

Impact Assessment in Financial Regulation

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Aim of the course



- Share how Impact Assessment (IA) fits into the wider policy making processes in Europe and at the UK FSA
- Introduce participants to the economic concepts and the methodological tools required to conduct IAs
- Train participants to apply these concepts and tools in financial services policy contexts

By the end of the workshop, you should have a better understanding of how:



- IA fits into broader policy making disciplines
- To conduct 3L3 & FSA IA guideline-compliant IAs
- To recognise/analyse market and/or regulatory failures
- To analyse the cost and benefits of alternative regulatory measures
- IA is conducted within EU institutions

The FSA and IA

- We've had several years of experience - FSMA requirements
- Our approach to IA was subject to review and has since been improved (though we still, sometimes, get things wrong!)
- EFR Department (26 FTEs) provides advice/challenge to policy makers on IA, and sometimes undertakes IA
- As well as carrying out research, accountability work and promoting & advising on IA in the EU

Commission approach to IA



- Commission introduced new IA guidelines in 2002
 - revised in 2005 and 2006 (to incorporate the Standard Cost Model)
 -and again in 2008!
- The guidelines are consistent with the approach we will describe later
 - http://ec.europa.eu/governance/impact/docs_en.htm

Commission approach to IA



- All elements of Commission's work programme subject to IA since 2006
 - Dedicated IA units set up to provide advice
 - IA Board established in December 2006
 - chaired by Deputy Sec-Gen
 - members drawn from ENT, EMPL, ENV, EcFin
- IA board has sign-off powers, i.e. no consultation without sign-off

IA in the Lamfalussy committees



- 3L3 IA Guidelines developed, piloted, subject to consultation, published in April 2008:

http://www.ceiops.eu/media/docman/public_files/publications/standardsandmore/guidelines/3L3IAGUIDELINES.pdf

- Committees now publicly committed to using IA
- 3L3 IA Adviser Network has been developed to ensure consistent application

Some things we've learnt along the way



- MFA helps us decide whether ANY intervention can produce net benefits
- And to design interventions that will in principle correct the market failure
- And forced us to face up to regulatory failure!
- It has materially affected policy within the FSA, for example:
 - Transparency in the secondary bond market
 - Recording telephones and electronic communications
 - Investment product disclosure requirements

More things we've learnt along the way



- MFA and High Level CBA together can sometimes remove the need for more detailed CBA work – helps overcome data problems
- Reminds us we can only work THROUGH markets
- Integrating IA with a forward-looking research programme cuts down on cases where evidence has to be invented within the unfeasible deadlines of policy formation: a broader policy/evidence cycle is needed
 - Oral disclosure
 - Sciteb
 - NIESR

Even more things we've learnt along the way



- Joint working enhances credibility in Europe (setting the agenda, not reacting to others)
 - HMT/FSA DP on commodities trading
 - FSA/Banco De Espana/ECFIN on impact of capital requirements
- Organisational controls and incentives are necessary to give economic analysis any traction
- Effective planning is important to delivery of quality outputs – methods and resources

Some things to think more about

- Given the increasing pressure on policy makers to be evidence-based.....
 - Are we doing enough to improve data quality or to fill the knowledge gaps that IA is good at identifying?
 - Do we plan and use research as effectively as we could/should?
 - Are we focusing too much on quantifying costs and benefits and not enough time on MFA/RFA?

Why bother

- **Reduces waste of own resources**
- **Helps with hard choices**
- **May justify imposed choices!**
- **Challenges us to understand markets better, improving our interventions**
- **Makes us recognise what we don't know, leading to regulatory innovations**

Introduction to Impact Assessment

Some basic questions about IA



- What is impact assessment?
- Why do we do it?
- When do we do it?
- Who does it?
- How do you do it?

What is impact assessment?

- IA is a process aimed at structuring and supporting policy development
- It is usually described in terms of a series of steps
 - though the number of steps can vary as some steps can be described individually or collectively

What is impact assessment?

- But the important steps are:
 1. **Problem identification/assessment**
 2. **Defining objectives**
 3. **Option identification**
 4. **CBA and comparison of options**
 5. **Public consultation and feedback**
 6. **Post-implementation monitoring and review of effectiveness**

What is impact assessment?

How do these steps relate to our own internal requirements?

1. **Problem identification/assessment**
2. **Defining objectives**
1. + 2. = MFA
3. **Option identification**
4. **CBA of each option**
5. **Comparison of options + identification of preferred option**
3. + 4. + 5. = FSMA CBA requirements (s155), plus...
6. **Public consultation**
7. **Feedback**
8. **Post-implementation monitoring and review of effectiveness**
6. + 7. + 8. = FSMA consultation requirements (s155)

What is impact assessment?

- IA is an aid to decision-making, not a substitute for it
- But that does not mean that it is supposed to be a tick-box exercise
- Or one that helps justify a policy decision that has already been made (which is sometimes evident from the options selected for CBA)

Why do we do IA?



- Obviously IA is done in the EU because the BRE tells them to.....
-and the FSA has to do IA because this is incorporated it into FSMA
- But the requirement on policy makers to adopt IA disciplines is well-founded
- It encourages the use of economic analysis and promotes “evidence-based” policy making

Why do we do IA?



- IA embeds engagement with stakeholders, via informal and formal consultation
- This encourages **transparency** and **accountability** in decision making
- So IA should **improve** the overall **quality** of **policy making** and help you meet the principles of good regulation:
 - Proportionate, accountable, consistent, transparent, targeted

When do we do IA?

- Ideally, IA should be embedded in the policy making process - it should form part of your thinking throughout that process
- So IA thinking should begin as soon as a policy issue arises
- And in the idealised world of the policy cycle the completion of one IA exercise marks the beginning of a new one (i.e. post-implementation monitoring and effectiveness review)

When do we do IA?



- The situation is different when policy work is initiated by the EC or at a global level – more later
- There is also the question of whether or not to do IA
- The presumption is that IA is necessary unless the issue is trivial – MFA and HL CBA help you decide whether more detailed work is required

Who conducts IA?



- Since IA is part of the policy making process, it is the responsibility of policy makers
-not their IA advisers
- External consultants conduct IAs
- Both on behalf of government/regulators and practitioners (e.g. softing and bundling)
- In some cases trade bodies conduct IA (e.g. the Italian Banking Association)

How do you do IA?



- We will look at this question in more detail in the sessions that follow
- The European Commission's IA methodology of the is at:
http://ec.europa.eu/governance/impact/commission_guidelines/commission_guidelines_en.htm
- The MFA methodology of the FSA is at:
http://www.fsa.gov.uk/pubs/other/mfa_guide.pdf

How do you do IA?



- Explore all possible information sources
- Get stakeholder buy-in at the earliest possible stage as they may be your best source of data
- Only do as much IA as is necessary
- Don't overcomplicate things
- Or make unsubstantiated claims
- Acknowledge knowledge gaps and consider what you should do to fill those gaps

Market Failure Analysis

Rationale for regulation?

- **Market Failure needs to be addressed**
- **Equity or ethical concerns**



Equity Arguments for intervention

- **Vertical Equity:** Redistribution of income from richer to poorer members of society
- **Horizontal Equity:** Individuals/families with similar needs should be treated equally
- **Social Inclusion:** Everyone should have access to income opportunities and services which allow them to fully participate in the life of the society in which they live
- **Intergenerational Equity:** Balancing the needs of current and future generations

A principle of FSA regulation



Callum McCarthy

In the FSA's work, a principle we have enunciated ... is that regulatory action should only be taken when there is market failure.

...there must be both market failure and the prospect that intervention will provide a net benefit

Efficient Markets & Market Failure



- **Market failures are departures from economists' notion of a perfectly efficient market**
- **In an efficient market firms produce at the lowest possible cost, in terms of resources used, and consumers buy the products they want at the minimum possible price for a given quality**

What are the sources of market failure?



- **Information asymmetries**
- **Externalities**
- **Market power**

Asymmetric information

- **One party to a transaction lacks “relevant” information.**
- **Why?** Information is generally too costly to obtain or too complex.
- **This “relevant” information could/would change the behaviour of this party.**

Example – Second hand cars

- **Can you tell a good car from a bad one?**
- **Imagine you have perfect information**
 - if your valuation of a car is greater than sellers then trade takes place
 - only good cars may sell
- **An efficient outcome:**

All opportunities for trade exploited, both buyer and seller benefit from trade

Second hand cars II

- Now imagine there is asymmetric information: you know half are bad but you don't know which half
- Theory says you are willing to pay your average valuation
 - less than informed valuation of good cars
- This may not be enough for sellers of good cars
 - they drop out, leaving only “lemons”
- Opportunity for trade which would be good for everyone is lost, and market may collapse completely

Second hand cars - What is the problem?

- **Hidden *information* (or adverse selection) at point of sale leads to inefficiently small market or no market at all**
 - Informed party can exploit its advantage
 - Price may not reflect the underlying value of the product
 - Buyer may not buy what he/she wants

Example

- **Financial Services**
 - Credit applications
 - Share/bond offerings
- **Market Response**
 - Seller can offer a warranty?
 - Reputation from repeated interaction?
 - Buyer can pay for some expert advice?
- **Regulatory Response**
 - Force sellers to provide some information?
 - Independent certification, e.g. authorisation

Example: Credit market II

- **Bank cannot observe borrower behaviour after loan is concluded**
- **Here the problem is the hidden action *after* the contract is signed (moral hazard)**
- **Risk for bank:**
 - excessive risk-taking by borrower

Example: Credit market II

- **Potential solutions?**
 - collateral
 - covenant
 - monitoring
 - repeated interaction

Example: Payment Protection Insurance

- **Product is complex (number of exclusions, these are not (made) clear to consumers**
- **In most cases PPI is a secondary product bought in conjunction with a loan, consumers rarely shop around**
- **Little consumer engagement with product**

Example: Payment Protection Insurance

- **Potential market failure**
- **Information gap about:**
 - Suitability of the product for consumers
(Do they need it?, Can they claim?)
 - Price of the product



Example: Payment Protection Insurance

- **Market Response?**
- **Regulatory Response?**
 - Disclosure requirements (Price, Exclusions)?
 - Consumer education?

Asymmetric Info: Wholesale vs. Retail

- **In general, information problems are worse in retail markets:**
 - It is costly for consumers to acquire information and/or relevant skills
 - Financial contracts are complex
 - Quality of the product mostly revealed after purchase or not at all (credence goods)
 - The pyramid scheme problem in Albania
- **Wholesale market participants are more likely to have the resources and incentives to reduce the information gap.**
 -or are they?????

Case study:

Commodity derivatives review

What is the Commodities Review?

- As mandated under MiFID and recast CAD, the Commission is reviewing the regulation of commodity derivatives
- Two main issues
 - Scope of the regulation
 - Prudential regulation

Why the Review?

MIFID

- Single EU Market in financial services
- Coupled with investor protection regime
- Extended the ISD definition of financial instruments to include commodity derivatives

Generally, if MIFID applies → CRD applies

Why the Review?

- But *specialist commodity firms* argued that their business and risks were different
- Exemptions from MiFID and CRD
- Conditional on the Review

Is an exemption from MiFID appropriate?



- One of the main objectives of MiFID: retail consumer protection
- **Questions:**
 - Is commodities business different from other (retail) investment products, i.e. is MiFID protection needed?
 - In other words: Is asymmetric information an issue?

Is an exemption from MiFID appropriate? (II)



- There is very little evidence of direct retail investment in the UK commodity derivatives market
- On the wholesale side market failures due to information asymmetries between market participants in commodity derivative markets are limited.

Externalities

- **Production of a good/service affects parties other than original producers or consumers**
- **These effects are not reflected in market prices**
- **Impact can be negative or positive**

Negative Externalities

- **Impose a cost to others which is not considered in the behaviour of the party that generates the cost**
- too much “damage” is produced**

Example: Prudential regulation

- Depositors can withdraw (part of) their deposits on demand.
- Panic results in widespread withdrawal of deposits
- Banks are forced to sell assets (potentially illiquid) even at a loss
- ➔ **Externality: depositors do not consider the effect of their withdrawals on the value of the bank (and potentially on the whole financial sector).**

Example: Prudential regulation

- **Banks make their investment choices and set levels of capital without considering the potential domino effect of their failure on other banks.**
- Would they set adequate levels of capital?**

Example: Prudential Regulation

- **Market response?**
 - Industry insurance pools?
 - Insured deposit consortium?
- **Regulatory response?**
 - Lender of last resort
 - Deposit insurance / Compensation scheme
 - Capital requirements
 - Supervision

Undesired effects of regulation: Compensation scheme for depositors



- **Members (banks) share losses to depositors arising from a bankrupt member.**
- **Side effects:**
 - Consumers may stop exercising due care.
 - As a result, a reduced market discipline can induce banks to engage in even riskier projects (i.e. moral hazard).

How can we minimise these side effects?

- **Compensation cap?**
- **Minimum capital requirements?**
- **Direct supervision?**
- **Restrictions on investment activities?**
- **Promote public awareness?**

Case study:

Commodity derivatives review II

Commodities business and externalities

- **Commodities business and prudential regulation: Exemption from CRD or not?**
- **Questions:**
 - What is the level of systemic risk from commodities business?
 - Are there (large) negative externalities?

Commodities business and externalities

- Joint HMT/FSA DP Although connections do exist between specialist **commodity derivative firms** and the wider financial markets, **systemic risks** generated by these firms appear to be **generally lower** relative to systemic risks generated by **financial firms**.
- This suggests that the negative externalities traditionally addressed by prudential regulation are less marked for commodity firms than for financial firms. (Joint HMT/FSA DP, p.20)

Positive Externalities

- **Generate a benefit to others. These benefits are not considered in the behaviour of the party that produces the benefit**
- **not enough of the good is produced**
- **Examples in financial markets – financial capability, listing regime**

Public Goods

- **In an efficient market:**

*there is **rivalry** between the consumption of a product and market participants can be **excluded** from the consumption of this product. In other words, the market failure “**public good**” is absent.*

- **Examples of public goods:** Air, mp3 exchange?

- **Why is there market failure with public goods?**

- private sector producers will not supply public goods because they cannot be sure of making an economic profit;
- consumers can take a **free ride** without having to pay for the good or service.

Public goods

- **Public good problems are related to externalities (the framework within which the FSA deals with these)**
- **In a non-financial setting this market failure may be important for government**
 - defence, law enforcement, light houses, street lamps

Market power

- **Market power is exercised when companies can persistently raise prices above the level that would be achieved in a competitive market**
- **FSA has no explicit competition objective, i.e. we're not a competition regulator**
- **The OFT and Competition Commission are the relevant bodies in the UK**
- **But**

Market Power - Policy issues

- **But... as policy makers we still have to be mindful about competition issues (FSA has a legal obligation to consider impacts on competition!)**
 - e.g. do we impose significant costs that create “barriers to entry” or force firms to drop out of the market?
- **Part of the CBA !**

Regulatory failure

- **Regulatory intervention had higher economic costs / lower benefits than originally expected, e.g.**
 - regulation has unintended impacts
 - regulation did not solve the market failure
 - regulation made the market failure worse,
- **Regulatory failure may exist in addition to market failure**

Regulatory failure

- **Example: Basel II and Solvency II**
 - one reason for introduction was high economic burden of the previous regimes (Basel I / Solvency I) and loopholes which allowed opportunities for arbitrage
- **Perverse incentives of:**
 - Per Dinosaur bone fragment payment policy in China
 - Per Rodent carcass payment policy to reduce rodent numbers
 - NFL Draft implications for teams not making the play offs
- **Regulatory failure, like market failure, is an economic justification for intervention (this includes deregulation!)**

Why do we do MFA?

- **MFA helps us to determine the economic case for intervention**
- **Is there a relevant market failure?**
- **Can we reasonably expect to be able to improve on the market solution?**

Market failure analysis: framework (1)

- A. What is the relevant economic market?**
- B. What are the material market failures and/or regulatory failures in the relevant market (s) now?**
- C. If no intervention takes place will market failures be corrected in the short term?**

Market failure analysis: framework (2)

A. What is the relevant economic market affected by the proposals?

- **Definition: economic market is where buyers and sellers interact**
- **How?**
 - Markets can often be defined by product
 - If so, identify which of the product markets affected are close substitutes for each other
 - e.g. unit trusts and investment trusts can be close substitutes but car insurance and mortgages are not
- **When? At the very beginning of the MFA!**

Market failure analysis: framework (3)

- B. What are the market failures and/or regulatory failures in the relevant market (s) now?**
- **Step 1 Determine which objective is the main motivation for the initiative**

Market Failures and objectives

Relevant FSA objective	Market failure
Market confidence	Negative externality, market power
Consumer protection	Information asymmetry, market power
Public awareness	Positive externality
Financial Crime	Negative externality

Market failure analysis: framework (4)

- How to determine whether the market failure is actually relevant?
- **Step 2: Identify the market failure in the absence of regulation. How?**
- **Consider:**
 - Nature of the relevant product
 - Nature of firms and consumers
 - How firms and consumers would interact – think about the incentives of each player in the absence of regulation!

How to determine whether the market failure is actually relevant?



- **Step 3: consider whether there is existing regulation that ought in principle deal with the market failure**
 - Map existing regulation to that market failure
- **Step 4: consider whether the regulation identified in step 2 has created problems of its own**
 - Is regulatory failure a problem?
 - Economic costs higher/benefits lower than originally expected
 - E.g. regulation did not solve the market failure, made the market failure worse, regulation has unexpected impacts.

How to determine whether the market failure is actually relevant?



- **Step 5: is the relevant market/regulatory failure actually material to the objective**
 - This requires collecting evidence about the actual state of the market!
 - The evidence will help to understand to what extent we are observing a market failure (or not) i.e. is the problem 'material'
 - Evidence-based regulation

Market failure analysis: framework (5)

- C. If no intervention takes place will the market failures be corrected in the short term**
- **Unlikely if there is a significant market failure BUT the market may change due to:**
 - External factors, e.g. financial scandal in another country, Spitzer's action against dealing ahead in the US
 - New technology (the web and information asymmetry)
 - New entrants and Market Power

Recap

- **What are the sources of market failure?**
 - **Information asymmetries**
 - **Externalities**
 - **Market Power**
 - **Public Goods**
- **Regulatory failure is important to consider**

Recap

An important point to conclude:

- **By market failure we DO NOT mean any market imperfection**
- **A market failure is an information asymmetry, externality and/or an abuse of market power where the regulator can reasonably expect to *be able to improve on the market solution***

**Key steps in IA (2):
Defining objectives &
Identifying options**

Defining objectives



- An overlooked step in IA
- Failing to set clear objectives often leads to ill-designed policy that cannot easily be evaluated
- This failure typically stems from inaccurate identification and assessment of the problem followed by poor option identification
- So, clear identification of the problem makes it easier to set precise policy objectives

Defining objectives



- Which in turn makes it easier to identify the benefits associated with solving the problem and meeting the objectives
- And if you have clear objectives then you have clear criteria against which to evaluate the policy intervention
- Thinking about objectives can help identify overlaps with other policy areas

Defining objectives



- The FSA has 4 statutory objectives [consumer protection; market confidence; financial crime; financial capability] so this is a straightforward step for us
- We only have to consider whether issues are (i) related to our objectives and (ii) if they pose a material risk to the objectives
- But you may have to do more thinking about objectives

Identifying options



- There is no requirement to identify a particular number of options – it will vary from case to case
- It is normal to consider the “do nothing” option and to think about alternatives to regulation
 - Principles-based regulation

Identifying options



- It is not good practice to use straw men – only select credible options
- Judge their credibility against your objectives
- And in relation to if and how they affect the incentives of all affected parties

Cost-Benefit analysis (CBA) framework

Recap of earlier session

- **The test for regulatory intervention:**
 - There must be both market failure and the prospect that intervention will provide a net benefit
- **What are the sources of market failure:**
 - Information asymmetries
 - Externalities
 - Market Power
 - Public Goods
 - + *Don't forget: Regulatory Failure*

Recap of earlier session

MFA Framework:

A. What is the relevant economic market?

B. What are the material market failures and/or regulatory failures in the relevant market(s) now?

- Determine which objective is the main motivation for the initiative
 - Identify the market failure in the absence of regulation
 - consider whether there is existing regulation that ought in principle deal with the market failure
 - consider whether the regulation identified has created problems of its own
 - is the relevant market/regulatory failure actually material to the objective
- **If no intervention takes place will market failures be corrected in the short term?**

This session covers:

- A framework to conduct a high level CBA
- Identifying the correct baseline
- Six-part impact analysis for assessing costs and benefits
- How to quantify benefits
- Practical points on estimating costs and benefits

High-level CBA: framework (1)

- A. What broadly are the regulatory options?**
- B. What are the economic and other costs and benefits of the option, relative to doing nothing?**
- C. What is the plan for further CBA work?**

High-level CBA: framework (2)

- A. What broadly are the regulatory options?**
- **Design of policy options is beyond CBA but ...**
 - think about how the policy will act on the relevant market failure
 - addressing “facts of life” will not produce economic benefits
 - principles & codes can allow efficient compliance, but need to be designed carefully to avoid uncertainty and opportunistic behaviour
 - **Include ‘do nothing’ and ‘market’ solutions**

High-level CBA: framework (3)

B. What are the economic and other costs and benefits of the option, relative to doing nothing?

- Explain how the options would correct the market failure by changing: firms' behaviour? consumers' behaviour? transactions in the market?
- Individuals – maximise utility (consumer surplus)
- Firms – maximise profits
- CBA for principles needs to be based on explicit assumptions about supervisions and enforcement

A few concepts

- **What are costs?**
 - more than compliance costs!
- **What are the economic benefits?**
 - the effect from addressing the market failures
- **What is the baseline?**
 - The world under a set of assumptions about what will happen to the relevant markets in the absence of the intervention considered
 - In most cases, it is the status quo but... world does not stay still.
 - Must be meaningful to aid option selection

Baselines



Two economists meet on the street. One inquires, "How's your wife?" The other responds, "Relative to what?"

Case: Complaints

- **The market for retail investment advice suffers from a principal-agent problem**
- **Elements of performance are difficult to observe for consumers (information asymmetry)**
- **Experience or credence goods**
- **Current regulation: allows pursuing complaints with no regard to a time limit**
- **Industry argues the lack of a long-stop provision brings about considerable (and costly) uncertainty for firms**

Example: Complaints

Task:

- **Read the attached Market Failure Analysis**
- **Conduct a high-level CBA**

**Six-part impact analysis:
a framework for assessing
costs and benefits**

Six-part impact analysis

1. direct costs to regulators
2. compliance costs to firms
3. quantity of transactions
4. quality of transactions
5. variety of transactions
6. efficiency of competition

Analytical challenge of impact assessment
Identify the *incremental* impact of change relative to the baseline

Direct costs

- **The value of extra resources required by the regulator in respect of the proposed regulation**
 - incl. enforcement and regulatory activities of exchanges
- **What are the additional resources that will be required?**
 - designing, monitoring and enforcing regulations
 - typically: staff, IT, training, etc.
 - don't ignore overheads!
- **Generally relatively small unless:**
 - taking over regulation in a new area (e.g. mortgage business)
 - or large system changes (e.g. Mandatory Electronic Reporting or Sabre II)

Compliance costs to firms

- **Measures incremental compliance costs**
- **Firms may adjust their business in many indirect ways in response to regulation**
- **Firms would do many of the things that regulation obliges them to do, even in the absence of regulation**
- **Firms might have to do additional things in the absence of regulation**

Compliance costs to firms

- **How are firms' practices directly affected?**
 - time used by staff or management
 - literature / documentation
 - financial resources
 - IT systems / data gathering
- **Separate between effort - e.g. number of hours - and “unit costs”**
- **Unit costs: think of opportunity costs**
 - what is the cost of an extra hour of training?
- **Practically: surveys, evidence from literature and previous cost gathering exercises, cost of capital estimates etc.**
- **May lead to other market impacts. How?**

One-off / on-going ✓

Compliance costs to firms: example

- **Compliance costs associated with prudential capital requirements:**
 - one-off cost associated with raising the capital required (e.g. fees for investment bank),
 - on-going financing cost and the costs of running required stress and scenario tests
- **In both cases, we should be interested only in costs beyond what is necessary for the purpose of risk control and internal governance.**

Quantity of transactions

- **A cost: if intervention prevents certain transactions that should have taken place**
 - How does regulation affect the costs of bringing a product to the market?
 - How does it affect the price of the product?
 - How does price affect consumption?



Quantity of transactions: example

- **a significant increase in capital requirements is likely to lead to a higher prices for financial products**
 - broadly safe to assume that, over the long run and absent market power, compliance costs will be passed to consumers
- **this may decrease consumption depending on consumers' view of any related change in quality and the price elasticity of demand**
 - for example, if the cost of travel insurance is high enough, some travelers may well decide to take the risk of losing luggage rather than take out an insurance policy

Quality of transactions

- **Improvement in quality**
 - Products in ways that all informed consumers prefer the new product
 - Range of product more closely matches consumer's preferences
- **What does quality mean in your context?**
 - product and firm dimension?
 - is it about product features, capital, risk management?

Quality of transactions: example

- Many packaged investment products are both complex and opaque and so consumers very reliant on advice but...
- ...consumers cannot assess quality of advice offered
- Financial inducements such as volume related commission create conflicting incentives between advisors and consumers - leading to lower quality advice given.
- Intervention aims to re-align incentives leading to improved quality of advice.

Variety of transactions

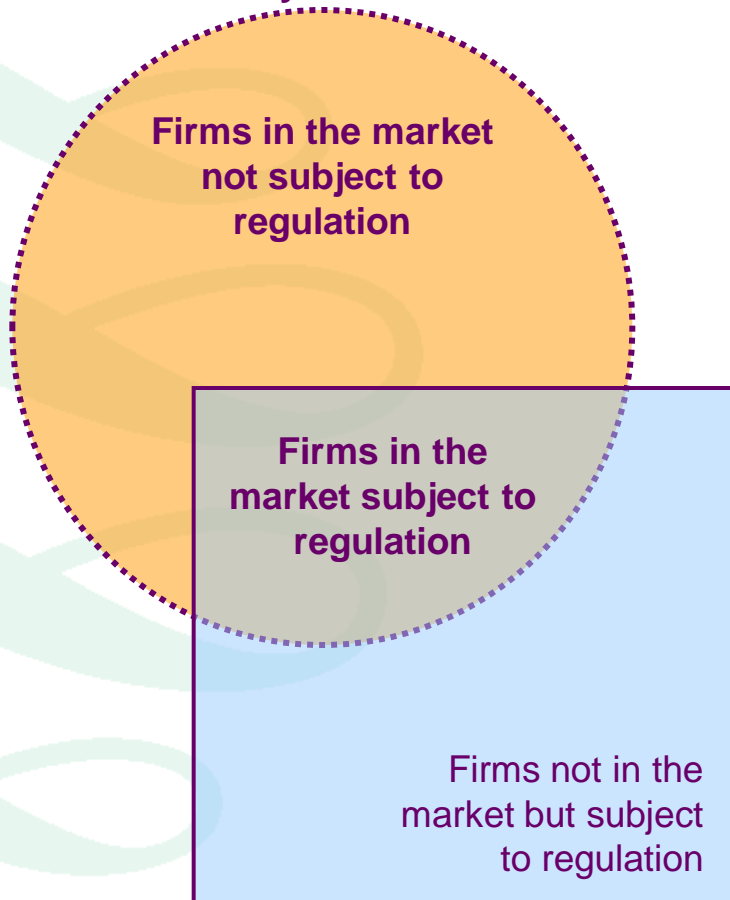
- **What is beneficial? an increase in product variety?**
 - but too much of a good thing, e.g. too many or complex mobile phone charge structures – may weaken competition, how?
 - whether it is a cost or a benefit, depends on your assessment of the “baseline”
- **What aspects of the proposals suggest more (beneficial) variety?**

Efficiency of competition

- **What is competition?**
- **Competition can be defined as the “process of rivalry between firms or other suppliers seeking to win customers’ business over time”**
- **Competition becomes more efficient when:**
 - Firms compete by offering their products on attractive terms (price, relevant dimension of quality)
 - Low chance to maintain monopoly rents
- **Competition can appear efficient but ...**
 - firms compete on irrelevant features, e.g. past performance

Market versus Regulatory Boundaries

Market boundary



Regulatory boundary

- **Let's look at a market**
- **There are now 2 types of firms competing in this market**
 - Those subject to regulation
 - Those not subject to regulation
- **This could provide a competitive advantage to one group of firms over the other**
 - not necessarily to those firms *not* subject to regulation



Barriers to entry – RNS monopoly

- RNS held a monopoly on communication of regulatory announcements from issuers on London Stock Exchange
- HMT asked the FSA to review the arrangements
- Market was opened to “primary information providers” competing with RNS
- Question: what was the result?

Spurious Accuracy

I asked an economist for her phone number....and she gave me an estimate



CASE STUDY

Purpose

- Study a regulatory problem from a MFA/CBA perspective;
- Discover the insights into the problem that such analysis can give;
- Understand how those insights can help in the choice of regulatory solutions.

! The case study is a much simplified version of reality and should not be seen as descriptive of the true position.

Short selling

- Short selling is generally considered to contribute to market efficiency
- In recent times markets have gone through a period of extreme turbulence
- The Regulator has taken emergency measures to impose restrictive conditions
- Now proposes to make these measures permanent
- Role play exercise – Hedge fund representatives and the Regulator argue their positions using the IA framework

Key steps in IA - assessing the benefits of financial regulation

**with examples from the experience of
the FSA**

What's the issue?

- **Political economy: the dominance of compliance costs**
- **False belief that estimating benefits is impossible**
- **Real constraints – technical skills and available data**

What's a benefit?

- **Important to be clear on this!**
- **The regulators' view (objectives)**
- **An economic view (e.g. WTP)**
- **The difference = transfers?**

Why does it matter?

- **Credibility**
- **The costs are obvious**
- **Strong public/political focus on exit from recession: will regulation help or hinder?**

Three Holy Grails?



- **Do capital standards in the long run increase economic output?**
- **Do conduct of business standards increase consumer welfare?**
- **Does market regulation increase informational efficiency (and allocative efficiency?) in stock/other markets for financial trading?**

The quest – an overview 1



Capital

- **Standards overlap: which bite?**
- **How do banks actually react?**
- **How do margin/volume/risk changes affect output?**
- **What is the impact on network stability?**
- **How far does this reduce future crises?**

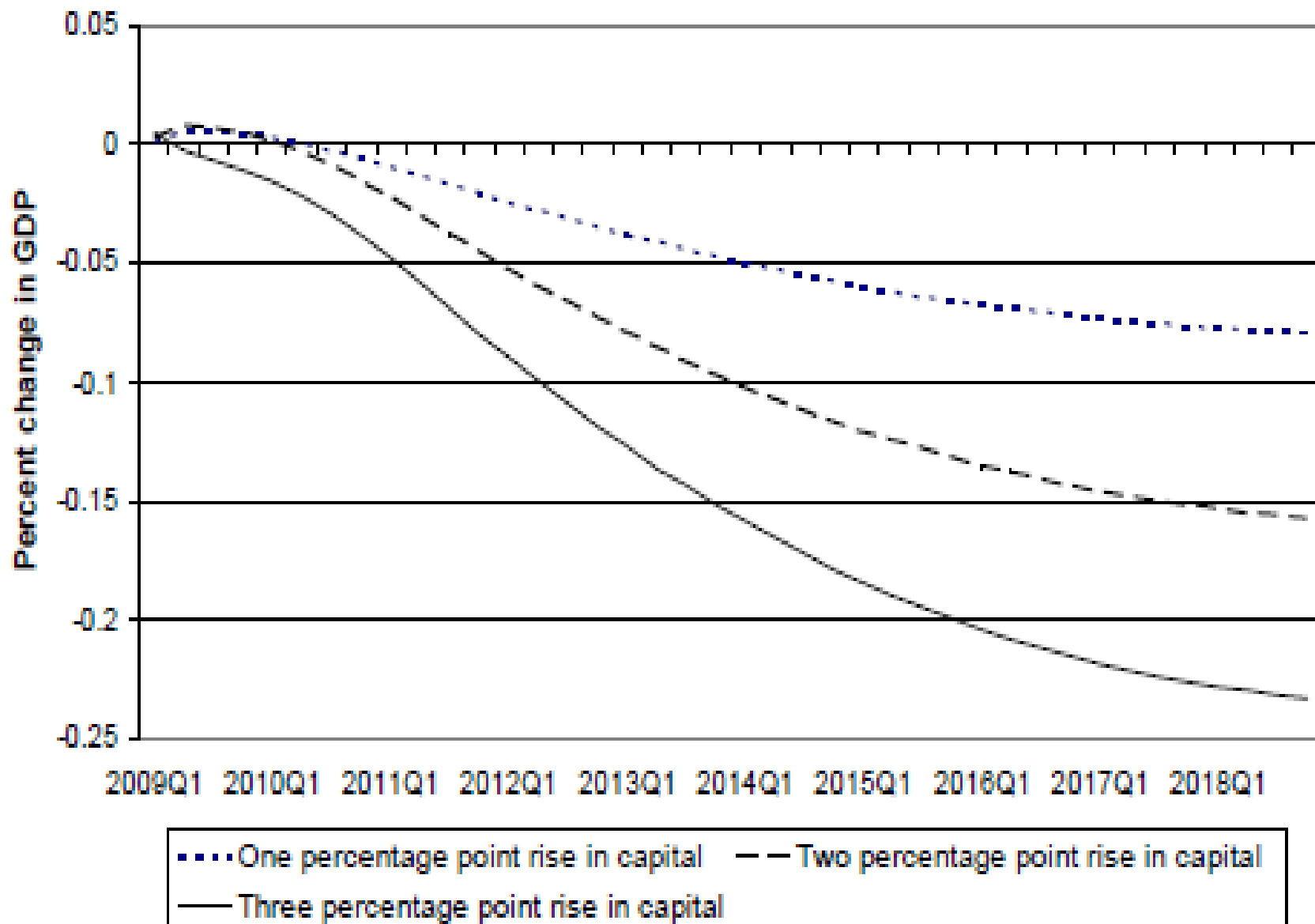
FSA Occasional Paper 38

- **A rise in the capital adequacy and liquidity adequacy ratios reduces the probability of a financial crisis**
- **These changes would have been particularly effective in the UK in the run up to the crisis experienced in 2007 and 2008**
- **A 1 percentage point rise in the capital adequacy target would have reduced the probability of a crisis in the UK in 2007 and 2008 by 5 to 6 percent**
- **The costs of crises include the recessions that follow and any long term impact on sustainable output**

FSA Occasional Paper 38

- **A rise in risk adjusted capital adequacy or liquidity requirements is a cost to banks, and to offset this banks will increase lending margins**
- **Higher firm borrowing costs raise the user cost of capital and have a negative long term impact on output**
- **A 1 pp rise in the capital adequacy target reduces output by at most 0.08% in the long run**
- **The negative effects of a change in regulation tightening capital adequacy in early 2007 would have come through very slowly while the benefits may have been immediate**

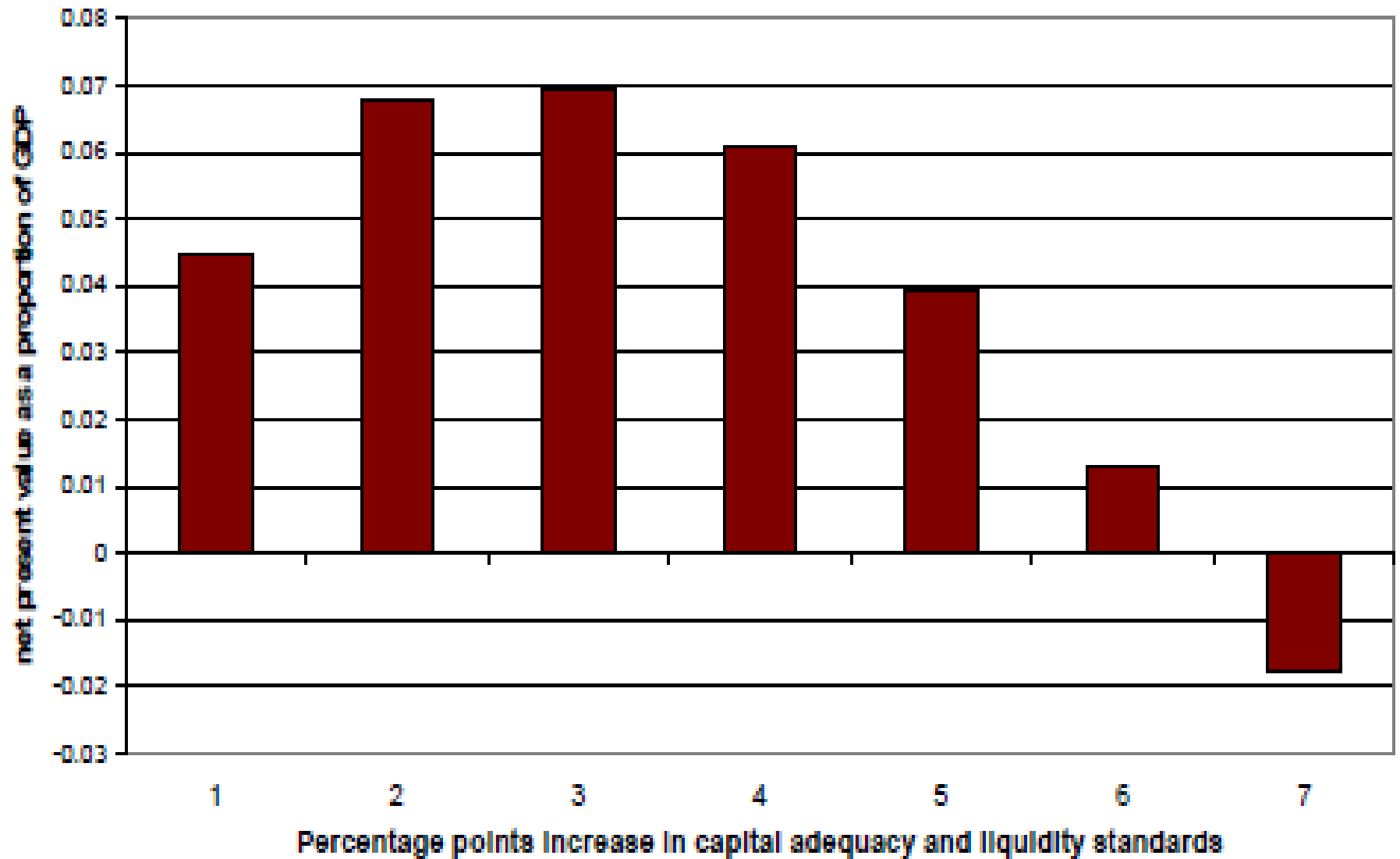
Figure 8: Impacts of increases in capital and liquidity targets on output in the UK



Source: NiGEM simulations

Figure 11: A cost benefit analysis of increased capital and liquidity standards

Cumulated gains as a proportion of GDP



The quest – an overview 2

Conduct in consumer markets

- Are prices monopolistic?
- If not, compliance costs lower consumer welfare?
- How to identify changes in product choices?
- How to value increases in quality of purchase? (the problems of WTP surveys)
- Regulation increases or decreases consumption?
- Is a decrease bad in this case?

FSA Consumer Research Report 69



Psychological rather than informational differences may explain much of the variation in financial capability reported in the FSA's financial capability survey, and that people's financial behaviour may primarily depend on their intrinsic psychological attributes rather than information or skills or how they choose to deploy them

Principal cognitive biases

- procrastination,
- regret and loss aversion,
- mental accounting,
- status quo bias and
- information overload

Procrastination

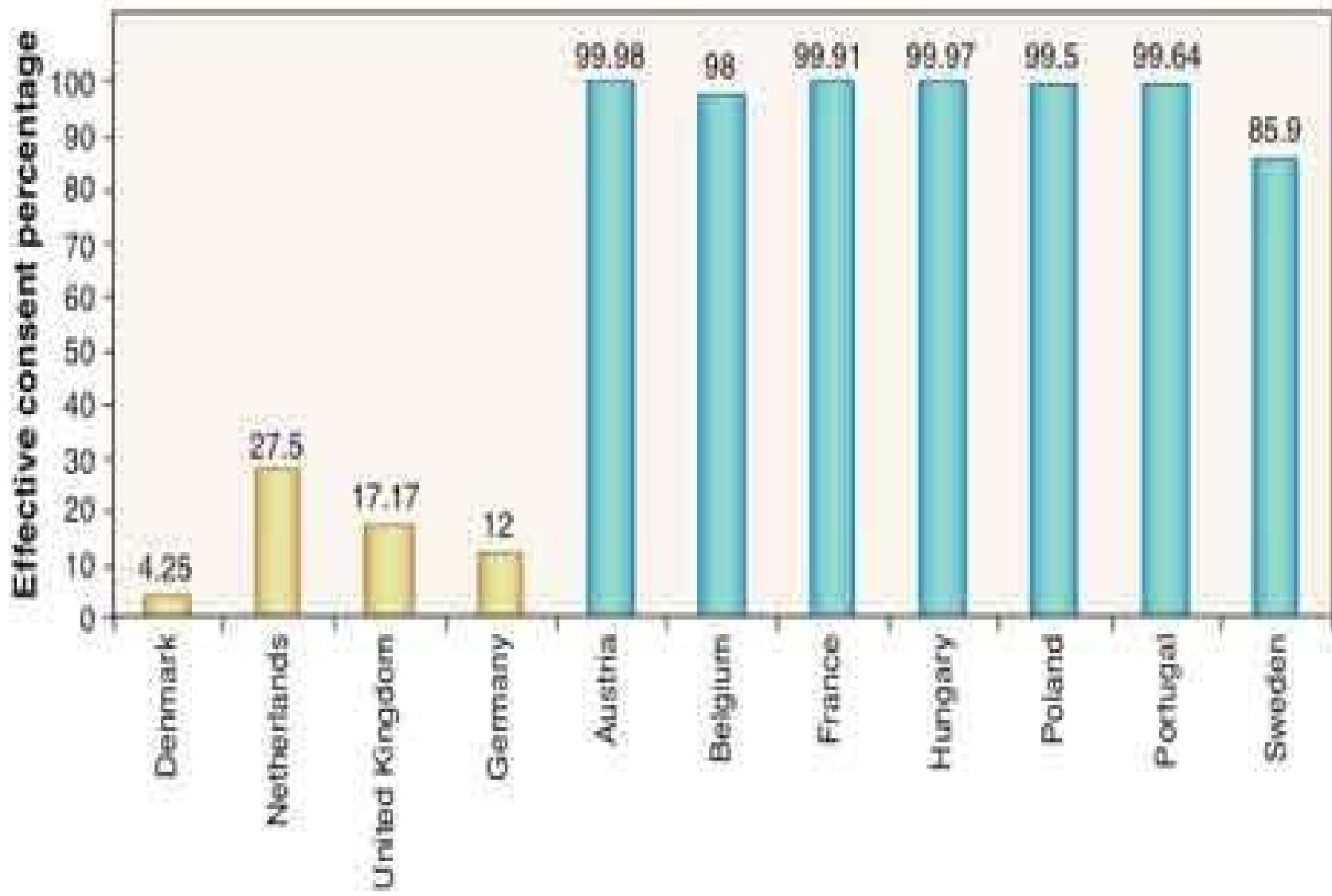
- Captured by the tendency of many people to have high short-term discount rates but lower long-term discount rates (hyperbolic discounting).
- Postponing a cost, even one that generates high future benefits, is therefore attractive.
- So too is advancing a benefit to the present, even if this implies high future costs.
- This leads to outcomes such as credit card borrowing at high interest rates and unwillingness to engage in painful activities such as financial planning.
- Banks exploit through overdraft and late payment charges

Procrastination – policy implication

- Best response may not be informing consumers of the problem or trying to change them, but
- Institutional design and regulation that recognises the psychology.
- An example is externally set deadlines for pension choice with sensible default options built in

Status Quo bias

- The tendency for people to stick with their prior choices.
- It is therefore relevant to the selection of financial products and the incentive to stay informed.
- The surprisingly powerful influence of default options is consistent with this bias.



Effective consent rates, by country. Explicit consent (opt-in, gold) and presumed consent (opt-out, blue).

Curse of knowledge

- People draw incorrect inferences, focus on inappropriate or unimportant data, are distracted by too much information and choice, may over-deliberate and otherwise misuse information.
- Unjustified optimism is rife.
- These errors may affect decision making in all financial capability domains.
- It is though unclear whether people can be educated out of their errors, whether education may sometimes exacerbate problems, or whether the best response is regulation of how information is presented

Loss aversion

- Tendency to strongly prefer avoiding losses to acquiring gains
- For example, whether people sell shares is influenced by what they paid for them and some choices may be avoided if it easy to determine subsequently whether a mistake has been made
- In marketing the use of trial periods and rebates try to take advantage of the buyer's tendency to value the good more after he incorporates it in the status quo

Policy solutions?

Behavioural economics has been directed more to explaining choices than to changing them

Policy solutions?

- A number of the debiasing techniques in the literature involve encouraging thinking that is more critical. “Consider the opposite” encourages people to think why they may be wrong. This counteracts general tendencies to be overconfident and to suppress disconfirming evidence
- Accountability accentuates the need to think about all aspects of a decision by making people imagine they have to explain their choice to others or really having them explain their choice to others. This has elements of a Weightwatchers or Alcoholics Anonymous approach. It has not been directly tested in the financial domain

Implications

What does this imply:

financial capability initiatives which are designed to inform and educate should be expected to have a positive but modest impact

What does the FSA do in response?

- recognises that achieving widespread behavioural change will be a long process due to deep seated behavioural biases, and
- will take the findings of Professor de Meza et al into account in using conservative estimates for the likely behavioural impact of financial capability initiatives in ex ante cost-benefit analyses.

The quest – an overview 3

Market regulation of stock trading, etc.

- A transaction costs approach? (routing capital from holders to users: how much does the chain cost?)
- Are bid-offer spreads a good proxy for informational efficiency including market cleanliness?
- What about checking impacts on allocative efficiency?
- What about measuring impacts on externalities?

What's the answer?

- **Use standard analytical methods from economics and finance**
- **Use models and insights from economic and finance literature**
- **Collect the necessary data**
 - i.e. integrate research into policy making
- **Allow time for these activities**
- **Use the Impact Assessment framework to think through what to do**

What methods?

- **Regression**
- **Data envelope analysis**
- **Willingness to pay surveys**
- **Event studies**
- **Option valuation methods**
- **Behavioural experiments**
- **Simulation**
- **Opportunity costing/shadow pricing**
- **Welfare weights?**

Example: PPR vs. QR

- In the portfolio regulation of life insurance firms are:

Prudent Person Rules **or**
Quantitative Restrictions
Better?

What did Solvency I require?

- Admissible asset restrictions
 - eligible asset classes: bonds (govt & corporate), equities, real estate, derivatives, foreign assets, cash deposits, loans secured by mortgages
- Concentration rules

Countries Added

- **Inherent prudence in valuation of assets**
- **Capital requirements**
- **Asset allocation restrictions**
 - Prudent Person Rules (PPR) invest in assets as a prudent person would
 - Quantitative Restrictions (QR) limits on the % of the admissible assets that can be held in equity, bonds, land, etc

Why?



information asymmetry - consumer protection

negative externalities – the wider cost of insolvency

Economic theory

- **Unconstrained portfolio choice problem: investors choose portfolios on the efficient frontier**
- **Portfolio restrictions: investors cannot fully take advantage of diversification benefits**
- **Restrictions may negatively impact on the performance of firms' portfolios**

Hypothesis

Our Hypotheses

- Arbitrary limits on securities holdings prevent effective diversification
- Risk-adjusted returns are reduced under QR.

Research Question

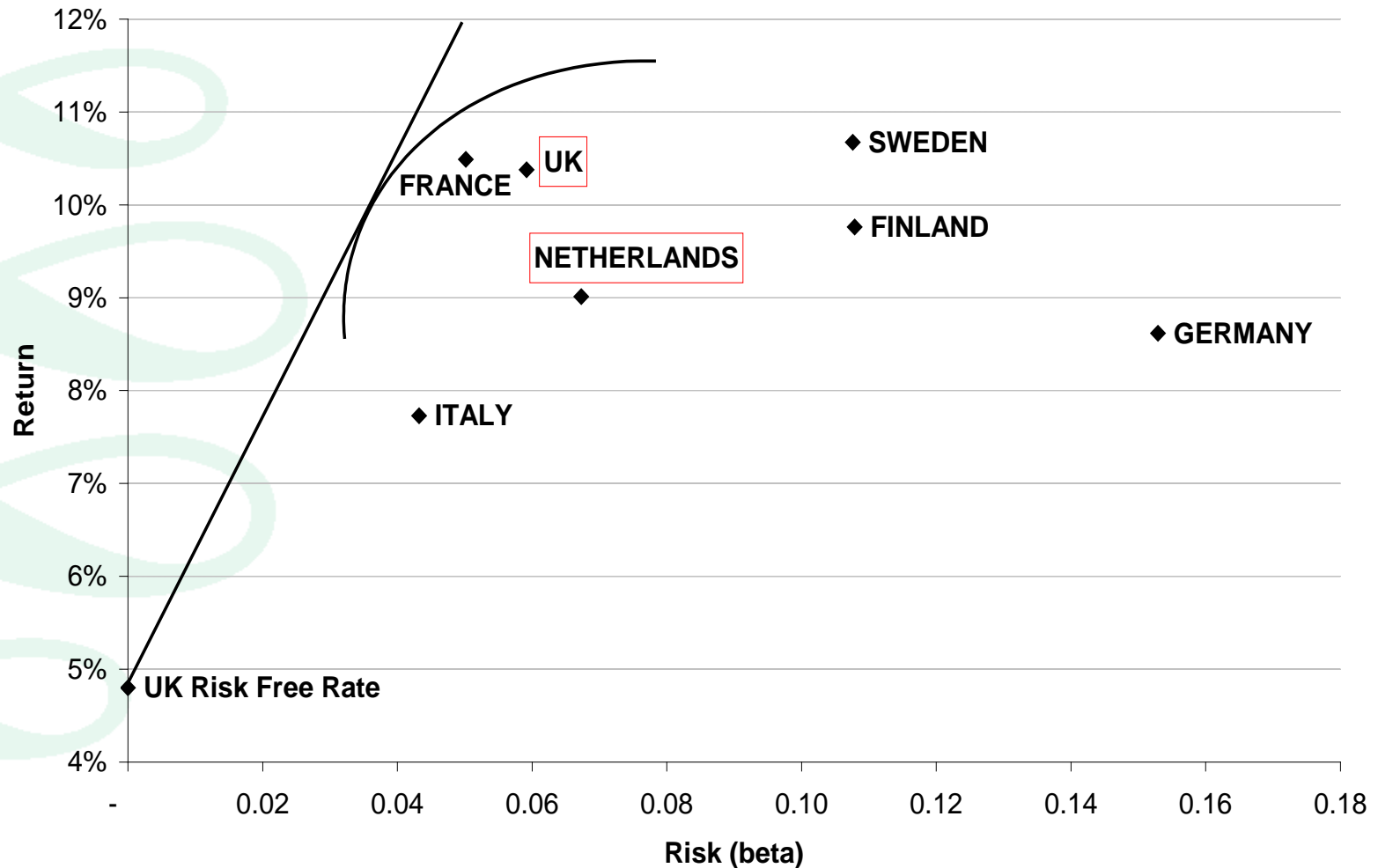
- Are insurer's portfolio risk-adjusted returns significantly lower in QR countries?

Data



Country	Limit on equities %	Rating
Finland	50	Weak QR
France	65	Weak QR
Germany	30	Strong QR
Italy	20	Strong QR
Netherlands	none	PPR
Sweden	25	Strong QR
UK	none	PPR

Risk-Return of Investment Portfolios



Methodology

- **Use econometrics (regression analysis) to model risk adjusted returns as a function of size, market returns and other influences.**
- **And then isolate the impact of our regulation measure**

Results

- **Strong QR lead to significantly lower asset returns**
- **Returns ↓ by 4 per cent per annum (controlling for risk, size, market returns)**
- **Strong QR reduce portfolio efficiency; Non-proportionate costs**
- **Applicability to other markets**

Is it simple?

Intuitively Yes

Econometrics can be Challenging

- **Panel approaches: Pooled OLS, Random Effects GLS, Fixed Effects OLS, Hausman-Taylor estimation**
- **Omitted variables: structure of liabilities (unit-linked vs. with profits vs. fixed nominal liabilities)**
- **See FSA Occasional Paper 24**



Indirect measurement using proxy metrics

- **Identify market outcome regulation is intended to improve**
- **Identify the mechanism by which regulation delivers the improvement**
- **Identify and measure the corresponding proxy metrics**
- **Validate the link between proxy and market outcome**

Example - Taping

- **Market failure addressed:**
 - market abuse undermining market confidence (externality)
- **Mechanism:**
 - Recording increases the incidence of enforcement action
 - Increased enforcement leads to cleaner markets
 - Cleaner markets lead to better market outcomes
- **Goal**
 - Attempt to evidence each link of the chain (mechanism)

Recording increases the incidence of enforcement action



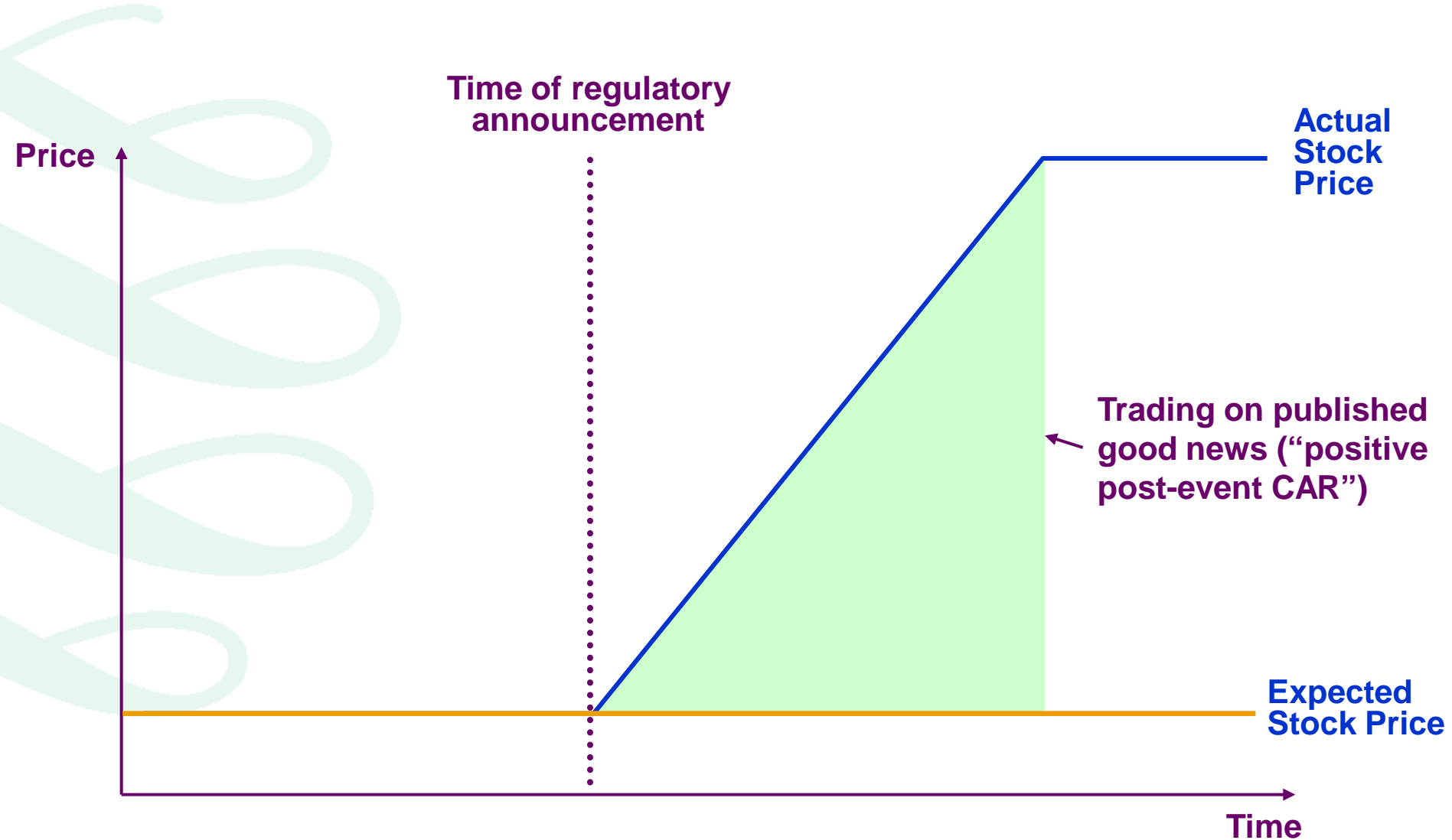
- **Examine random sample of relevant cases within Enforcement Division**
- **Examine random sample of relevant cases within Market Monitoring**
- **Consider if there is a difference in successful outcomes between samples if tapes do or do not exist**



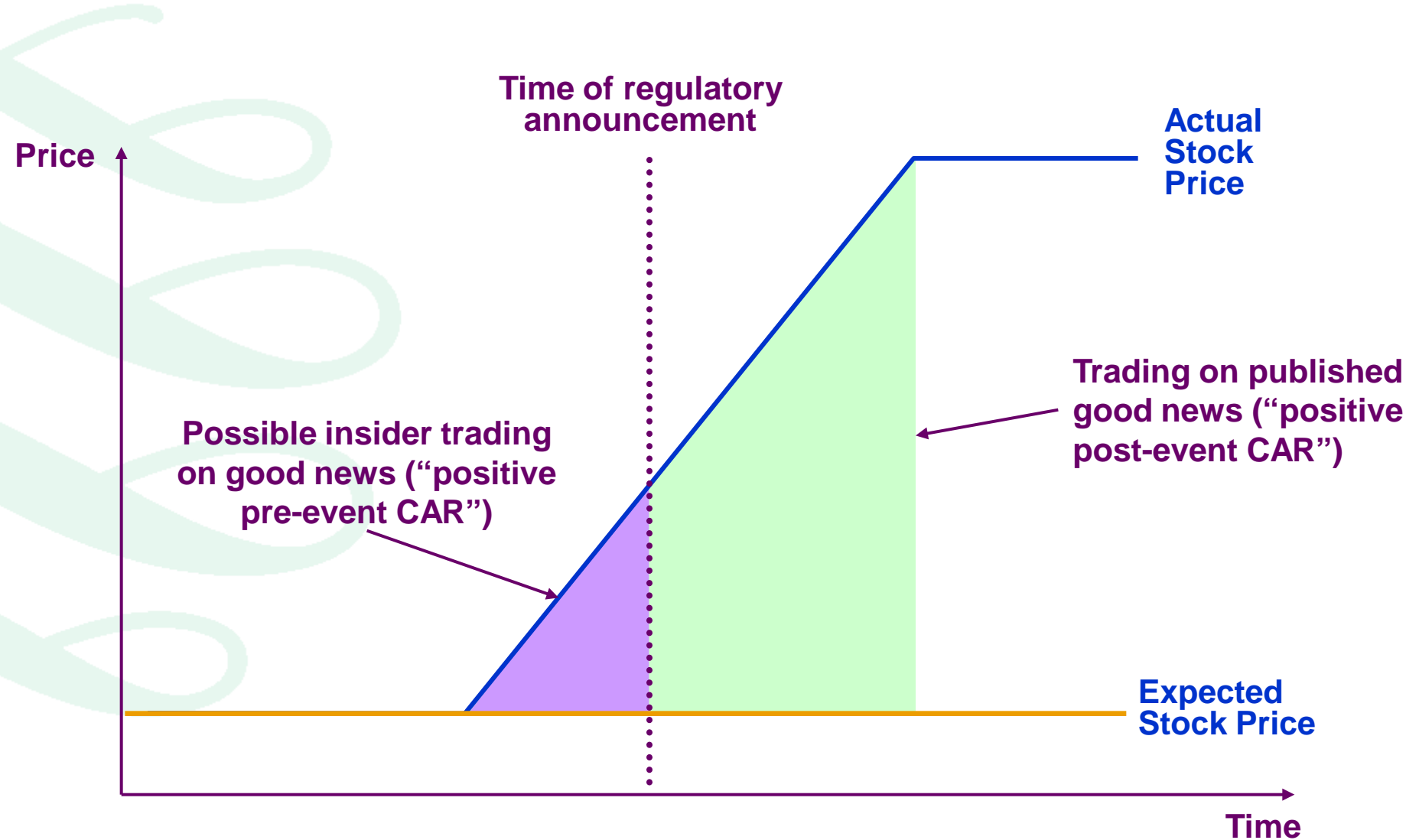
Enforcement Leads to Cleaner Markets?

- **Examine academic research from other countries**
- **Look at what FSA in-house research (OP23 and OP25) reveals examining:**
 - **Deterrence effect of FSMA (2001)**
 - **Deterrence effect of enforcement (2004)**

Intuition: the event study



Intuition: the event study



Results - FTSE 350 analysis

Time Period	Number of announcements	Number of SAs	Number of IPMs	Raw Measure
Before FSMA <i>(1998/1999/2000)</i>	487	51	10	19.6%
After FSMA <i>(2002/2003)</i>	734	54	6	11.1%
After Enforcement <i>(2004/2005)</i>	927	49	1	2.0%

Number of IPMs

Number of SAs

Results - M&A analysis

Time Period	Number of announcements	Number of IPMs	Raw Measure
2000	183	44	24.0%
2002	147	37	25.1%
2003	160	22	13.8%
2004	102	33	32.4%
2005	177	42	23.7%

Number of IPMs

Number of SAs

Cleaner Markets Lead to Better Market Outcomes (3)



- **Outcomes:**
 1. Market Confidence (cost of equity)
 2. Price accuracy (leading to efficiency in resource allocation)
- **Academic literature (COE) – and attempt to convert into surplus change**
- **Correlation between global indices of insider trading and equity market efficiency**

How sure are we of evidence of each link?

IA in Europe (CEBS)
**Case: Skin in the game in
securitisation**

MFA & High Level CBA

The problem

- Huge losses relating to securitisations contributed to the financial crisis
- G20 response included a request that the Basel Committee for Banking Supervision consider the adequacy of existing retention requirements
- The EC's response was to seek advice from CEBS on what retention rates and different calculation methods would adequately address the incentive misalignment problem

The problem

- Incentive misalignment between
 - investors in securitisations
 - those that originate loans for securitisations and structure securitisations
- Article 122a aims to address the incentive misalignment by imposing a “retention requirement” on investors (also known as “skin-in-the-game”)
- Specifically, credit institutions can only invest if originator discloses that they will retain a net economic interest of not less than 5%

The baseline

- CEBS sought to identify current and recent retention rates
- Data was limited because disclosure of retention levels is not mandatory
- Highly variable pattern of retentions across CEBS members
- Figures indicated retentions in excess of 5%
- But averages mask wide ranges and recent activity related to accessing of central bank funding

The baseline

- Some evidence from the UK that retention rates have increased since 2006
- Evidence of market self-correcting?
- Possibly due to changes in credit rating agency criteria?

Potential impacts

- Retention requirement raises issuer costs
 - they have to hold more capital
 - Greater due diligence plus incremental loss associated with a default
- But possibly no impact on net welfare as these costs are transfers from investor to issuer?
- Nevertheless, requirement expected to reduce securitised loan quantity and increase quality, thereby addressing the problem

Potential impacts

- Key issue is how to estimate the size of these impacts
- Will they be the same for all markets and all transaction types?
- What is the relationship between the level of retention requirement and the effect on market confidence?
- Do retention requirements create moral hazard?
- Do uniform retention requirements create regulatory arbitrage opportunities?

The impact of different options

- CEBS considered the impact of higher retention rates and four calculation methods
 - equity tranche retention
 - first-loss tranche
 - equivalent on-balance sheet
 - L-shaped retention
- important to note that the incentive effects are different for different economic scenarios

CASE STUDY

Capital Requirements: Basel I to Basel II

Purpose

- Study a regulatory problem from a MFA/CBA perspective;
- Discover the insights into the problem that such analysis can give;
- Understand how those insights can help in the choice of regulatory solutions.

! The case study is a much simplified version of reality and should not be seen as descriptive of the true position.



Do's and Don'ts of...
Impact Assessment

- In using IA to improve policy making the FSA has made many **mistakes** and learned many **lessons** over the years
- Here are the most **notable**
- You can benefit from these as they mostly are relevant in other IA contexts

The FSA uses IA (ideally) as follows:

- **MFA** and **RFA**: in principle, shall we intervene?
- **High-level CBA**: can we intervene at net benefit?

CBA: option selection/accountability

Mistakes & lessons



1. Organisational
2. Resourcing
3. Scope
4. Technical Considerations
5. Integration
6. Outputs
7. Communication

1. Organisational



Do's

A. Evidence-based culture

- B. Senior management buy-in
- C. Internal controls and incentives
- D. Reporting lines and status – independence
- E. Clearly defined division of responsibilities – challenge, assistance & being “hands-on”

1. Organisational



Don'ts

A. Apartheid

B. Incompatible goals

C. Not working hard to create the **evidence-**

based culture

2. Resourcing



Do's

A. Quality and seniority – influencing skills and

credibility

B. Policy-focussed and outcome-focussed economists – non-technical

dialogue

C. Access to data/software/literature

D. Get inputs from relevant stakeholders

2. Resourcing



Don'ts

A. Free-ride – many markets are national or sub-national

B. **Outsource everything** – need to build centre of expertise (subject to resource constraints)

C. Rely on consultants whose interests may be more closely aligned with those of financial firms

D. Skimp on project management skills

3. Scope



Do's

- A. Clarify with Government/Commission what the goal/scope is – preferably narrow to avoid general equilibrium problems...
- B. Proper **market definition** – product and national – crucial for reliable analysis
- C. Set the **right depth of analysis** – proportionate use of resources – stop when appropriate degree of confidence achieved – recognise what is impossible

3. Scope

Don'ts

- A. Try to explain the whole world – however interesting it may be:
focus only on what is policy-relevant
- B. Keep changing the scope of an IA exercise unless unavoidable
- C. Ignore overlapping policy initiatives

4. Technical considerations



Do's

- A. Keep the framework for analysis rigorous but practical
- B. Be consistent in treatment of data/issues
- c. **Exploit previous IAs and existing economic literature** – empirical and theoretical

4. Technical considerations

Do's

- D. **Integrate longer-term research** – to enable tight deadlines to be met with high quality material
- E. **Use** market failure analysis (**MFA**) to evaluate likely scale of benefits/whether any benefits can be achieved
- F. Use an IA plan
- G. Be inventive when data are scarce

4. Technical considerations



Don'ts

- A. Simply assume that national research is/is not relevant across Europe
- B. Let the approach/methodology grow stale – continuous innovation (finding ways to solve problems drawing on work – other fields e.g. evolutionary biology, regulation of pig farms...)
- C. Give up due to data problems**
preventing use of the ideal methodology

5. Integration



Do's

- A. Embed IA in the culture of the organisation
- B. Research – already mentioned
- C. Integrate IA within the policy cycle
- D. Integrate IA within the decision cycle**

5. Integration



Don'ts

- A. Integrate legal considerations in such a way as to **ignore economic realities:**
- **Non-compliance is a fact of life**
 - **Incentives matter**
 - **Always consider what markets will actually do in response to what we say**

6. Outputs



Do's

A. Plain language

- B. Tailor to objectives (Commission's questions)
- C. Tailor to audience – relevance to decisions and the audience's value set
- D. Set economic material in sufficient context to make it intelligible
- E. Make uncertainties explicit

6. Outputs



Don'ts

- A. Try to show how clever you are
- B. Quote important economic papers that aren't really relevant to the issue/targeted audience

C. Utilise spurious accuracy

7. Communications



Do's

- A. Partnership with firms/Trade Associations
- B. Partnership with consumer representatives
- C. Hear direct from consumers** (e.g. behavioural studies/experiments)
- D. Clear accountability feedback to stakeholders (to secure future co-operation)

7. Communications



Don'ts

- A. Necessarily believe what firms, consumer groups and other stakeholders say:

trust but verify!

- B. Underestimate the efforts stakeholders have to make in order to help us

8. Key Do's - Conclusion



- A. Use MFA to overcome data problems
- B. Organisational controls, incentives and **culture** (to get traction)
- C. Effective stakeholder engagement
- D. Proper planning (to deliver high quality outputs on time)
- E. Early involvement/definition of policy options

Questions.....

are very **welcome!**