The Counterfactual Revolution in EU antitrust enforcement
(or the long journey from deductive to abductive reasoning)

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Making Enforcement Decisions (the responsible way...)

- Deductive, inductive and abductive reasoning

- Deductive reasoning (deduction)
  - allows deriving B from A only where B is a formal logical consequence of A.
  - In other words, deduction derives the consequences of the assumed.
  - Given the truth of the assumptions, a valid deduction guarantees the truth of the conclusion

- For example:
  - All roses are flowers.
  - All flowers will fade one day.
  - Therefore all roses will fade one day.
A SHORT TIME AGO IN A JURISDICTION NOT FAR AWAY...

- Deductive reasoning underpins the “form based approach to article 102 enforcement”

- Certain practices are abusive (by nature / per-se)

  (i) if they take certain form (i.e. have certain characteristics)  
  and/or  
  (ii) in the presence of certain circumstances (necessary/sufficient)

- A form-based approach is sometimes also referred to as the application of “per se” rules.
  - The term “per se”, is used in US antitrust law as an antagonism to the “rule of reason”
  - But is imprecise in EC competition law since a behaviour that is in principle considered abusive under Article 102 can be objectively justified (more on this point at the end)
TYING — A “PARTICULAR” TYPE OF ABUSE

- Any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States. Such abuse may, in particular, consist in
  
  [...] 

- (d) making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.
TYING — A FORM BASED APPROACH

- If the observed practice takes a certain form:
  - The tying and tied products are two separate products (distinct products)
  - The seller does not give the buyers a choice to obtain the tying product without the tied product (a tie exists)

- If certain conditions are present:
  - Firm is dominant in the market for the tying product
  - The tie (has the capability to) foreclose competition.

- Then the tying practice is an abuse (e.g. media players)
FORM BASED APPROACH.... CONTINUED

- Rebates
  - illegal if loyalty inducing...
  - ... loyalty inducing if, inter alia, conditional, individualised...
  (case law and case practice to determine: the relevant characteristics: targeted, individualised, retroactive, conditional etc...)

- Predation:
  - Illegal if price below some relevant measure of cost
  - If above then no problem except if intent to predate exists
  (case law and case practice to determine: the appropriate costs benchmark; how to define intent, non-price predation...etc)
Refusal to supply. Illegal if:
- Dominance in the input market
- Input is indispensable
- Elimination of competition
- In refusal to license IPR: input allows to produce a "new product" for which there is unsatisfied consumer demand. (case law and case practice determine definitions and standards of proof on indispensability, elimination of competition, “new product”, etc)

Objective justifications are permitted, but if they apply they are absolute(e.g. health and safety concerns)
- no balancing is required (or possible)
ESTABLISHING DOMINANCE: HIGH MARKET SHARE = INDEPENDENCE?

“very large shares are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position”

*Hoffmann-La Roche v Commission [1979]*

- A market share of 50% or above: presumption of dominance
- De facto necessary condition for single dominance: market leadership
- The more fragmented the competition the easier to establish dominance

- Barriers to entry
  - economies of scale, superior technology, customer loyalty, first-mover advantage, vertical integration, extensive and well developed distribution, reputation for quality... greatest efficiency?
EXAMPLE: FROM HOFFMAN TO INTEL

- The form based approach is best exemplified in the Hoffmann-La Roche judgement.
  - loyalty rebates abusive because different prices to customers purchasing the same quantities
  - designed to deny other producers access to the market.
- The Court did not say much about the specific effects on the market of the conduct in question.
- In the Intel case, the Commission argued that Intel’s rebates were illegal, since they were conditional in the meaning of Hoffman-La Roche.
- In particular the rebates in both cases shared in common:
  - (i) incentive to obtain all or nearly all supplies from dominant firm
  - (ii) restrict choices
  - (iii) deny competitors access to the market.
- A complementary effects based analysis, notably by evaluating whether the rebates would exclude an as efficient competitor (or AEC test) was done but the Commission argued it was not necessary.
Proponents of a form based approach argue that certain practices by a dominant firm can by their very nature have significant anticompetitive foreclosure effects.

This proposition, in itself is not controversial.

For example the legal rule that a cartel infringes Article 101 is well supported:

- by an economic analysis of the incentives that drive firms to collude – and
- economic analysis also accurately predicts the detrimental impact on consumers of such collusion

As a result, virtually all practitioners and competition policy experts agree that price-fixing should be considered an infringement of Article 101, irrespective of the extent of the harm caused to consumers, and even irrespective of whether it was effective and durable.

Similarly, careful economic reasoning can be invoked to offer clear and unambiguous support to legal rules and bright line tests intended to establish that, save exceptional circumstances, a particular exclusionary practice is both capable and likely to harm competition to the detriment of consumers.
CRACKS IN THE FORM BASED SYSTEM OF ENFORCEMENT

- Administrable?
  - Characteristics of the practice that determine illegality are not defined in law and hence need to be “developed” through case law and case practice
  - Conditions or circumstances that allow one to establish capability to foreclose (let alone likelihood) also need to be developed
  - Examples:
    - Infinite ways to tie to products (exclusive dealing, contractual clauses, technical tying, mixed bundling, multiproduct rebates network effects, learning effects, aftermarket, intertemporal…. But then how to define distinct products? How to determine capability to foreclose?
    - Predation: how do you determine prices in differentiated good markets, how to allocate costs in multiproduct firms? How to account for demand and supply side economies of scale and scope, network effects, learning effects etc.
    - Rebates (Michelin saga), refusal to deal vs. margin squeeze...
  - These cases can take a decade while the Commission and parties discuss whether the particular circumstances match or are analogous to past cases and meet conditions inferred from jurisprudence (e.g. Intel)
CRACKS IN THE FORM BASED SYSTEM OF ENFORCEMENT

- Legal certainty?
  - How can one distinguish intent to predate from intent to compete?
  - One learns only one case at a time what is illegal.
  - But the benefit of 102 arise from its deterrence power. But then a dominant firm needs to be able to self-asses what is legal according to some clear cut principles of standards. Yet the form based approach sheds no light on what is legal

- Effectiveness? Minimise type 1 and 2 errors?
  - Retroactive rebates have the capability to foreclose...sure, but also advertising, and R&D
  - What if prices are below cost not to exclude rivals (and then raise them) but in order to expand demand? What about Non-price predation?
INEFFECTIVENESS: THE AKZO TEST

- Typically two considerations:
  - Probability of making an error
  - Consequences of making such error

- Probability of making depends on the accuracy of the test, but not only.

- Suppose we use a “sacrifice only” test of predation implemented using the rule: there is predatory sacrifice if P<ATC

- Assume:
  - In 90% of cases where a firm predates price will be below ATC (10% risk that the firm engages in non-price predation – false negative)
  - In 90% of cases where there is no predation P>ATC (10% risk that the firm engages in promotional or penetration pricing – false positive)

- Is this a reliable test?
NOT VERY RELIABLE...

- In light of the modern theories of predatory conduct, assume market circumstances for rational predation are present rather infrequently (only 1% of firms will find predation rational)

- Take 1000 dominant companies
  - Typically 10 are truly predating. If they predate the price-cost test comes positive in 9 cases (the remaining firm engages in non-price predation or above cost predation)
  - The remaining 990 are not predating but the test can be inaccurate for them too. Up to 99 of them will price below ATC
  - So there are 108 positive results in total but only 9 are accurate
  - So for any case where P<ATC the chance there is predation is low around 8%, not high as may appear at first sight
OTHER CONSEQUENCES FOR ENFORCEMENT OF THE FORM BASED APPROACH

- Impossibility to prioritize to optimize the allocation of scarce enforcement resources:
  - Since anti-competitive effects need not be assessed it is not possible to prioritize cases and allocate enforcement resources.
  - Since the authority has no duty to establish the significance of the anti-competitive effects it is rather unhelpful to make efficiency claims.
OTHER CONSEQUENCES FOR ENFORCEMENT OF THE FORM BASED APPROACH

- Risk of over-enforcement
  - Once a conduct is classified as having the capability to foreclose, it is effectively blacklisted for dominant companies (e.g. loyalty discounts) irrespective of efficiencies, market self-correction (countervailing responses by customers and competitors, entry, product repositioning, innovation etc)
  - It is not difficult to find a theoretical mechanism, no matter how unlikely and detached from reality, through which conduct of some kind can exclude rivals. So enforcement generally collapses into proving dominance.

- Chilling effect can more than offset any benefits from enforcement
  - by demanding that winning firms, once they achieve such power, “lie down and play dead”.
  - by limiting incentives to acquire market power through business acumen, innovation, or simply trial and error

- “It is the unseen” effects can dwarf the benefits of enforcement on a single case or even on all the cases the authorities can process within any space of time.
OTHER CONSEQUENCES FOR ENFORCEMENT OF THE FORM BASED APPROACH

- Risk of Under-enforcement
  - Circumvention: if commercial tying is deemed illegal, let us tie the components physically (e.g. anti-spyware). And if the price of the upstream good is too high then let's give it away virtually for free but make it incompatible with rival downstream goods (razors).
  - Anticompetitive practices that are complex (and or deductive reasoning fails) may remain out of scope (e.g. non-price predation, patent hold up, reverse payment cases, IPR abuses)

- In sum, giving primacy to form over likely of actual effects risks that enforcement decision will lack economic logic, evolve as a random walk, and remain unpredictable and easy to circumvent.
INDUCTIVE REASONING (INDUCTION)

- Allows inferring B from A, where B does not follow necessarily from A.
- “A” might give us very good reason to accept “B”, but it does not ensure “B”
- For example, if all swans that we have observed so far are white, we may induce that the possibility that all swans are white is reasonable.
- We have good reason to believe the conclusion from the premise, but the truth of the conclusion is not guaranteed.
  - (Indeed, it turns out that some swans are black.)
In 2001, O2 and T-Mobile notified the Commission of an agreement concerning the sharing of some elements of their 3G infrastructure and the national roaming on each others’ networks within the German market.

They argued that antitrust rules weren't applicable in both deals because in the absence of the agreements the market would not develop and they would not in fact be any competition at all.

The Commission considered:
- that the infrastructure agreement didn't fall under antitrust rules.
- However it argued that national roaming between network providers would limit network-based competition and the roaming agreement should fall under antitrust rules, but granted it an exemption.

O2, since bought by Spain's Telefonica, appealed to the CFI, saying the roaming agreement also should have been ruled to fall outside the scope of antitrust rules.

The court agreed.
The courts calls for the Commission to use inductive reasoning and consider the counterfactual T-Mobile/O2

- Judges found that the interference with competition may in particular be doubted if the agreement seems really necessary for the penetration of a new area by an undertaking and the Commission failed to fulfil its obligation to carry out:
  - “an objective analysis of the competition in the absence of an agreement.”

- Also the competition in question must be understood within the actual context in which it would occur in the absence of the agreement in dispute. Specifically, the commission failed to evaluate the impact of the agreement on roaming in urban areas and failed to take into account:
  - “the specific characteristics of the emerging market for the third generation of GSM mobile telecommunications.”
Essentially the Court is concerned with the absence of inductive reasoning on the part of the Commission (inferring B from A, where B does not follow necessarily from A).

- Whereas “A” (an agreement between two firms not to compete) might give us very good reason to accept “B” (e.g. restriction of the competitive process - to the detriment of consumers), but it does not ensure “B”.

- This is because in the absence of the agreement the competitive process itself may be even more impaired or in fact there may exist no market and hence no competition at all.
CONSEQUENCES OF THE REQUIREMENT TO IDENTIFY THE COUNTERFACTUAL TO ESTABLISH AN INFRINGEMENT

- A long-standing and central problem in assessing antitrust cases is the extent to which market outcomes reflect the exercise of market power or some form of implicit or explicit collusion.
- But ultimate economic question in antitrust enforcement is almost never whether a firm or set of firms have market power.
- Rather the question is whether there is an economic objection to the challenged conduct—an agreement among rivals, a merger, exclusionary conduct
CONSEQUENCES OF THE REQUIREMENT TO IDENTIFY THE COUNTERFACTUAL TO ESTABLISH AN INFRINGEMENT

- This turns on whether the conduct has increased (in a retrospective case) or is likely to increase (in a prospective case) market power. Accordingly the economic question is not the level of market power but the change (or delta).

- The form based approach relies upon presumptions (deductive reasoning) that if the level of market power is high, various types of conduct will increase it, and if the level of market power is low, they will not.

- That is, in legal terms, anticompetitive effect is at times inferred from proof of market power. Whether or not such inferences are justified empirically, they shift attention away from the ultimate economic question of:
  - Whether market power has increased or is likely to the increase, and
  - What are the welfare consequences
The focus shifts towards assessing changes in market power:

- examining a historical counterfactual without the challenged practices in a retrospective case or
- providing an analysis of the change in incentives in a prospective one.

The retrospective approach is intended to estimate “actual” effects of a particular conduct, the prospective approach focuses on identifying “likely” effects.
Either approach requires the development of a **theory of how the market works**;
- which allows to predict what would have happened (or likely happen) if the dominant firm had implemented a different conduct from the observed and allegedly abusive one.
- But that theory has to be consistent with “actual” observed outcomes.
- So effectively the theory of how the market works also helps to explain how the “observed” conduct causes the “observed” outcomes.

Now we have a theory, an observed outcome and a predicted outcome (in case the retrospective cases) or two predicted outcomes (in prospective cases). We can therefore ask the question: what does the challenge conduct actually change? That is to say we can determine what the “effects” of the conduct are relative to a well defined counterfactual.
The recognition that “B” (a market outcome, observed or predicted) does not necessarily follow from “A” (an observed practice by a dominant firm) forces us also to ask questions that are irrelevant under a “strict” form based approach:

- what market outcomes do we care about?
- What are the objectives of antitrust enforcement?

Article 102 itself does not specify what the standards of enforcement should be. But it offers a very solid clue, at least as regards exclusionary abuses:

- Such abuse may, in particular, consist in”
- [...] 
- (b) limiting production, markets or technical development to the prejudice of consumers;
FROM EFFECTS TO CONSUMER WELFARE
(OR THE RISE OF THE THEORY OF HARM)

What is abusive conduct? Is abuse defined by reference to the effects or the form of the conduct?

It should be observed that, as the Court held in its judgment in Case 85/76 Hoffmann-La Roche v Commission [1979] ECR 461, paragraph 91, the concept of abuse is an objective concept relating to the behaviour of an undertaking in a dominant position which is such as to influence the structure of a market where, as a result of the very presence of the undertaking in question, the degree of competition is weakened and through recourse to methods which, different from those which condition normal competition in products or services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition.
CLARIFICATION 1:
EXCLUSIONARY PRACTICES HARM CONSUMERS INDIRECTLY

- Case C-95/04 P British Airways v. Commission [2007] ECR I-2331, par 106:

  "Article [102 TFEU] is not only aimed at practices which may cause prejudice to consumers directly, but also at those which are detrimental to them through their impact on an effective competition structure [...] The Court of First Instance was therefore entitled, without committing any error of law, not to examine whether BA's conduct had caused prejudice to consumers [...] but to examine [...] whether the bonus schemes at issue had a restrictive effect on competition."
CLARIFICATION 2: THOUGH COMPETITORS ARE DIRECTLY HARMED (EXCLUSION RESULTS IN REVENUE LOSS) THE OBJECTIVE IT TO PROTECT CONSUMER WELFARE

- 253 As is already apparent from paragraphs 177 and 178 of the present judgment, a pricing practice such as that at issue in the judgment under appeal that is adopted by a dominant undertaking such as the appellant constitutes an abuse within the meaning of Article 82 EC if it has an exclusionary effect on competitors who are at least as efficient as the dominant undertaking itself by squeezing their margins and is capable of making market entry more difficult or impossible for those competitors, and thus of strengthening its dominant position on that market to the detriment of consumers’ interests.

The ECJ Judgment in Deutsche Telekom
Clarification 3: No need to prove actual effects, or else enforcement can never be timely

- The [anti-competitive] effect referred to in the case law . . . does not necessarily relate to the actual effect of the abusive conduct complained of. For the purposes of establishing an infringement of Article 102 EC, it is sufficient to show that the abusive conduct of the undertaking in a dominant position tends to restrict competition or, in other words, that the conduct is capable of having that effect”

(Michelin II, p. 239)
EFFECTS BASED ANALYSIS

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PROOF OF ACTUAL EFFECTS?

• No!

• It requires the enforcement agency to articulate a theory of:
  • How the conduct results in the observed outcomes
  • How this outcome differs (negatively) from the one that would most likely emerge in the absence of the conduct
  • determination of “what outcomes matter”

• If what “matters” is consumer welfare (indirectly or directly, short or long run etc) then this theory is labelled a “theory of harm”. Though nowadays it is also used more generally to refer to “harm” to the competitive process.

• In sum: an effects-based analysis means that the standard of proof required to establish an infringement depends on (i) likelihood and (ii) significance of the effects on competition and ultimately consumers of a given practice.
**IS CONSUMER WELFARE WHAT MATTERS?**

**POST DANMARK CASE**

- Recent ECJ judgement in Post Danmark (in Grand Chamber), which unambiguously confirmed and clarified that conduct is abusive only if results in detriment to consumers.

- It first recasts Continental Can and states that:
  - “Article 102 EC covers not only those practices that directly cause harm to consumers but also practices that cause consumers harm through their impact on competition. **It is in the latter sense that the expression exclusionary abuse’ [...] is to be understood**”

- Next, it recalls that the aim of Article 102 is not to protect competitors:
  - “**It is in no way the purpose of Article 102 EC to prevent an undertaking from acquiring, on its own merits, the dominant position on a market. Nor does that provision seek to ensure that competitors less efficient than the undertaking with the dominant position should remain on the market**”
Finally, it states explicitly that harm to consumers follows from harm to competition, and hence a concern with the impact of exclusionary conduct on the competitive process is drive by a concern with the resulting harm to consumers:

- “In order to assess the existence of anti-competitive effects in circumstances such as those of that case, it is necessary to consider whether that pricing policy, without objective justification, produces an actual or likely exclusionary effect, to the detriment of competition and, thereby, of consumers’ interests.” (emphasis added).
“it should be recalled that it is open to a dominant undertaking to provide justification for behaviour that is liable to be caught by the prohibition under Article 82 EC [...] In particular, such an undertaking may demonstrate, for that purpose, either that its conduct is objectively necessary, or that the exclusionary effect produced may be counterbalanced, outweighed even, by advantages in terms of efficiency that also benefit consumers.

In that last regard, it is for the dominant undertaking to show that the efficiency gains likely to result from the conduct under consideration counteract any likely negative effects on competition and consumer welfare in the affected markets, that those gains have been, or are likely to be, brought about as a result of that conduct, that such conduct is necessary for the achievement of those gains in efficiency and that it does not eliminate effective competition, by removing all or most existing sources of actual or potential competition.
SPOT THE DIFFERENCE!

It should be observed that, as the Court held in its judgment in Case 85/76 Hoffmann-La Roche v Commission (1979) ECR 461, paragraph 91, the concept of abuse is an objective concept relating to the behaviour of an undertaking in a dominant position which is such as to influence the structure of a market where, as a result of the very presence of the undertaking in question, the degree of competition is weakened and through recourse to methods which, different from those which condition normal competition in products or services on the basis of the transactions of commercial operators, has the effect of hindering the maintenance of the degree of competition still existing in the market or the growth of that competition.

“In that regard, it is also to be borne in mind that Article 82 EC applies, in particular, to the conduct of a dominant undertaking that [...]?, through recourse to methods different from those governing normal competition on the basis of the performance of commercial operators, has the effect, to the detriment of consumers, of hindering the maintenance of the degree of competition existing in the market or the growth of that competition. (see, to that effect, AKZO v Commission, paragraph 69; France Télécom v Commission, paragraphs 104 and 105; and Case C-280/08 P Deutsche Telekom v Commission (2010) ECR I-0000, paragraphs 174, 176 and 180 and case-law cited).
THE COUNTERFACTUAL IN THE 102 GUIDANCE PAPER

- The Commission will normally intervene under Article 102 where, on the basis of cogent and convincing evidence, the allegedly abusive conduct is likely to lead to anticompetitive foreclosure. This notion contains two operative elements:

  i. foreclosure, which occurs when the dominant company makes access to customers more difficult or impossible for actual or potential rivals; and
  ii. consumer harm resulting from this foreclosure.

- Paragraph 21 of the Commission Guidance states that:

  “This assessment will usually be made by comparing the actual or likely future situation in the relevant market (with the dominant undertaking’s conduct in place) with an appropriate counterfactual, such as the simple absence of the conduct in question or with another realistic alternative scenario, having regard to established business practices”.

- This is the first official reference to the counterfactual method in the EU abuse of dominance field!
PROS AND CONS OF AN ANALYSIS OF EFFECTS AGAINST A WELL DEFINED COUNTERFACTUAL

- An effects based approach implies that one has to articulate the theory of the case in terms of the sequence of causes and effects through which the conduct of a dominant firm leads to harm to consumers, relative to well defined counterfactual.
- In addition “harm” must be well defined, for example as an increase in price or, in a more complex setting, a decrease in consumer welfare through reduction in choice, restrictions on quantity available or limited product innovation.
- Many forms of conduct can be either pro-competitive or anti-competitive. The effects depend on the circumstances.
  - Reduced type I and II errors
  - Reduced circumvention
- Allows to assess magnitude of effects
  - Allows to prioritise
  - Fines and damages can therefore be based on the identified effects. Improving detetrence.
PROS AND CONS OF AN ANALYSIS OF EFFECTS AGAINST A WELL DEFINED COUNTERFACTUAL

- Possible disadvantages:
  - Individual firms that take strategic decisions continuously have to assess the legality of their behaviour
  - A complex case-by-case analysis may introduce administrative costs and uncertainty
  - directly applicable in the Member States by their competition authorities and courts, not all of which have the resources or expertise to conduct complex economic analyses.

- The analytical methods must, therefore, be relatively straightforward, robust and predictable so that dominant firms have a reasonable chance to draw the line between legal and illegal behavior with some certainty.
Note also that counterfactuals may also be used as a defence by the firm accused of abusing its dominant position.

- To show that the Commission’s theory of harm does not hold (example Qualcomm case)
- To demonstrate the absence of foreclosure effects (eg: entry or innovation analysis, IE case)
- To demonstrate the absence of consumer harm (eg: no recoupment in predation cases)
- To argue that efficiencies outweigh any putative anticompetitive foreclosure effects (observed or predicted) (eg: exclusive dealing)
Abductive reasoning allows inferring A as an explanation of B.
Abductive reasoning typically begins with an incomplete set of observations and proceeds to the likeliest possible explanation for the set.
Abductive reasoning yields the kind of daily decision-making that does its best with the information at hand, which often is incomplete.
A medical diagnosis is an application of abductive reasoning.
Likewise, when jurors hear evidence in a criminal case, they must consider whether the prosecution or the defense has the best explanation to cover all the points of evidence. While there may be no certainty about their verdict, since there may exist additional evidence that was not admitted in the case, they make their best guess based on what they know.
A HIERARCHY OF STANDARDS OF PROOF

Adequate Reasoning

- **Deductive reasoning ("per se" abuses)**
  - Conclusion (that there is harm to consumers or the competitive process) guaranteed

- **Inductive reasoning: conclusion merely likely**
  - Inductive reasoning begins with observations that are specific and limited in scope, and proceeds to a generalized conclusion that is likely, but not certain, in light of accumulated evidence.

- **Abductive reasoning**
  - Taking your best shot given the limited evidence
  - Balancing positive and negative effects
  - Accepting that the counterfactual is probabilistic (may be most likely (among many) but not necessarily “more likely than not”)

Enforcement standards

- **“Naked”:** “If conduct can only raise obstacles to competition and that it creates no efficiencies, its anti-competitive effect may be inferred.”

- **“Object”:** “Conduct that generally tends to restrict competition or, is “capable of having that effect” does not necessarily require proof of the actual effect”. But need to show capability to foreclose
  - Defendant can invoke efficiencies but have to be definitive (no balancing required)

- **“Effect”:** “Conduct does not generally have the effect of hindering the maintenance or development of the level of competition still existing on the market.”
  - Need to show that in the circumstances of a given case, the conduct leads to led to anti-competitive foreclosure
  - Needs to take efficiencies and pro-competitive effects into account in all cases