Residential Real Estate	Consum
London Business School (UK)		×						
Insead (France)	×				х			
IE Business School (Spain)		\$600000						
lese Business School (Spain)	×				x			
rese business ochool (opain)								

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How can this be?

- · Consumer finance sector is huge
- Consumer finance sector is <u>changing</u> due to innovation
- · Consumer finance sector is complex
- Consumer finance sector is at the <u>center</u> of economy and regulatory reform

Tangible Assets	\$24.9	Mortgages	10.5	
Real estate Other	20.5	Consumer credit Other debt	2.6 1.1	
Financial Assets	40.8 7.7	Equity	51.5	
Deposits Credit market instruments	3.9			
Equities	5.5			
Mutual funds (ex MMMFs)	3.2			
Pension reserves	10.3			
Unincorporated business	7.5			
Total	65.7	Total	65.7	

			U.S.		Japan*	China*
Hugo	Total Household Financial Assets	\$	48,133,600	\$	16,735,200	\$ 8,493,080
.Huge	Deposits	\$	5,834,620	\$	8,268,650	\$ 5,416,35
	Fixed Income Securities	\$	3,895,130	\$	1,343,010	\$ 1,693,330
	Equities	\$	22,898,300	\$	2,339,570	\$ 1,360,370
	Net Equity in Insurance and Pension Funds	\$	13,828,800	\$	4,123,360	\$ 3,319
	Liabilities	\$	15,846,100	\$	4,572,690	\$ 2,486,170
	Net Worth	\$	32,287,500	\$	12,162,500	\$ 6,006,910
	Population (in millions)		303.85		127.29	1,328.0
	Disposible Personal Income (DPI)	\$	10,642,100	\$	2,913,040	\$ 1,737,430
	Household/Personal Savings Rate **					
	2006		0.82%		3.30%	24.70
	2008		2.43%		3.30%	
	Liabilities to Assets		0.33		0.27	0.2
	Net Worth to Assets		0.67		0.73	0.7
	Private consumption per head		33,100		22,304	1,15
	Per capita DPI		35,024		22,885	1,30
	Source: Econcomic Intelligence Unit, Country Data and Marke	tindicat	ors unless otherwise r	noted		
	*Figures are EIU estimates					
	** Savings rates for U.S. are averages for the year based on qu Japan figures provided by OECD Economic Outlook, December 2008.					
	Note: figures are in millions USD					

Changing: Functions and Innovations

Key Functions of Consumer Finance System

- · Payments
- Moving money from the future (borrowing)
- Moving money to the future (saving/investing)
- · Managing risk

Major Innovations in last half century

- Debit cards, mobile banking and electronic payments
- Credit cards, home equity products, relaxed underwriting, adjustable rate mortgages
- Mutual funds an ETFs; Do-ityourself (brokerage, retirement); prepaid debit
- · New insurance products

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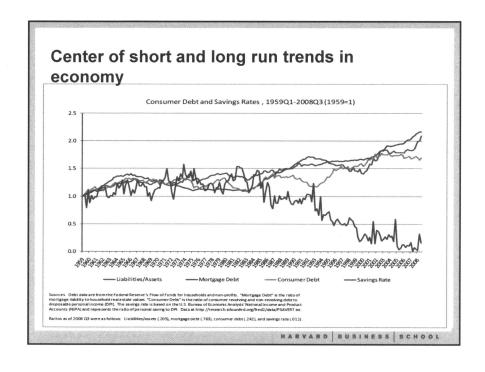
Card-based businesses

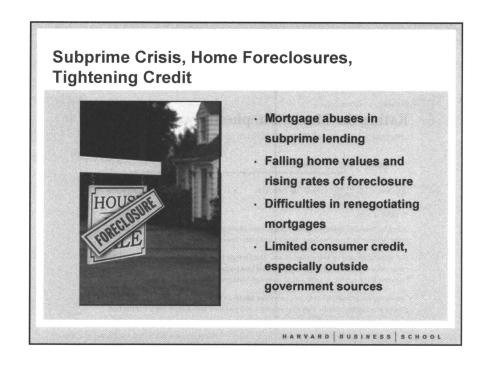


Consumer Pay	ments Volu	ıme (\$ bi	llions)			
	2007		2006		2002	
Total payments for goods and services	\$7,57	7	\$7,17	5	\$5,72	7
Paper-based transactions	\$3,361	44%	\$3,379	47%	\$3,459	60%
Card-based transactions	\$3,368	44%	\$3,044	42%	\$1,899	33%
credit cards	\$2,026	27%	n/a	n/a	\$1,351	24%
debit cards	\$1,169	15%	n/a	n/a	\$477	8%
prepaid	\$142	2%	n/a	n/a	\$55	1%
EBT	\$31	0.4%	n/a	n/a	\$16	0.3%
Electronic/remote payments	\$848	11%	\$751	10%	\$369	6%

Source: Nilson Report, Issue #915, November 2008

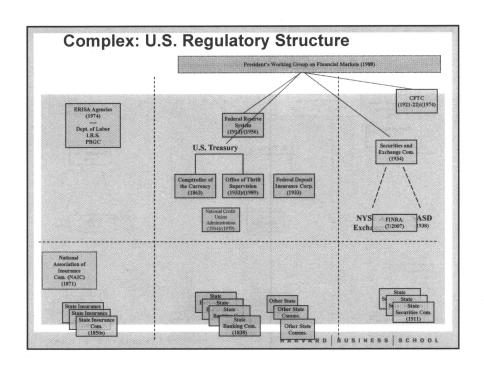
Total Bankcards: Debit AND Credit	U\$	Japan	China
In use in 2007	1.5 billion	839 million	1.58 billion
per person	5.2	6.6	<1

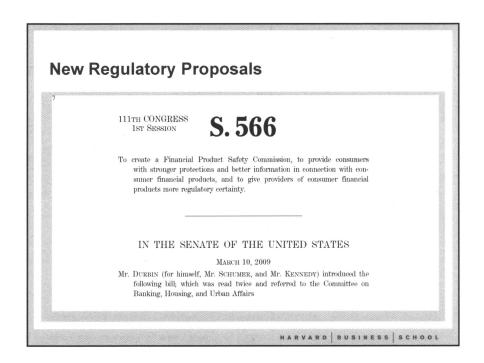


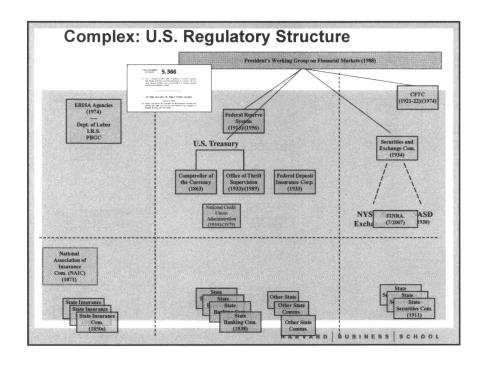


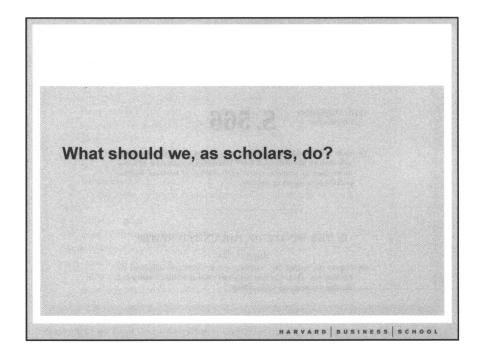
Complex: varies across countries Credit cards in China Low rate of revolvers versus transactors Carve outs for interchange for certain groups As a result, different economic model US versus China US a nation of borrowers (recently), but not historically or right now China a nation of savers, but for how many generations?

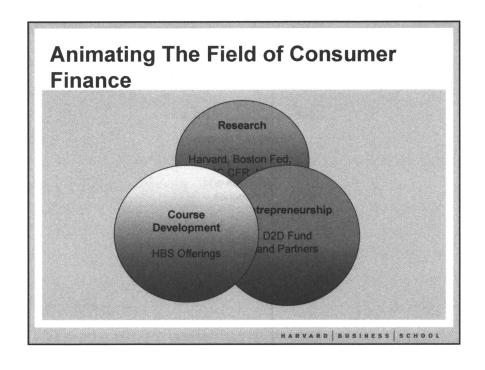


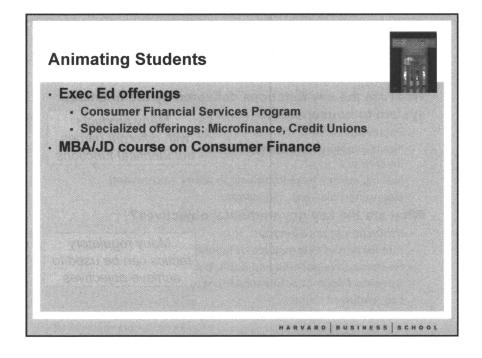


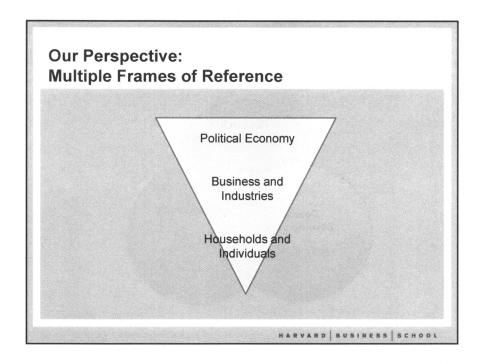












Our Approach: A Dual Functional Perspective

- · What are the key functions delivered by the financial system to households?
 - · Payments
 - · Moving money from today to tomore investing
- Many products with different names but identical functions
- · Moving money from tomorrow to today borrowing
- · Managing risk e.g., insurance
- What are the key governmental objectives?
 - · Protection of consumers
 - · Elimination of externalities of failure

 - · Considerations of political economy
 - · Prevention of crime

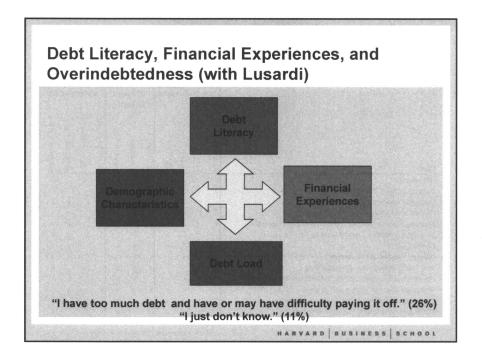
Many regulatory

 Redistributive policies and equitable tactics can be used to achieve objectives

	Pr	imar	y Fun	ction	8 800000	Prima		M	lateri	als U	lse
Class	Payments	Saving	Credit	Risk	Consumer	Business	Government	Primary Sources	Substantive Not	HBS Case Study	regal iviemo/rea
Introduction	х	х	x	х	x	x	X	х	х		x
Budgets and Decision Making		x	x		x		x	x	х		
Lottery Linked Savings		x			x	x				X	x
Friends and Family/Peer to Peer Lending		х			x	x				x	×
Checking/Debit products, ChexSystems and Overdraft	х		X		X	х	x			x	X
Insurance: Weather risk and Genetic Testing				x	х	x	х			X	X
Health Care				х	X	x	х			х	
A better Credit Card : E-duction			X		X	х				х	
Wal-Mart's Foiled attempts in banking	х	X				X	X	x			X
Cooperative business models, indirect lending and fees	х		X			X	x			X	X
Mortgage and mortgage modifications			х		x		х	х		х	
Paying for Distribution: The Trilateral Dilemma		х	X	X		х	X	х	х		×
		x x	X	x	x	x		X X	x	X	

Understanding Consumers

- · Multiple approaches to understanding consumers
 - Economics
 - Knowledge
 - Psychology
 - Sociology
- · Example: Christmas Eve Closing case
 - · Actual family in Lawrence, MA: Should they take the new mortgage?
 - Why is Tim Sullivan, the broker, coming to work on Christmas Eve to close this mortgage?
 - · Legal angles:
 - How Would Federal Loan Modifications Programs apply?
 - · How should we regulate the distribution of consumer products?



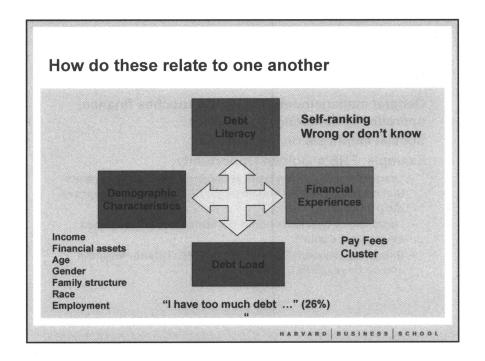
Debt Literacy: Ability to do analysis drawn from everyday life + Self-reported measure

Q1: Suppose you owe \$1,000 on your credit card and the interest rate you are charged is 20% per year compounded annually. If you didn't pay anything off, at this interest rate, how many years would it take for the amount you owe to double?

2 voore	Interest compounding	Percent
- 2 years	2 years	9.6
 Under 5 years 	Less than 5 years (correct)	35.9
 5 to 10 years 	5 to 10 years	18.8
· More than 10 yea	rs More than 10 years	13.1
- Do not know	Do not know	18.3
Prefer not to ansi	No answer	4.3

(A. Lusardi and P. Tufano, "Debt literacy, financial experiences and indebtedness." (Working Paper))

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		200000000000000000000000000000000000000	1205712000	10001100000000								
Suppose you owe \$1,000 of pay anything off, at this inte								npounded	annually. If y	ou didn't		
				Age			Gen	der		Househo	ld income	
									Under	\$30,000 -	\$50,000 -	Above
	Total			41 to 50 !		> 65	Male	Female	\$30,000	\$49,999	\$74,999	\$75,000 6%
2 years	9.6%	10%	14%	10%	7% 38%	10%	9% 46%	11% 25%	14%	32%	39%	48%
Less than 5 years* Between 5 and 10 years	18.8%	22%	20%	21%	16%	16%	16%	22%	18%	19%	20%	18%
More than 10 years	13.1%	5%	11%	14%	18%	11%	14%	12%	10%	18%	17%	10%
Do not know	18.3%	16%	16%	19%	16%	28%	11%	25%	26%	18%	11%	14%
Prefer not to answer	4.3%	4%	6%	2%	5%	6%	4%	5%	6%	5%	2%	3%
Number of observations	1,000	141	189	226	328	116	505	495	264	163	193	380
								20000				
On a scale from 1 to 7, whe	re 1 means very	low and 7 m	eans ver		w would	you asses			cial knowledg			
	-			Age			Gen	ider	Under	\$30 000 -	\$50 000 -	Above
	Total	< 30	31 to 40	41 to 50	51 to 65	> 65	Male	Female	\$30,000	\$49,999	\$74,999	\$75,000
1 = Very low	2.0%	3%	3%	2%	2%	1%	2%	2%	5%	1%	1%	1
2	2.9%	3%	1%	4%	4%	3%	3%		. 5%	4%	1%	1
3	7.7%	9%	11%	10%	6%	3%	7%	9%	11%	7%	6%	6
4	19.5%	27%	27%	18%	16%	12%	17%		24%	18%	15%	18
5	31.9%	30%		28%	36%	31%	32%		27%	31%	40%	33
6	18.9%	13%	15%	20%	19%	31%	23%		13%	20%	22%	24
7 = Very High	10.7%	9%		12%	10%	16%	12%		8%	10%	11%	14
Do not know	2.3%	4%	1%	3%	2%	2%	2%		3%	5%	2%	1
Prefer not to answer	3.9%	3%	5%	3%	6%	1%	4%	4%	6%	5%	2%	3
											nonenament and in	5.



Understanding emotion: What does saving look and feel like?



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Understanding Business Models

- General management orientation: touches finance, operations, marketing, compliance
- · Special emphasis on innovations
- · Example: FNB's Golden Opportunity
 - Leading South African bank analyzing new deposit product that combines lottery and savings: Should the CEO approve the product?
 - Legal angle: Can and should US firms offer lottery-based savings accounts?
 - Relates to research (Tufano 2008 (AER), Tufano, Maynard and de Neve (2008)).

Understanding the Interaction between Business Models and Financial Regulation

- Inherent tension between profit maximizing and certain public policy goals
- · Example: Central Bank The ChexSystems
 - Evaluation of new database that improves the capacity of firm to distinguish among potential debit account. Which debit customers do we want?
 - "Lower-quality" customers can be quite profitable due to overdraft fees
 - Legal angle: FDIC study on bank overdraft fees and associated proposals to restrict fees and standardize regulation

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The economics of "free" checking with "courtesy overdraft": HBS Case study

ACCOUNT COSTS

- Account acquisition: \$100
- Account maintenance: \$160 per year on a fully allocated basis
- Conditional losses on involuntarily closed accounts: \$250

ACCOUNT REVENUE

- Spread on deposited funds: 3% on average balance of \$1000 = \$30
- Debit card revenue \$30 (but only 50% use them)
- · Other small fees: \$10
- Overdraft fees: \$25 per overdraft
 - · 11% never overdraft
 - 78% overdraft 1-2 times a year.
 - 11% overdraft 50 times a year

US National data FDIC – November 2008

- Banks earned \$1.97 billion in OD-related fees in 2006, or 74% of all service charges on deposit accounts.
- The median overdraft fee was \$27; the median overdraft was \$36. Time to remediate is a few days.
- · Incidence of overdraft per account per year

None	75%
1-4 /year	12%
5-9	5%
10-19	4%
Over 20	5%

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Empirical determinants of county-level scaled closures

- · Personal traits matter: More closures in counties with
 - Reductions in income
 - Increases in unemployment
 - More single moms
 - Less education
 - More young and old residents
 - · Certain racial groups
- Community traits matters: More closure in communities with weaker social capital
 - Greater crime
 - Less civic engagement (voting)
- · Industry decisions matter: More closures in counties with
 - · Fewer "local" banks
 - More competition among banks
 - More payday lenders (Also natural experiment—pdl ban → less closures

(Campbell, Martinez-Jerez and Tufano, Bouncing out of the System, Working Paper)

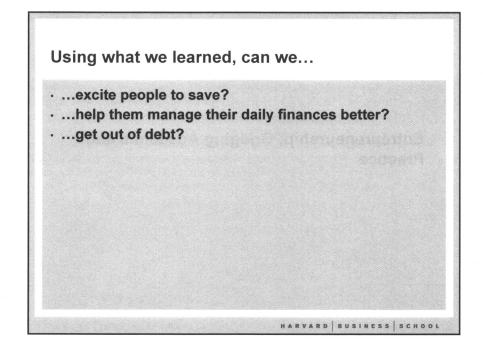
Reimagining the Regulation of Consumer Finance

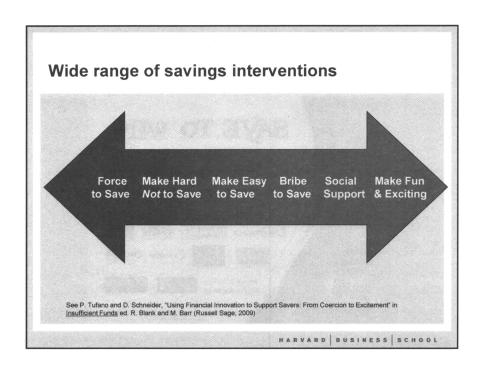
- Should the Obama Administration support the creation of a Financial Product Safety Commission?
 - · What products should be covered?
 - · What goals should the Commission seek to advance?
 - · Eliminating unsafe products
 - · Ensuring the full and fair disclosure of information
 - · Improving financial literacy
 - · Lowering levels of consumer debt
 - · What regulatory tools should the Commission employ?
 - Disclosure
 - Defaults
 - Penalties
 - · Criminal sanction
 - · What relationship to other regulatory agencies?

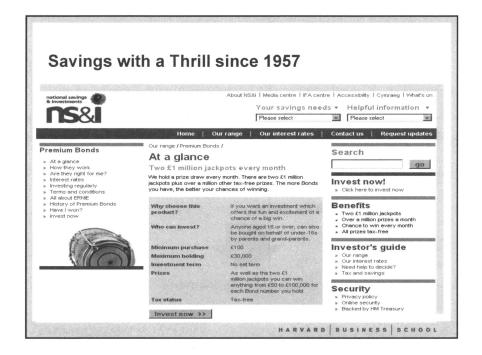
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Entrepreneurship: Bridging Academia and Practice











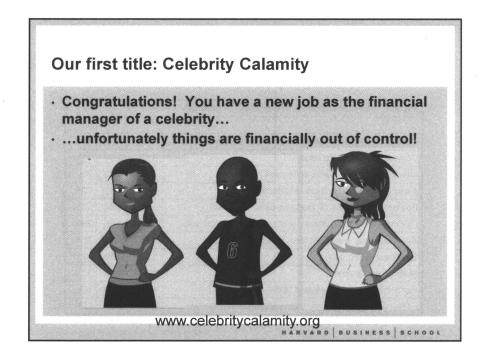
Teaching basic finance skills

- Challenge: How can you train people to manage their credit and debit accounts better?
- Reality: Mixed data as to success of financial education efforts.
- Counter-reality: Ample data as to success of experiential learning, marketing campaigns and impact of media on society

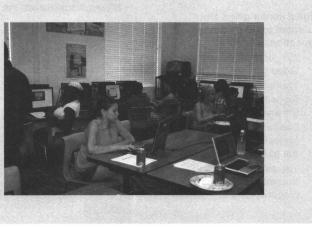


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Why digital media and casual games? Digital media offers the potential to marry fun and education: · 72% of Americans play video games; · The rates of play are highest among those under the age of 35; · Casual video games are the fastest growing segment in the game industry; and · The casual segment is dominated by female players HARVARD BUSINESS SCHOOL



Testing and evaluation are critical components



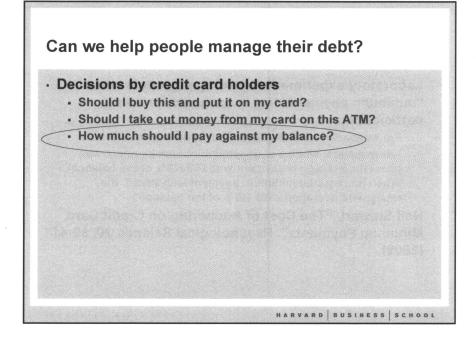
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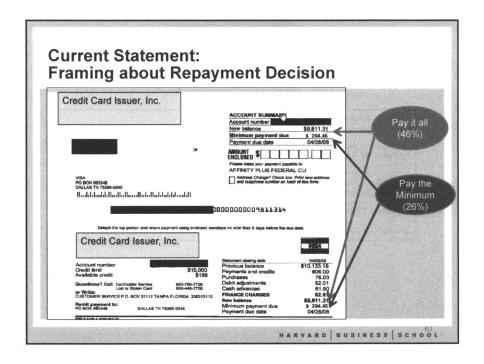
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Preliminary Game Efficacy Testing: Self-Confidence

Rate your degree of confidence in the following:	Pre	Post	%
Change bad spending habits	3.50	3.89	11%
Identify needs and wants separately.	4.02	4.30	7%
Avoid impulse and emotional spending.	3.23	3.93	22%
Pay off new charges on credit cards every month.	3.16	3.84	21%
Pay more than the minimum amount on credit card bills.	3.16	4.09	29%
Avoid late fees, over-limit fees, and overdraft fees.	3.23	4.05	25%
Save money regularly.	3.14	4.14	32%
Manage my finances.	3.57	4.09	15%
Perform assigned job-related tasks.	4.23	4.43	5%
Follow directions from my boss/supervisor.	4.66	4.61	-1%

Table 2: Knowledge (Pre and Post, % Char	nge)		
		1	
Knowledge Area:	Pre	Post	%
Annual Percentage Rate (APR)	55%	86%	589
Finance Charges	48%	82%	719
Pay More Than the Minimum	82%	93%	149
Interest Compounding	61%	64%	4%





Existing research: Eliminate minimum payment framing

- Laboratory experiment regarding payments when "minimum payment" line is excluded for some participants.
 - · For transactors, elimination of minimum had no effect.
 - For revolvers, when a suggested minimum payment was given the average repayment was £99 (23% of the balance).
 When no required minimum payment was stated, the repayment averaged £175 (40% of the balance.)
- Neil Stewart, "The Cost of Anchoring on Credit Card Minimum Payments", Psychological Science 20, 39-41 (2009)

Concept of Intervention: Providing advice on how to work out of debt

- Working with Credit Card issuer (Affinity Plus Federal Credit Union), portfolio of about 30,000 cards
- · Randomized experiment
 - Provide credit card consumers in treatment group with add'l information on statements
- Track outcomes
 - · Repayment decisions primary metric
 - · Spending decisions
 - · Delinquencies and defaults

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For more information

- · www.people.hbs.edu/ptufano for papers
- · www.d2dfund.org for progress on projects
- http://www.exed.hbs.edu/programs/cfs/ for information on the Exec Ed version of the consumer finance course (October 18–23, 2009)
- · Contact me: Peter Tufano, ptufano@hbs.edu

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Putting People Back Into Finance



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