





Disclosure: Evidence and Innovation 18th May 2017

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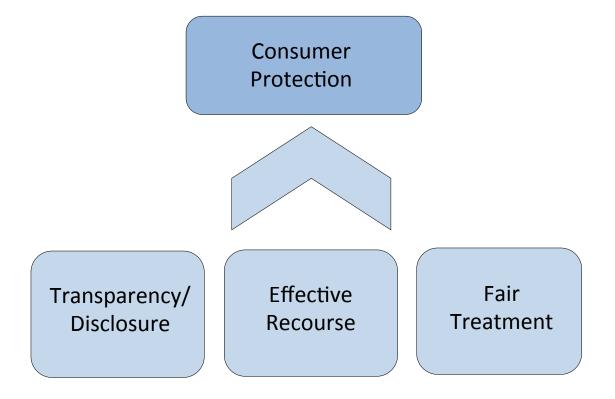
Trinity Impact Evaluation Unit (www.tcd.ie/economics/time)

Structure of Presentation

- 1. Introduction
- 2. Disclosure Regulations
- 3. Biases Relevant for Disclosure
- 4. Financial Disclosure Literature
- 5. The Context in EMDEs
- 6. Four Important Issues
- 7. Innovation in Disclosure
- 8. Final Thoughts

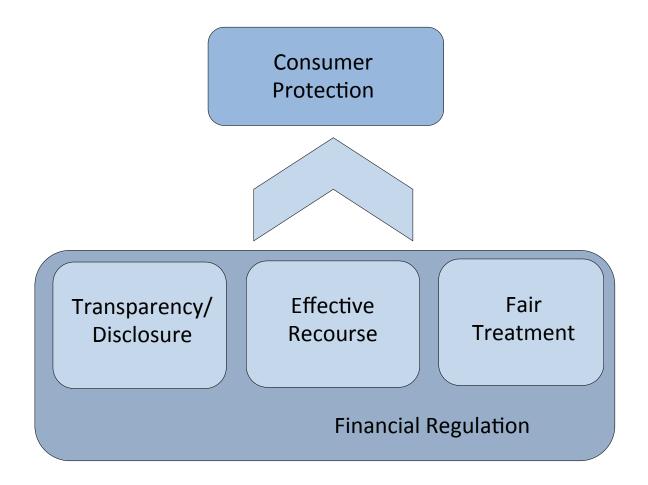
1. Introduction: Consumer Protection

Three components



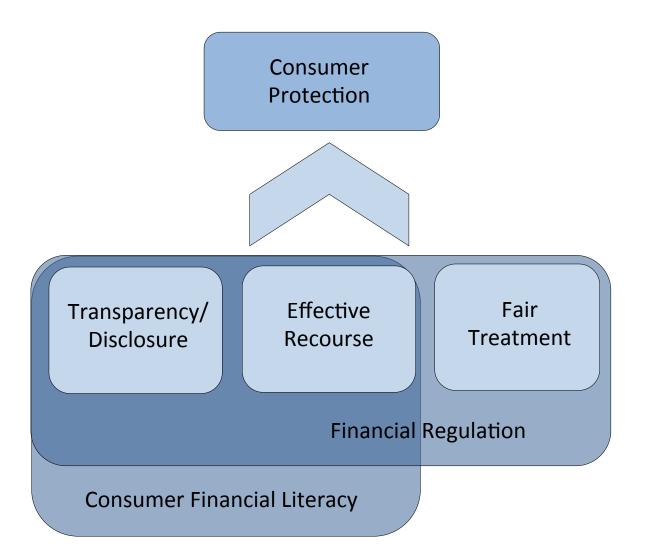
Financial Regulation

Three components



Financial Literacy

Three components



Introduction: Disclosure

Objective: Help consumers make appropriate financial choices.

Opening Comments:

- Full disclosure of all pricing, terms, and conditions of products in a form understandable to clients (Accion, 2015) as well as commissions.
- Theory: Universal/comprehensive disclosure should a) support informed consumer decision-making and b) encourage fair competition.
- We know that despite **amount and quality of information available** consumers don't always (get to) make decisions in their best economic interest.
- **Limited evidence** on what constitutes effective disclosure.

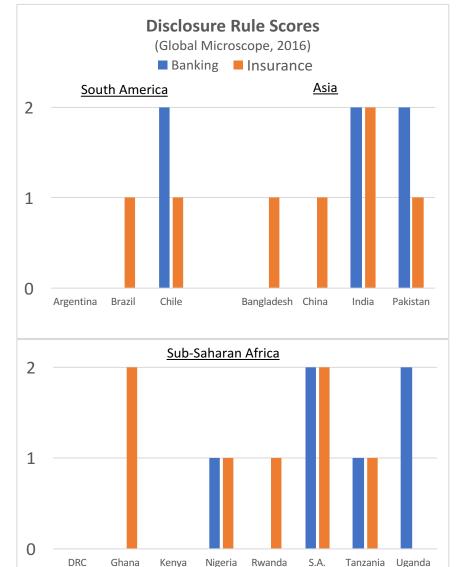
Remaining Agenda:

- Introduce or **strengthen regulatory frameworks** pertaining to disclosure.
- ➤ How can we improve disclosure for BOP customers?
 - > Behavioral insights to improve the effectiveness of disclosures.
 - Financial literacy: Mandating more than product attribute disclosure.

2. Disclosure Regulation

Global Microscope Data

- 1. Are there clear rules that require providers of financial services to disclose information about the overall cost of the products and consumers' rights and obligations?
 - > 0= Disclosure rules exist either for some products or apply to some providers
 - > 1= Some disclosure rules exist for all products and providers
 - 2= Comprehensive disclosure rules exist for all products and providers.
- 2. Are there clear rules that require insurance providers to disclose information about the overall cost of the products and consumers' rights and obligations?
 - > 0= There are no disclosure rules;
 - > 1= Disclosure rules exist, but they are either not comprehensive or not enforced;
 - 2= Disclosure rules exist, they are comprehensive and they are enforced



Disclosure Guidelines: Example

New Zealand Guidelines

- 1. Short and simple: Required to address issues of choice/information overload and difficulties many investors have with complex and technical information.
- **2. Standardised:** Many biases, limitations and heuristics can be mitigated through standardising content. Improves comparability of information.
- **3. Clear on risks/benefits:** Disclosure of risks to address overconfidence. Disclosure of benefits necessary to overcome status quo bias and loss aversion.
- **4. Meaningful:** The more that information can be put in a form that people relate to, the more likely they are to understand it.
- **5. Well presented:** So people will want to read disclosure documents and information aids decision making. Visual representations can assist in understanding of complex information, but need to be well designed.
- **6. Tested:** People respond in unexpected ways. Even small changes to text can influence how people perceive or interpret information.

Disclosure Examples

Credit Card Disclosures in US

Annual Percentage Rate	0.00% (Intro. APR through your May 2009 billing cycle)
(APR) for Purchases	11.99% (Standard APR after May 2009)
	Your standard APR will vary with the market based on the Prime Rate.
APR for Cash Advances and Balance Transfers	20.99%
and balance Transfers	This APR will vary with the market based on the Prime Rate.
	Cash advance and balance transfer fees will also apply (see Fees section below)
Loss of Introductory APR	We will end your introductory APR and apply the standard APR to your outstanding balance if you perform any of the actions listed in the Penalty APR row below.
Penalty APR and When It Applies	31.99%
it Applies	This APR may be applied to your account if you:
	 Make a late payment twice in a six-month period;
	Go over your credit limit; or Make a payment that is returned.
	make a payment that is returned.
	How Long Will the Penalty APR Apply?: If your APRs are increased for any of these reasons, we may keep them at this higher level indefinitely.
How To Avoid Paying Interest On Purchases	Your due date is at least 24 days after the close of each billing cycle. We will not
interest On Purchases	charge you interest on purchases if you pay your entire outstanding balance (excluding promotional balances) by the due date each month.
Minimum Interest Charge	If you are charged interest, the charge will be no less than \$1.50.
For Credit Card Tips from the Federal Reserve Board	To learn more about factors to consider when applying for or using a credit card, vis the website of the Federal Reserve Board at www.federalreserve.gov/location .

Fees		
Annual Fee	\$60	
Transaction Fees		
Balance Transfer	\$20 if amount of transfer is less than or equal to \$1,000; \$30 if amount of transfer is more than \$1,000	
Cash Advance	Either \$10 or 5% of the amount of each cash advance, whichever is greater.	
Foreign Transaction	2% of the amount of each transaction.	
Penalty Fees		
Late Payment	\$24 if balance is less than or equal to \$1,000; \$27 if balance is more than \$1,000 (Your APRs may also increase; see Penalty APR section above.)	
 Returned Payment or Over-the-Credit Limit 	\$35 (Your APRs may also increase; see Penalty APR section above.)	

Disclosure Examples

What we can learn from environmental and food labeling

Interest Rates and Interest Charges		
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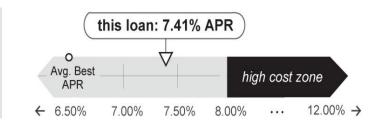


Something more like this

ANNUAL PERCENTAGE RATE (APR)

Overall cost of this loan, including interest and settlement charges:

7.41% APR

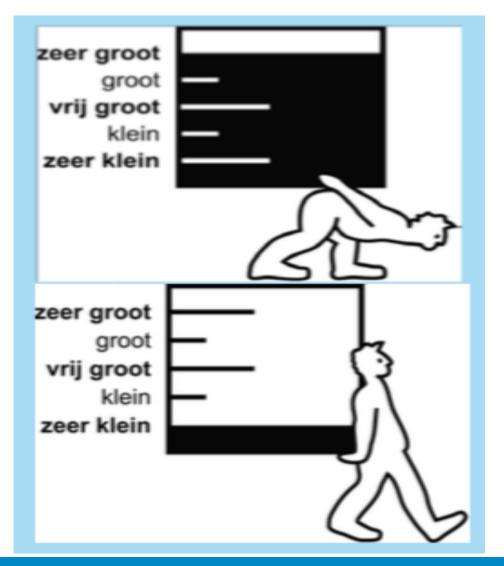


How does this loan compare? For the week of February 23, 2009, the average APR on similar conforming loans offered to applicants with excellent credit was **6.50%**. Today, an APR of **8.00%** or above is considered high cost and is usually available to applicants with poor credit history.

How much could I save by lowering my APR? For this loan, a 1% reduction in the APR could save you an average of \$135 each month.

Product Riskiness Graphic

Example from the Netherlands



Digital Disclosure

Australia's Regulatory Guide 211

Previously disclosure documents were required to be delivered in paper form unless the client had provided express agreement to digital disclosure.

Under the new regime, disclosures may be delivered:

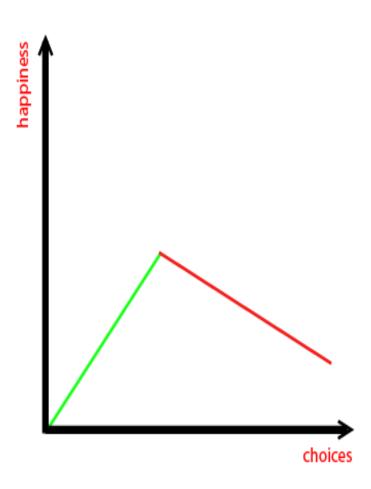
- Electronically to an electronic address (email) if the client provides such address as part of their contact details; or
- Using any digital method (digital message with a hyperlink to the disclosure) provided that the client has agreed (orally or in writing) or if the client has not agreed, by using a "publish and notify" method.

RG 221 also provides some good practice guidance for digital disclosure to help ensure that clients continue to receive clear, concise and effective information when disclosures are delivered digitally and that consumer protections are retained in the digital environment.

The obvious ones

A. Choice Avoidance/Confusion

- Excessive or complex product information can "freeze" consumers' decision-making.
- Iyengar, Humerman and Jiang (2004)
 analyze effect of no. of investment
 options on pension plan participation.
 75% participate when 2 options
 available; only 65% when 40 +.
- Evidence shows vote share of minor candidates significantly higher for candidates whose name on ballot is adjacent to name of major candidate.



The obvious ones

B. Limited Attention

- Attention can be considered a limited resource.
- Consumers process only a sub-set of information (Simon, 1955)
- Only thinking one step ahead in dynamics problems (Gabaiz et al., 2006).
- Inattention to add-on costs.
 - Inattention to shipping costs in eBay auctions.
 - Inattention to less-transparent taxes and charges (Chetty et al., 2007).



The obvious ones

C. Reference Dependence (Framing)

- Natural phenomenon
- Illustrated by Kahneman and Tversky (1979)
- Under two scenarios, subjects are now asked to choose. A1 and A2 are identical, and so are B1 and B2.
- In group 1 only 16 percent chose A. In group 2 69 percent of subjects choose A.
- Clearly, framing matters.
- Key point: Referencing points are often used in financial product marketing.

		<u>Options</u>	
	<u>Given</u>	<u>A</u>	<u>B</u>
Group 1	1000	(1,000, 0.5)	500
Group 2	2000	(-1,000, 0.5)	-500

The obvious ones

D. Overconfidence

- Surveys/laboratory experiments show many overconfident about ability/future earnings.
- Most individuals underestimate probability of negative events (Weinstein, 1980).
- Tendency to overestimate precision of own information.
 - Alpert and Raiffa (1982) ask people to provide answers with 98% confidence internals for a number of questions. These intervals contain answer only 60% of time.
- Selling to overconfident consumers can boost profits. US mobile market – tariffs with large included quantities at zero marginal cost plus by steep marginal charges (Grubb, 2009).



The obvious ones

E. Status Quo Bias

- When services are bundled individuals are significantly less likely to change supplier in the UK communications market (Burnett, 2014).
- Abuse of customers over time.
- Encourage switching.



The less obvious ones

F. Self Control Problems:

- Widespread phenomenon.
- Illustrated by Ashraf, Karlan and Yin (2005) who found that commitment device increased savings.
- Credit Card Example: Randomly mailing credit card offers, varying the teaser and post-teaser rates, Ausubel (1999) find that individuals over-respond to the teaser interest rate. Average usage rates make clear that option B is cheaper.

	<u>Teaser</u>	<u>Main</u>
Option	<u>Rate</u>	<u>Rate</u>
Α	4.9%	16%
В	6.9%	14%

The less obvious ones

G. Gambler Fallacies

- Relevant for lotteries/sports betting.
- Playing the lottery is irrational in terms of expected returns.
- Use dice to educate people on true odds (Abel et al, 2014).
- Rabin (2002) suggests individuals assume replacement does not happen in random processes.
- Terell (1994) found that the lottery payout for recently winning numbers is 33% higher (less sharing of prize money).



4. Disclosure Literature

Overview

Evidence on impact of disclosure policy on consumer and firm behavior is mixed and limited.

> Inherent Challenges:

- 1. Consumers do not always make decisions based solely on financial information (Bertrand et al. 2010).
- 2. They may not always understand available product information.
- 3. Firms may comply with disclosure rules yet still present a biased picture of the product's features during the sales process by obscuring certain terms or overemphasizing others.
- 4. If disclosure requirements not very well designed, they can be circumvented by offering alternative products or increasing costs that are not covered by the requirements.

Disclosure Key Literature (1)

Hastings and Tejeda-Ashton 2008 and Gine, Martinez, and Mazer forthcoming.

Comprehensibility of how information is presented and its effects on consumer choice.

- Presenting fees for consumers' public pension accounts in pesos instead of annual percentage rates allowed financially illiterate participants in Mexico to select funds with lower average fees (Hastings and Tejeda-Ashton 2008).
- Expressing the cost and yield of credit and deposit products, respectively, in Mexican peso values rather than percentages led consumers to more easily identify the lower-cost options (Gine, Martinez, and Mazer forthcoming).

Disclosure Key Literature (2)

Bertrand and Morse (2009)

Title: "Information Disclosure, Cognitive Biases and Payday lending"

Overview: Randomised experiment with customers of 77 payday stores over 2 weeks

Intervention: Simple disclosure at POS that compared charges between payday loans and credit cards in dollar costs and showed the costs growing over several time periods (from two week to three months)

PAYDAY LENDER		CREDIT CARD	
(assuming fee is \$15 per \$100 loan)		(assuming a 20% APR)	
If you repay in:		If you repay in:	
2 weeks	\$45	2 weeks	\$2.50
1 month	\$90	1 month	\$5
2 months	\$180	2 months	\$10
3 months	\$270	3 months	\$15

Result: Led to a 10 percent reduction in payday borrowing over 4-month period. No evidence of comparison APR treatment.

Disclosure Key Literature (3)

Agarwal, Chomsisengphet, Mahoney and Stroebel (2013)

Title: "Regulating Consumer Financial Products: Evidence from Credit Cards"

Overview: Difference-in-difference design on a unique panel data covering 160 million credit card accounts.

Intervention: US CARD Act requirement to disclose the interest savings from paying off balances in 36 months rather than only making minimum payments.

Result: Found this mandated disclosure increased the number of account holders making the 26-month payment value by 0.5 percentage points on a base of 5.7%.

Disclosure Key Literature (4)

Seira and Elizondo (2014)

Title: Are Information Disclosure Mandates Effective? Evidence from the Credit Card Market

Overview: RCT with 167,190 indebted credit card cardholders in Mexico.

Interventions: Two legally inspired - personal IR and no. of months to clear debt if minimum paid. Others peer comparisons – above/below mean debt, plus advice, high/low default risk, and explicit warning against overconfidence.

Results:

- 1. Interest rate disclosure does not change levels of debt, delinquency.
- 2. Months to repay with min decreased payments by 10%; increased delinquency by 9%.
- 3. "High risk" message decreased delinquency by 6%.
- 4. "Low risk" message increased delinquency by 65%
- 5. "High debt" peer comparisons reduced debt by 1%; no effect on delinquency.
- 6. No evidence call to specific actions(advice) increased effectiveness.
- 7. Warning message reduced debt by 1% and had no incidence on delinquency.
- 8. All effects were short-lived, lasting only one or two months.

Disclosure Key Literature (5)

Anagol, Cole and Sarkar (2015)

Title: "Understanding the Advice of Commissions-Motivated Agents: Evidence from the Indian Life Insurance Market"

Overview: How agent-focused disclosure regulation affects the quality of advice provided by 200 life insurance agents.

Experiment: Natural experiment from 1st July 2010 - audits occurring just before or just after implementation of new disclosure regulation. Regulation related to one type of product.

Results: Agents are much less likely to propose 'commission disclosed product' to clients.

Disclosure Key Literature (6)

Wonder, Wilhelm and Fewings (2008)

Title: "The Financial Rationality of Consumer Loan Choices"

Overview: A fractional factorial, randomised experimental design was used to select the choice tasks for each respondent.

Results:

- Welfare less than if decisions were made on a financially rational basis.
- College-educated consumers fare better in their loan choices than those with less education.

If you were in the market to purchase a new car on credit today, and if the two choices displayed below were your only alternatives for financing your purchase, which one would you choose?			
Options:	OPTION:	OPTION:	
Down Payment Amount:	\$0 down	\$2,500 down	
Contract Length:	60 months	48 months	
Interest Rate:	6% interest	0% interest	
Cash Rebate Amount:	\$2,500 rebate	\$0 rebate	
Total Monthly Car Payment for this interest rate, down	\$483	\$469	
payment and contract length:	c	o	
Choose by clicking one of the buttons above.			

5. The Context in EMDEs

- Large numbers of base of the pyramid (BOP) consumers with limited financial literacy using formal finance for the first time.
- Psychological factors and related behaviors can have more significant consequences for low-income consumers.
- Recent research has revealed that the mere fact of being poor can undermine consumers' ability to make sound financial choices.
- > Fast pace of financial innovation.

Traditional policy views on how best to regulate may fail to account adequately for the specific experiences of these consumers and the types of products and providers they use.

Case Study: Kenya

Financial Diaries 300 low-income households for 18 months (2012-13)



Case Study: Kenya

Financial Diaries 300 low-income households for 18 months (2012-13)

95% of those households live on less than \$5 a day, 72% on less than \$2 a day.

- 1. 10 different sources of income.
- 2. 14 different financial devices.
- 3. Asset heavy, not debt heavy.
- 4. 91% of savings in informal accounts.
- 5. Even when people save, money might not be available when it's needed.
- Not experienced borrowers
- Used to informal arrangements where details up for discussion
- > Access, and 'give and take' sometimes more important than return or cost.

6. Four Important Issues

Not an exhaustive list

- 1. Retail Credit
- 2. Mobile Banking
- 3. Savings Accounts
- 4. Sports Betting

Issue 1: Retail Credit

Biases To Tackle
Overconfidence
Limited Attention
Self Control
Reference Dependence

- > Retail credit and hire purchase growing in EMDEs.
- ➤ Over 70% of new automobile purchases in the UK were financed in part by vendor loans (Dasgupta, Siddarth and Silva-Risso, 2007).
- Personal car loans amounted to 34% of monthly nonmortgage debt in the US (Heitfield and Sabarwal, 2004).
- ➤ Herrmann and Wricke (1998) found that when asked to rate the relative attractiveness of different auto loan financing offers, respondents at best used only linear functions of down payments, monthly payments, and contract lengths, without even calculating the product of monthly payment and number of payments, let alone using discounted values.
- Disclosure Challenge: How to make clear to customers the repossession risks, the true costs and the relative cost to other sources of finance? Opportunities to switch?

Issue 2: Mobile Banking

Biases To Tackle
Overconfidence
Self Control
Limited Attention

- ➤ Originally M-PESA had transparent pricing schedules displayed at every agent. Complexity of M-Shwari and other add-on services brings lack of clarity to customers.
- ➤ Evidence customers tried M-Shwari but had poor experience. High interest rates a challenge and lack of understanding of credit bureau reporting.
- Mobile wallets mean that less need to visit mobile money agent.
- > Challenges:
 - Disclose information through smart and especially normal phones.
 - Periodic disclosure throughout life cycle of the product to encourage correct usage.

Issue 3: Savings

Biases To Tackle
Limited Attention
Self Control
Status Quo
Limited Attention

- Declining interest rates after teaser rates (e.g. the Netherlands).
- > Fees for withdrawal.
- Costs to withdrawal in locked savings accounts.
- Costs of current accounts (where savings will be kept).
- Clarity needed on benefits of formal savings.
- Challenges for Disclosure: Clarity around returns, fees and comparison with other options.

Issue 4: Sports Betting (1)

Biases To Tackle
Gambler fallacies
Self Control
Overconfidence

- Sports betting exploding across Africa.
- ➤ 23 betting companies operate in Uganda, with over 1,000 branches spread throughout the country.
- ➤ Report found over 36% of men in Kampala had placed bets in last year, devoting an average of 12% of their income to betting (Ahaibwe et al, 2016).
- Despite expected losses of 35-50%, more than 75% of these bettors cited "a way to get money" as their top reason for betting.



See: Sylvan Herskowitz's "Gambling, Saving, and Lumpy Expenditures: Sports Betting in Uganda"

Sports Betting (2)

Sylvan Herskowitz's "Gambling, Saving, and Lumpy Expenditures: Sports Betting in Uganda"

- Randomised experiment with 1,715 bettors in Kampala, Uganda,
- ➤ Participants view betting as a likely source of funds for desired lumpy expenditures.
- Results showed provision of a simple commitment-savings technology causes a 26% reduction in betting demand.
- Increasing the salience of a desired lumpy expenditure caused an increase in betting demand by 17%.
- ➤ Budgeting exercise decreased betting demand by 35% for people who learn that they could save more than previously believed.

Sports Betting (3)

Potential research questions:

- What are the economic costs of sports betting on households?
- What interventions, including disclosures, designed to reduce behavioural biases and gambling behavior are successful?
- What can we learn about prospect theory (Kahneman and Tversky, 1973) and how risk taking is affected by prior gains and losses (Thaler and Johnson, 1990)?

7. Innovation in Disclosure

- 1. Moving from new generation bespoke disclosure (**Disclosure Plus**): Using market research to identify issues and then A/B and lab testing to see what works.
- 2. Helping customers **switch providers** (regulation and disclosure).
- 3. Mandated **cooling off periods**, time for absorbing information: Limited research.
- 4. **Digital delivery**: Possibly inferior to paper disclosure. Lots of innovation possible in terms of presentation.
- 5. **Multiple delivery methods**: People absorb information in different ways (videos, animations, voice messages etc).
- 6. Integrate financial literacy effectively with disclosure requirements. **Disclosure 2.0** should involve mandated provision of financial literacy aids specifically designed for decision points.

Suggested Research Ideas

- 1. Testing new multimedia disclosure methods (videos, animations, voicemails) additional to paper disclosures.
- 2. Test disclosure methods for simple mobile phones (perhaps two way text messaging).
- 3. Test Disclosure 2.0 approaches including basic financial literacy interventions at key decision points.
- 4. Product attribute choice testing with respondents with knowledge of their financial situation and through role plays.
- 5. Disclosure of information to sports bettors.

Identifying Disclosure Priorities

Iterative process with three approaches

Insights from Behavioural Economics

Consumer Complaints/ Market Research

Prioritized
Disclosure
Interventions

Observation of Financial Products Evolution

8. Final Comments: Tips for Policymakers

C-GAP's 'Applying Behavioral Insights in Consumer Protection Policy (2014)

- ➤ Simplify terms and standardize both formats and product features through consumer testing.
- Make disclosure concepts fit consumer frame of reference, rather than try to teach consumers new concepts.
- The most salient information for consumers will vary across the product lifecycle.
- Provider incentives and sales practices many limit the impact of disclosure measures.
- Continue to test and monitor the impact of the disclosure regime in the market.

Why we should care

Five reasons

- 1. if poorer people invest ineffectively and borrow expensively, their wealth will grow more slowly than wealth of rich (wealth divergence) even if they have same savings (Piketty, 2014 and Lusardi, Michaud, and Mitchell, 2015).
- 2. To attract unsophisticated consumers, financial institutions may **lower up- front costs and raise hidden costs**, subsidizing sophisticated consumers.
- 3. Unsophisticated consumers **mistakes can create rents** that distort competition (DellaVigna and Malmendier, 2004; Akerlof and Shiller, 2015).
- 4. Financial mistakes correlated across households create **systemic risk**, to be managed by financial system at considerable cost. Important examples include prepayment risk and default risk in mortgages (Campbell, 2006) and and house price risk (Shiller, 2005).
- 5. Exploitation of household mistakes by financial institutions can lead to the corrosive mistrust of the financial system and the institutions that govern the economy (Guiso, Sapienza, and Zingales, 2008 and Zingales, 2015).

Thank you