

"Litigation Cost Strategies, Settlement Offers and Game Theory"

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Summer 2007

1. Abstract

Starting with a simple economic model of the value of civil litigation from each side's perspective, this paper analyses a wide range of potential litigation cost strategies, settlement offers and negotiations, together with relevant applications and insights from game theory. Specific issues examined include: optimal settlement agreements, optimal settlement timing, optimal choice of lawyers; principal-agent problems aligning lawyer cost incentives; optimal client-lawyer contracts; "Conditional Fee Agreements" (CFAs); success rules and size of success premia; the exploitation and mitigation of liquidity and bankruptcy constraints; impact of collateral, "Security for Costs" and "Freezing Orders"; optimal "Part 36 Offers"; public and "without prejudice" offers; fixed rate and state-contingent offers; the role of mediation and alternative dispute resolution (ADR); the effect of litigant group size, co-ordination and class actions; rationale for confidential no-liability settlement agreements; effects of legal aid; time-value to trial and "optionality" of news; the impact of the "Law of Costs"; optimal trial cost applications and requests for "leave to appeal". Both familiar and paradoxical new results are confirmed by the analysis.

2. Contents

“Litigation Cost Strategies, Settlement Offers and Game Theory”	
1. Abstract	
2. Contents	
3. Disclaimer	
4. Introduction.....	
5. Analytical Framework and Model Setup 1.	
First Scenario: Zero Legal Costs and Zero Risk Premia.....	5
First Scenario: Party C Only	5
First Scenario: Parties C and D.....	7
Scope for Settlement in First Scenario.....	8
Second Scenario: Zero Legal Costs and Non-Zero Risk Premia.....	8
Definition of Claimant’s “Settlement Acceptance Frontier” (SAF) and Defendant’s “Settlement Offer Frontier” (SOF).....	9
Lessons from Initial Model Setup and Analysis	10
6. Analytical Framework and Model Setup 2.	
Third Scenario: Non-zero Legal Costs and Zero Risk Premia	11
Third Scenario: Party C Only	11
Third Scenario: Party D Only	12
Legal Costs for Party C not D.....	13
Legal Costs for Party D not C.....	15
Legal Costs for Both Parties C and D.....	16
Benefits of Cheating re: Expected Court Award	17
Benefits of Cheating re: Expected Legal Costs	18
Lessons from Own Legal Costs Scenario Analysis:.....	20
7. Analytical Framework and Model Setup 3.	
Introduction and Impact of Risk Aversion.....	22
Agreeing a Settlement Figure from the Range of Feasible Agreements	22
Effects of Lumpy Legal Costs and News Variability	26
8. Mediation and Alternative Dispute Resolution (ADR)	
9. Lawyer Quality Cost/Benefit Trade-off.....	
Case 1: Better Lawyer Also Cheaper.....	27
Case 2: Better Lawyer Marginally More Expensive.....	29
Case 3: Better Lawyer Significantly More Expensive.....	31
Lessons from Lawyer Cost/ Benefit Trade-off Analysis:.....	36
Principal-Agency Issues and Alignment of Client Legal Team Incentives.....	36
Solicitors, Solicitor-counsel, In-house Lawyers and Independent and Employed Barristers.....	37
Lessons from Principal-Agent Issues.....	38
10. Introducing Liquidity and Bankruptcy Constraints	

Conditional Fee Agreements (CFAs).....	44
Lessons from First Review of CFAs.....	45
Bluffing re: Legal Cost Resources.....	45
Legal Cost Battles.....	46
Collateral Orders: "Security for Costs" and "Freezing Orders".....	47
Lessons from Analysis of Illiquidity and Bankruptcy Constraints and Collateral Orders.....	48
Signalling, Reputation and Class Actions:.....	49
Confidential Settlements and Non-admission of Liability.....	53
Lessons from the Analysis of Signalling, Reputation and Class Action:.....	56
11. Impact of "Law of Costs" (LOC).....	
Case 1: Own Expected Legal Costs Unchanged by LOC.....	61
Case 2: Own Expected Legal Costs for Both Sides Reduced by LOC:.....	62
Case 3: Own Expected Legal Costs for Both Sides Increased by LOC:.....	63
Case 4: One side's Expected Legal Costs Increased, One Side's Decreased by LOC.....	63
"Sunk Costs" and "Reclaimable Costs".....	63
Lessons from Analysis of LOC:.....	66
CFA Premia Revisited and LOC.....	69
CFA Beneficial and Perverse Incentives.....	70
LOC, Liquidity and Bankruptcy Constraints and Implicit CFAs.....	73
Lessons from Analysis of CFAs.....	74
12. Optimal "Part 36 Offers".....	
Lessons from Analysis of Part 36 Offers:.....	80
13. Standard Settlement Offers made "Without Prejudice" or Publicly.....	
14. Time and State Contingent Offers.....	
15. Legal Aid Awards.....	
16. Conclusions.....	
17. Postscript: Trial Applications for Costs and Leave to Appeal.....	
18. References.....	

3. Disclaimer

This paper is an academic analysis, to be used for academic purposes only. It does not constitute legal advice and is not to be read as such or relied upon as such, in any way, time or place.

4. Introduction

Starting with a simple economic model of the value of civil litigation from each side’s perspective, this paper analyses a wide range of potential litigation cost strategies, settlement offers and negotiations, together with relevant applications and insights from game theory. Specific issues examined include: optimal settlement agreements, optimal settlement timing, optimal choice of lawyers; principal-agent problems aligning lawyer cost incentives; optimal client-lawyer contracts; “Conditional Fee Agreements” (CFAs); success rules and size of success premia; the exploitation and mitigation of liquidity and bankruptcy constraints; impact of collateral, “Security for Costs” and “Freezing Orders”; optimal “Part 36 Offers”; public and “without prejudice” offers; fixed rate and state-contingent offers; the role of mediation and alternative dispute resolution (ADR); the effect of litigant group size, co-ordination and class actions; rationale for confidential no-liability settlement agreements; effects of legal aid; time-value to trial and “optionality” of news; the impact of the “Law of Costs”; optimal trial cost applications and requests for “leave to appeal”. Both familiar and paradoxical new results are confirmed by the analysis. Both familiar and paradoxical new results are confirmed by the analysis. Specific examples are considered from the law and practice of England and Wales but the fundamental principles derived are applicable, *mutatis mutandis*, to all other related legal systems including American and Commonwealth.

5. Analytical Framework and Model Setup 1.

The main conceptual model used in this paper is constructed in sections 5-7. It is built up from the subjective expected legal costs and cost variability perceived by each party, contemplating new or continued litigation, all adjusted for risk premia and liquidity considerations. This information is embodied for the Claimant C in his “Settlement Acceptance Frontier” or SAF and for the Defendant in his “Settlement Offer Frontier” or SOF, considered prospectively at each point in time. Whenever these curves overlap, at intersection point X, with a region of SOF lying above a region of SAF, then there is immediate scope for settlement before trial, somewhere around the X value. Similarly, with imperfect information, whenever a party believes that these curves might overlap, then there is scope for exploratory settlement negotiations. The analysis of the paper is primarily graphical in order to be intelligible to the widest audience. The particular numbers used in the examples are purely illustrative, although corresponding real world curves can be estimated and calibrated and would clearly need to be, in real litigation situations. Similarly, the diagrammatic and theoretical analysis below can be replicated using comparative static and other mathematical techniques. The analysis of this paper is based on consideration of a simple example dispute: namely proposed litigation between parties, Claimant C and Defendant D over a notional £10 claim. The general results derived below apply equally to high and low value and complex and simple litigation processes.

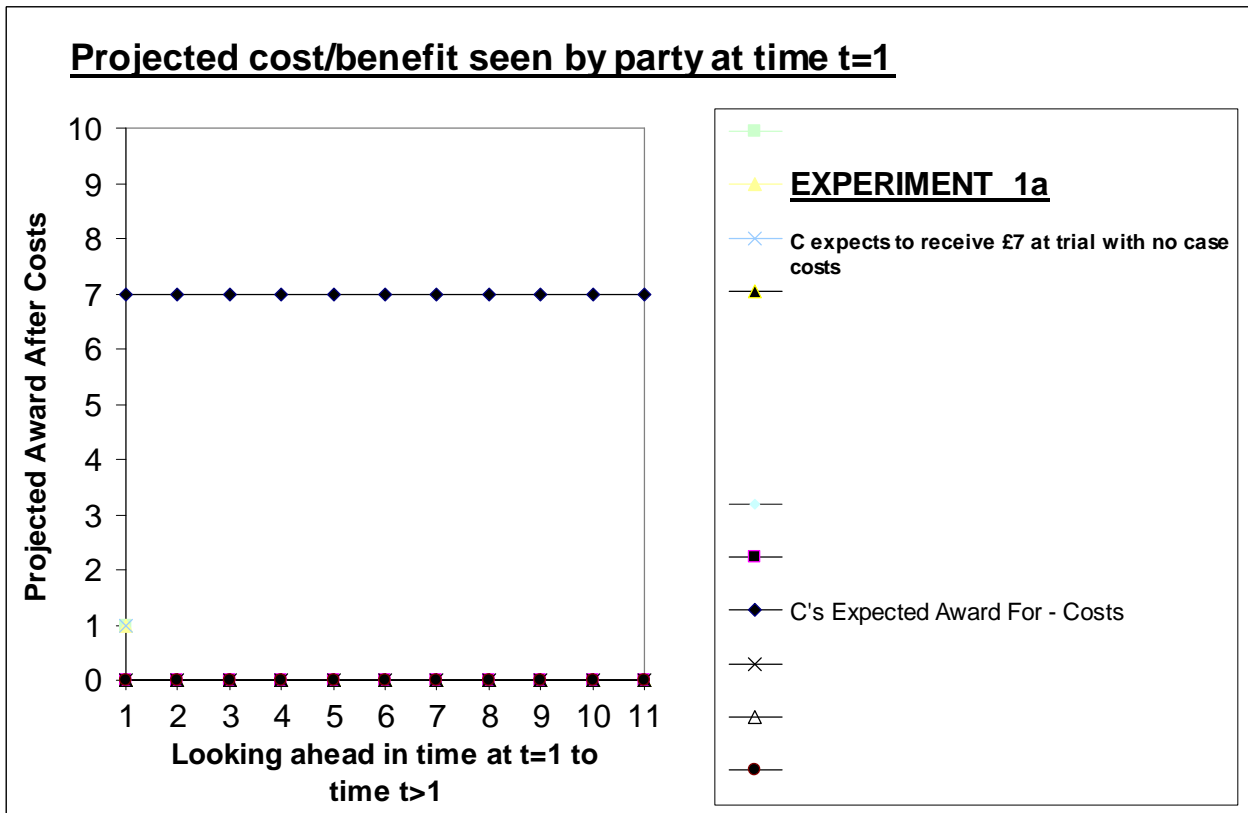
First Scenario: Zero Legal Costs and Zero Risk Premia

In the first scenario, litigation costs for all parties are preset at zero and both parties ignore risk i.e. have zero risk aversion and zero risk premia, C’s claim is for £10.

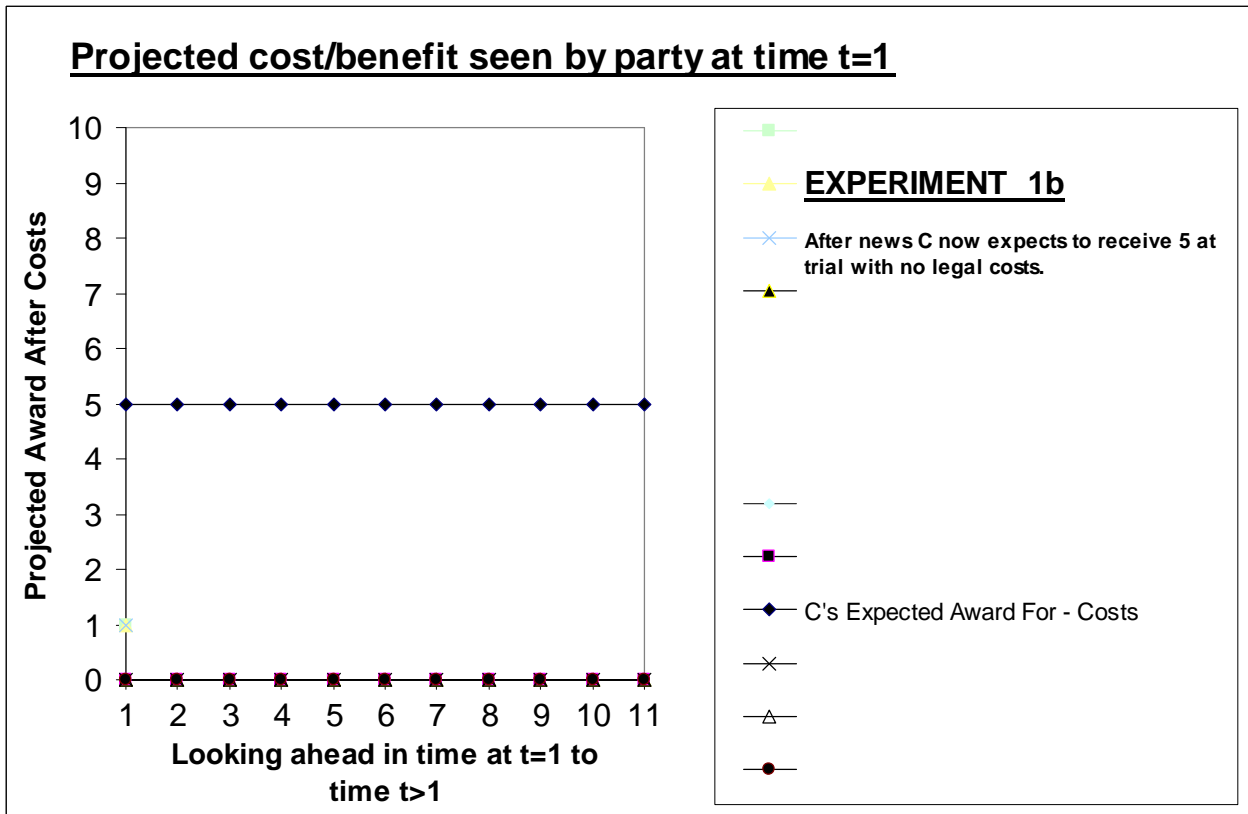
First Scenario: Party C Only

C’s expectation at initial time $t=1$ is to receive £7 at trial. In the absence of costs, looking ahead from $t=1$ to the projected end of the case at $t=11$, C expects that he will continue to expect to receive £7, because if he expected to receive a different amount at time $t=11$, then working iteratively back, he would logically

expect to receive that different amount at time $t=10$, then at $t=9$ etc back to $t=1$. This situation is shown in diagram 1a):



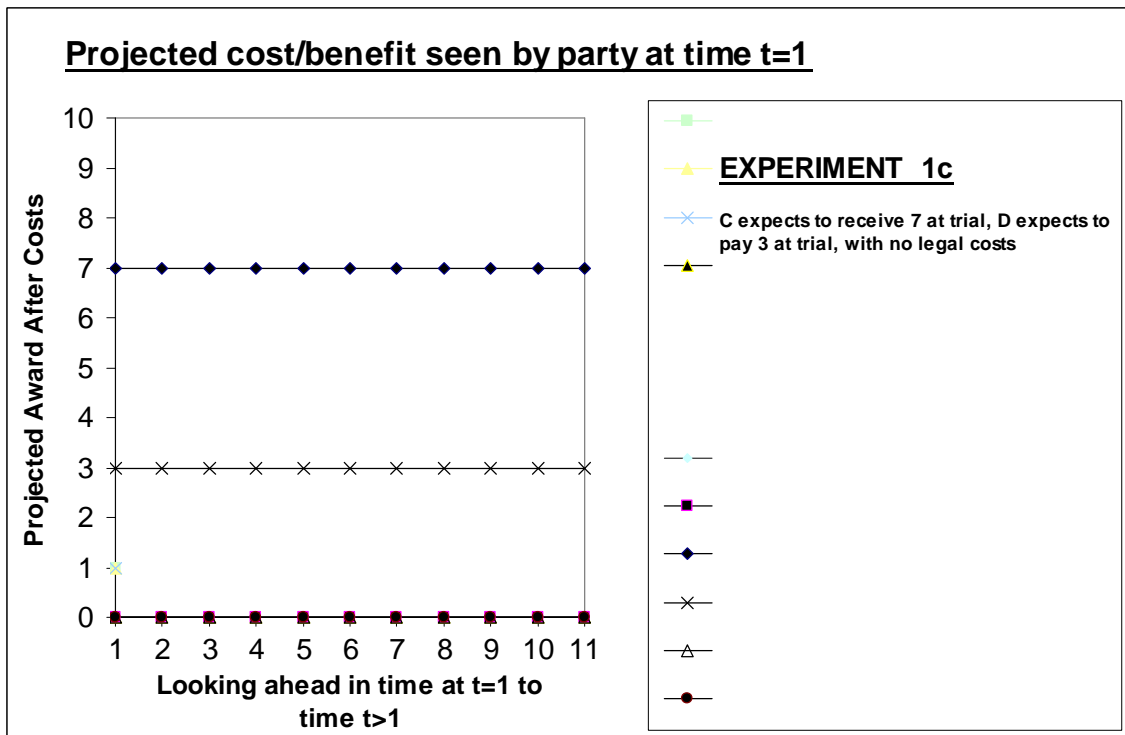
Thus C’s forward subjectively expected gross trial payoff at any time t , as seen from fixed time $t=1$, is itself momentarily fixed. That is not to say that C is objectively correct or unchanging in this expectation. C’s information may well be wrong and he may eventually receive a totally different sum at trial. C’s beliefs may also change suddenly in response to new information, for example C may suddenly and unexpectedly get new information that his expected payoff at $t=11$ has fallen to £5. In this case C’s new expected gross trial payoff seen from $t=1$ would have fallen to £5 as shown below in diagram 1b):



Thus in the absence of legal costs and risk premia, the projected subjectively expected gross cost/benefit line of each party as contemplated at any fixed moment will be flat for every future moment surveyed until trial. On the other hand, this subjectively expected gross cost/benefit line will itself shift randomly up and down in parallel over time in response to random news relating to prospects at trial.

First Scenario: Parties C and D

In this example, litigation is free i.e. litigation costs for all parties are preset at zero, both parties have zero risk aversion and zero risk premia, the claim is for £10. The initial expectation of Claimant C at initial time t=1 is to receive £7 at trial and the initial expectation of Defendant D at initial time t=1 is to pay £3 at trial. By the same logic as above, C’s expectation at t=1 of his future expected gross trial payoff perceived at all times t=2 to t=11 is constant at £7, similarly D’s expectation at t=1 of his future expected gross trial payoff perceived at all times t=2 to 11 is momentarily constant at £3. The reason why C and D do not agree is because each of their expectations are subjective, each based on that individual’s own information and beliefs. This situation is shown in diagram 1c):



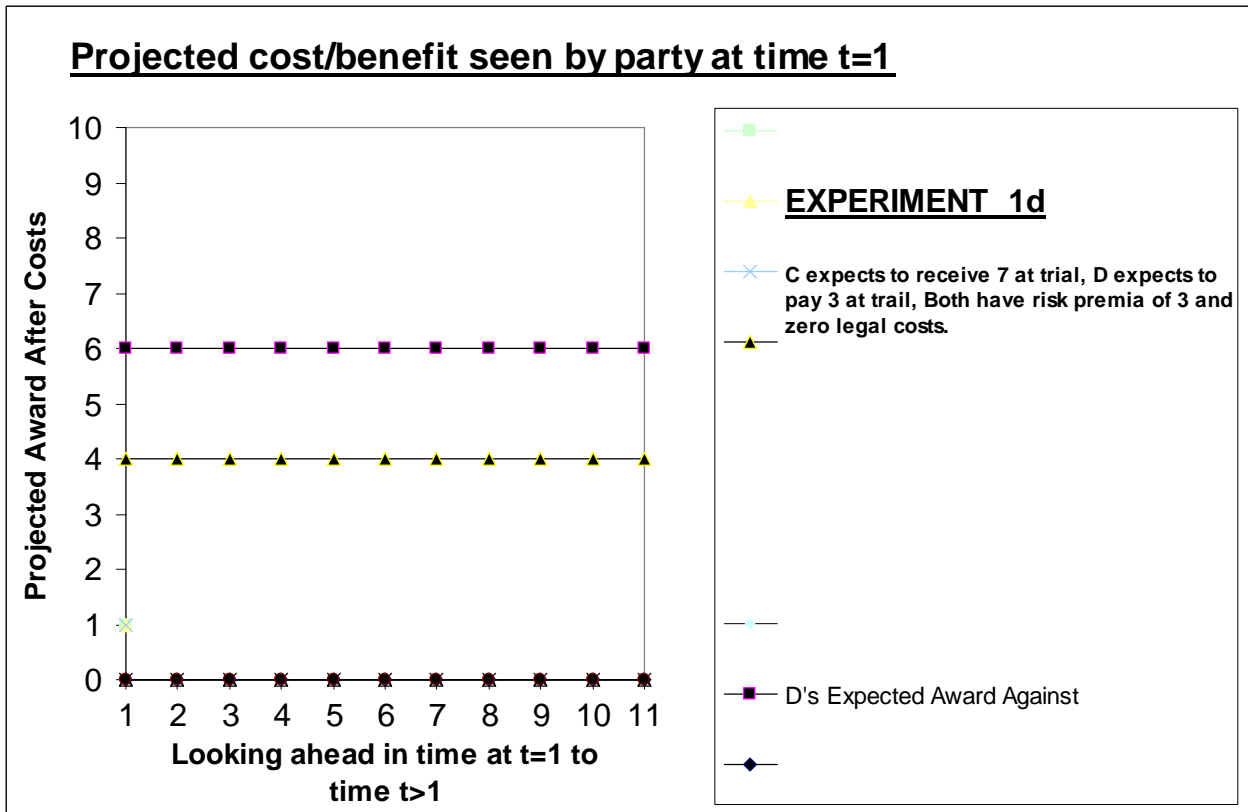
Scope for Settlement in First Scenario

In the first scenario where C expects to receive £7 from trial and D expects to pay £3 at trial, with no legal costs and no risk aversion, it looks at first, as though C and D will not be able to agree to settle before trial. There are 2 reasons why this may be wrong in practice. Firstly as C and D receive new information or recalculate their odds, so their expected payoff/payment lines will shift up and down. This process is random by definition and so the more time there is until trial so the more chance there is that revision of mutual expectations will shift C's expected trial receipt line relatively lower than D's expected trial payment line.

Second Scenario: Zero Legal Costs and Non-Zero Risk Premia

The other factor is that both C and D will typically be prepared to settle away from their expected trial payoff lines. Typically they will both be prepared to pay some premia to avoid the hassle and risk of trial and achieve early settlement, i.e. both will be prepared to pay "risk premia" to combat their natural risk

aversion. Thus for example if both C and D are prepared to pay risk premia of £3 to remove risk in the baseline example, then the maximum D will pay to settle is now £6 and the minimum C will accept to settle is now £4, leaving a range of agreeable settlements at t=1, before trial between £4 and £6 as shown in diagram 1d) below:



Definition of Claimant’s “Settlement Acceptance Frontier” (SAF) and Defendant’s “Settlement Offer Frontier” (SOF)

In this case C will be prepared to settle for any amount above his line of: own expected trial payoff plus own expected legal costs all adjusted for own risk premia, which can be called his “Settlement Acceptance Frontier” or SAF. It is a frontier because it is the border of a projected region of values where he can agree to settle. In example 1d) the SAF is flat at £4, being own expected trial payoff of £7 less expected own legal costs of zero, less risk premia of £3. Similarly D will settle for any amount below his “Settlement Offer Frontier” or SOF. In example 1d) the SOF is flat at £6 being own expected trial payout of £3 plus expected own legal costs of zero, less risk premia of £3.

Lessons from Initial Model Setup and Analysis

Some lessons can already be drawn from this initial model setup:

- 1.) The more variable the expectations of the parties and the greater the flow of news, so the more likely are the SOF and SAF to overlap at some point and for settlement before trial to become possible.
- 2.) The longer the case, *ceteris paribus*, the greater the likelihood of a settlement window occurring.
- 3.) The more complex the case, the more likely lesson 1 is to hold, so the more likely that parties will be able to move towards settlement, *ceteris paribus*.
- 4.) The parties can only identify the window when the SOF and SAF overlap by communicating, therefore it is essential to maintain frequent informal communication between parties throughout the litigation process.
- 5.) The parties need to be able to identify the existence of an actual or potential SAF and SOF overlap. This does not however mean revealing the exact degree of overlap.
- 6.) By communicating, both parties can gain information about the other party's SOF or SAF and spot the settlement window. Additionally the way in which the parties interact may in turn affect the other party's risk premia applied.
- 7.) Each party has an incentive to try to increase the other party's risk premia e.g. by trying to unnerve/intimidate the other party. This tactic both increases the chance of possible settlement and the chance of the intimidator improving the final settlement from his own perspective.
- 8.) Thus each party has to balance the need to gain information from the other side through communication and the need to try to intimidate the other party to weaken its position and increase the other side's risk premia.

- 9.) If parties have differential power then the more powerful party can emphasise intimation rather than communication to increase the weaker party's risk premia.
- 10.) Similarly the weaker party needs both to maintain communication and signal convincingly that he has not been intimidated and his risk premia have not increased.
- 11.) The corollary of this is that the legal negotiators need to identify quickly whether there is differential power in the settlement negotiation and choose their negotiating stance accordingly.

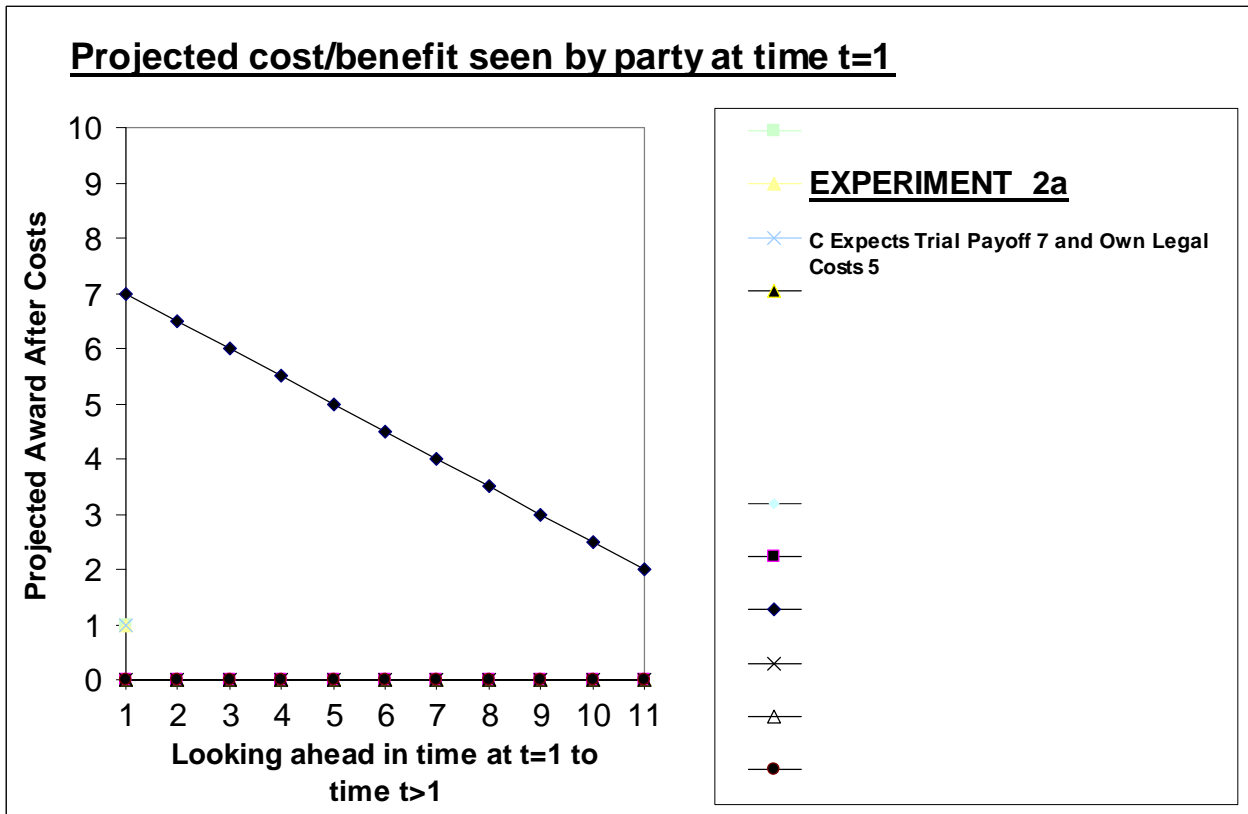
6. Analytical Framework and Model Setup 2.

Third Scenario: Non-zero Legal Costs and Zero Risk Premia

In the third scenario, non-zero legal costs are added. The simplifying assumption made is that both C and D expect these costs to occur smoothly and linearly over time. As in real life, legal costs can be shown to have a fundamental effect on the analysis of settlement:

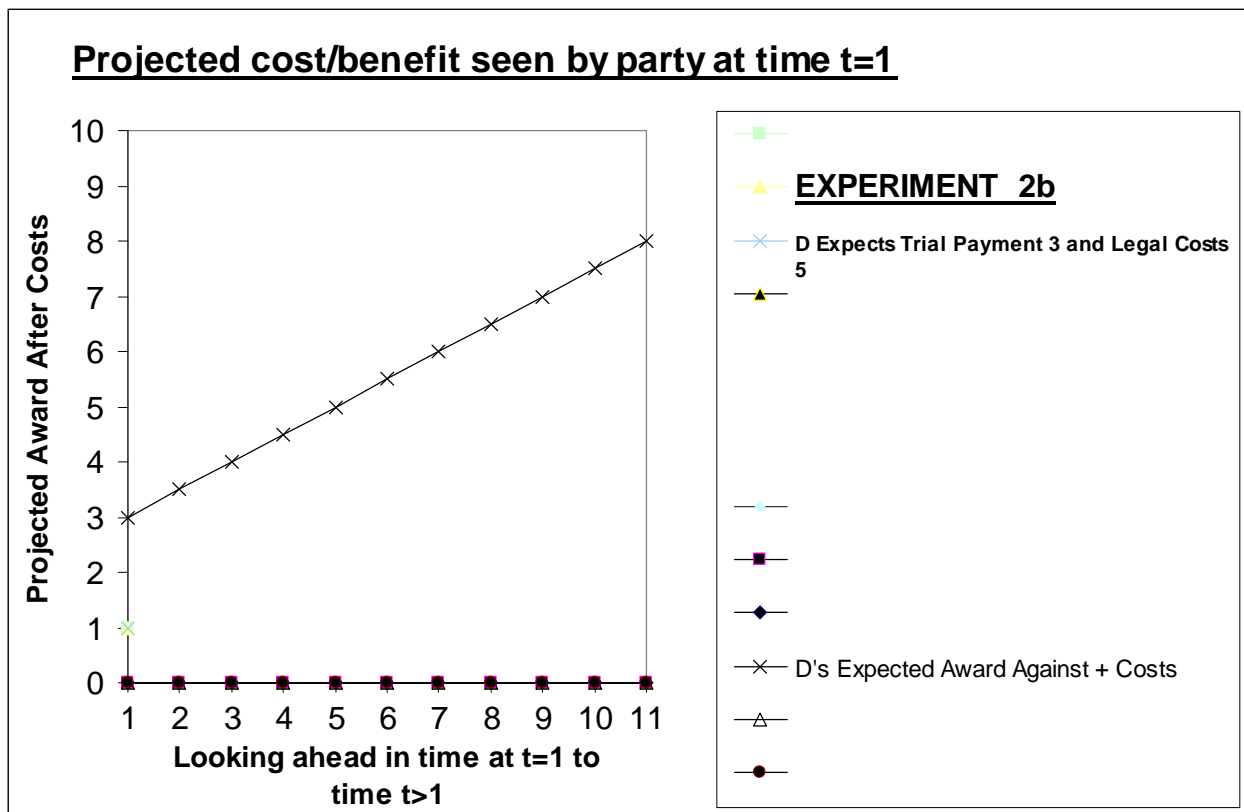
Third Scenario: Party C Only

In the first example of non-zero legal costs, C looking out at time $t=1$, expects to receive £7 at trial but to incur £5 of legal costs, incurred at constant rate between $t=1$ and $t=11$, to actually get to trial. Hence the net payoff C envisages at trial after costs is reduced by legal costs to £2. Since this is greater than zero, C still has an incentive not to abandon the case, but C realises that the earlier he can settle the more he can save in legal costs and the greater his expected net gain from the case, *ceteris paribus*. This is shown in diagram 2a) below:



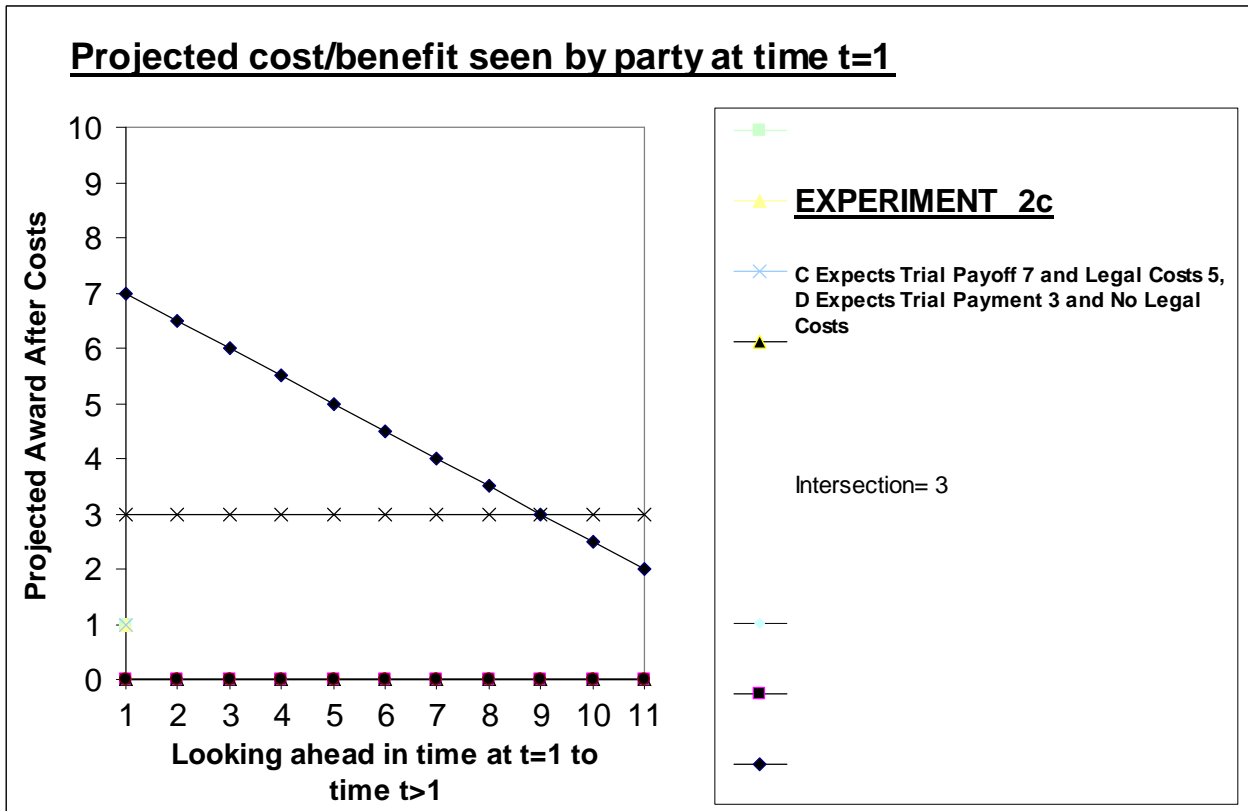
Third Scenario: Party D Only

In the second example of legal costs, the Defendant D looking out at time t=1, expects to pay £3 at trial but also to incur £5 of costs, incurred at constant rate between t=1 and t=11, to actually get to trial. Hence the net cost of the trial that D envisages is increased by legal costs to £8. Since this is less than the £10 claimed by C, D still has an incentive not to abandon the case, but D also realises that the earlier he can settle, the more he can save in legal costs and the lower his expected net loss from the case, ceteris paribus. This is shown in diagram 2b) below:



Legal Costs for Party C not D

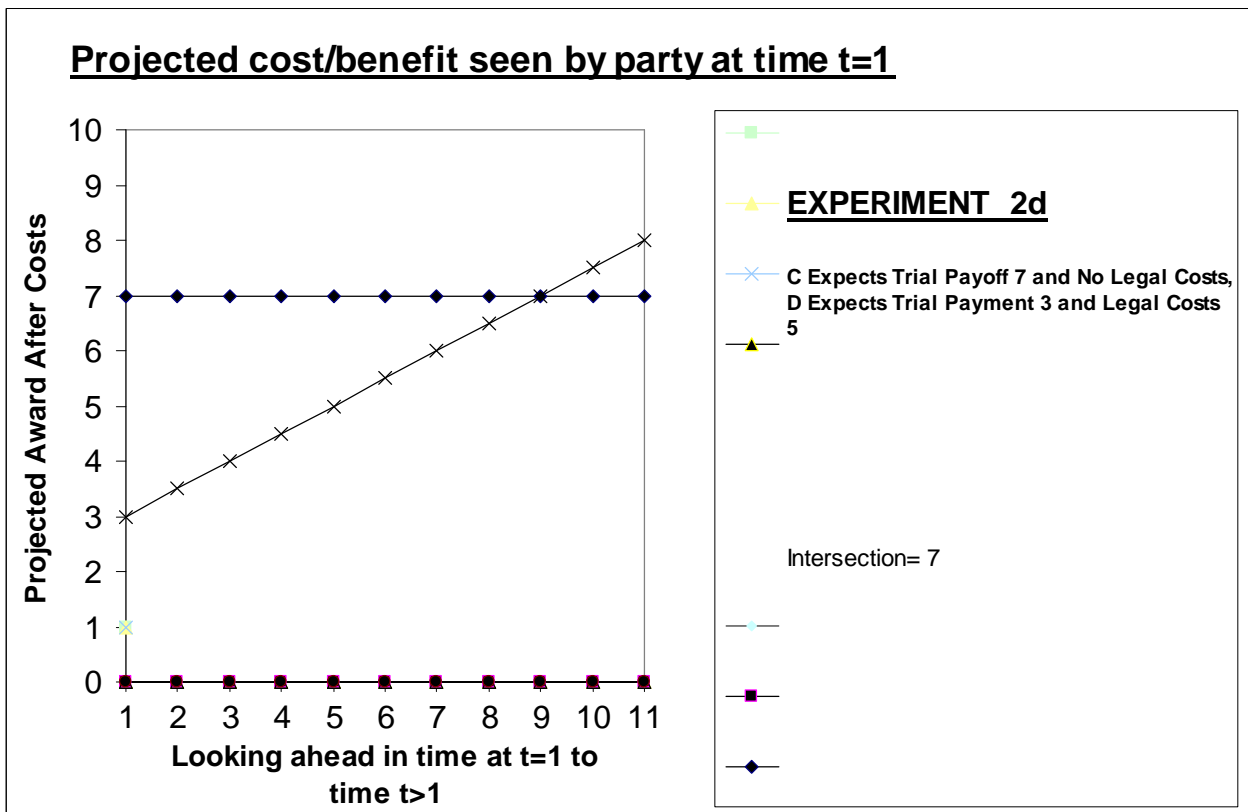
If Claimant C incurs linear costs but party D does not, then the SAF and SOF intersect at £3 and t=9. By holding out to trial D expects his net payout to be £3 and C's expects his net receipt to be only £2.



Since £2 is greater than zero and £3 is less than £10, both parties have an incentive to progress to trial, in the absence of settlement. However since D’s maximum feasible settlement of £3 lies above C’s minimum feasible settlement of £2 both sides have an incentive to settle before trial. It is important to recognise that this settlement agreement would occur only because the parties recognised their own interests to avoid legal costs and not because they agreed about the fundamental merits of the case. It is important also to recognise that if the SAF and SOF curves are known by both sides and if the expected trial payoffs on both sides are fixed, then the settlement condition of SOF lying above SAF will only persist for two time units until t=3 (in the absence of legal cost awards, see later). The maximum sharable surplus i.e., £1 being £3-£2 only occurs at t=1. Put another way, when there are prospective legal costs (in the absence of legal cost awards) the earlier both sides can settle the more legal costs they can save.

Legal Costs for Party D not C

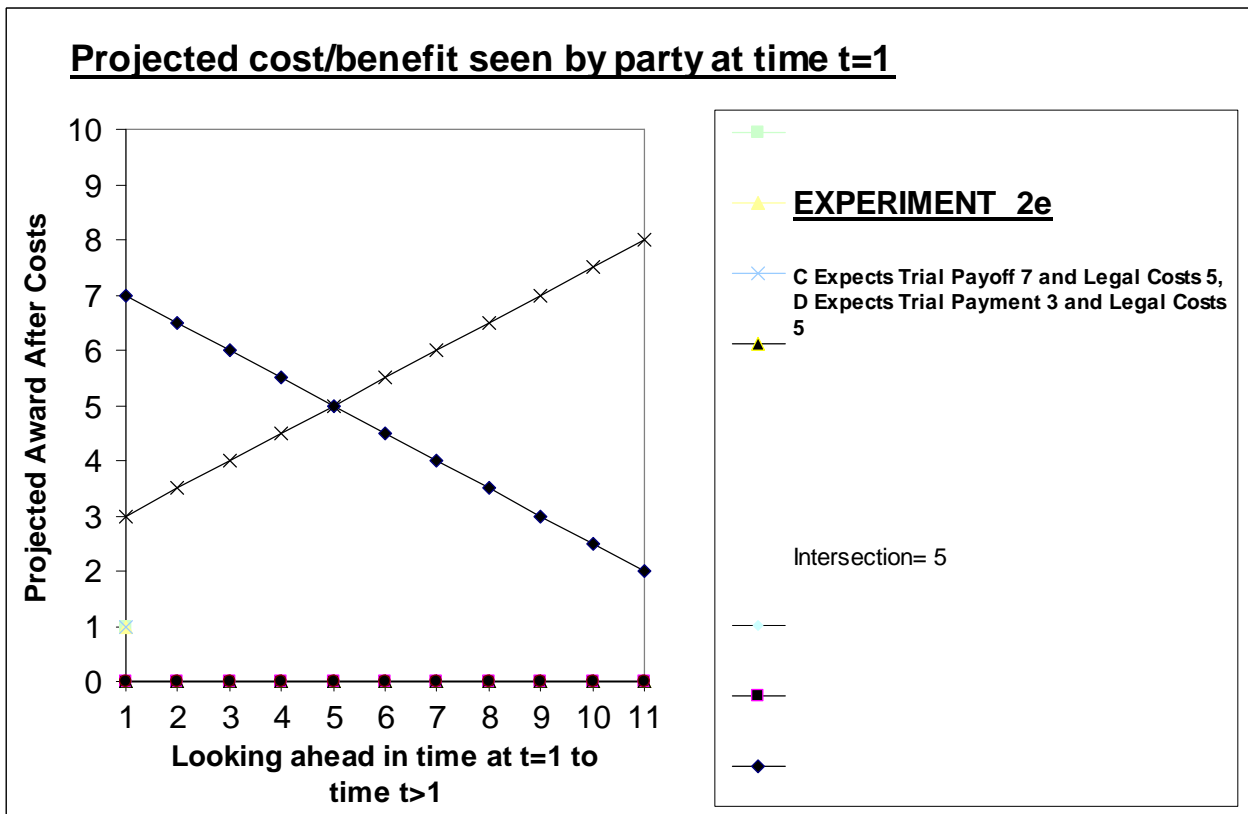
If party D expects to incur legal costs but party C does not, then the SAF and SOF intersect at £7 and $t=9$. By holding out to trial, C expects his net receipt to be £7 while D expects his net payout to be £8. Since £7 is greater than zero and £8 is less than £10, both parties have an incentive to progress to trial in the absence of settlement.



However since D's maximum feasible settlement of £8 lies above C's minimum feasible settlement of £7 both sides have an incentive up to time $t=3$ (in the absence of legal cost awards) to settle instead of proceeding to trial. Once again, this settlement agreement would occur only because the parties recognised their own interests to avoid legal costs and not because they agreed about the fundamental merits of the case.

Legal Costs for Both Parties C and D

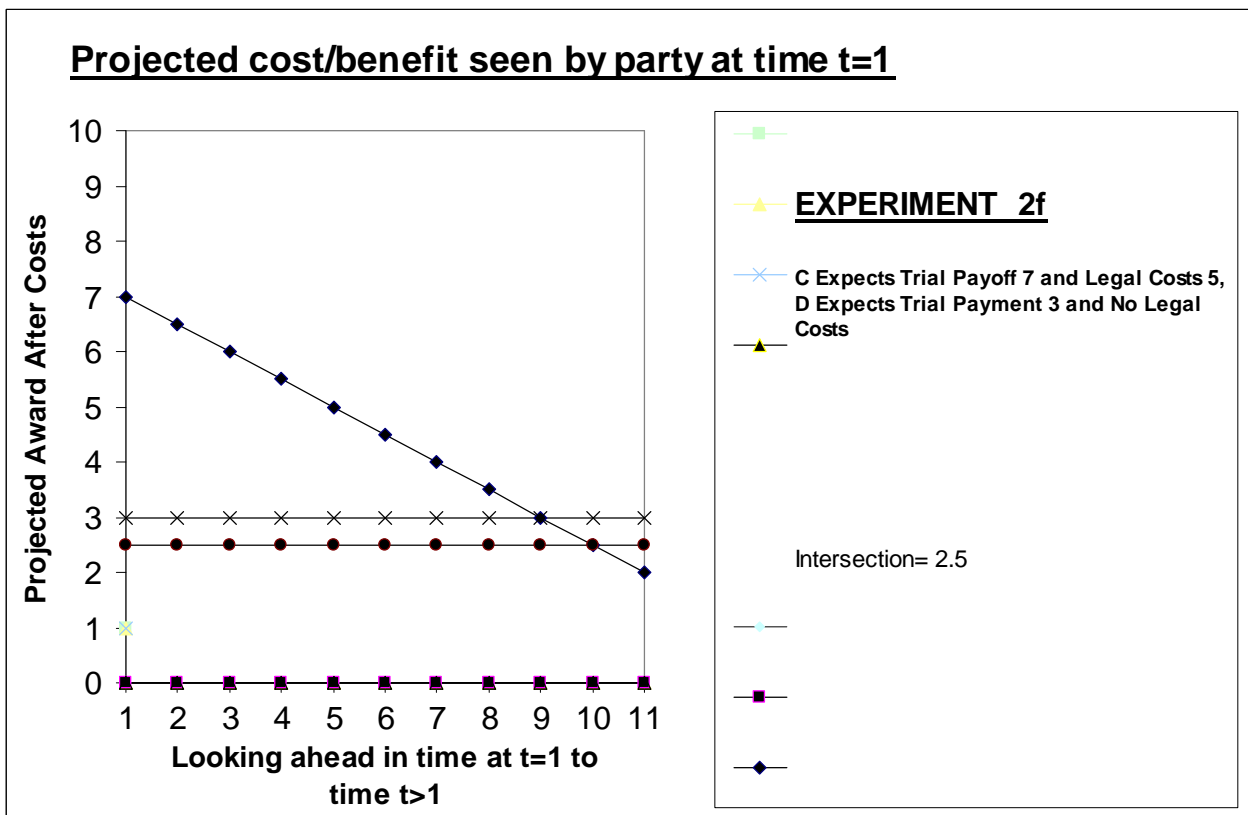
In the next example, Claimant C expects to receive £7 at trial and Defendant D expects to pay £3 at trial. Additionally each party expects to pay £5 in legal costs to get to trial.



C's expected gross return from going to trial is £2 and D's expected gross payout in going to trial is £8. Since £2 is greater than zero and £8 is less than £10, both C and D have an incentive to progress to trial, in the absence of settlement. The SAF and SOF curves intersection point X is at £5 and at time t=5, after which point SOF lies above SAF and the feasible settlement condition holds. The range of feasible settlements viewed at t=1 lies between £2 and £8. Moreover the closer in time each party focuses ahead to t=5, i.e. the earliest projected settlement breakeven time, so the closer any agreed amount will be to £5

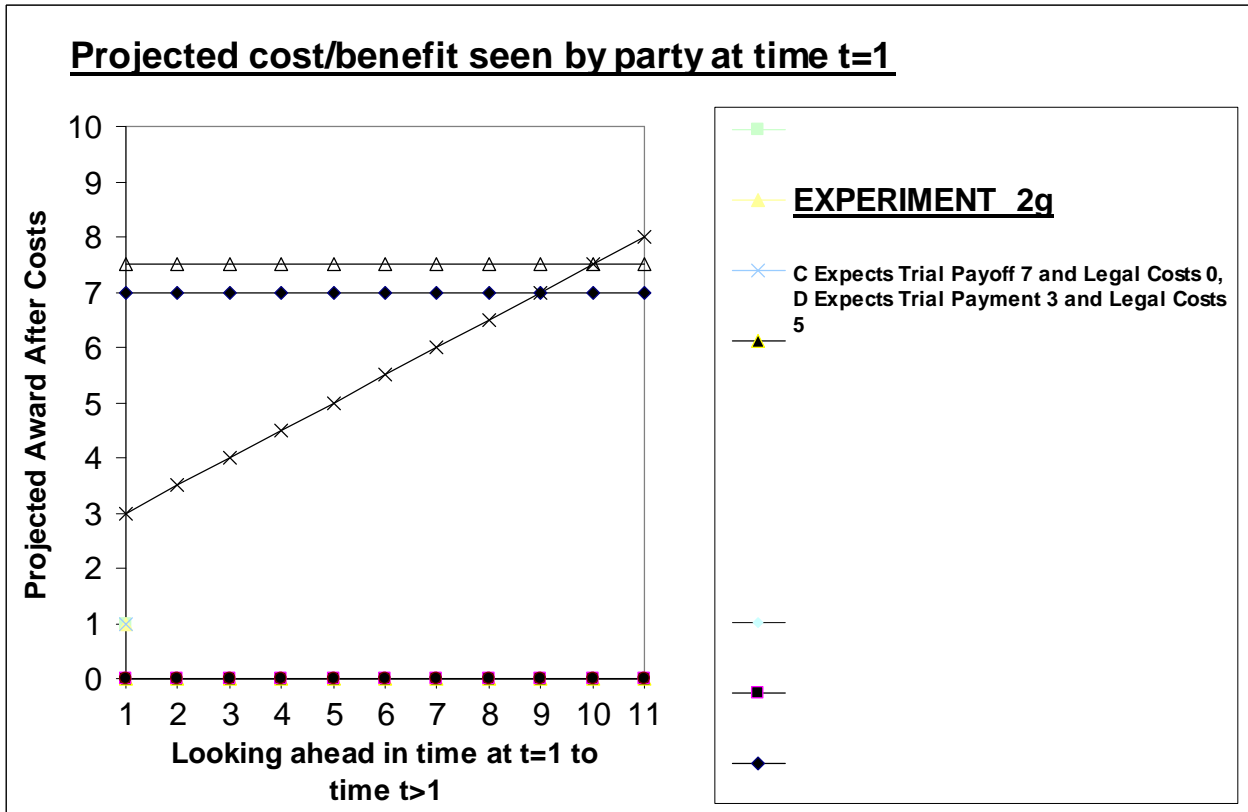
Benefits of Cheating re: Expected Court Award

As shown above, additional legal costs tend to cause the SAF and SOF to intersect i.e. to create a range of possible settlement agreements and scope for such agreement. However they also create an additional incentive for the parties to dissimulate the location of their SAF and SOF curves. This is illustrated in example 2f), being the same as example 2c) above except modified so that party D now pretends that his SOF curve is flat at £2.5 and not £3 as shown below:



If D cheats and both pretends and fools C that D believes that his own expected payout at trial will be £2.5 and not £3 then this pretence lowers the maximum feasible settlement before trial seen at t=1, from £3 to £2.5. It would still be advantageous to both sides to settle before trial at t=1. When contemplating settlement, C would also be contemplating the breakeven alternative of more legal costs, therefore the settlement amount from C's perspective would have decreased ceteris paribus, on the basis that C can now envisage the case running to t=10 and his net payoff at that time (after subsequent settlement) being only £2.5 and falling further, if the case proceeds to trial.

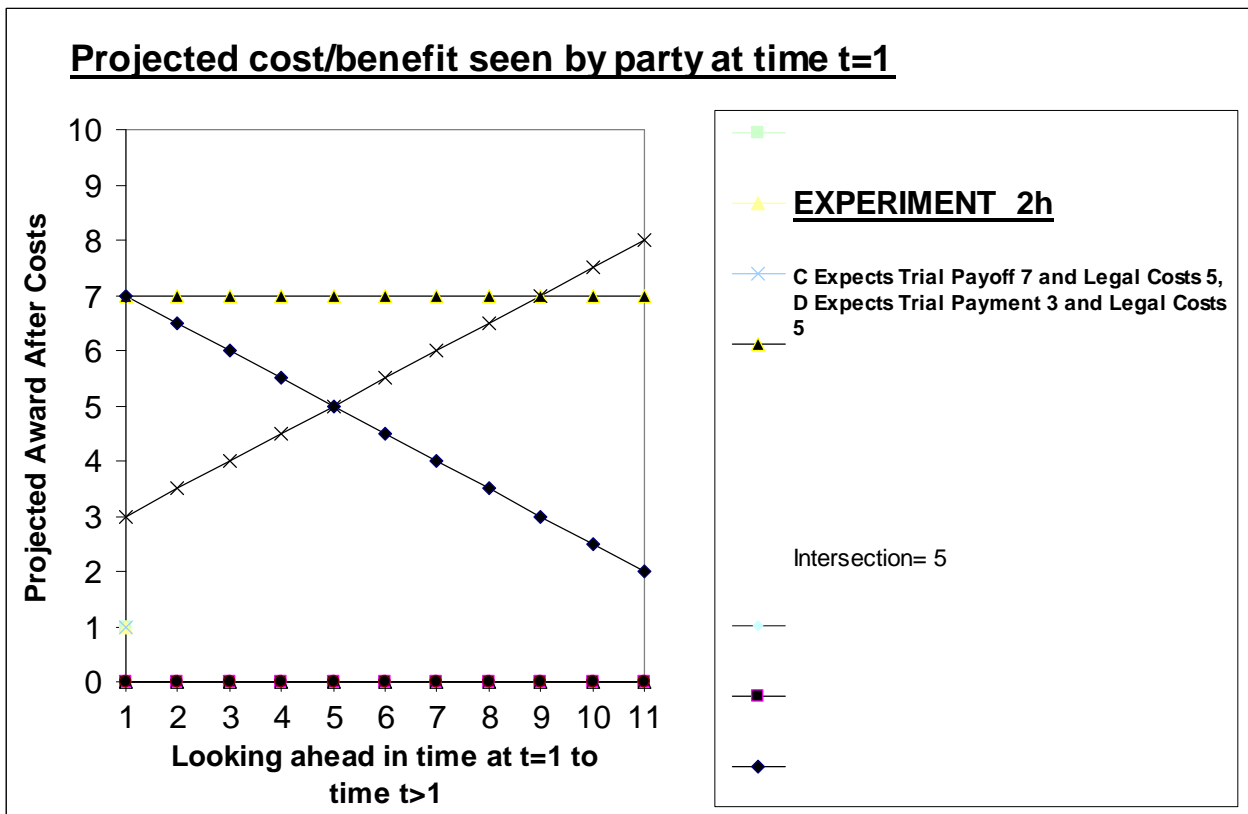
Similarly consider example 2g) being example 2d) above modified so that party C now pretends that his SAF is at £7.5 not £7 as shown below:



If C cheats and both pretends and fools D that C believes that his own expected payout at trial will be £7.5 and not £7, then this pretence increases the minimum feasible settlement before trial seen at t=1, from £7 to £7.5. It would still be advantageous to both sides to settle before trial at t=1. When contemplating settlement, D would also be contemplating the breakeven alternative of more legal costs, therefore the settlement amount from D’s perspective would have increased, ceteris paribus.

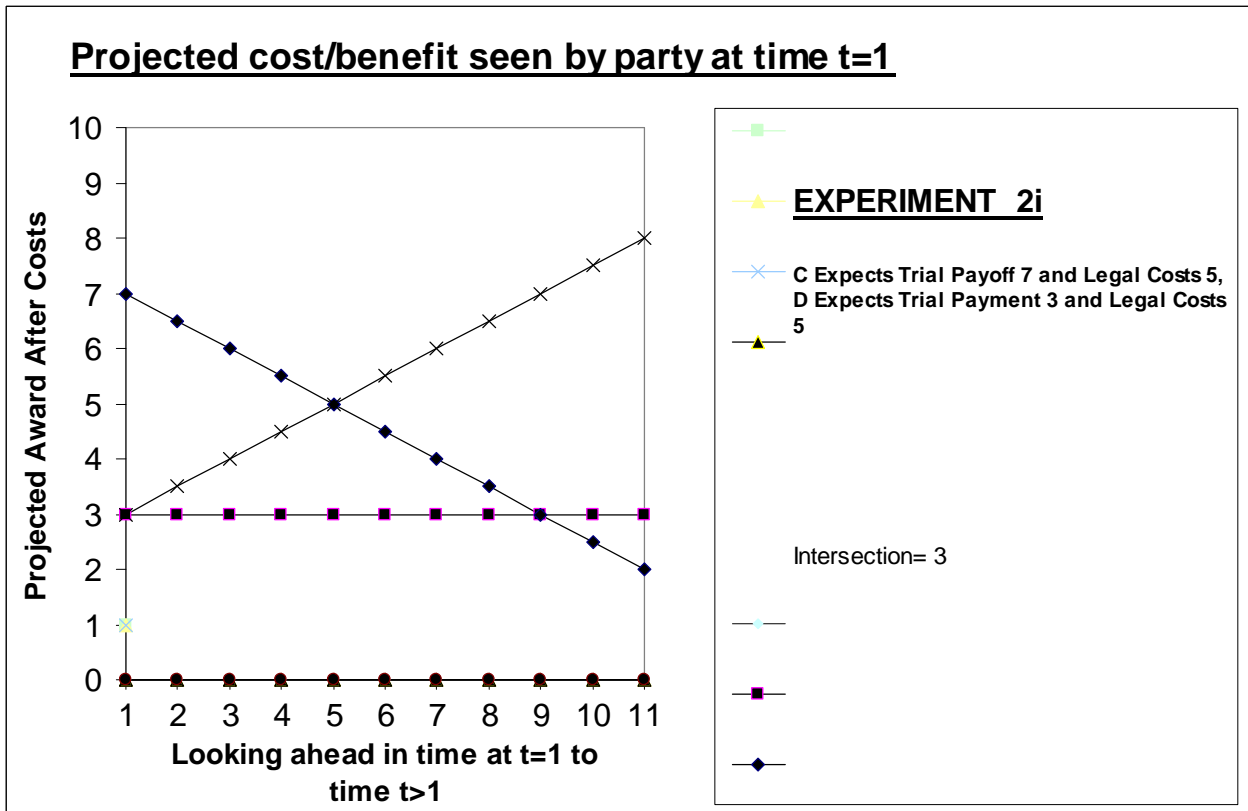
Benefits of Cheating re: Expected Legal Costs

Additional benefit can also be gained for settlement negotiation purposes by both sides cheating and dissimulating on expected legal costs. Thus consider example 2h) which is the same as 2e) with the difference that Claimant C now cheats and fools D that C faces no legal costs.



This cheating by C if believed by D, increases X, the intersection of SAF and SOF from £5 to £7 and decreases the set of feasible settlements from £8 to £2 instead to £8 to £7. It will still be in D's interests to settle at £8 or below, but C's cheating on costs makes D project further ahead and envisage paying more legal costs at the breakeven settlement point and hence D expects to pay more in alternative prior settlement, ceteris paribus.

Similarly, consider example 2i) which is the same as 2e) with the difference that Claimant D now cheats and fools C that D faces no legal costs.



This cheating by D, if believed by C, decreases point X, the intersection of SAF and SOF curves from £5 to £3 and decreases the set of feasible settlements from £8 to £2 instead to £3 to £2. It will still be in C’s interests to settle at £2 or above, but D’s cheating on costs makes C project further ahead and envisage paying more legal costs at the breakeven settlement point and hence C expects to pay more in alternative settlement, ceteris paribus.

Thus each party has an incentive to pretend to the other side that he will do better at trial and incur less costs up to trial (in the absence of legal cost awards), up to the point where such pretence looks implausible or appears to preclude any feasible settlement before trial. Additionally each party has an incentive to make the other side perceive the highest possible level of own costs.

Lessons from Own Legal Costs Scenario Analysis:

A number of additional lessons can be drawn from the simple linear costs scenario analysis:

- 12.) Adding legal costs increases the scope for settlement *ceteris paribus*, because each party can project ahead and envisage the costs that both they will face if they do not settle and that the other party will face if they in turn do not settle.
- 13.) Adding legal costs causes the SAF and SOF to close towards each other over time, as seen from fixed time point, if the SAF curve initially lies above the SOF at $t=1$
- 14.) Adding increasing legal costs adds more urgency to settlement negotiations as the parties need to project less far ahead in time to see a benefit from settlement and additionally because the longer they wait the more legal expenditure can be incurred as a potentially sunk cost.
- 15.) With no legal costs, there is an option time value to parties waiting on the off-chance that their prospects will improve, however as the projected legal cost become more extreme so the opportunity costs of waiting become more extreme and hence the optimal amount of time one might wait for developments falls.
- 16.) Increasing legal costs on both sides could raise or lower the point of intersection X of the SAF and SOF and could thereby raise or lower any settlement agreement.
- 17.) However increasing legal costs unequivocally reduces the time that both sides need to project ahead to see the benefits of settlement, *ceteris paribus*.
- 18.) Both sides have an incentive to pretend that they will both do better at trial and also incur less legal costs, *ceteris paribus*, up to the point where this looks implausible or removes the set of feasible settlement agreements.
- 19.) It is important that the client in private is not correspondingly beguiled by an over-optimism on own costs and likely outcome at trial
- 20.) Adding legal costs deters litigation both by encouraging prior settlement and by making litigation unprofitable in the absence of settlement, as discussed below.
- 21.) The relative slope of the legal costs curves determines the importance for settlement of each side's beliefs and range of possible beliefs about the payout amount at trial as shown below.

7. Analytical Framework and Model Setup 3.

Introduction and Impact of Risk Aversion

In reality, both sides are averse to risk and will pay or give up some amount of potential gain to avoid this. In other words they are risk averse and will consequently pay risk premia to avoid such risk. In the situation considered, the risk premia are particular to each client and will depend on background factors such as underlying financial resources and familiarity with the litigation process. If an uninformed client is not made aware of the risk factors then his risk premia may be much lower than they otherwise would be. This is dangerous since it might cause him to proceed with litigation or avoid timely settlement or settlement at the right level. The risk premia on each side are likely to vary in response to news and over the course of the case due to endogenous forces. Typically increasing risk premia will both decrease the gap between and steepen the SAF and SOF curves. The reason is that the more money risked in legal expenses, the more risk premia potentially payable to insure the effectiveness of those legal expenses. There is no fundamentals model of risk premia in this paper, but their effects are nevertheless vitally important and both sides have incentives to maximise the other side’s risk aversion and risk premia, to closely monitor the other side’s risk premia and to minimise their own perceived risk premia.

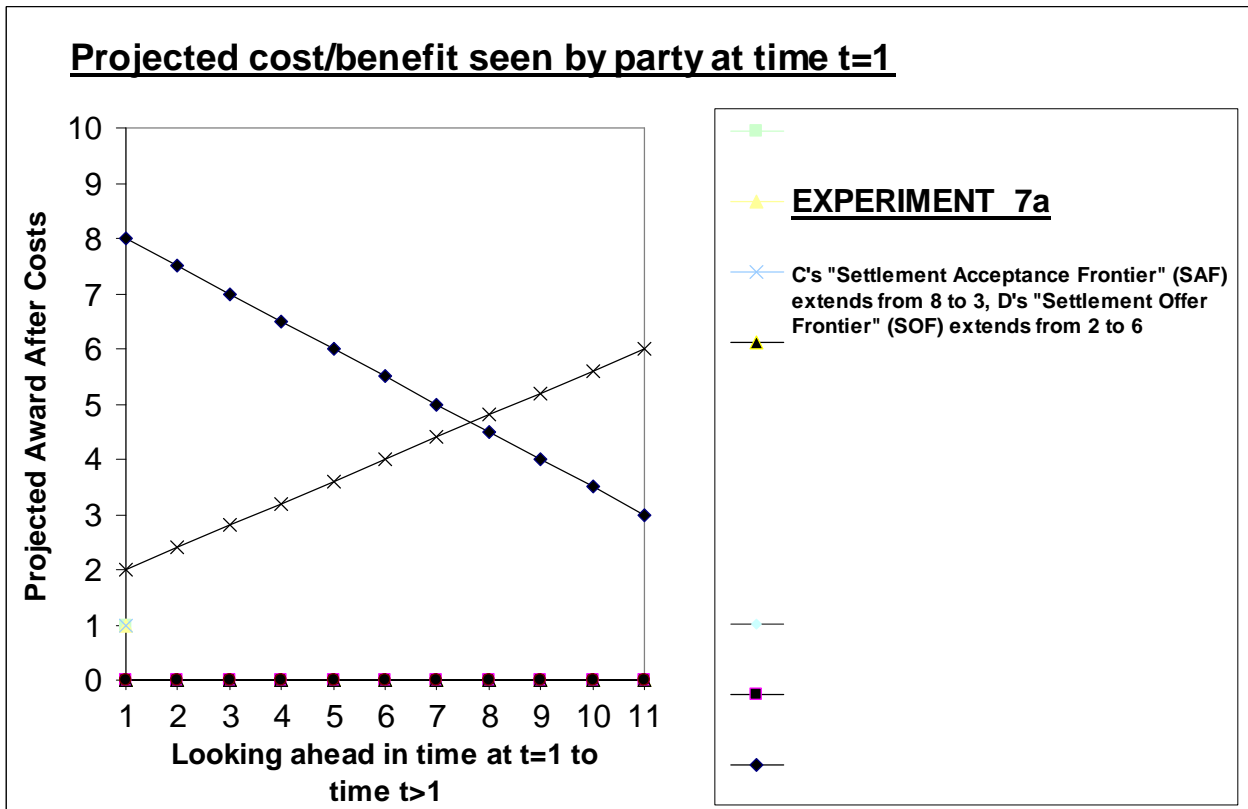
Agreeing a Settlement Figure from the Range of Feasible Agreements

As argued above, the Claimant C can be modelled as having a notional “Settlement Acceptance Frontier” or SAF at all points during a course of litigation. The SAF is the curve of minimum settlement amounts that C would be prepared to receive in return for dropping the case, when C momentarily projects ahead to the future course of litigation. Of course C would always be happy to accept more if offered and hence the SAF, provides information on the minimum and not the maximum that C would be prepared to receive, hence it is the lower frontier of an acceptable payoff region for C.

C’s SAF is composed of 3 elements, namely C’s subjectively expected payoff at trial, C’s subjectively expected legal cost projections and C’s subjectively perceived risk premia covering what C will give up in order to avoid risk components. The expectations are all from the perspective of C at the observation time, in

other words, the expectations are consistent expectations based on C's perceived information set at time t=1, the observation time.

Combining these elements, C's SAF will be a downward sloping curve, reflecting what C expects his net return to be as the case runs through to trial plus risk premia. In diagram 7a) for example C looking out at t=1 expects his payoff at trial to be £9, his risk premia to be fixed at £1 and his legal costs incurred linearly between time t=1 and t=11 to be £5

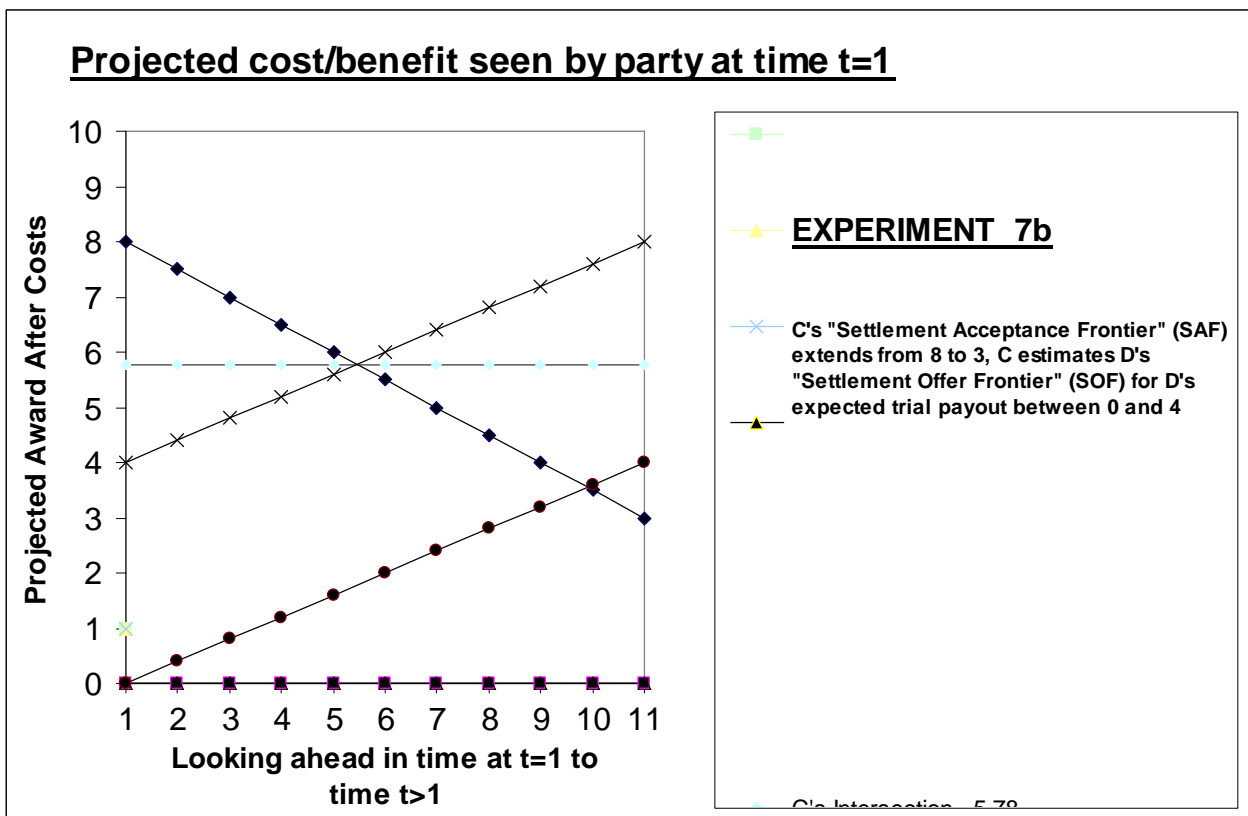


By an exactly parallel argument D's settlement offer frontier or SOF is built-up from his own expected payout at trial, his own expected legal costs and his own risk premia. Thus in diagram 7a) D expects trial payout to be £1.5, his own risk premia to be fixed at £0.5 and legal costs incurred linearly between time t=1 and t=11 of £4.

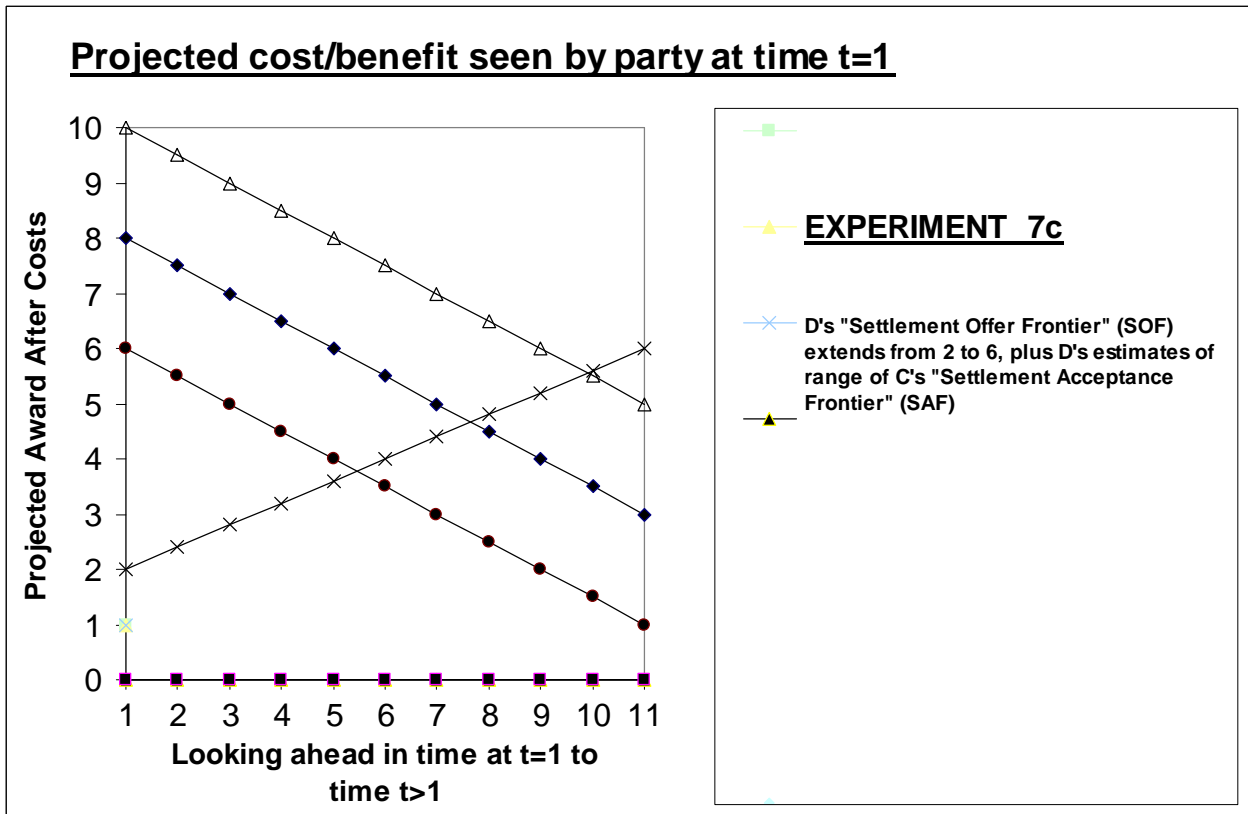
An obvious focal point X where C and D might settle is provided by the intersection of SAF and SOF curves. In diagram 7a) C in principle could accept any settlement value on or above the lowest point on SAF i.e. any settlement on or above £3. Similarly, D could in principle accept any settlement on or below the highest point on SOF i.e. on or below £6. Thus the feasible settlement set is £3 to £6 which is generally and in this example different in size and range from the gap between the expected payoffs at trial as perceived by the two parties, here: £1.5 to £9. Suppose that C and D know each other's trial expectations, risk premia and

legal costs curves and can estimate diagram 7a) accurately, then how can they agree a settlement amount between £3 and £6? The answer is that different rules and approaches will result in different values from this feasible set being agreed, if there is indeed agreement. However if both parties agree to settle on the figure that equates to their earliest settlement point and tells the other party that they only want to look ahead to $t=8$ in this instance, then this arguably will allow the parties to coordinate on the focal point X where SAF = SOF.

In the absence of such perfect information about the other side, the best each side can do is to estimate both its own SAF or SOF and upper and lower bounds on the SAF or SOF of the other side. Thus C might estimate that D's expectation of his payout at trial lay between £0 and £4 as shown in diagram 7b) below, giving C a negotiating range of c. £5 2/3 to c.£3 2/3, hence C's recommended opening settlement offer might be £5 2/3.



Applying the same strategy D might estimate C's expectation of his own payout at trial bounded between £6 and £10 as shown in diagram 7c) below i.e. between c. £3.75 and £5.5, thus D's recommended initial offer might be £3.75.



Thus in the imperfect information world while it is not possible to either enforce agreement at all or agreement at the intersection of the SAF and SOF curves, nevertheless it is possible for both sides to adopt a heuristic strategic approach to negotiation based on their own particular understandings of the SAF and SOF curves, that has a good chance of achieving settlement in this region. In the example illustrated this would mean C making a conservative initial offer of: c.£5 2/3 and D making a conservative initial counter-offer of c.£3.75. This start might enable the parties to converge on a settlement figure somewhere around the true intersection point X of: c.£4 2/3. For this reason, the intersection point X of SAF and SOF curves is considered as an implicit, attracting, “focal point” for settlement negotiations in the experiments considered below.

Effects of Lumpy Legal Costs and News Variability

In reality, legal costs are not just nonlinear over time but actually rather lumpy. This has the effect that the larger the time gap to the next legal costs and the smaller those projected legal costs, so the lower the opportunity costs and relative benefit to settling in the current period and the lower the likelihood for settlement negotiations and settlement occurring, particularly if they themselves are costly. Conversely the closer and larger the projected next legal costs, so the greater the incentive to negotiate and settle now. This implies that settlement is likely to be negotiated and actually to occur is very specific windows e.g. before major trial or investigation costs are incurred and on the court steps, before a lengthy scheduled trial.

8. Mediation and Alternative Dispute Resolution (ADR)

The question arises of how mediation, alternative dispute resolution fit into the framework above. Firstly the mediator/negotiator being perceived as more trustworthy by each side than the opponent, may be able to elicit better information about the expected payoff at trial and risk preferences of each counterparty. When transmitted to the other side this can allow the other side to gain a more accurate understanding of the location of the SAF and SOF curves, the location of intersection point X and hence improve understanding of the space for prior settlement. Secondly, any underlying “grudge factor” in direct negotiations will effectively reduce net risk premia and have the effect of moving the SAF and SOF apart, thus reducing the feasible set of settlement agreements. The mediator by stepping in can reverse this particular process. Thirdly by establishing better communications with each side, the mediator has more opportunity to identify tradable items on each side and to get each side to revalue each of these items in a way conducive to settlement. By revaluing and then swapping different tradable items on each side, the mediator can reduce the costs of moving to settlement on both sides when seen from each side’s own terms. Fourthly, the negotiator/mediator can focus the minds of participants on harsh realities i.e. legal costs and the cost benefits of trial, once again bringing the SAF and SOF closer together by increasing perceived legal costs and perceived risk premia.

Finally where mediation is a discrete one-off process, if it fails then the opportunity is perceived as lost forever. This means that the “lost opportunity cost” of failed mediation is much higher to both sides than the

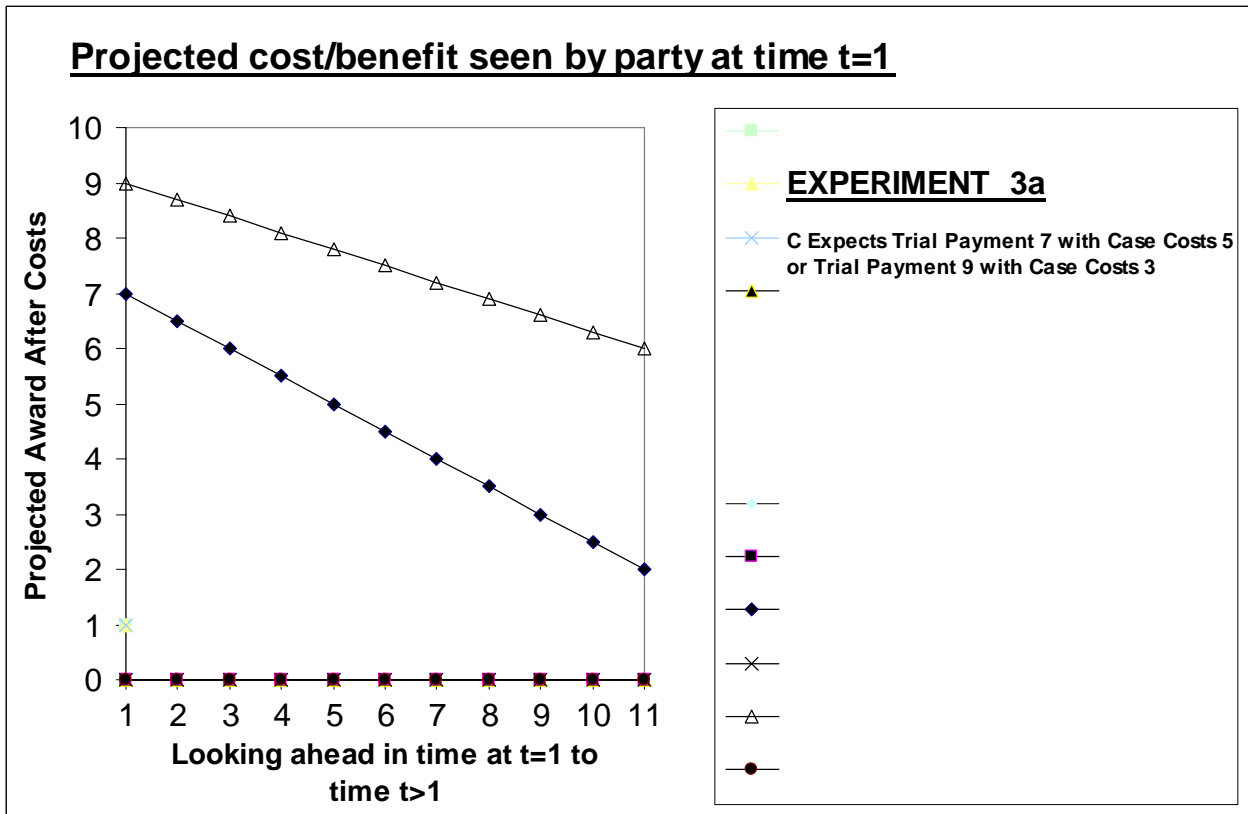
lost opportunity cost of another particular missed settlement opportunity before trial, which can typically be repeated later up to trial. This in turn, if appreciated by both parties, and stressed by the mediator is appreciated as having extra value by both parties and hence gives both parties an incentive to move slightly closer toward settlement, which in turn increase the likelihood of successful settlement during mediation.

Thus mediation can be seen as a process which increases the chance of settlement before trial. It is typically an additional voluntary process before trial and will therefore be accepted unless one or other side perceives excess countervailing costs. These countervailing costs could be financial, but this is unlikely as the scale of mediation costs is usually much less than for other alternative legal costs. A more likely countervailing cost is the cost in terms of lost credibility and bargaining power, if it is feared that the mediator will give too much sensitive information to the other side or if one side fears that by accepting mediation, it is signalling lack of strength to fight the case in the alternative. A procedural rule that mediation is either expected or mandatory may therefore be beneficial as it allows both parties to accept mediation without thereby giving any signal of weakness.

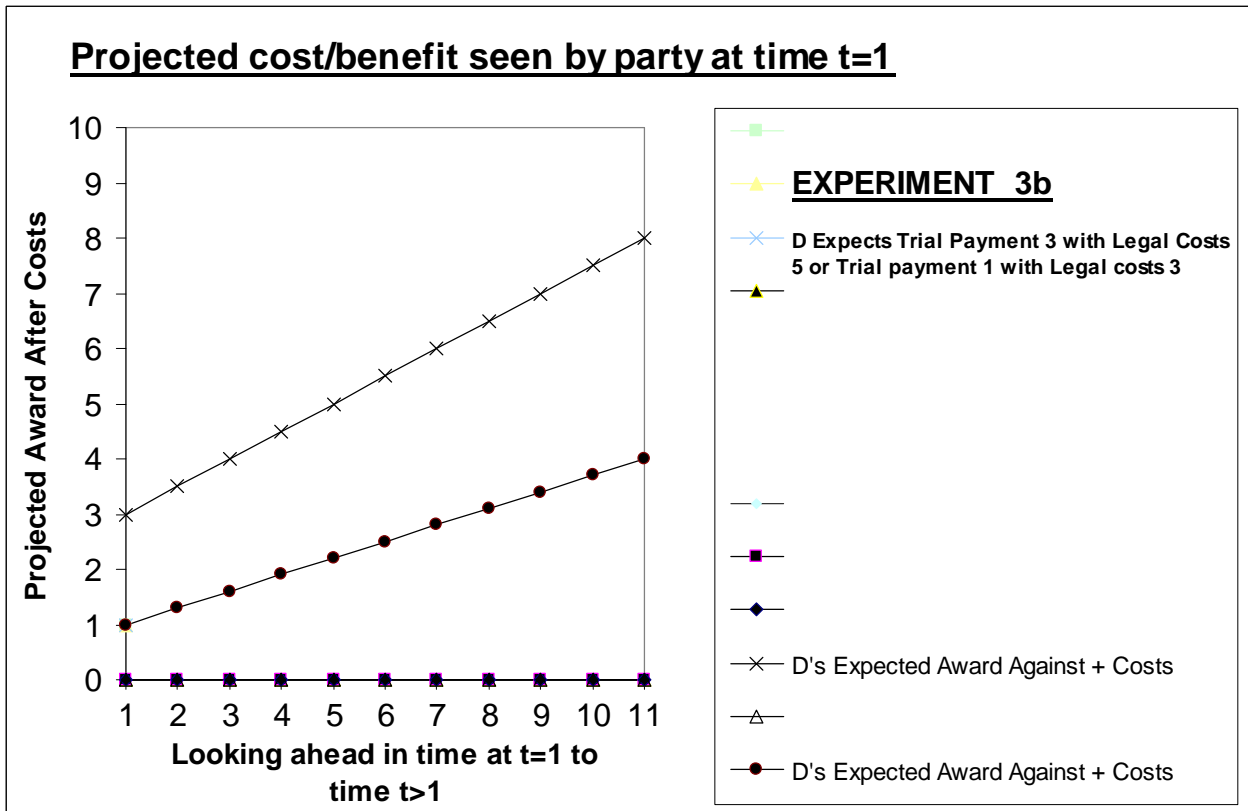
9. Lawyer Quality Cost/Benefit Trade-off

Case 1: Better Lawyer Also Cheaper

In reality the costs and quality of services offered by lawyer varies. For example, consider C's choice between two lawyers, one whom he expects to charge £3 for the whole case and to increase his payout at trial to £9 or another whom he expects to charge £5 and to achieve a payout at trial of £7. The better lawyer in terms of likely trial outcome is also the cheaper and C's SAF for the better lawyer lies everywhere above his SAF for the worse lawyer case. This is shown in diagram 3a) below:



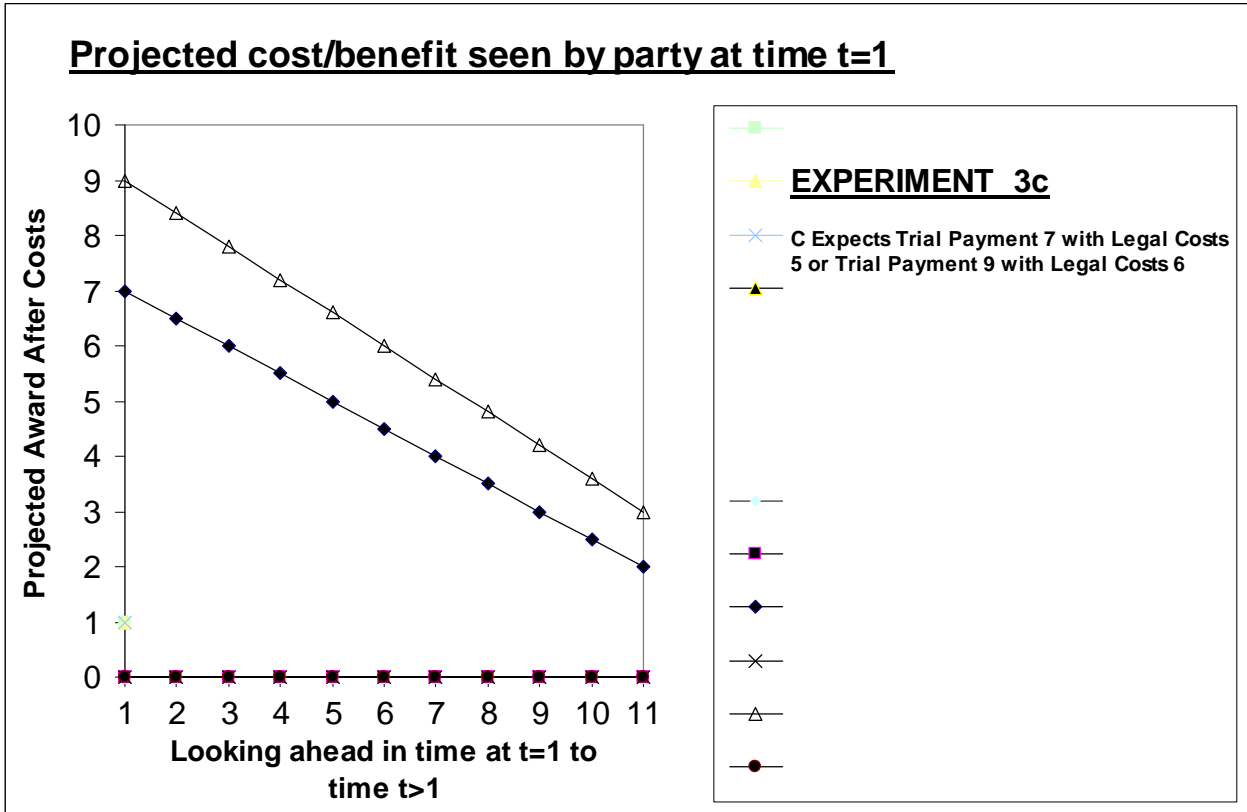
Therefore, C should clearly use the better lawyer if available in this example ceteris paribus. In a comparable example, suppose D has a choice between two lawyers one who he expects to charge £3 for the whole case and to reduce the payout at trial to £1 or another whom he expects to charge £5 and to achieve a payout at trial of £3. Here the better lawyer in terms of likely trial outcome is also the cheaper and D's SOF for the better lawyer lies everywhere below D's SOF for the worst lawyer case.. This is shown in diagram 3b) below:



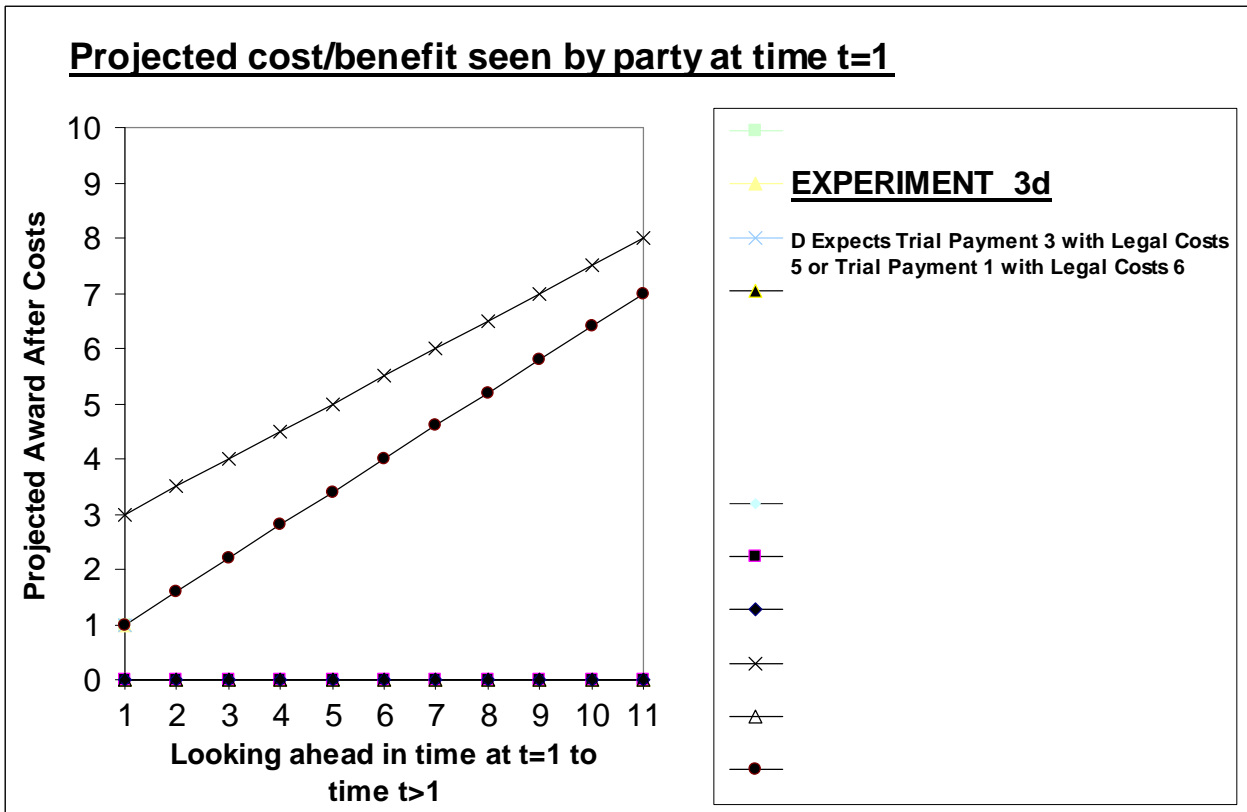
Therefore, by the same argument, it is worth D getting the better lawyer if available, ceteris paribus.

Case 2: Better Lawyer Marginally More Expensive

In the next scenario, the better lawyer considered by each counterparty in terms of expected payoff at trial is also marginally more expensive. However the better lawyer is still preferable as long his expected extra benefit in terms of trial payout is greater than his expected financial costs to trial. An example for party C is shown in diagram 3c) below:



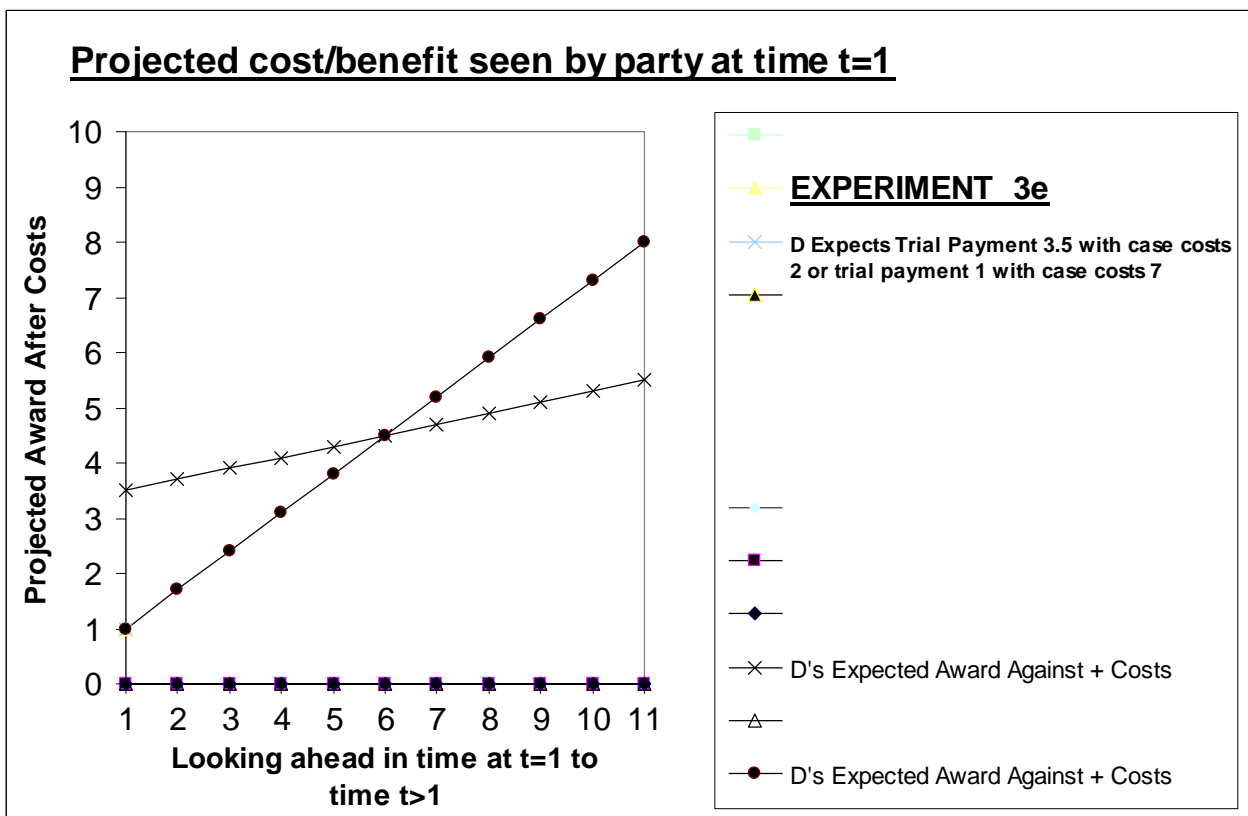
An equivalent case for party D is shown in diagram 3d) below,



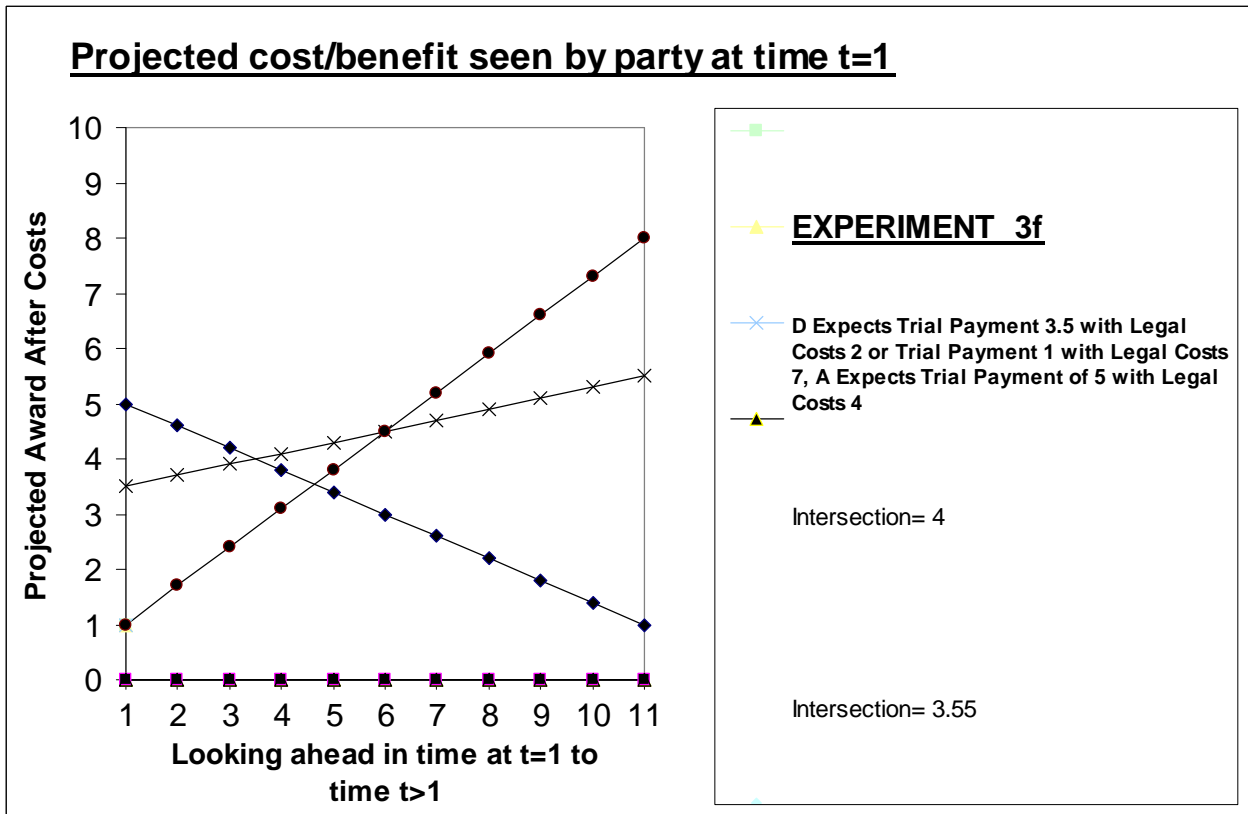
where the better lawyer is still preferable since his expected extra benefit in terms of trial payout is greater than his expected financial costs to trial. Thus the key condition is that from D's perspective the SOF of the better lawyer still lies everywhere below the SOF of the worse lawyer and from C's perspective the SAF of the better lawyer still lies everywhere above the SAF of the worse lawyer.

Case 3: Better Lawyer Significantly More Expensive

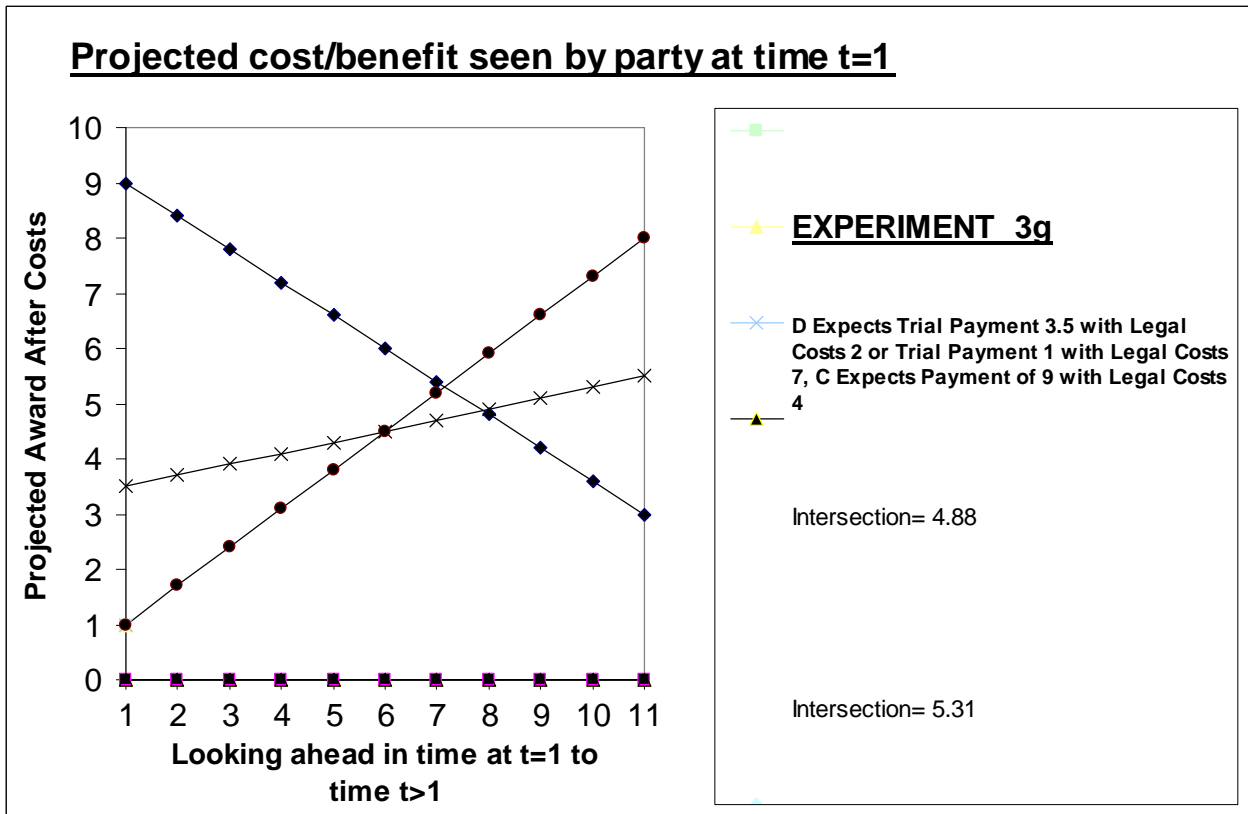
In perhaps a more usual case, the better lawyer considered by each counterparty in terms of expected payoff at trial is significantly more expensive. For example suppose D can choose between 2 lawyers one whose expected payout at trial is high at £3.5 but expected legal costs low at £2 and another lawyer whose expected payout at trial is low at £1 but expected legal costs to trial high at £7. This is shown in diagram 3e) below:



D's optimal choice of lawyer will then depend on whether or not he anticipates forcing a settlement not just before trial but before or after time t=6. If D expects to be able to force a settlement with C based on C's own cost expectations before time t=6, then the lowest relevant SOF belongs to the better lawyer whom D should hire. This case is illustrated in example 3f) below:

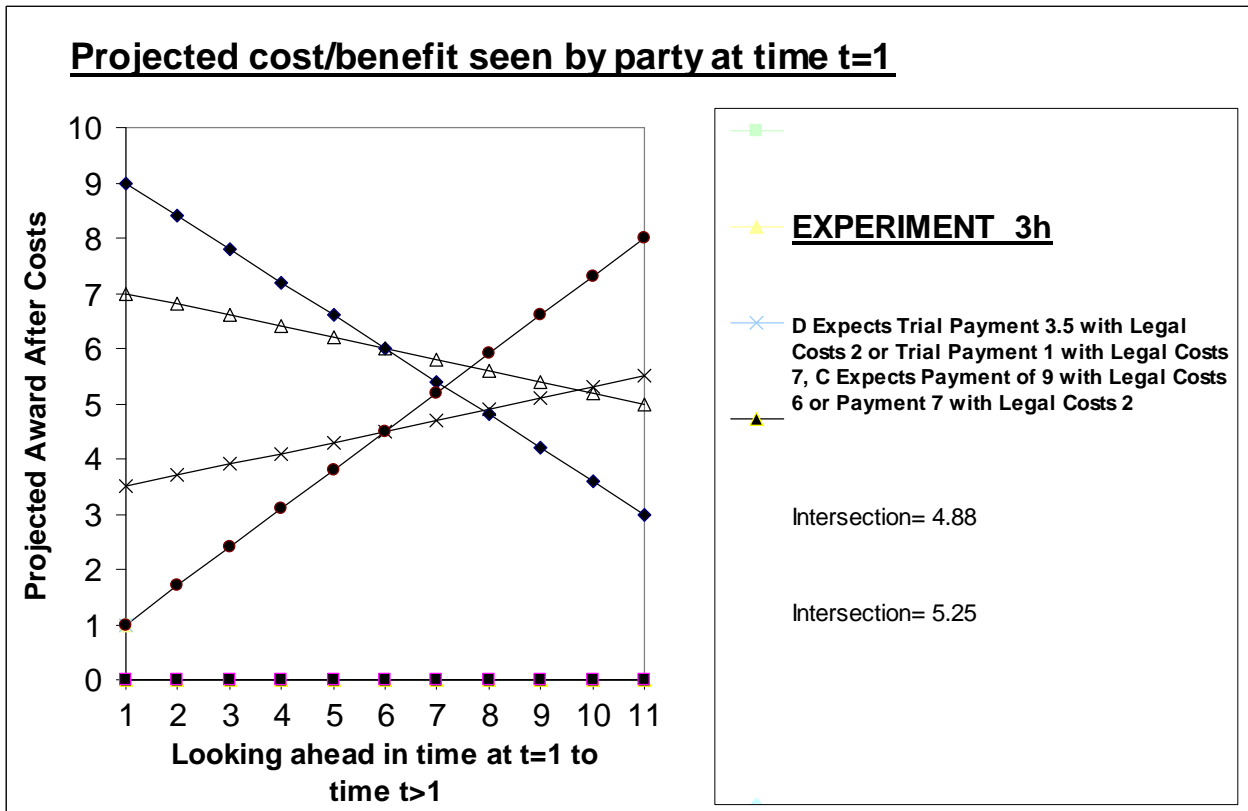


By choosing the better lawyer in this case, D expects point X to fall from c. £4 to c. £3.55. Alternatively, if D estimates that he cannot force settlement with C before time t=6, based on his estimate of C's projected costs before trial then the lowest relevant SOF for D will belong to the worse lawyer. This alternative case is illustrated in diagram 3g):



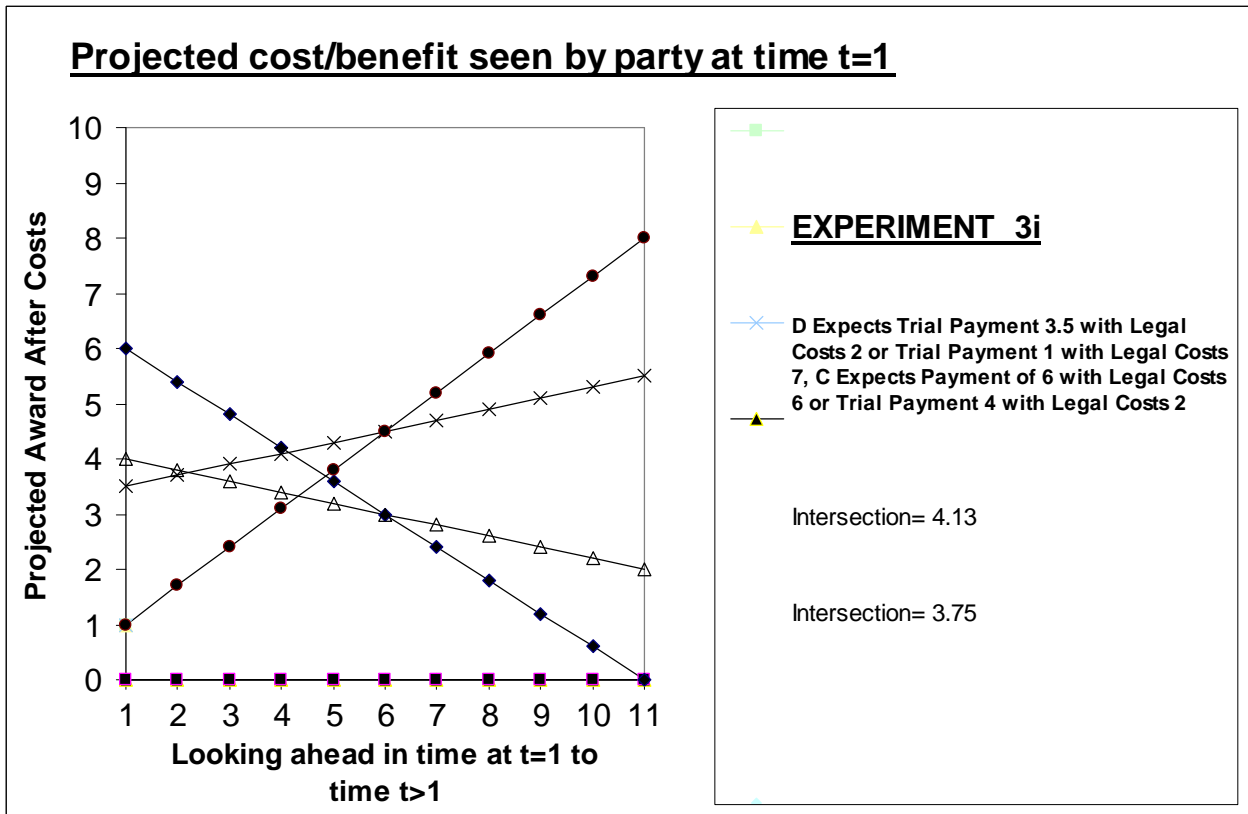
In this case by choosing the worse lawyer, D's expects point X to drop from c. £5.31 to c. £4.88. It can be seen that D's optimal choice of lawyers in terms of cost and ability typically depends on C's SAF profile which in turn depends on C's optimal choice of lawyers in terms of cost and ability and visa versa.

In case 3h) either party starting with a better but more expensive lawyer can unilaterally move intersection point X and improve potential settlement in their favour by moving to a worse but cheaper lawyer, with shallower SAF and SOF curves:



However the net result in this example is that much of the cost pressure from the more expensive lawyers to settle early is lost. Here both sides have to project ahead to t=10, almost the end of the trial to perceive a benefit to settling. Moreover this settlement window will only last, in the absence of news and legal cost awards for one period until t=2 and width of the feasible settlement set is small at c£0.5. A similar example would be possible where both sides using cheaper lawyers, both lost any incentive to settle before trial. This illustrates a danger of inefficiently low legal costs, with diverse party expectations, namely inefficiently high litigation.

Similarly an alternative example where C and D both benefit from moving to a more expensive lawyer is shown in case 3i)



In this example, the greater marginal costs of using expensive lawyers is outweighed by the shorter projected time needed to look ahead to see the benefit of and to achieve settlement.

Thus the move by both sides to more expensive lawyers may increase or decrease intersection point X and may increase or decrease the time that both parties need to look ahead to see the value of settlement. However it will unequivocally increase the size of the feasible set of settlement values and in this sense increase the probability of settlement and variability of actual settlement figure that can be agreed, ceteris paribus.

N.B. With these models it is also possible to get a number of changes as each side sees what other type of lawyer the other side is using it is also possible to get cycles between lawyer types, particularly in response to news about trial prospects and shifts in risk premia.)

Lessons from Lawyer Cost/ Benefit Trade-off Analysis:

Various lessons can be drawn from this simple lawyer cost-benefit tradeoff analysis:

- 22.) Lawyers who are both cheaper and better are unequivocally preferable to each party choosing them to lawyers who are more expensive and worse, *ceteris paribus*.
- 23.) N.B. This system weeds out bad expensive lawyers, encourages good cheap lawyers and helps to establish a positive relationship between lawyer quality and cost and demand across the lawyer cost range.
- 24.) Lawyers who are unequivocally cheaper and better for one party are unequivocally worse for the other party, *ceteris paribus*.
- 25.) Where there is a trade-off between lawyer cost and quality, the facts of the case, the opponents chosen cost curve and reactions may all determine whether a client should choose cheaper or more expensive lawyers or better worse lawyers and stick with them or change them.
- 26.) As a client's information about the facts of the case and the opponent's choice etc change, and time to trial changes, so the client's choice of optimal lawyer may change, therefore it may become advantageous and it should be kept under review whether one should be using a more or less expensive lawyer.

Principal-Agency Issues and Alignment of Client Legal Team Incentives

Under the standard hourly-billing model, both solicitors and barristers have an incentive, *ceteris paribus*, to bill the maximum number of hours at the highest hourly rate, *ceteris paribus*, up to their own sustainable working limits. This in turn means that they have no personal incentive to settle any case beyond any countervailing penalty costs incurred for not settling. They also have an incentive not to reveal the true expected costs of the case to new clients but rather to frame their fees in an opaque way. Both of these

incentives are likely to be detrimental to the client as they cause him to make decisions based on inadequate and misleading information, decisions that are therefore likely to be worse than they could otherwise be and to cause the client to pursue a case he otherwise would not or to avoid settlement where he otherwise should.

Solicitors, Solicitor-counsel, In-house Lawyers and Independent and Employed Barristers

One potential mechanism to protect the client is a Code of Conduct for each group of lawyers, with financial sanctions and associated reputational costs for transgression. However the required evidence to prove this may be hard or impossible to obtain. Another potential mechanism is reputation. The problem with this is that reputational damage is usually only incurred if a case is lost as opposed to if the case fails to settle at the right time and for the right amount. Any reputational damage from a lost case, that should have settled earlier, will depend on a number of factors. Often the lawyers have given general disclaimers then they may be able to defend their reputations. Similarly the degree of reputational damage will depend on other factors e.g. publicity and specialization of the lawyer involved.

The last factor suggests that lawyers who specialise in a particular field and gain repeat business from informed clients will be much more subject and responsive to reputational pressure. This would apply to independent barristers (chosen by informed solicitors) and specific types of solicitor with the most repeat business and with informed clientele e.g. independent commercial solicitors. By contrast, many other types of solicitor and internal solicitor's counsel would not have such strong reputational constraints. However a solicitor might still choose to use internal solicitor's counsel in preference to an independent barrister, as any extra profits derived by that solicitor counsel would now be shared via the same solicitor's firm with the case-solicitor himself. Thus there is a fundamental difference in terms of legal cost incentives and in turn likely legal costs between using external counsel and internal solicitor counsel provided through the same solicitor's firm. Consequently there is an argument that if solicitor counsel is used instead of a barrister, then he should nevertheless be independent of the case-solicitor's firm. An alternative way this may be achieved is by using an employed barrister in the case-solicitor's firm bound by a separate Code of Conduct and professional earning rules.

In another case, suppose D is a company using an internal company lawyer. Such a lawyer’s perceived shadow cost of his litigation work may be zero and he may have a perverse incentive not only not to save costs for the company but even to help to create costs by secretly generating more legal work for the company and hence more perceived demand for and payment for his own services.

Thus any given client has the daunting prospect of trying to align both the cost incentives of his own lawyers with himself but also of the opposing lawyer and the opposing client with himself. The relevant legal regulator has also historically had dual and conflicting duties and incentives to protect the client while simultaneously helping its own “union members” a fundamental conflict of interest recognised in the Clementi Report 2004. Recent attempts in England and Wales to address these conflicts of interest have involved partial separation of powers and imposition of “Chinese Walls”, between the Bar Council, representing the interests of practicing barristers and its offshoot the Bar Standards Board here representing the interests of clients. Similar steps have been taken between the Law Society, representing the interests of solicitors and its offshoot the Solicitors Regulation Authority here representing clients.

Solicitor cost incentives could be aligned with the clients by instituting reforms such as the following: instituting a regulation that solicitors have to give regular written quotations predicting the expected cost profile over the whole case and upper and lower boundaries, information on external grading as to their quality in specific legal areas, explanation of their rule for allocating sections of work to different solicitors and external counsel at different fee rates and disclosure of those fee rates.

Lessons from Principal-Agent Issues

- 27.) All lawyers who want to win the business, have an incentive to represent that they are better than they actually are at trial at the start of the case. This raises the perceived net present value of the potential case to the client.
- 28.) Similarly, lawyers at the start of a potential case have an incentive to overplay the likely benefits of proceeding with a case.
- 29.) All lawyers who want to win the business have an incentive to underplay the likely costs of any litigation. The one-off litigant without prior knowledge is particularly vulnerable to this. The

way this can be done by the lawyer without lying or misrepresentation focussing the client's mind on cheap initial costs only as opposed to expected total case costs.

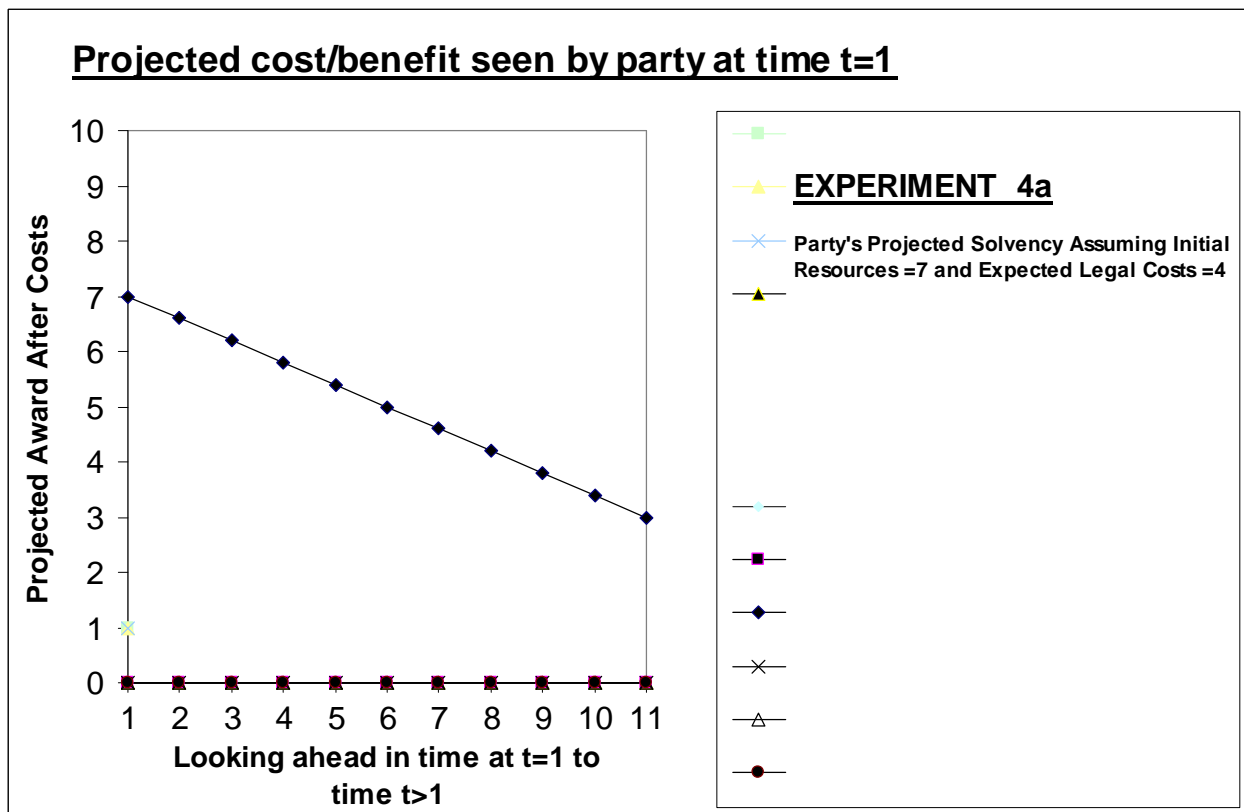
- 30.) All lawyers have an incentive to generate the full costs of the case rather than settle, *ceteris paribus*.
- 31.) To counteract this, a countervailing incentive is needed to align the settlement incentives of the solicitor with those of the client e.g. a settlement bonus for the solicitor greater than the expected lost time costs of the lawyer finding a new equivalent client.
- 32.) The corollary of this is that each side trying to settle must make sure that the settlement offer is properly transmitted to the opposing clients and not filtered out at the opposing lawyer stage.
- 33.) The cost incentives for a solicitor using in-house counsel is to maximize the cost of that counsel, *ceteris paribus*, because the case-solicitor has the same incentives to bill money via in-house counsel as via himself.
- 34.) By contrast the cost incentive for a solicitor using external counsel is to minimise the cost of that external counsel, *ceteris paribus*. The solicitor also is able, as a highly informed viewer, to monitor the costs and output of external counsel.
- 35.) For this reason external counsel used in a case is likely to provide much better value for money than internal counsel, *ceteris paribus*.
- 36.) External counsel in a case is more likely to be under than overused, whereas internal counsel in a case is more likely to be overused than underused.
- 37.) The incentive problem of using internal solicitor-counsel may potentially be solved by using an employed barrister instead, with different regulatory framework, remuneration and Code of Conduct.
- 38.) Lawyers have an incentive, if they do not want a case, to overplay the likely costs and risks of the case and to underplay the likely return on the case.

- 39.) This incentive is stronger for external barristers, who because of the "Cab-Rank Rule" may not alternatively be able formally to refuse to take a case they do not like. This strategy also benefits the barrister by providing additional insurance, should he nevertheless be given the case and fail to perform.
- 40.) It may be advantageous for clients to get independent evaluation of the financial merits of a case from an independent solicitor and counsel who know that they will not thereafter be involved further in the case.
- 41.) In-house lawyers dealing with litigation, may have a perverse incentive to maximise the amount of litigation directed to their firm and hence demand for their own services unless their own contracts are carefully designed to prevent this.
- 42.) Similarly in-house lawyers dealing with litigation may have a perverse own-incentive not to settle before trial.
- 43.) The client needs to keep in mind both the existence of and need to manage inevitable conflicts of interest within each of the two sides and legal teams.
- 44.) The client needs to identify the relevant conflicts of interest on both sides and create a dynamic strategy to deal with them.
- 45.) The client needs projected costs of the whole case under different alternative scenarios to be officially quoted by his solicitor on a periodic basis, particularly at beginning, middle and end of the case.
- 46.) The client needs to share advice with his legal team to determine his own SAF or SOF and then to clearly transmit this information to the legal team.
- 47.) The client also needs a mechanism to inform his legal team about any changes to his SAF or SOF and to take their advice on how it should be changed.
- 48.) The client needs to neutralise the incentives of his legal team to settle at the wrong time and rate or to avoid appropriate settlement.

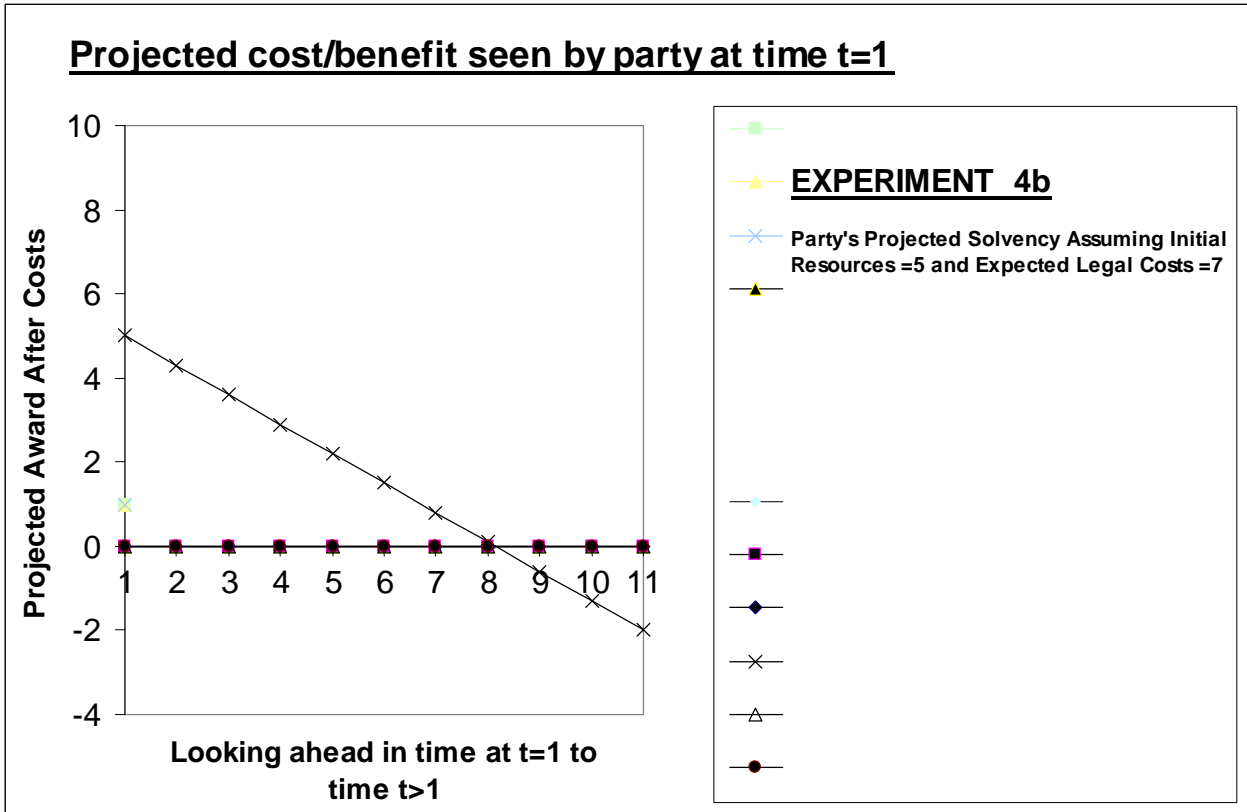
- 49.) Thus in a standard hourly-billing model, the client may need to give an additional lump sum financial incentive for the solicitor to settle the case, covering the extra cost to the solicitor of waiting for a new client, plus a scaled payment linked to the size of the settlement actually negotiated so that the deal is not struck at a disadvantageous level.
- 50.) The client must also incentivise his solicitor to keep open negotiation lines with the opposition and also to ensure that any settlement offers are getting through to the opposing client and past that client's solicitor.
- 51.) The client should be careful with regard to mediation ADR, balancing both the need not to give away too much information with the need to not miss a discrete opportunity for settlement. He might therefore choose to undertake mediation ADR but with the solicitor and not himself negotiating.
- 52.) A regulator concerned about client costs and settlement should enforce a new rule about regularity, scope and clarity of advice by lawyers on the total expected costs of the case.
- 53.) The new structures of the Bar Standards Board and Solicitors Regulatory Authority may focus on such measures.

10. Introducing Liquidity and Bankruptcy Constraints

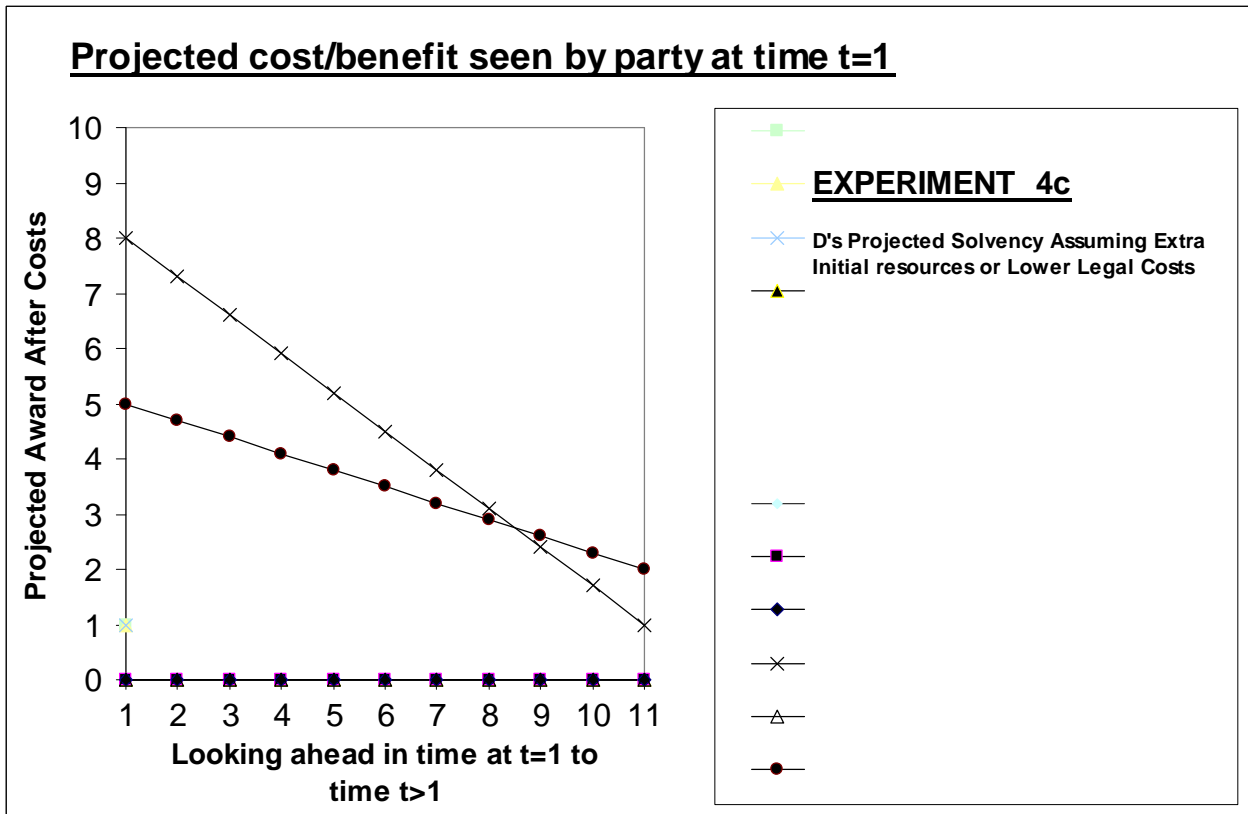
A key consideration in deciding whether to litigate, settle or drop an actual or potential case is availability of resources and associated liquidity or bankruptcy constraints. Suppose that one party starts off with total resources £7 and expects legal costs to be £4. That party therefore expects to remain solvent throughout the case and can bargain on the principle of knowing that he has the resources to go to trial. This issue is illustrated in example 4a) below.



Suppose however the party has initial resources of £5 and faces expected legal costs of £7 if the case runs to trial, as illustrated in diagram 4b).



In this case, the party now envisages that bankruptcy or illiquidity will prevent him from finishing his case after time t=8 and actually reaching trial. Diagram 4c) shows 2 ways in which the party can avoid this. The first way is for him to obtain more initial resources e.g. from £5 to £8 and the second way is for the party to reduce his projected legal costs to a manageable amount e.g. from £7 to £3:



Conditional Fee Agreements (CFAs)

A third way is for the party to borrow resources to pay the legal costs, if the expected shortfall in liquidity is less than any expected payout at trial. This will particularly apply to a Claimant. A solicitor's "Conditional Fee Agreement" or CFA can be seen as a way of borrowing the legal fees, with the percentage premium comprising both a normal or excess profit margin for the solicitor and an insurance premium charged by the solicitors to cover any risk of non-payment. N.B The risk neutral insurance premium boost rate would be $x\%$ where the corresponding chance of non-payment was also $x\%$.

One problem with CFAs is that the solicitor has an incentive to maximise the probability of payment being demanded from the client and this incentive can become perverse including setting implied conditions for solicitor payment when the client has not in fact received equivalent money at trial. Care therefore has to be taken by the client to ensure that the CFA is indeed watertight and that he only pays the solicitor when the client also gets paid by the court. Another problem with CFAs is that the terms have to be carefully set to be consistent with prior settlement whenever that would otherwise be optimal.

Lessons from First Review of CFAs

- 54.) In a conditional fee “CFA” case, the client has to be careful to determine an incentive compatible rule determining the conditions for a settlement ending the case and the relevant level of fees then incurred.
- 55.) The benchmark CFA rate boost should exactly compensate the solicitor for the probability of not being paid in the case i.e. there should be an $x\%$ rate boost if the chance of case failure is $x\%$
- 56.) The insurance premium paid to borrow these funds could be either above or below a fair rate depending on the relative information and negotiating game and objectives of the client and solicitor.
- 57.) In a CFA case, the solicitor has an incentive to maximise conditions of payment by the client, beyond conditions when the client himself wins at trial and also a perverse incentive not to draw this to the client’s attention.
- 58.) It would therefore be prudent for clients before signing CFA agreements with their solicitors nevertheless to get them first checked and reviewed or indeed written by another independent solicitor beforehand.

(For further discussion of CFAs, see p.68+ below.)

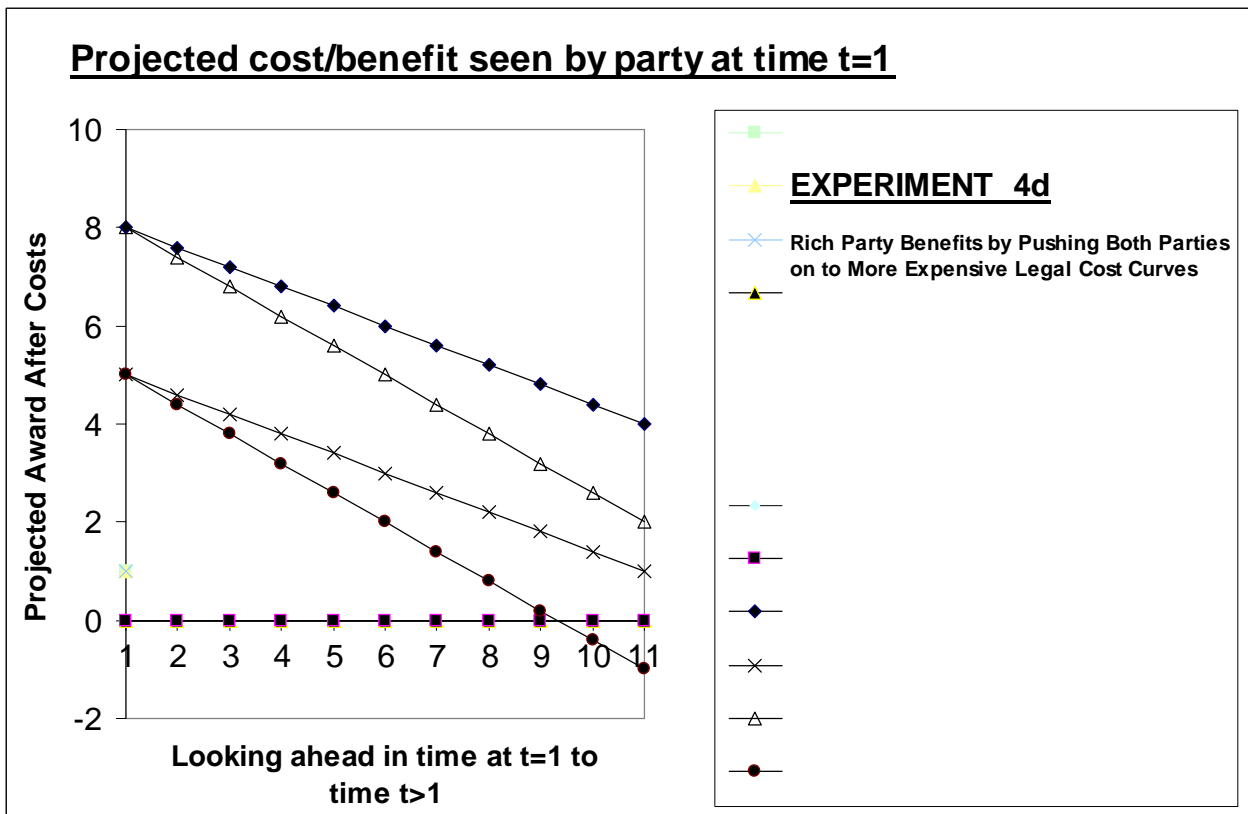
Bluffing re: Legal Cost Resources

A fourth way of dealing with liquidity and bankruptcy constraints, would be for the affected party to settle beforehand before incurring all the potentially bankrupting legal costs. However this would only be possible if his opponent also had an incentive to settle i.e. if the opponent believed that settlement was better for him than running on to trial. The opponent would therefore have to believe either that the first party had sufficient legal costs to fight the case or would not run out of costs before him. Therefore parties with

inadequate legal costs to fight the case to trial have to hide this fact from the opponent in order to maintain their bargaining hand in order to achieve pre-trial settlement instead of trial or quitting with no settlement.

Legal Cost Battles

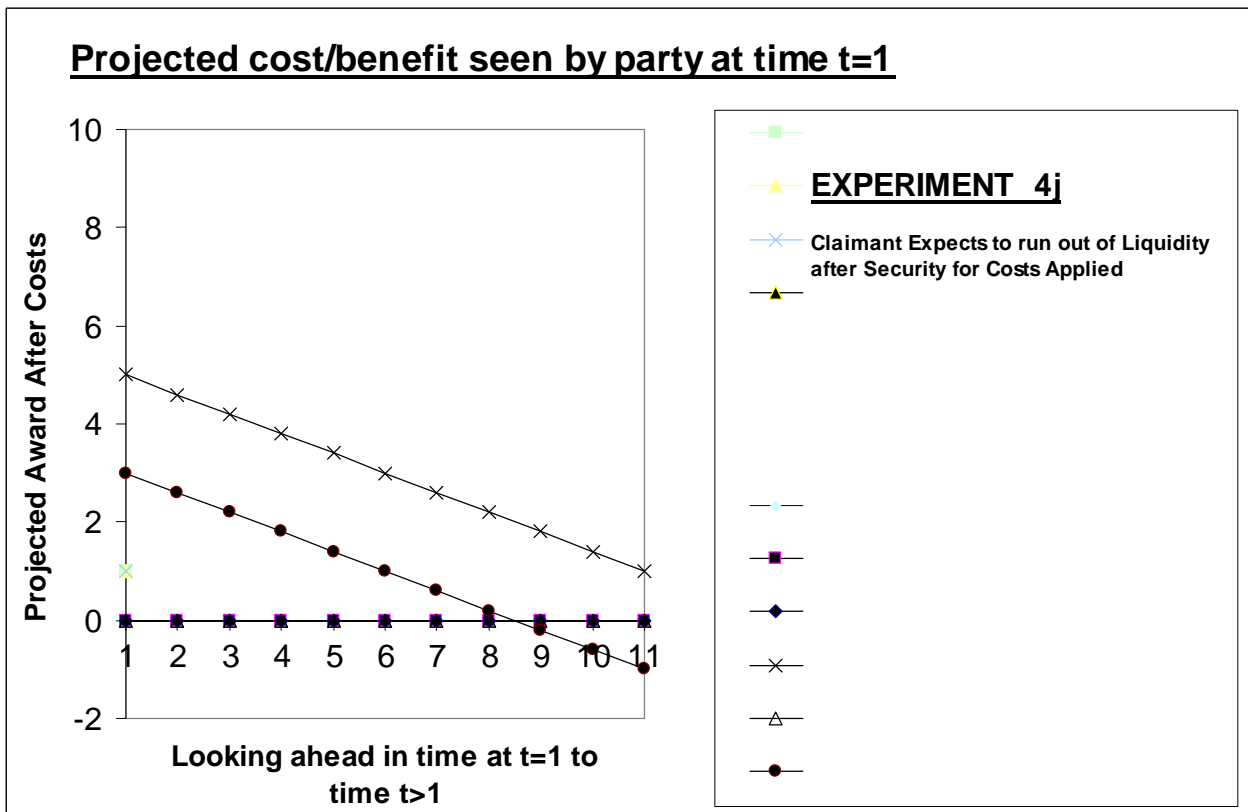
Conversely the ability of each party to call the other side's bluff, ignore settlement offers and wait for and help the opponent to drop out before trial, if the other side lacks adequate resources, gives both sides incentives to explore and possibly fight a legal cost battle. There are two direct methods of doing this. The first is to use up the opponents scarce legal cost resources. Thus the richer party may have an incentive to try to maximise the costs of litigation on the other side e.g. by demanding excessive disclosure and hearings and also by generating extra costs on its own side when the Law of Costs applies (see section below). This is shown in diagram 4d) below where the richer party benefits if he can force both counterparties on to their more expensive i.e. steeper, expected legal fee curves:



Additionally if there is a significant time cost, then the richer opponent may have an incentive to show that it will drag out proceedings on both sides as far as possible as well.

Collateral Orders: "Security for Costs" and "Freezing Orders"

The second method is to disable those resources e.g. by impounding them or creating a prior lien on them. Thus a Defendant facing a poor Claimant has an incentive not just to maximise projected legal fees on both sides as shown in diagram 4d) but also to reduce the Claimant's available initial resources as much as possible. A direct method of doing this is for the Defendant to seek an order for "Security for Costs" against the Claimant under Part 25 of the Civil Procedure Rules. In this case, the Defendant argues that the Claimant must provide the court with collateral from which the Defendant's legal costs will be paid if the Defendant is successful at trial. Since the collateral has to be paid in to court immediately i.e. before trial, this feature can itself reduce the Claimant's liquidity to the point where he expects to run out of resources before trial as shown in diagram 4j) below:



The ostensible purpose of a "Security for Costs" order is to protect the Defendant from being forced to fight by a Claimant without a good case, who is subsequently unable to compensate the Defendant when the Claimant loses. Imposition of a "Security for Costs" order raises the expected costs of the case and thus reduces the expected net benefit, for the Claimant who expected or anticipated not paying legal costs if ordered to the other side after trial. Otherwise, the cost to the Claimant is marginal, increasing borrowing

costs or lost investment costs. However, if there are capital market imperfections and the Claimant is unable to borrow the money, then a “Security for Costs” order can be used offensively by the Defendant to stop a Claimant, by exploiting the Claimant’s illiquidity. Additionally, it may boost the risk aversion of the Claimant and signal the resolve of the Defendant.

A “Freezing Order” under Part 25 Civil Procedure Rules can be sought by a Claimant when the Defendant is believed to be able to hide its assets or move them offshore and thereby to escape paying out a judgement made by the domestic court. In such a case the Freezing Order granted, increases the expected payout by the Defendant at trial, if the Defendant expected to avoid paying out some of what it was ordered by the court by not paying out on these assets. It also reduces the liquidity of the Defendant before trial, reducing the available assets from which legal costs could be paid. Additionally, it may also damage his business and cashflow. N.B. The process of seeking and applying for “Security for Cost” and “Freezing Orders” also increases legal costs on each side and signals the resolution to fight of the applicants.

Lessons from Analysis of Illiquidity and Bankruptcy Constraints and Collateral Orders

The following lessons can be learnt from this discussion:

- 59.) The prospect of illiquidity or bankruptcy during the litigation process or after trial needs to be carefully analysed by each party both from their own perspective and doing the same thought experiment for their opponent.
- 60.) If one party knows that his opponent cannot or may not be able to afford to complete the case then he needs to act accordingly to exploit this.
- 61.) Firstly he needs to signal to the opponent that he knows this.
- 62.) Secondly he needs to press for and agree the most advantageous settlement in his own favour in such a case. For example if D knew that C would go bankrupt fighting the case then D could signal this with reasons then offer either zero or only nominal settlement. Similarly if C knew that D would go bankrupt fighting the case then he could offer to take as settlement the maximum amount that D could pay before bankruptcy.

- 63.) A party facing bankruptcy could try to reduce legal costs to avoid bankruptcy or to raise additional funds to fight the case e.g. via a CFA.
- 64.) A party facing the prospect of illiquidity or bankruptcy later in the case should consider hiding this fact from his opponent and dissimulating his financial position on the one hand, while negotiating for settlement ostensibly on the basis of being able to win the case on the other.
- 65.) Similarly a party should signal to his opponent and possibly also the court if and why he thought the opponent would go bankrupt or be unable to pay.
- 66.) Paradoxically, this might mean that a poor litigant chose to use an expensive high quality lawyer initially to signal his solvency and determination and to force an early settlement despite not in actual fact being able to pay that lawyer’ fees in full if the full case ran all the way to trial.
- 67.) The poor Claimant should clearly be prepared to abandon a case rather than be bankrupted.
- 68.) Optimal choice of lawyer would depend on the financial circumstances and also on the other party’s choice of lawyer. It might also change for both parties during the case. e.g. with a rich lawyer followed by poor lawyers strategy, in the event that the case did not settle in time.
- 69.) Claimants may be actively damaged by “Security for Costs” orders and Defendants by “Freezing Orders”.
- 70.) These apparent risk-reduction measures may thus be used offensively during the litigation process.

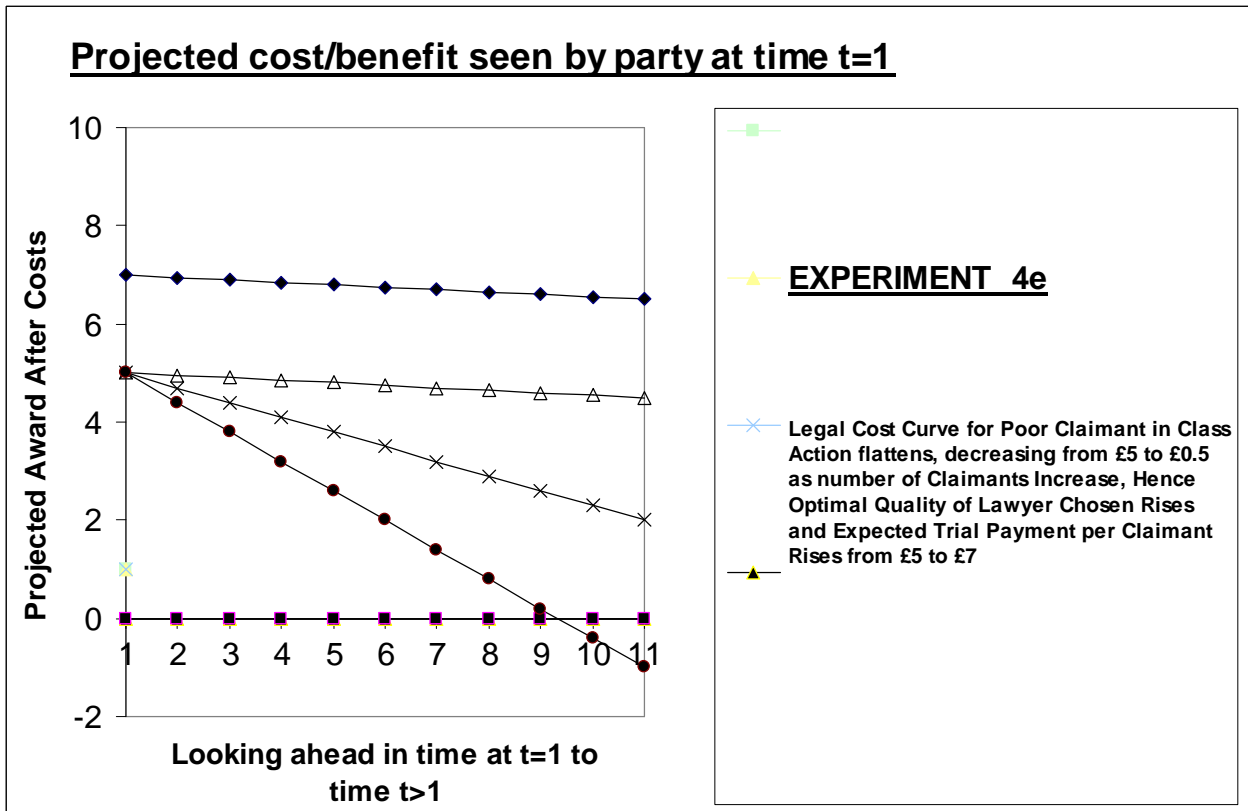
Signalling, Reputation and Class Actions:

There is an additional benefit from vigorously fighting legal cost battles, for a large party who may be a serial Defendant in a potential sequence of cases. This is the signalling and deterrent, tough reputation effect. By gaining a reputation for generating or threatening heavy legal costs in initial cases and by this

method, defeating or forcing the initial Claimants to give up, the Defendant not only saves net costs on the first case, but in all later cases. He does this, by deterring some or all of the subsequent potential Claimants. This means that the proportionate legal cost for the Defendant per potential Claimant can sometimes be minimized, by actually appearing to maximize costs fighting the first Claimant.

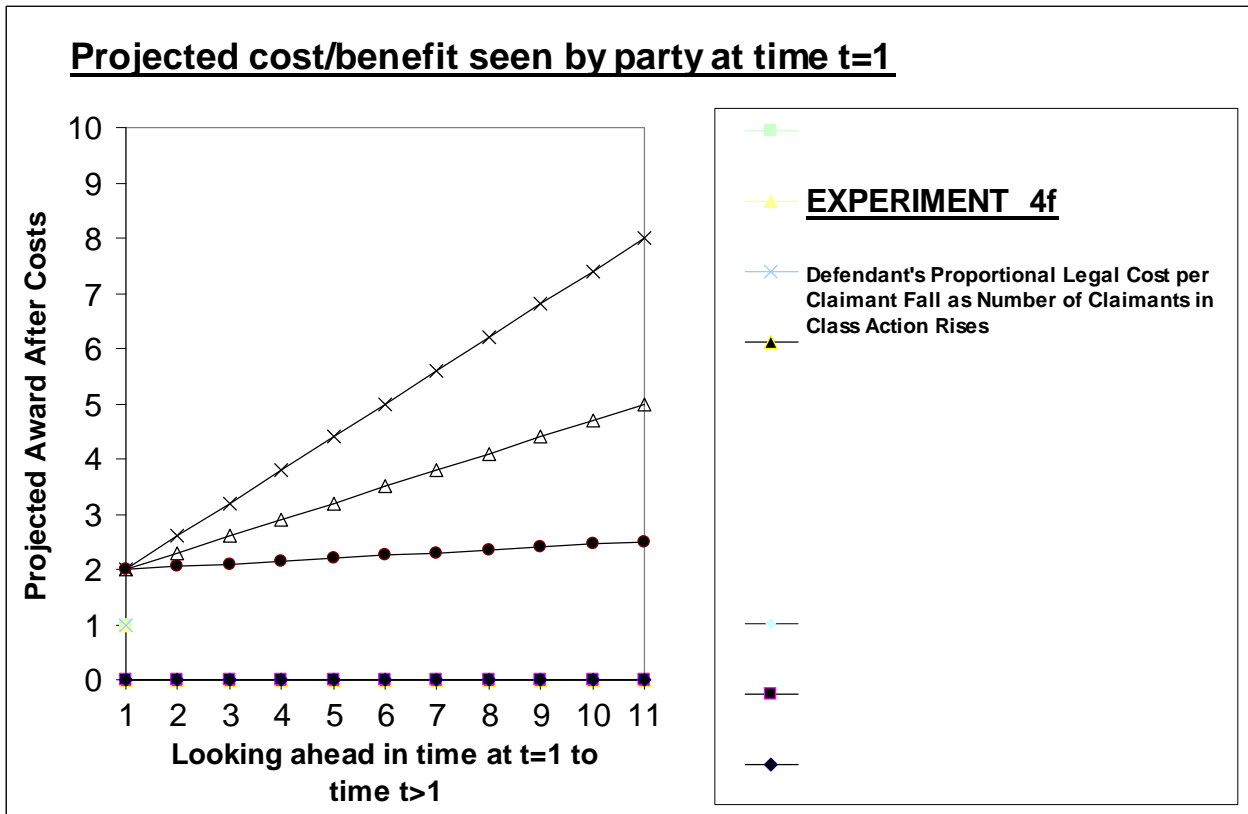
If this strategy is unsuccessful in deterring the first Claimants, then the Defendant has a similar incentive to minimise the payout at trial by maximising lawyer quality and associated legal trial costs. The reason for this is that initial trial awards will set precedents and benchmarks. The lower the initial benchmarks set, the more potential Claimants will see a negative cost-benefit and be deterred from litigation. Hence, the lower will be the Defendant’s expected overall settlement payments and similarly the lower than originally expected, the payments to those Claimants who do pursue cases.

For this reason, wherever there are potential class action type situations with one large powerful Defendant and a large number of small potential Claimants, the Defendant will typically throw all its resources at defending the first case and early cases. The Claimants’ typical counter-measure is to band together in a class action. Since the Claimants legal costs have an effective maximum value, proportional costs per Claimant fall towards zero as the number of class action Claimants bundled together rises. However the expected payoff per Claimant is typically positively related to their legal costs. Therefore the best approach in such a scenario is for a large proportion of Claimants to band together in a class action and then to maximise the quality of their own lawyers. This process is shown in diagram 4e) by the flattening then rising SAF lines:

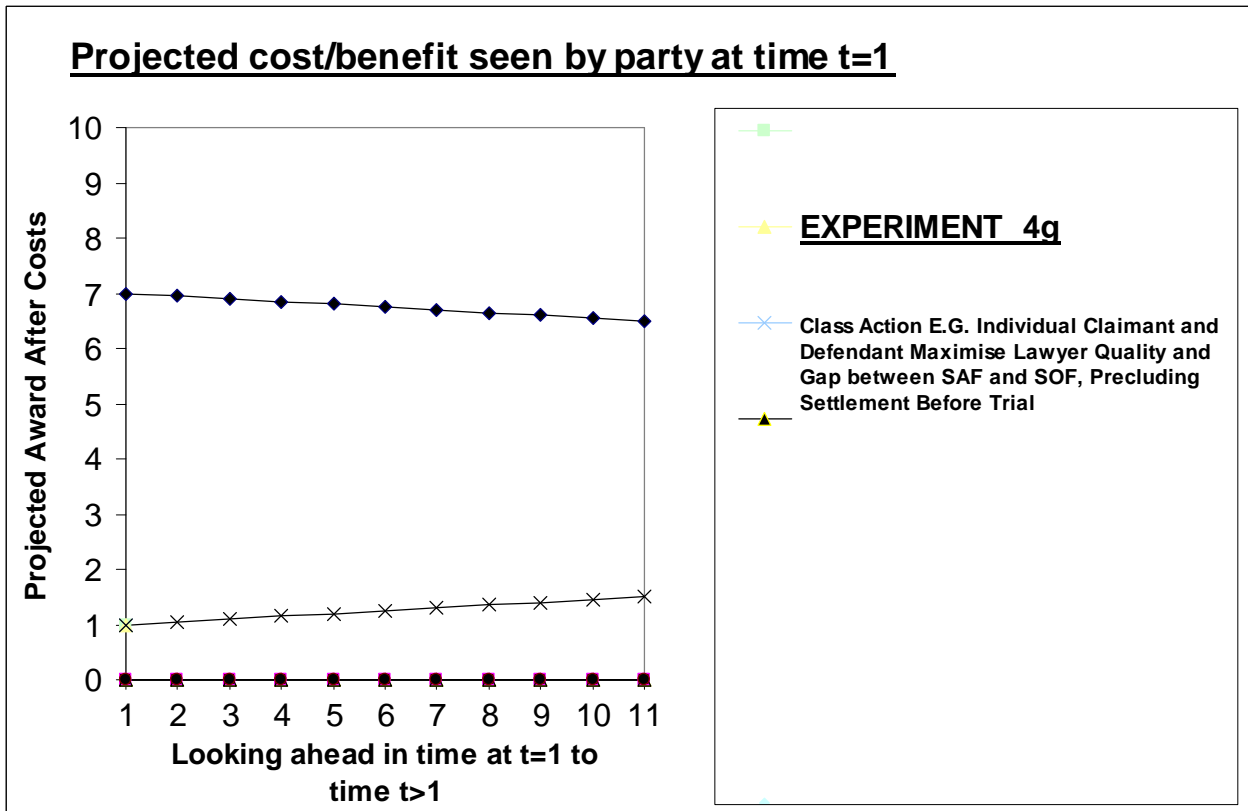


In this example a single Claimant, originally expects to obtain £5 at trial but to face legal costs of £6 to get there. The single Claimant can see that he will run out of money before time t=10 i.e. before trial. He therefore cannot succeed at trial or indeed even get an out of court settlement if the Defendant knows about the Claimant’s financial position. However, as additional Claimants band together in a class action with the original single Claimant, then the expected legal costs per Claimant fall approximately proportionately. This means that the expected legal costs per individual Claimant in the class action, fall from £6 to £0.5 in the example and the SAF flattens, as shown above. Each Claimant is now able to pursue his case to trial, something that the Defendant also knows. Moreover as the legal costs per Claimant fall to zero as the number of Claimants in the class action rises, so the costs per Claimant of increasing lawyer quality also falls to zero. However the potential benefits in terms of expected payoff per Claimant at trial from better lawyers is unaffected by the number of Claimants, ceteris paribus. In diagram 4e) this is shown as increasing from £5 to £7.

The Defendant can analyse this situation in two contradictory ways. Looking at each Claimant individually, the expected legal cost per Claimant falls as the number of Claimants in the class action rises as shown in diagram 4f):

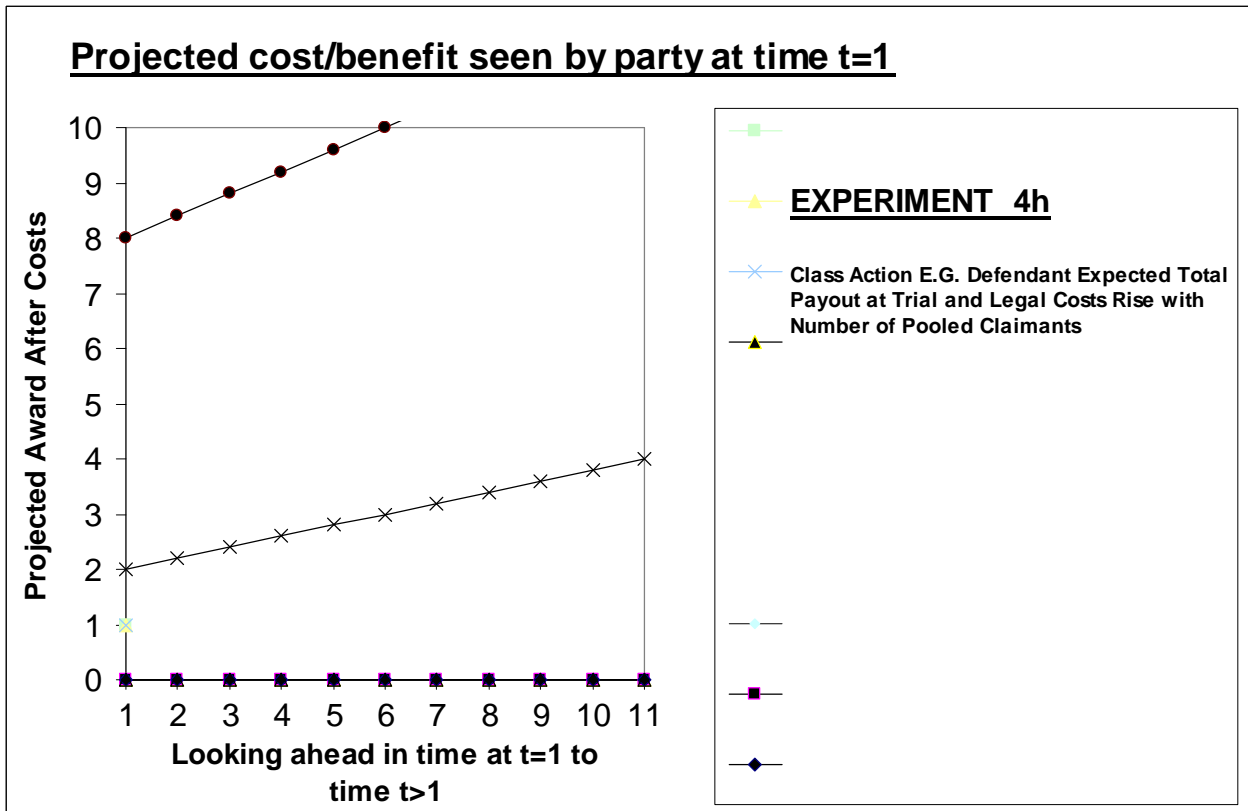


In this example the Defendant initially expects to pay £2 to an individual Claimant at trial with legal costs of £6 to get to trial, with legal costs per Claimant falling to £0.5 as the number of Claimants rises. This would suggest that the Defendant also has an incentive to maximise lawyer quality, thus reducing the expected payout per Claimant at trial. Diagram 4g) shows that when such Defendant and multi-Claimant strategies are combined then there is little chance of the SAF and SOF intersecting before trial hence one might expect such cases always to proceed to a hard fought trial.

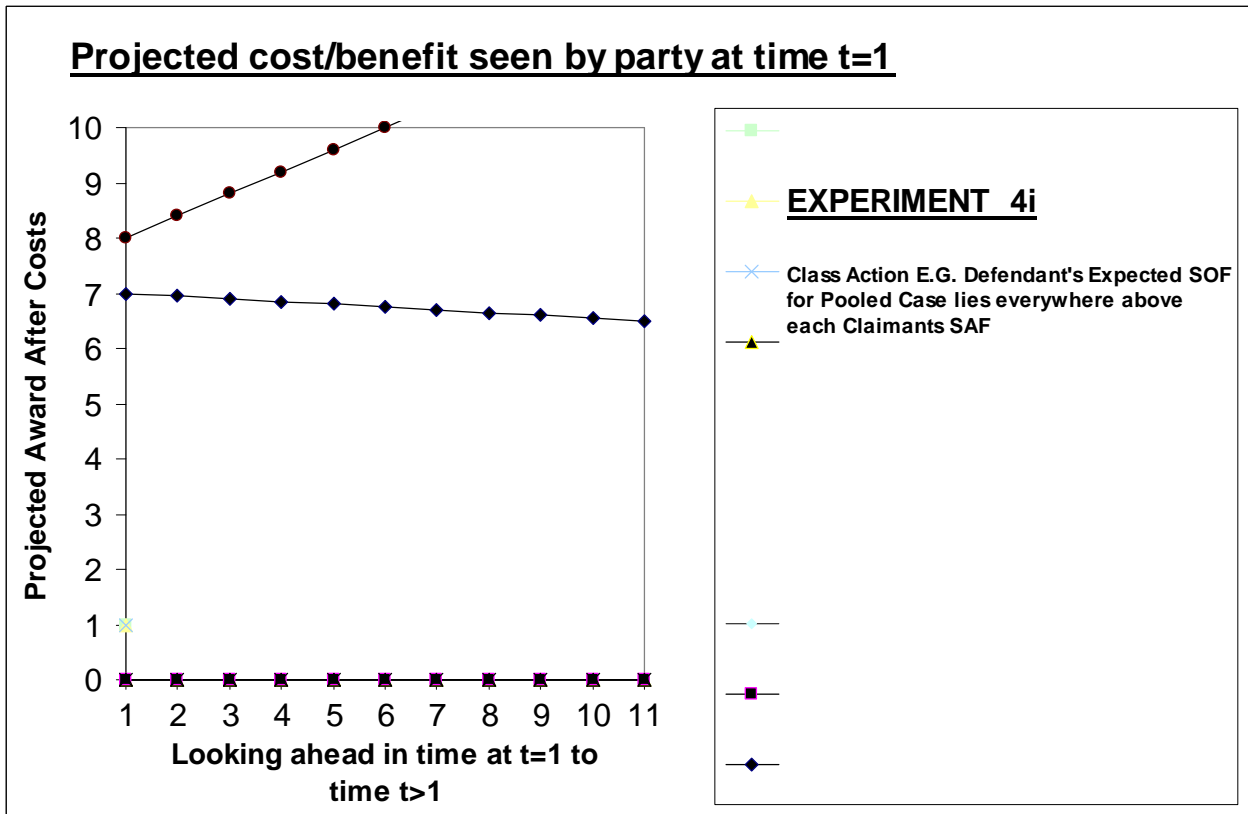


Confidential Settlements and Non-admission of Liability

However, if the Defendant looks at all the individual Claimants in a class action together and considers his incentives per overall case as opposed to per individual Claimant then, as the number of Claimants rises so does the Defendant’s total expected case payout and this effect will swamp any expected saving from better quality lawyers. This is shown in diagram 4h) below:



Here the Defendant’s SOF for one Claimant includes expected trial payout of £2 and expected legal costs of £2 and the Defendant’s SOF for 5 Claimants includes total expected trial payout of £8, being 1.6 per Claimant and total legal costs of 4. In this case putting the Defendant’s SOF for the combined Claimants together and the SAF for each individual Claimant gives the result shown in diagram 4i) below:



In other words for class actions, the Defendant has a much stronger incentive to settle before trial when he looks at all the Claimant’s pooled together. This gives the Defendant an additional incentive to stop a class action developing and to stop all the other potential Claimants from learning about and sharing in any potential settlement that they would also either have to be paid or which would also motivate them to enforce similar payments at trial.

The way the Defendant can stop a class action developing is first to take a very tough deterrent stance with individual litigants to hopefully deter them and secondly to spot any class action that seems to be starting and nip it in the bud with a settlement that is both confidential and does not admit liability. N.B. Non-admission of liability is important given the possibility of news leaking out or subsequent action. If, despite this, a full class action does develop, then the Defendant has an incentive to throw all legal resources into the defence. Clearly in a world of risk, imperfect information and imperfect communication, all three phenomena are possible, namely: the individual Claimant from a class deterred, the confidential private settlement for a few members of the class and the full class-action litigation battle.

When there are a small number of Claimants and no larger class of potential Claimants then there is an intermediate situation. In as much as the joining of Claimants means that their resources are increased, so

the likelihood of these Claimants running out of money before trial falls and hence the prospect for the Defendant of either having to settle or fight the case rises. However, the Defendant does not have the settlement incentive to secretly buy off the current Claimants, coming from potential savings from future potential Claimants who could otherwise join the class action. The Defendant could even have a contrary incentive to gain an enhanced reputation for toughness from fighting the current case. This means that where there is a small band of Claimants and none in reserve then a case of type 4g) is more likely to pertain. This suggests that cases of a small group of Claimants against a larger Defendant are most likely not to settle and most likely to go to trial unless the current Claimants can either threaten to create a larger class action or move the Defendant's expected payout at trial close to their own expected payoff at trial.

N.B. If the Defendant is known by the Claimants to have limited resources, then as the number of Claimants rises, so the average payout by the Defendant to each successful Claimant may fall. This gives both Claimants and Defendants additional incentives for confidential no-liability settlements where current Claimants and the Defendant effectively combine forces to share out the Defendants resources between them, to the detriment of other ignorant, potential future Claimants.

Lessons from the Analysis of Signalling, Reputation and Class Action:

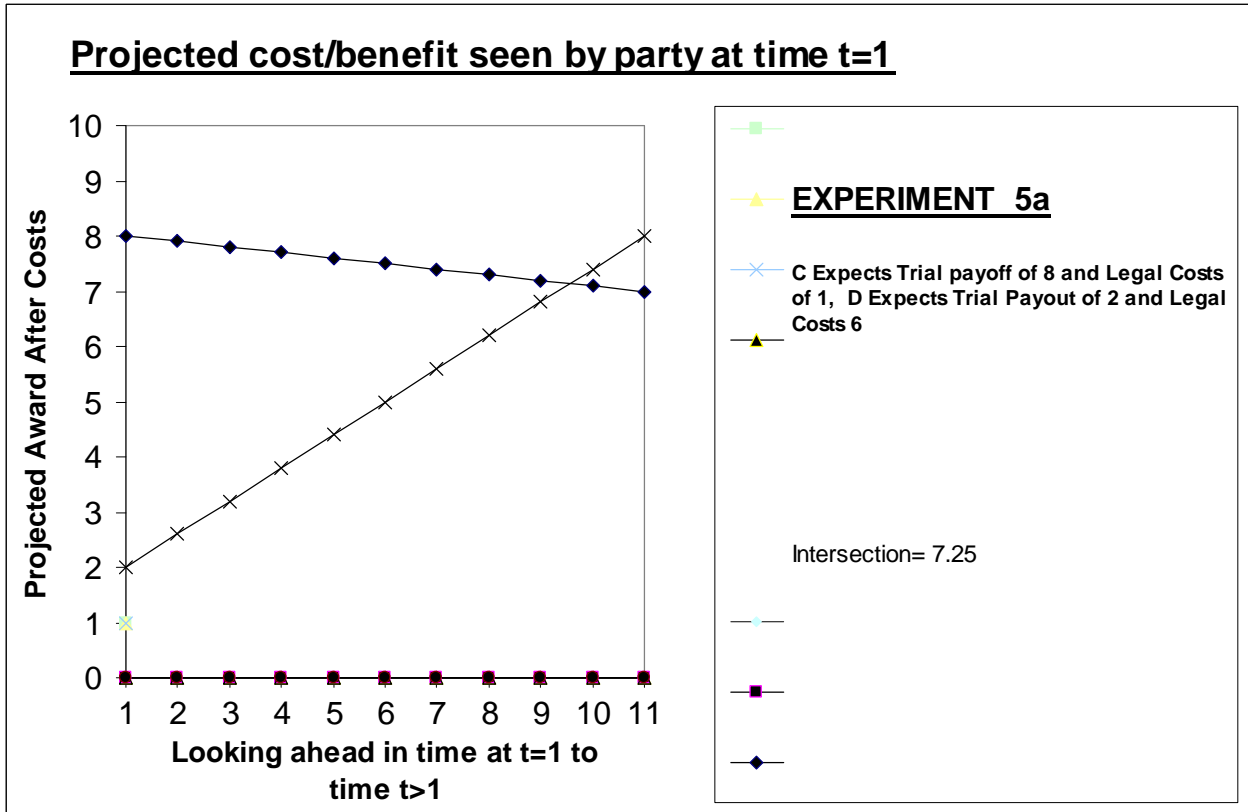
- 71.) Both parties need to identify quickly if there is current or future class action potential to the case.
- 72.) The Claimant has an incentive to join a small group of Claimants, if this significantly reduces his case costs and the threat he faces of illiquidity or bankruptcy before trial.
- 73.) Otherwise the Claimant has to balance up the strengthening of his team by the addition of extra Claimants with the greater difficulty this creates for the Defendant in agreeing a pre-trial settlement and any reduced availability of assets available per Claimant if the Defendant also has limited resources.
- 74.) The Claimant needs to maximise any credible threat to create a class action before actually doing so.

- 75.) The Defendant's optimal response to a credible threat of ensuing class action may be to try to buy off the current Claimants to keep them quiet and to prevent them becoming a focal point for a class action and also to prevent the information about their settlement reaching other members of the potential class action class.
- 76.) The Defendant's best method of doing this is via a confidential no-liability settlement with the first Claimants, combined with tough public posturing.
- 77.) It is in interests of the Defendant for the settlement to be without admission of liability as the admission of liability is itself potentially costly e.g. if it becomes publicised.
- 78.) The Claimant also benefits from the non-admission of liability, as this both makes the settlement feasible and increases the funds effectively available for the settlement.
- 79.) In such a case the potential maximum settlement amount achievable by the current Claimants is very high, being the potential saving for the Defendant from avoiding both the current trial and subsequent class actions.
- 80.) In such a case the non-disclosure aspect would be vital to the value of the settlement deal to the Defendant and hence the Claimant should use this as a bargaining chip.
- 81.) A Defendant is likely to identify a single poor Claimant as such and then use whatever offensive cost tactics are available so that the Claimant envisages not being able to afford the prospective case and gives up immediately and costlessly for the Defendant.
- 82.) A single Claimant therefore needs to convince the Defendant that he has the resources and willingness to fight the case.
- 83.) In a potential class action case, the individual Claimants have an incentive from the non-disclosure agreement in their settlement not to disclose this to their peers and thus not to help the other potential ignorant Claimants.

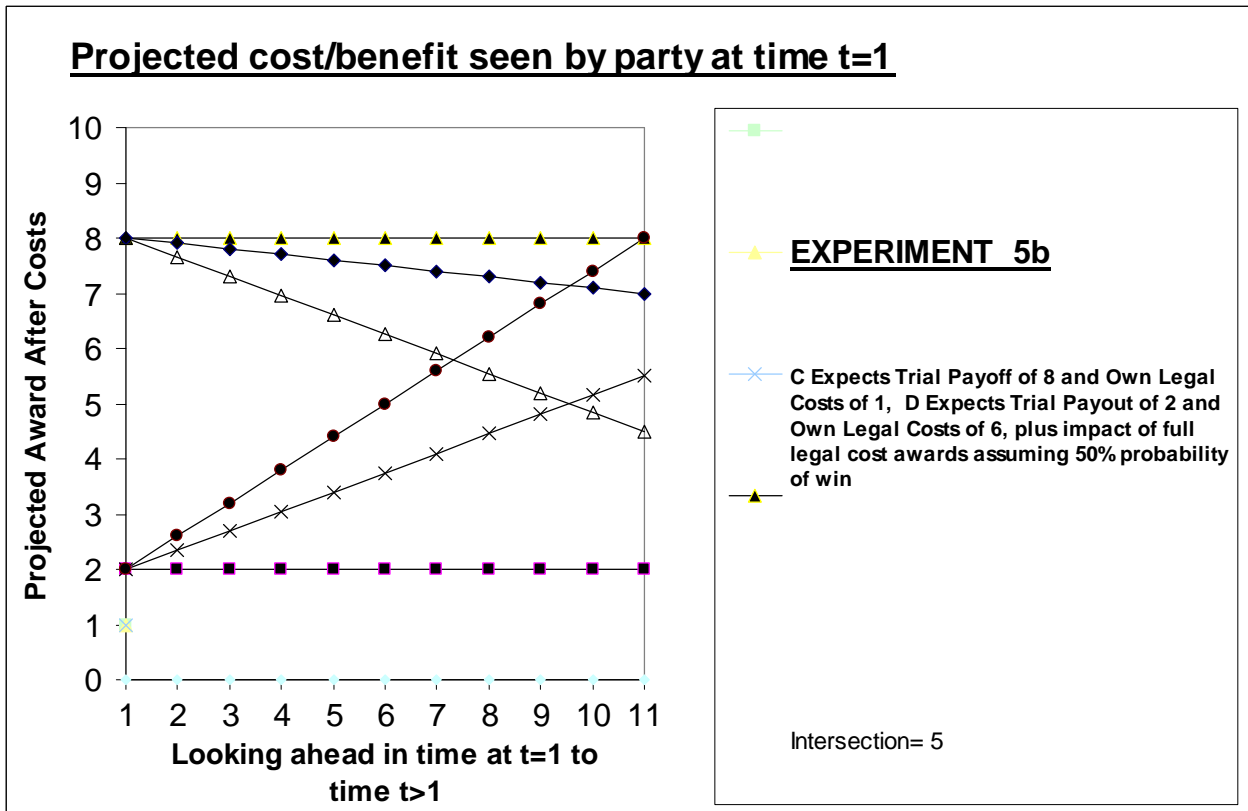
84.) The non-disclosure element can also be used by the Defendant against the Claimants individually, so that individual Claimants in the group may not know accurately what other members are receiving. This in turn can increase the variability of settlements for the individual Claimants, thus benefiting the individual winners and reduce the overall settlement amount thus benefiting the Defendant.

11. Impact of “Law of Costs” (LOC)

In certain jurisdictions e.g. England and Wales, the “Law of Costs” (LOC) implies that the “costs follow the event” i.e. that the loser in a case is ordered at trial to pay some or all of the other side’s legal costs. A key feature is that there is considerable equitable discretion to the judge in this area and variability about the exact cost award. There is also usually some wastage i.e. the expectation that not all costs requested will be ordered. This feature needs to be factored into the legal cost benefit analysis of both parties as it will affect both the expected legal costs of both parties and the expected variability of those costs and hence associated risk premia. Consider an initial case below, without LOC, where both sides will pay their own costs. C expects payoff at trial of £8 and own legal costs of £1. D expects trial payout of £2 and own legal costs of £6. The low legal costs of C and high legal costs of D mean that the SAF and SOF curves intersect close to what C would expect to receive at trial namely £7.25.



However when LOC applies then the adjusted expected cost profiles of each party are adjusted as shown below:

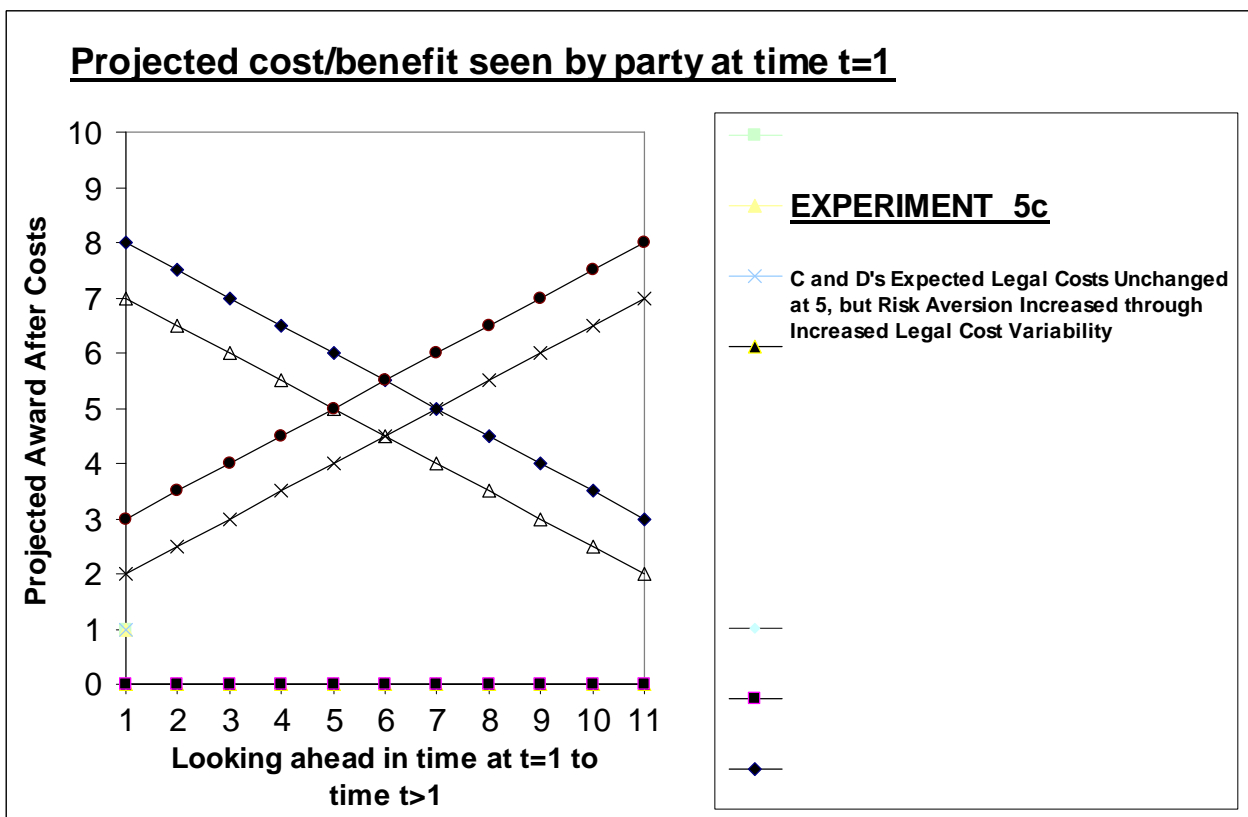


This example uses the benchmark assumption that each side envisages a 50% chance of eventually paying both their own and the other side’s costs and a 50% chance of paying no legal costs. (N.B. This particular assumption is just for ease of exposition and can be relaxed without loss of generality). It can be seen that adding LOC has the effect of equalising the expected legal costs on both sides in this case and reducing D’s expected full legal costs from £6 to £3.5 and increasing C’s expected full legal costs from £1 to £3.5. This in turn reduces the SAF: SOF intersection point from c.£7.17 to £5 in the diagram above. This implies that the effect of LOC in this example is to move prior feasible settlements in favour of the higher own legal cost generating party.

The possibility of eventually paying the other side’s costs or of having one’s own legal costs paid has 2 effects. Firstly it changes the overall expected total legal and case costs and cost incentives for each party. Secondly it changes the expected variability of those legal costs and the hence risk premia applied to both SOF and SAF as explored below:

Case 1: Own Expected Legal Costs Unchanged by LOC

In the first case, each side considers that their own expected legal costs are unchanged by LOC. Both sides however must therefore believe that their cost variability has increased and hence their risk premia to avoid this will also have increased, assuming that they are risk averse. This has the effect of moving both SOF and SAF closer together as shown below in diagram 5c) :

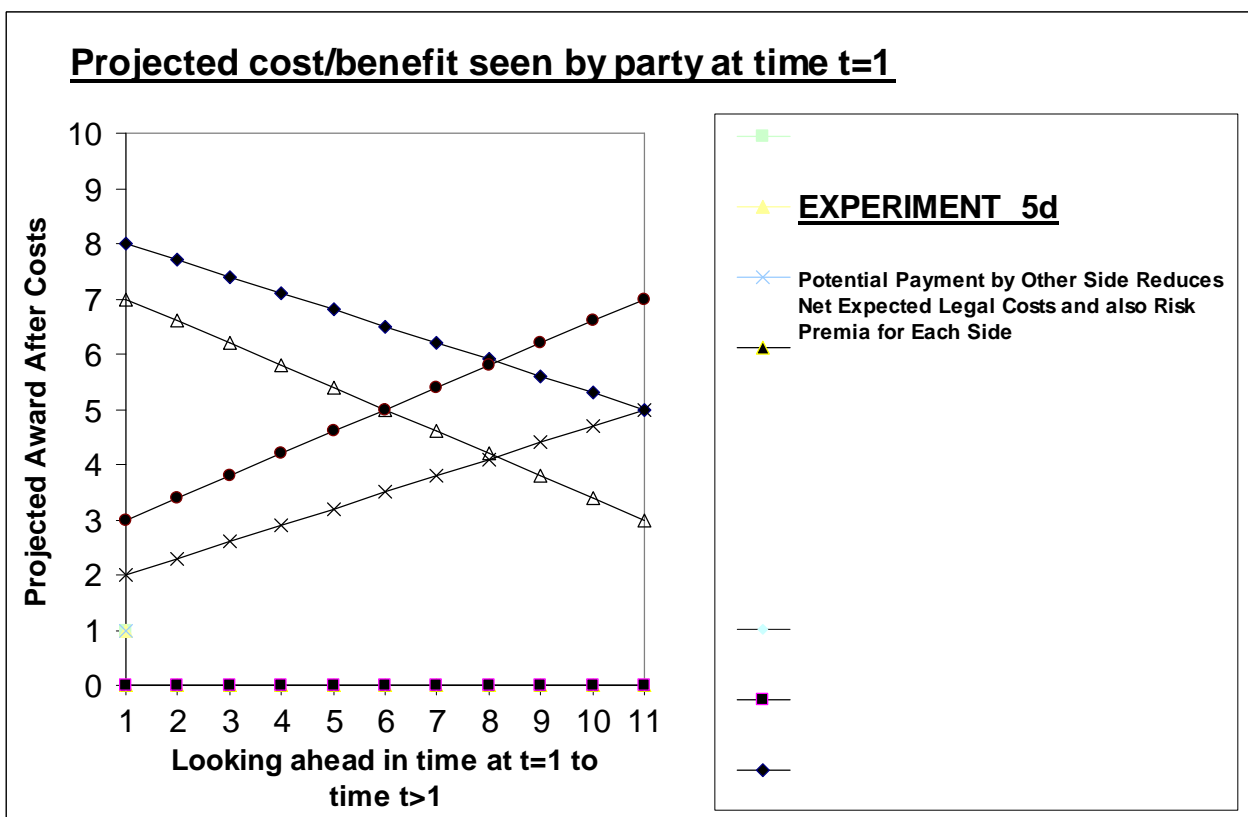


In this case, the expected payoff at trial after risk premia, decreases for C from £8 to £7 and the expected payout by D after risk premia, increases from £2 to £3. Hence the intersection of SAF and SOF remains at £5, but both parties now only have to think ahead to time t=5 instead of t=7 to see the benefits of settlement. Similarly the feasible settlement area has increased from £3 to £7 instead to £2 to £8. Hence increasing the risk to each participant through LOC in this example just increases the likelihood of settlement before trial without altering the focal point £5 of that settlement. In other examples X might rise or fall with the addition of LOC. It would also be possible to have a similar case where the SAF and SOF curves did not intersect

without LOC but did intersect with LOC. In such cases the application of LOC would both make settlement before trial advantageous and also save the dead weight loss of any alternative legal bills.

Case 2: Own Expected Legal Costs for Both Sides Reduced by LOC:

However is also possible for LOC to encourage both sides to litigate, if the subjective expectations on both sides are that each will win his case. In such examples, LOC can reduce the subjective expected legal costs for both sides, thus reducing the steepness of their own perceived legal cost curves. It is also likely in such cases to reduce the perceived variability of own legal costs and thereby to reduce the risk premia applied to the SAF and SOF curves, thereby widening them further. An example of this is shown in diagram 5d)



In this case, C initially assumed a payout at trial adjusted for risk premia of £7 and expected legal costs to get to trial of £4 without LOC and an expected payout at trial adjusted for risk of £8 and expected net legal costs to get to trial of £3 with LOC. Similarly D initially assumed payout at trial adjusted for risk of £3 and legal costs of £4 without LOC and assumed payout at trial adjusted for risk of £2 and net legal costs of £3 with LOC. In this case the focal point settlement value of £5 is unchanged by LOC, but the parties now have to think further ahead from t=6 to t=11 to achieve it. Additionally the size of the feasible agreement set has shrunk from £3 to £7 to a point at £5. It is easy to imagine similar cases where the SAF: SOF intersection

point X will have risen or fallen and also where adding LOC will have caused SAF and SOF no longer to intersect and so preclude feasible settlement before trial.

Case 3: Own Expected Legal Costs for Both Sides Increased by LOC:

This is the reverse of case 2 above and a stronger version of case 1, with SAF and SOF curves moving together with LOC both because of increased risk premia and risk aversion and because of perceived increased costs of trial on both sides.

Case 4: One side’s Expected Legal Costs Increased, One Side’s Decreased by LOC

This is the case illustrated by example 5b) above. In this case point X will always move in favour of the higher own legal cost generating party, although the breakeven time corresponding to X could be either sooner or later with LOC than without LOC.

“Sunk Costs” and “Reclaimable Costs”

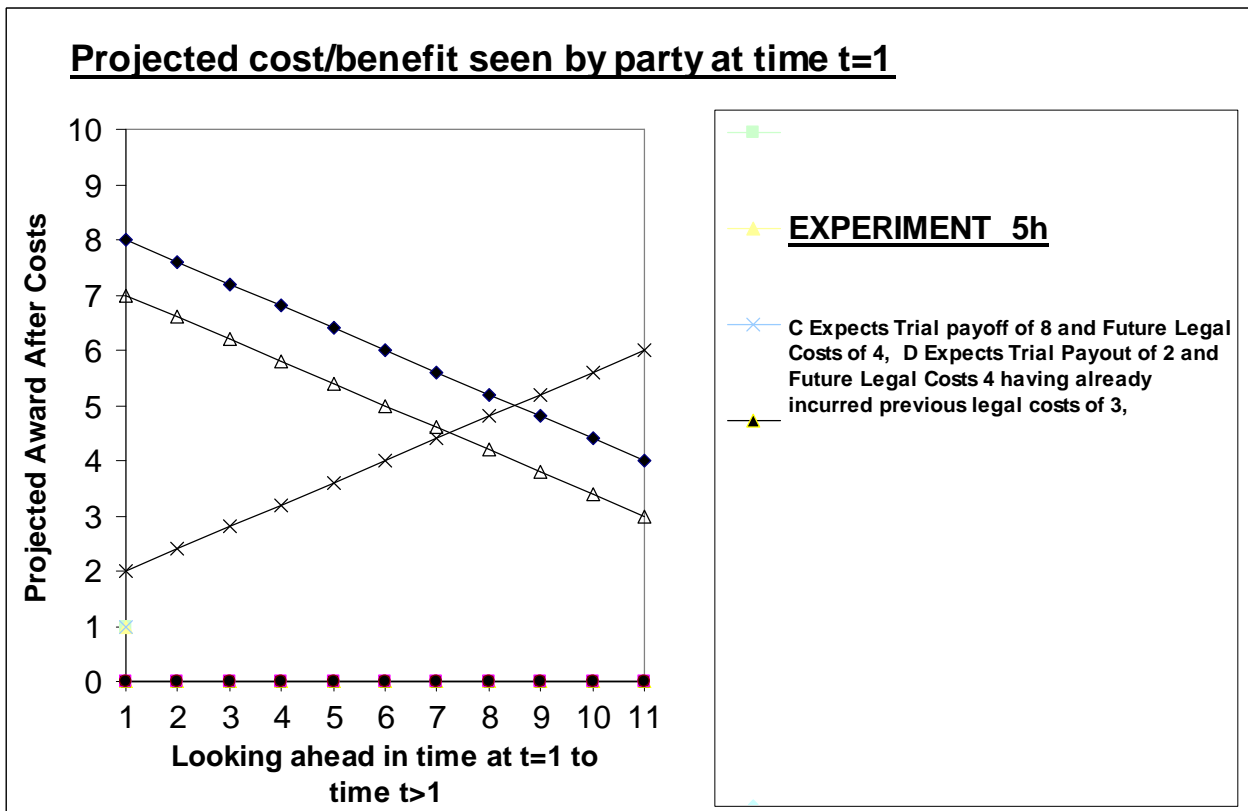
Without LOC, legal fees already spent will only have an indirect effect on any potential settlement via: risk premia, expected payoffs at trial, liquidity and expected future legal costs. As own legal costs are paid out in this situation, they effectively become “sunk costs”, permanently paid or owed by the commissioning party.

However with LOC, the party who has paid the legal costs can still subsequently win some or all of them back, if he wins at trial. Conversely, the second party if he loses at trial can still additionally lose the first party’s historical costs at trial as well. Therefore with LOC, costs already incurred cease to be “sunk costs” and instead become potentially “reclaimable costs”.

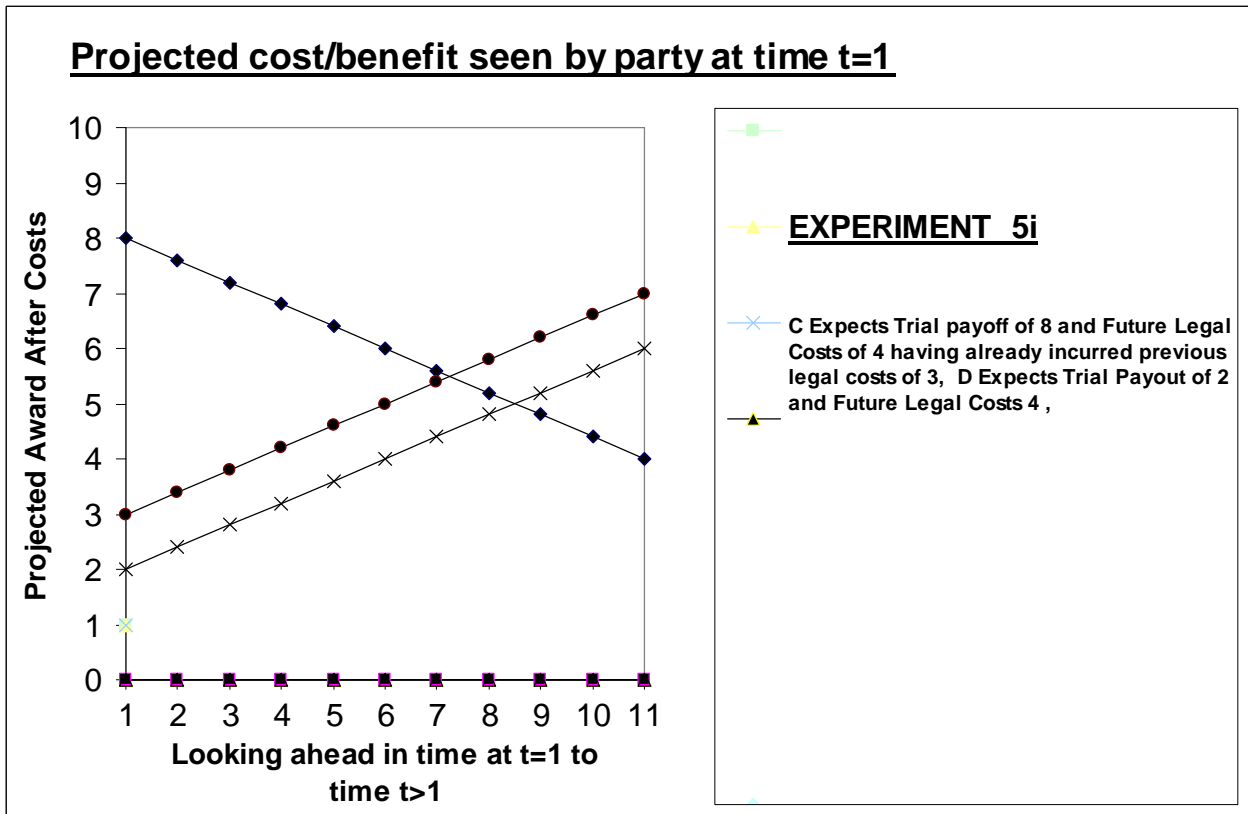
With LOC, the net cost to a party of losing at trial increases with the previous costs on both sides. Thus each party has an incentive to add extra prospective costs on his own side, to increase the probability of his not losing at trial by enough to cover all those additional previous costs. This feature tends to increase the legal

costs paid by each side in subsequent periods, *ceteris paribus*. Thus LOC gives both parties an extra incentive not to lose at trial and to chase: both their own and the other party's previous costs.

The impact of previous costs on potential pre-trial settlement can be illustrated as follows. In example 5h) the assumption is that at $t=1$, C has incurred no legal costs, whereas D has already spent legal costs of £3. C sees a certain probability of paying some or all of the £3 back to D, if C loses at trial. Hence the impact of D's prior expenditure is to reduce C's own expected net payout at trial from £8 to £7 and to lower his SAF curve as shown in diagram 5h) below.



Similarly in example 5i) the assumption is that at $t=1$, D has incurred no legal costs, whereas C has already spent legal costs of £3. D sees a certain probability of paying some or all of the £3 back to C, if D loses at trial. Hence the impact of C's prior expenditure is to increase D's net expected payout at trial from £2 to £3 and to move D's SOF curve upwards as shown below.



Thus the impact of LOC is for previous costs on both sides to move the SAF and SOF curves closer together. This may increase or decrease the intersection point X depending on the slope of the curves and on which side has spent proportionately more to date. Ceteris paribus, the greater one side's prior legal spending, the more a settlement in that party's favour is likely to improve with the addition of LOC, although if both SAF and SOF are sloped, then the increase in benefit from settlement will be less than the increase in prior legal costs. Hence the parties do not have an incentive to generate unbounded early legal costs.

LOC will also reduce the time that both parties have to look ahead to see the benefit of settlement, since some of the costs they factor in to this analysis have already been incurred at time t=1, i.e. carrying over from the past. This factor will also increase the size of the feasible settlement set.

One additional feature is that the more legal costs have previously been incurred on both sides, so the greater the marginal benefit to extra legal spending now on one's own side. This factor alone means that adding LOC will add a tendency for costs to increase exponentially over time on each side, ceteris paribus. This feature additionally increases the size of the prior feasible settlement set. It also gives an incentive for each side to increase its margin law costs both in terms of both active number and quality of lawyers

progressively over the course of a case from case inception with say a single assistant solicitor on to court trial with say barrister Q.C and full backup team.

The optimal amount either party should spend at any point before trial will also depend, with LOC, on the total prior spending of both parties. Thus as the opponent spends more, so the legal cost danger to client increases and he should spend more to defend himself against this risk, *ceteris paribus*. Additionally, a party may choose to incur extra legal costs early in a case to signal and prove to the opponent that it is able and prepared to incur those costs, particularly since the opportunity cost of such expenditure falls if these are no longer sunk but now potentially reclaimable costs.

Lessons from Analysis of LOC:

- 85.) LOC can change the expected payouts at trial, risk premia and expected legal costs on both sides.
- 86.) Typically, if C and D are evenly matched then adding LOC will increase risk premia on both sides, closing the gap between SAF and SOF and increasing the scope for settlement.
- 87.) However, if both sides are confident or over-confident, then the addition of LOC will decrease perceived risk premia on both sides, increasing the gap between SAF and SOF and decreasing the scope for settlement.
- 88.) The impact of LOC is typically to skew a feasible settlement towards the party who can threaten to generate the higher future legal costs and who has generated the higher previous legal costs.
- 89.) Thus LOC is more beneficial to parties who have a natural power and wealth advantage e.g. large Defendants.
- 90.) An impact of LOC is that previously incurred legal costs are no longer fully sunk costs, but are reclaimable at trial and therefore have an impact on future settlement.

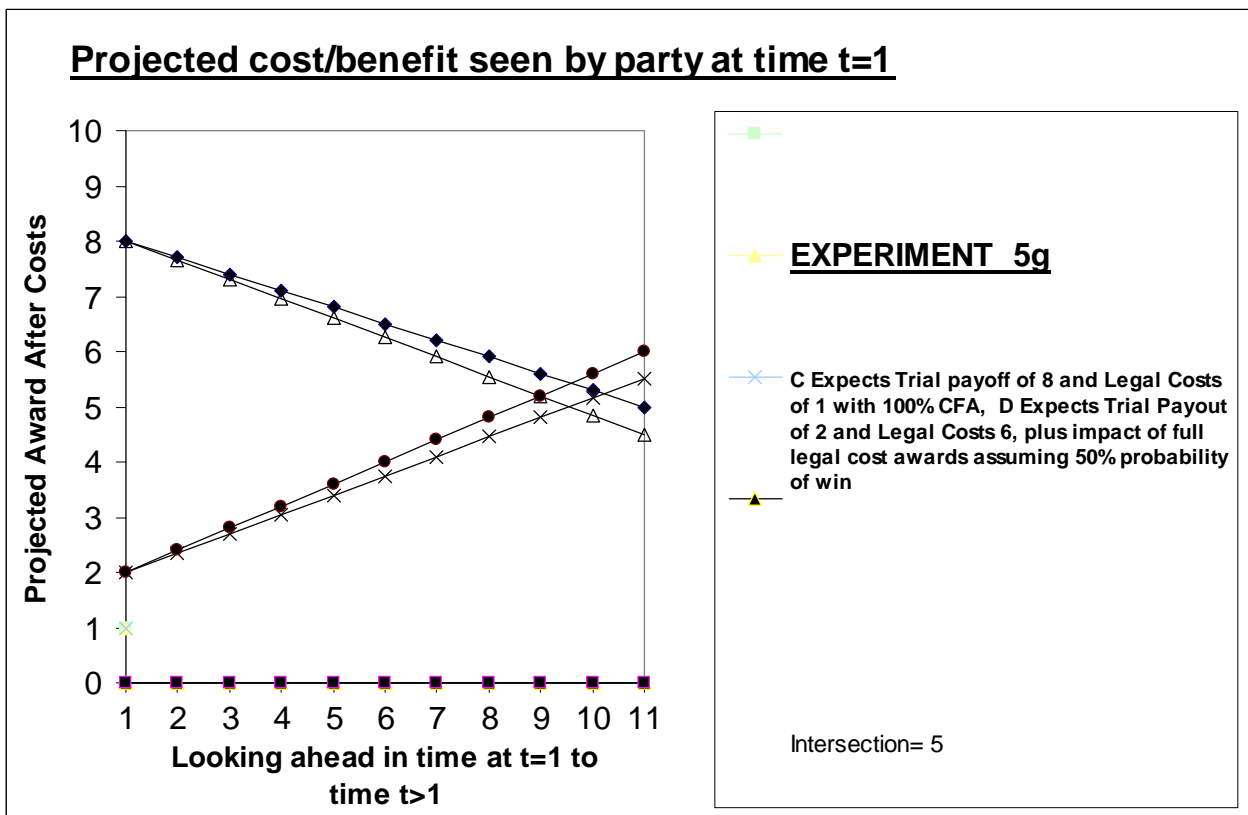
- 91.) LOC is likely to cause settlement to move in favour of the party with the higher previously generated legal costs, but by a smaller factor. This removes an incentive for parties to generate unbounded legal costs early in the case.
- 92.) Assuming that potential costs orders under LOC are subject to a proportionality test, then parties never have an incentive to generate unbounded legal costs in UK courts.
- 93.) However the more legal costs have already been generated in the past, so the greater the marginal benefit, *ceteris paribus* to additional legal costs today on each side.
- 94.) Thus LOC should raise all marginal legal costs and add an element of exponentially increasing legal costs over time to the case and also increase the likelihood of settlement before trial.
- 95.) Adding LOC may increase or decrease point X, the intersection of SAF or SOF curves, but in most cases is likely to decrease the time that both parties need to look ahead to see benefits from settlement and also to increase the range of feasible settlement values.
- 96.) With LOC, the client's optimal marginal legal cost expenditure rises with all the past costs of the case generated by both the client and opponent.
- 97.) LOC thus favours progressively increasing lawyer quality and marginal costs for both client and opponent as the case progresses to trial.
- 98.) Addition of LOC will change the optimal lawyer tradeoff in favour of better, more expensive lawyers, *ceteris paribus*.
- 99.) However if the losing party is unable to pay the winner's fees, then this effectively neutralises the effect of LOC for the winner.
- 100.) Under LOC each party needs to determine whether the opponent will be able to pay his own legal fees or is likely or intends to default. This feature can radically change the optimal legal expenditure and strategy of the non-defaulter.

- 101.) Under LOC, parties need to use “Security for Costs” orders, “Freezing Orders” and any other available steps to get collateral for their own legal fees.

- 102.) The prospect of the opponent losing and not paying legal fees in the case, could change his optimal choice of lawyers and optimal legal costs and indeed the decision by the non-defaulter on whether to fight the case or not.

CFA Premia Revisited and LOC

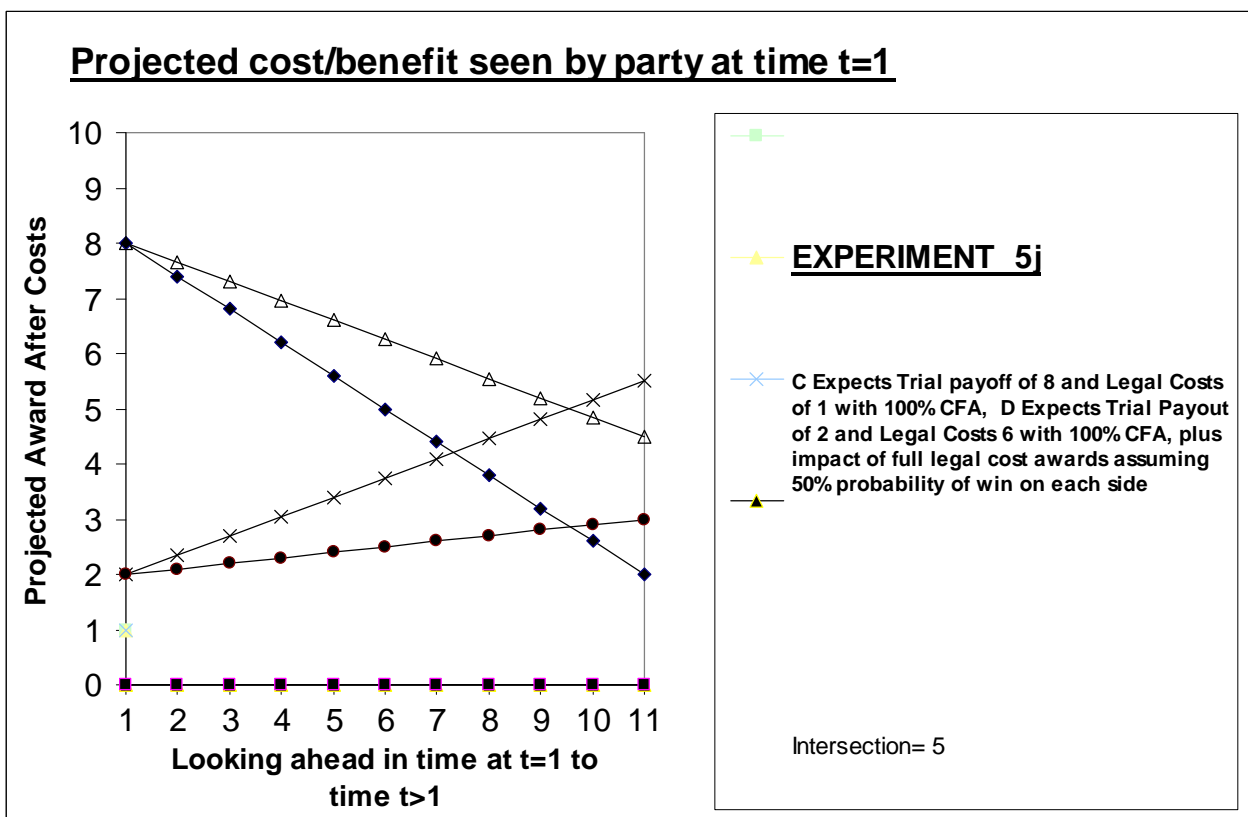
The premia attached to a CFA also affect trial payouts and settlement negotiations in the same way as differential legal costs award. Consider example 5g) below, being 5b) adjusted so that Cs legal costs are now covered by a CFA with 100% premium. Thus C expects to receive a payout of £8 at trial and D expects to pay out £2 at trial. D's expected own legal costs to trial are £6. If D pays C's legal costs without a CFA then this increases to £7 and when C has a CFA to £8 overall. Assuming a 50% chance of paying the other side's costs plus his own and a 50% chance of paying zero legal costs, Ds expected legal costs to trial are £3.5 is C has no CFA and £4 if C has a CFA.



Similarly, without a CFA C's expected legal costs are 50% of (£6 + £1) i.e. £3.5 and with a CFA C's expected legal costs are 50% of £6 i.e. £3. Thus a CFA reduces expected legal costs for the CFA party and increases expected legal costs for the non CFA party, given LOC. In example 5g) the addition of a CFA increases point X in Cs favour from £5 to c£5.5 and moves the set of feasible settlement agreements from £4.5 to £5.5 instead to £5 to £6. N.B. CFAs can only work if their premia are paid by the other side, i.e. given LOC.

CFA Beneficial and Perverse Incentives

By flattening a party's own SOF or SAF curve and steepening the other party's curve, a CFA both improves the expected pre-trial settlement for the CFA party, since that party is now more likely to go to trial and the other party less likely to go to trial, ceteris paribus. This implies, paradoxically, that the best defence for a Defendant facing a Claimant using a CFA may be for the Defendant to use a countervailing CFA himself, to increase the expected cost pressure on the Claimant and neutralise the expected cost reduction effect of the Claimant's own CFA. This is illustrated in diagram 5j) below being 5g) but where D has also added a 100% CFA.



In this example when both sides have 100% CFAs and 50% expected probability of winning, C's expected legal costs to trial are 50% * £12 i.e. now increased to £6 and D's expected trial costs are 50% * £2 i.e. now reduced to £1. Because of the implied tax effect of the CFA premium on the opponent, both expected if the opponent loses and overall, therefore it is in both parties' interests to have CFAs. However the greater beneficiary in terms of expected own legal cost reduction and increased expected cost pressure on the opponent is the higher own legal cost generating and premium generating party.

In example 5a) without LOC and therefore without CFAs, point X, the SAF: SOF intersection was at £7.25, close to the own expected payout at trial to the low cost generating party C. With LOC added in, in example

5b) assuming a 50% chance of each side winning on costs, point X fell dramatically to £5 i.e. in favour of the higher legal cost generating party D. The addition of a CFA by C in example 5g) reduced the expected legal costs faced by C and increased the legal costs faced by D, thus moving X to c£5.5. However the subsequent addition of a CFA by D in example 5j) more than reversed this process moving X to c.£2.86 in favour of D, the high own legal cost generating party.

Another paradoxical result is that it is in the interests of both the CFA party and his lawyer for the CFA premium to be as high as possible. This is akin to the Klemperer 2000 result, where instead of maximising own legal costs to maximise chance of winning at trial in a legal fee auction, the CFA premium is maximised instead to maximise the cost to the other side of fighting and losing and hence maximise the cost to the other side of not settling beforehand and hence to ensure such settlement. Solicitors could potentially exploit this fact both by offering CFAs with high premia and telling the clients correctly that it was actually in the clients own best interests for the premia to be this high, *ceteris paribus*.

The net effect of CFAs depends on whether one or both parties are able to use them. If there is no constraint, then it is likely to be optimal for both parties to use CFAs which will then favour the party with the highest own legal cost generation and percentage premia. By boosting the net expected costs of the other side, CFAs may enable each party additionally to increase the threat to the other side of being bankrupted by the case, exploiting its bankruptcy and liquidity constraints, see above. This in turn may prevent litigation progressing and increase the range of feasible settlement offers.

The next question is whether parties are able effectively to insure themselves against possible loss awards including the other side's CFA premia, if they lose the case. If they could, then the insurance premia would increase in line with: the other parties costs, CFA premia and probability of success at trial as perceived by the insurer. Thus the losing case premia would increase in line with the expected costs of losing in the absence of insurance. However by reducing the variability of outcome for the party, paying insurance against losing costs would be likely to enable risk averse parties close to their bankruptcy thresholds to continue to litigate.

Thus CFAs can theoretically be used particularly by Defendants, to deter liquidity constrained Claimants, particularly in the absence of insurance for losing party legal expenses when the other party has a CFA. The impact of such insurance would be both to increase the size of CFAs and to increase the number of litigants progressing towards trial.

Were CFAs only to be available to Claimants then this would have two effects: firstly it would make cases with little intrinsic prospect of success viable and hence result in inefficient use of court time and increased ability of marginal Claimants with CFAs to threaten Defendants. Secondly the use of a CFA as a remedy for a capital markets failure i.e. the inability of a worthy but liquidity-constrained Claimant to fund their case would have been remedied at the cost of a new market failure i.e. the encouragement of low merit cases and the taxation via prior settlement of intimidated Defendants, with the tax collected and retained by the relevant solicitors.

On the other hand, applying a proportionality test, judges might use their equitable discretion not to authorise the payment of CFA premia that were unreasonable, leaving this component of the bill either unpaid or payable by the CFA client. These two features would be likely to put effective limits on the size of CFA premia. It should be noted that there would also be a perverse incentive for the solicitor to leave the client liable for any CFA premia agreed but not ordered to be paid by the loser and for the solicitor not to draw this remaining risk to his client's attention. The client-solicitor contract terms relating to the CFA would therefore need to be carefully drafted, ideally by an independent third party solicitor to protect the client from this risk, which would closely match the risk that the client had tried to avoid via the CFA itself, but now occurred if the client won as opposed to lost at trial.

Another key issue is whether the CFA premia are paid in the event of prior settlement. If they are paid then this gives the actual party involved an extra incentive to go to trial as this would be his only way of recouping the CFA premia directly from the opponent to pay his solicitor. If they are not paid then it gives the solicitor an extra incentive to avoid pre-trial settlement as this causes him to lose his CFA premia. It is therefore likely that optimal CFAs would need to charge somewhat lower premia in the event of pre-trial settlement plus settlement bonus balancing out these two factors. Interestingly, the use of CFAs would also favour use of third party solicitors rather than in-house lawyers as it would not be plausible for a company to have a CFA with itself.

There are thus clearly strong public policy issues connected with the use and potential abuse of CFAs. For solicitors they are potentially a highly profitable enterprise and therefore one would expect them to be regularly offered. If the CFA premia are meant to reflect risk then there perhaps there needs to be a maximum allowable limit. However even this will be high e.g. a factor of 10* and there would also be problems distinguishing between cases with no merits and cases with potential merits but say initial lack of disclosed evidence. One way to control the growth of CFA premia would be to add a rule so that they would

always financially impact the client using them e.g. so that only 80% of the premium would be claimable under a cost award.

LOC, Liquidity and Bankruptcy Constraints and Implicit CFAs

With LOC, a high spending winner at trial can retrieve his costs, but not if the loser at trial becomes bankrupt or otherwise unable to pay. This risk for a high spending party who expects to win at trial can be mitigated if that party is the Defendant and obtains a full prior order for “Security for Costs”, see above, or obtains some other good collateral. Otherwise, his legal cost risk remains exposed. Therefore if one side is a potential defaulter (PD), then the other non-defaulting party (ND) needs to factor this in to his case and determine whether to fight the case and how much correspondingly to spend on lawyers. Effectively, with LOC, the ND effectively writes a partial free CFA for PD. The ND expects to be disproportionately penalized in such cases as he will either pay his own costs if he wins or his own plus PD’s costs if he loses as in diagram 5g) above. Moreover in this case ND cannot increase his cost pressure on PD via his own CFA if PD has no intention and ability to pay legal costs anyway. Similarly ND’s solicitor is unlikely to enter into a CFA with ND unless PD’s potential legal payments are also guaranteed by ND, which in turn is likely to be self defeating for ND.

One possibility is that if PD had his own CFA then he would not have paid out resources to his own solicitor during the case leaving more resources potentially available to the ND. Therefore it would be in the interests of both the ND and the PD’s solicitor for the PD to have a CFA. This suggests that ND should raise this issue of potential non payment of legal fees with the PD’s solicitor, either to encourage the PD’s solicitor to withdraw from the case or to impose a CFA, thereby freeing funds from PD to pay the opposing side in the event of losing the case. Indeed it is likely that PD’s solicitor would only take the case if protected by his own CFA.

Alternatively, the ND should reduce his own legal expenditure to the point where any further expected marginal reduction in legal fees was exactly offset by an expected marginal reduction in the expected payout from the case including legal fees actually paid. This could mean ND abandoning a case or settling at a less advantageous rate than he would if the opponent were not a legal cost default risk.

Lessons from Analysis of CFAs

- 103.) A CFA decreases expected legal costs for the CFA party and increases expected legal costs for the other party, *ceteris paribus*.
- 104.) The CFA premium creates an implied legal costs tax and threat to the other party.
- 105.) A CFA may increase or decrease the time both parties need to look ahead to see benefits of settlement.
- 106.) A CFA should unequivocally increase the equilibrium settlement amount in favour of the CFA party.
- 107.) Thus both parties have an incentive to have CFAs.
- 108.) An optimal response, whether or not one party has a CFA may be for the other party to have a CFA. Thus it is likely to be equilibrium, if there are no other constraints for both Claimants and Defendants to use CFAs.
- 109.) Since the benefits of CFAs are not available to a party using an in-house lawyer this gives an incentive to such a counterparty to use an external solicitor plus CFA rather than internal lawyer and no CFA.
- 110.) The implied legal tax cost to one party from the other party's CFA and CFA premium, is collected by and paid to the other party's solicitor, who drafted the CFA, in the absence of defaults.
- 111.) The solicitor drafting the CFA thus has an incentive to maximise the CFA premium.
- 112.) The client receiving the CFA, who benefits from the implied tax effect on his opponent, also has an incentive to maximise the CFA premium as long as he does not pay it himself and as long as it does not preclude settlement.

- 113.) The solicitor drafting the CFA agreement has a perverse incentive not to warn the client that the client may face a risk in the event of success and the CFA premium not being paid by the opponent.
- 114.) The solicitor drafting the CFA agreement has a perverse incentive if the CFA premium is not paid for prior settlement, to avoid prior settlement.
- 115.) The solicitor drafting the CFA agreement has a perverse incentive if the CFA premium is paid for prior settlement, not to highlight this to the client as this might otherwise deter the client who might become liable for this premium from such settlement.
- 116.) Thus an optimal CFA agreement is likely to have a different lower premium payable for prior settlement and possibly an additional settlement bonus for the solicitor.
- 117.) Because of the perverse incentives a CFA agreement should be drafted and/or checked by a fully independent 3rd party solicitor.
- 118.) If CFAs are only available to Claimants then they may replace the market failure of good but illiquid Claimants being unable to come to trial, with new market failures of inefficient wealth transfer from Defendants to solicitors, excessive litigation and intimidation of Defendants i.e. excessive use of settlement instead of trial or non-litigation.
- 119.) If CFAs are available to both Claimants and Defendants then they are likely to be optimally used by both. This is likely to increase the chances of settlement and move expected settlement in favour of the higher own legal cost generating party *ceteris paribus*.
- 120.) Judicial and regulatory rules can be used to control CFAs e.g. provisos that CFAs are only allowed in certain circumstances and that only a fixed proportion of the premium is payable by the loser and that excess premia can be struck out.
- 121.) It is likely to be optimal for a party with a CFA to signal or indicate this to the other party, for use in cost based negotiations.

12. Optimal "Part 36 Offers"

Under Civil Procedure Rules (CPR) Part 36, both parties to civil litigation under the law of England and Wales can and are encouraged to make Part 36 Offers to the other side during civil litigation. Part 36 offers are private during the trial but revealed and impact legal cost awards after trial. The rule is that: if the receiver of the Part 36 Offer retrospectively after trial would have been better off accepting that offer instead of proceeding to trial, then he is subsequently punished on costs. The purpose from the court's perspective is to give parties extra benefits to making and accepting pre-trial settlement offers and hence, ceteris paribus, to ensure that more offers are made and more disputes settled before trial. The use of Part 36 Offers can thus be optimised by each side to reduce the own side's expected legal costs and increase the opponents expected legal costs.

Since both Claimant and Defendant can make such Part 36 offers, since either can subsequently win the case and since the offer made can be higher or lower than the court award at trial, thus there are 8 possible alternatives when a Part 36 Offer is made as set out in table 6a) below:

Table 6a) 8 distinct Part 36 Offer Scenarios

Scenario	Offeror of Pt 36 Offer	Subsequent Winner at Trial	Offer Better than Trial Payout	Extra Trial Payout on Pt 36 Offer	Benefit to Offeror of Part 36 Offer	Beneficiary	Scaled by whose costs
1	C	C	Y	Yes, D pays extra Indemnity cost premium on all C's costs after Offer Date	Moderate	C	C
2	C	C	N	No	Zero	C	
3	C	D	Y	Yes, D loses all costs from C incurred after Offer Date	Large	C	D
4	C	D	N	No	Zero	C	
5	D	C	Y	Yes, C loses all costs from D incurred after Offer Date	Large	D	C
6	D	C	N	No	Zero	D	
7	D	D	Y	Yes, C pays extra indemnity cost premium on all D's costs after Offer Date	Moderate	D	D
8	D	D	N	No	Zero	D	

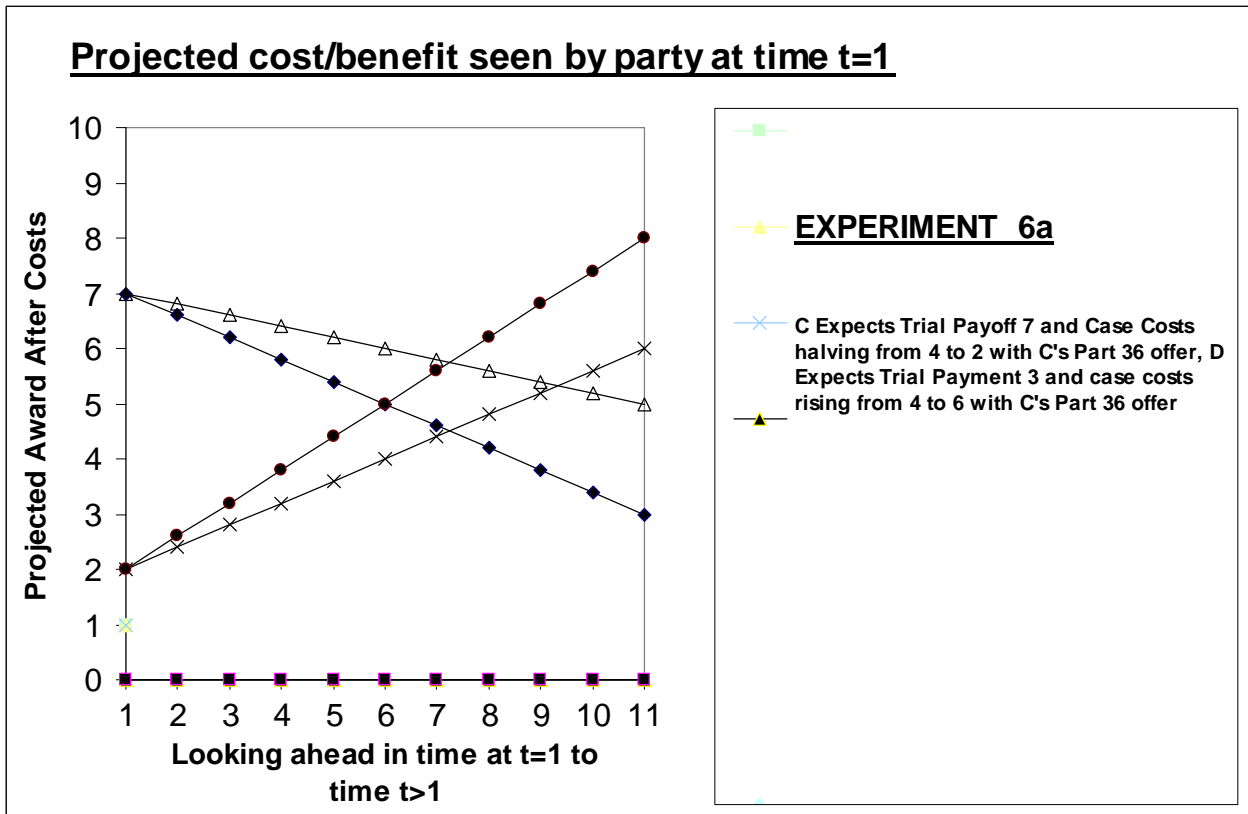
In circumstances where the offeror wins, then he would have received his costs from the loser in any event. If the Part 36 Offer would have been better to the loser and hence if the loser should have accepted this and thus avoided trial, then the loser's punishment is to pay the opponents costs at a boosted indemnity rate after the offer date. This provides a moderate boost to the offeror, for making the offer. In particular the

presumption is that costs that might have been disproportionate are now paid by the loser and interest on the costs and the judgement amount can be paid at up to 10% above base rate. Thus if the case concerned a historic debt repayment or a situation where the current base rate was much lower than 10% as now, then this indemnity cost basis boost could become proportionately very significant.

In cases where the offeror loses, but his Part 36 Offer was still bigger than what the winner was awarded at trial, then the winner actually should have accepted the Part 36 Offer earlier and avoided trial. To punish him for not doing so, he loses the costs he would naturally have been awarded from the loser from the date of the Part 36 Offer. This provides a potentially large boost for making the offer which in the extreme case can save the loser all his opponent’s costs.

There is clearly an incentive to make Part 36 Offers as early as possible in the case assuming the offers are not accepted, since that way they maximise the period of applicable costs for saving or indemnity boost. However there are two potential costs to making a Part 36 Offer. The first is that the offer may be made at the wrong rate and accepted by the opponent. Secondly, the offer may be made at the right rate given current information, but subsequent information may make this the “wrong rate” and the offer then accepted on this basis. In other words making a particular Part 36 Offer also gives the opponent the option to stop you making other later offers or of progressing to trial.

Whenever a party makes a first Part 36 Offer, its expected legal costs fall and the expected legal costs of the other side rise, if the offer is not accepted. If a party makes a subsequent Part 36 offer then the same effect occurs as long as the offer is better for the other side than previous offers made by that party. Diagram 6a) shows an example Part 36 Offer made by C. Initially C expects a trial payoff of £7 and legal costs of £4. After the Part 36 Offer C expects his total legal costs to fall to £2. Initially D expects a trial payout of £2 with own legal costs of £4. After C’s part 36 Offer, D expects his legal costs to rise to £4. Hence in the example C’s Part 36 Offer increases the SAF, SOF intersection from c.£4.5 to c.£5.7.



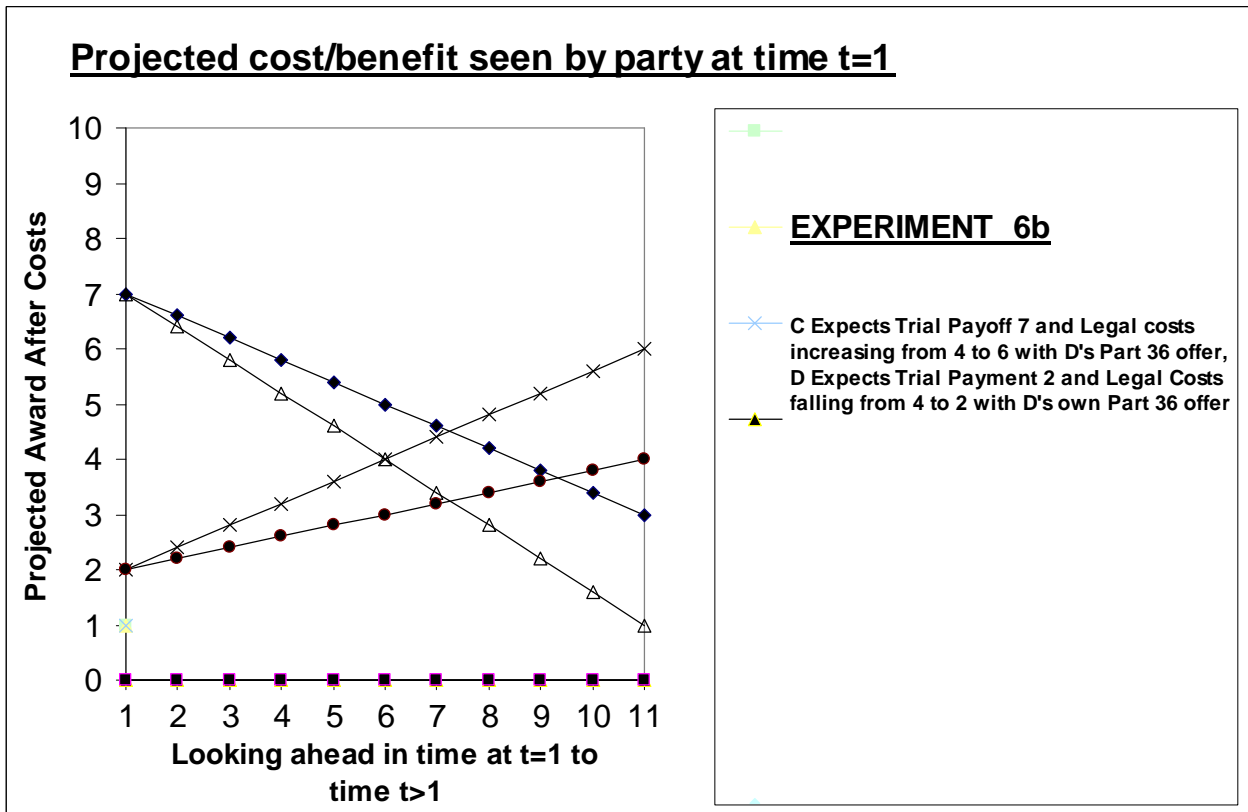
Clearly when it wants to make a Part 36 Offer, C determines the level of the Offer and the expected effect this will have on the SAF and SOF curves. If C’s Part 36 Offer is very high, say 10 then the chance of it being accepted is very low and its expected effect on both C and D’s expected legal costs is almost zero. The Offer can safely be made by C in the absence of any associated costs, but it has little benefit to C and the original settlement equilibrium at c.£4.5 will be unaffected. It is not equilibrium for D to consider accepting such an offer.

If C’s Part 36 Offer is very low, say £1 then it has almost no chance of being refused by D. Both C and D now expect the settlement amount to be at C’s new low Part 36 Offer. Hence both parties’ expected legal costs thus become zero and flat and SAF and SOF can only intersect if counterfactually, both parties expected payouts at trial are now the same as the new Part 36 Offer value. Put another way, it is not equilibrium for C to make such an offer as it needlessly gives up value for no benefit and hence such an offer cannot be made by C. Hence feasible offers must be somewhere in the vicinity of the pre-existing intersection of SAF and SOF.

Since any Part 36 Offer in this region by C must shift both SAF and SOF upwards as in diagram 6a), this gives a method of determining what Part 36 Offer C should make. Specifically C should offer an amount

that corresponds to the expected new intersection point of SAF and SOF, given that offer. The reason is that this Part 36 offer is consistent for all parties. Therefore in diagram 6a) C's recommended Part 36 Offer would be: c.£5.7 i.e. considerably higher in Cs favour than the £4.5 prior intersection point of SAF and SOF curves. Thus C has an incentive to make such an offer as it boosts his expected pre-trial settlement.

By a similar logic, D also has an incentive to make a Part 36 Offer around £3.3 i.e. lower than the original SAF: SOF equilibrium of c.£4.4.



Thus both C and D have an incentive to make their own Part 36 Offers and the optimal response to the other side's Part 36 Offer may indeed be an alternative Part 36 Offer at a different rate. There may also be a benefit in parties making a sequence of "out of the money" Part 36 Offers to partially insure their cost liabilities in case of exceptionally disadvantageous final judgement. However, if repeat Part 36 Offers are made by the same party, so the marginal benefit in terms of expected legal cost savings if the new offer is rejected also falls. This in turn will limit the optimal number of Part 36 Offers per party.

A key feature of Part 36 Offers is that there is typically only a short window for them to be accepted. This encourages the offeror since his risk that the offer was clearly made at the wrong rate increases over time as news on the case changes. The impact of news is that it will change the underlying SAF and SOF curves and

hence the new optimal Part 36 Offers that can be made on both sides. Therefore the longer the case and the more variable the news in the case, so the more Part 36 Offers would be optimal and the more one would expect to observe.

Lessons from Analysis of Part 36 Offers:

The following conclusions can be drawn from the discussion of Part 36 Offers:

- 122.) Part 36 Offers have the benefit of making expected legal cost curve of the offeror more shallow and the expected cost curve of the offeree more steep, if not accepted. Thus Part 36 Offers move the local equilibrium settlement amount in favour of the offeror.
- 123.) A Part 36 Offer made well within the relevant acceptance zone of the offeror, has little chance of being accepted and hence little impact on expected cost curves and hence on the intersection of $SAF=SOF$.
- 124.) A Part 36 Offer made well outside the relevant acceptance zone of the offeror, is almost certain to be accepted and hence has a huge negative expected effect for the offeror on expected settlement. Such an offer cannot therefore be made.
- 125.) The optimal Part 36 Offer is thus characterised by being approximately at the $SAF=SOF$ intersection level, conditional on the new offer having been made.
- 126.) The optimal Part 36 Offer is thus more beneficial to the offeror than the focal settlement amount X that exists without a Part 36 Offer. This gives the offeror the incentive to make such a Part 36 Offer.
- 127.) The maker of a Part 36 Offer has to factor in the impact of potential news and developments in the case into his offer.
- 128.) This is likely to make him want the offer to be open for as short a time as possible while still qualifying as a valid Part 36 Offer i.e. 21 days.

- 129.) The longer the offer open-window and the more variable the flow of background news in the case, then the greater the risk that any given offer rate will during the open-window period, become the “wrong rate”. Therefore the more variable the news background so the more advantageous to the offeror the offer rate has to be. This is adding an extra (irreversible disinvestment) option premium on to the offer rate. It can also be seen as an extra insurance premium the offeror has to be paid to accommodate this risk.
- 130.) One danger of a Part 36 Offer is that the offeror may have miscalculated the offeree's SAF or SOF and hence may pitch the Part 36 Offer at a level below the best rate it could attain. This feature may need to be factored into the offer made by moving the offer in favour of the offeror.
- 131.) It may be sensible also for both parties in any event to make a sequence of “out of the money” Part 36 offers to give them some insurance against unexpected highly adverse outcomes at trial and additional offers in response to news in the case.
- 132.) It is unlikely to be optimal for parties not to make Part 36 Offers, particularly at “out of the money” levels.

13. Standard Settlement Offers made “Without Prejudice” or Publicly

Part 36 Offers are distinct from other, Standard Settlement Offers (SSOs), when formally labelled and categorised as such and in as much as they have a minimum acceptance window and a clear expected direct impact on legal costs on both sides both before and after trial, as discussed above. Part 36 Offers are effectively “without prejudice” during the litigation and trial process, but revealed to the court thereafter, for cost considerations. The availability of Part 36 Offers does not however mean that SSOs cannot be made either additionally or alternatively and publicly or “without prejudice”.

A general principle applicable to all offers including SSOs is that the longer the offer window is open, so the more beneficial a fixed offer has to be in favour of the offeror to compensate the offeror for the risk that news developments during the open-offer period suddenly makes the offer look excessively generous.

However, the more beneficial the offer rate to the offeror, so the less likely it is to be accepted by the offeree, *ceteris paribus*. Conversely, the longer the open-offer window, *ceteris paribus*, the more likely any offer is to be accepted by the offeree. Hence there is a tradeoff for SSOs between open-offer period and attractiveness of a fixed offer rate.

What this means is that where Part 36 Offers can be used for offers with longer open-offer windows, with their enhanced cost benefits for the offeror, so SSOs are likely to be additionally used for offers with shorter open-offer windows, which do not make the Part 36 minimum time limit. It is theoretically possible for a party to have a strategy of one or more Part 36 Offers combined with one or more SSOs. A Part 36 Offer and SSO could overlap with different offer rates corresponding to the different start dates and open offer periods.

If SSOs are made with shorter open-offer periods, then a balance has to be struck between i) forcing the opponent to take the offer seriously and accept the offer during the timeframe, on the basis that it might not be repeated and ii) giving the offeror the option to make subsequent offers if desirable, without losing credibility. If there were no other offers on the table then an SSO might be framed as a final offer. If the offering party was an intimidator then this might additionally increase the risk premia of the opponent and make the SSO more likely to be accepted.

SSOs can also be made publicly. The advantage of this strategy is that the opponent cannot pretend that he has not received such an offer and the court can factor a public SSO into any cost awards made at the end of trial, as it would for a Part 36 Offer. The danger of a public SSO is that it might be construed as an admission of liability or defeat and it might also compromise any line of without prejudice communication between the parties and any other without prejudice SSOs or Part 36 Offers. If these dangers could be neutralised however, then public SSOs would become very attractive because they could then be made with much shorter open-offer windows and hence at more attractive rates to the offeree than Part 36 Offers and yet still impact final cost awards in a similar way.

14. Time and State Contingent Offers

The discussion so far has assumed the use of fixed offers open for fixed time periods. Typically an open offer can be withdrawn by the offeror. It is therefore effectively callable, i.e. a contingent offer. If the offeror

is unlikely to withdraw his open offer, for credibility reasons, then this call option is an outside or out-of-the money option, but should not be ignored. It is logically possible for this option to be removed e.g. by a collateral contract between the parties for the offeror to keep his offer open for the specified time. The offeree would need to pay the offeror a positive amount for any such collateral contract. Alternatively, the offeror would need to make a less favourable offer to the offeree. Hence the flexibility of the call option allows the offeror to make a better offer to the offeree, from the offerree's perspective than he otherwise would.

The general principle is that the more news-risk the offeror can be protected from in his offer, so the less risk allowance and risk premium the offeror needs to build into his offer so the more attractive an offer can be made to the offeree and the more likely the offer is to be accepted, *ceteris paribus*. This implies that if offerors use more state-contingent offers that cap or reduce their risk, so they can make better (for the offeree) and longer, open-offers that are more likely to be accepted *ceteris paribus*. Thus state-contingent offers can be made whose exact rate depends on both time and the level of other variables either observable concurrently or in future. One example would be an offer to buy shares over period x at the previous day's closing price + 1% up to a maximum price of \$100; another would be to pay 80% of the medical bills incurred over the next year up to a limit of £1M.

15. Legal Aid Awards

In England and Wales, Legal Aid is available for a limited number of deserving civil claims and for criminal defence. In criminal cases, Legal Aid gives the client an incentive not to plead guilty but to contest a trial whatever the evidence and therefore the incentive to generate a suboptimally excess number of criminal trials and excess criminal trial expenses. To counterbalance this effect, clients facing criminal charges who plead guilty and thereby avoid the expense of a trial are given a credit reduction of up to 1/3-off their sentences. Hence the market imperfection of Legal Aid tending to create excess not guilty pleas and contested criminal trials, is offset to a degree by the market imperfection of charging guilty criminals extra sentence time for persisting with the trial process, *ceteris paribus*. Unfortunately, what this inevitably logically means is that at least one or both of these two groups of guilty criminal Defendants must be receiving sentences that are strictly incommensurate with their crimes.

For civil Claimants who are eligible, the impact of Legal Aid on the recipient will be to reduce his perceived legal cost, i.e. to reduce the cost time pressure on him to settle and also to move the equilibrium settlement amount in his favour. This support can be illusory however and lull the party into proceeding with the case when he otherwise should not. This is because for civil cases, the government subsequently tries to recoup its Legal Aid contribution from any winnings in the case. On the other side of the case, the opponent facing a legally aided client knows that there is little prospect of recouping his own legal costs even if successful. This in turn increases the net expected legal cost curve for the non-legally aided opponent. Thus the impact of Legal Aid in the civil sphere is to generate more claims by legally aided Claimants and to move settlements in favour of the legally aided Claimant, who may in turn lose some of his settlement to the government. The incentive to excess litigation caused by Legal Aid is mitigated by its restricted availability.

A nightmare Legal Aid scenario has occurred in certain fraud trials where the Defendant is formally legally aided and the Crown behaves as though it is legally aided. The nature of these particular cases means that the harder they are fought, the more complex is the evidence reviewed by the jury and the lower the likelihood of conviction to the criminal standard of certainty. In other words these are Legal Aid cases where the decrease in probability of conviction from contesting the case far outweighs the value of any loss of credit for an early guilty plea. Not surprisingly, such cases, creating a huge cost to the taxpayer and wealth transfer to the lawyers *ceteris paribus*, with little actual or deterrent effect on crime, have brought the Legal Aid system into disrepute.

16. Conclusions

Starting with a simple economic model of the value of civil litigation from each side’s perspective, this paper analyses a wide range of potential litigation cost strategies, settlement offers and negotiations, together with relevant applications and insights from game theory. Specific issues examined include: optimal settlement agreements, optimal settlement timing, optimal choice of lawyers; principal-agent problems aligning lawyer cost incentives; optimal client-lawyer contracts; “Conditional Fee Agreements” (CFAs); success rules and size of success premia; the exploitation and mitigation of liquidity and bankruptcy constraints; impact of collateral, “Security for Costs” and “Freezing Orders”; optimal “Part 36 Offers”; public and “without prejudice” offers; fixed rate and state-contingent offers; the role of mediation and

alternative dispute resolution (ADR); the effect of litigant group size, co-ordination and class actions; rationale for confidential no-liability settlement agreements; effects of legal aid; time-value to trial and "optionality" of news; the impact of the "Law of Costs"; optimal trial cost applications and requests for "leave to appeal". Both familiar and paradoxical new results are confirmed by the analysis. Specific examples are considered from the law and practice of England and Wales but the fundamental principles derived are applicable, *mutatis mutandis*, to all other related legal systems including American and Commonwealth.

17. Postscript: Trial Applications for Costs and Leave to Appeal

If a civil case runs to trial, judgement will be given and an order made as to costs. Before this happens, both sides get a chance to argue before the judge on the allocation of costs and to present their case as to why the opponent should pay more and the client less. The time window to make these cost applications in court is typically short and the effect on costs payable potentially enormous. This suggests that in equilibrium, barristers should allocate as much time to the prior preparation of their cost submissions, so that any marginal work on cost saving has the same expected marginal benefit as expected marginal cost.

Additionally as the cost to the loser of the current trial rises, so the option value to him of a successful appeal to the next court up to reverse that decision, also rises. This in turn means that the marginal value to the client in using a barrister who can immediately generate grounds for and request leave to appeal if necessary at the end of a trial, also rises. This is additionally consistent with increasing marginal cost and quality of lawyers up to and including the trial stages.

18. References

Akerlof, George A (Aug. 1970). "The Market for 'Lemons': Quality Uncertainty and the Market Mechanism". *Quarterly Journal of Economics* 84 (3): 488–500.

Baar Carl, Hann Robert: "Mandatory Mediation in Civil Cases: Purposes and Consequences"
"http://papers.ssrn.com/sol3/papers.cfm?abstract_id=270633

Bales, Richard A: "An Introduction to Arbitration" Bench & Bar (Kentucky), March 2006

Barnes, David: "The Litigation Crisis: Competitiveness and Other Measures of Quality of Life" Seton Hall University - School of Law, Seton Hall Public Law Research Paper No. 899796, Denver Law Review, Vol. 71, 1993

Bar Standards Board: "Standards and Guidance" <http://www.barstandardsboard.org.uk/standardsandguidance/>

Baye, Michael R., Kovenock, Dan and de Vries, Casper G., "Comparative Analysis of Litigation Systems: An Auction-Theoretic Approach" (November 2000). CESifo Working Paper No. 373. Available at SSRN: <http://ssrn.com/abstract=254512>

Bebchuk, Lucian Arye: "On Divisibility and Credibility: The Effects of the Distribution of Litigation Costs Over Time on the Credibility of Threats to Sue " August 1996, John M. Olin Center for Law, Economics, and Business, Harvard Law School, Discussion Paper No. 190

Bebchuk, Lucian Arye, "Negative Expected Value Suits" (March 1998). NBER Working Paper No. W6474. Available at SSRN: <http://ssrn.com/abstract=226219>

Brickman, Lester, "The Market for Contingent Fee-Financed Tort Litigation: Is It Price Competitive?" . Cardozo Law Review, Vol. 25, 2003 Available at SSRN: <http://ssrn.com/abstract=463226> or DOI: [10.2139/ssrn.463226](https://doi.org/10.2139/ssrn.463226)

Chen, Kong-Pin and Wang, Jue-Shyan, "Fee-Shifting Rules in Litigation with Contingency Fees" . Journal of Law, Economics and Organization, Forthcoming Available at SSRN: <http://ssrn.com/abstract=798064>

Choi, Albert H. and Sanchirico, Chris William, "Should Plaintiffs Win What Defendants Lose?: Litigation Stakes, Litigation Effort, and the Benefits of 'Decoupling'" . USC CLEO Research Paper No. C02-7; and UVA Law and Economics Research Paper No. 02-1. Available at SSRN: <http://ssrn.com/abstract=304193> or DOI: [10.2139/ssrn.304193](https://doi.org/10.2139/ssrn.304193) , [U of Penn, Inst for Law & Econ Research Paper 04-02; USC CLEO Research Paper No. C02-7](#)

Clementi Sir David: "Report of the Review of the Regulatory Framework for Legal Services in England and Wales December 2004", <http://www.legal-services-review.org.uk/content/report/index.htm>

Clermont, Kevin M. and Eisenberg, Theodore, "Litigation Realities" . Cornell Law Review, Vol. 88, p. 119, 2002-2003 Available at SSRN: <http://ssrn.com/abstract=299459> or DOI: [10.2139/ssrn.299459](https://doi.org/10.2139/ssrn.299459)

Coffee, John C: "Class Action Accountability: Reconciling Exit, Voice, and Loyalty in Representative Litigation" Columbia Law Review, 2000

Drahozal, Christopher R., "Arbitration Costs and Contingent Fee Contracts" (August 3, 2005). Available at SSRN: <http://ssrn.com/abstract=776786>

Franck, Susan D., "The Role of International Arbitrators" . ILSA Journal of International & Comparative Law, 2006 Available at SSRN: <http://ssrn.com/abstract=885381>

Friedman, Daniel and Wittman, Donald, "Litigation with Symmetric Bargaining and Two-Sided Incomplete Information" (July 2003). CESifo Working Paper Series No. 1001; UC Santa Cruz Economics Working Paper No. 546. Available at SSRN: <http://ssrn.com/abstract=432909>

Fudenberg, Drew and Jean Tirole (1991) Game Theory MIT Press

Gross, Samuel S; Syverud Kent D: "Don't Try: Civil Jury Verdicts in System Geared to Settlement " UCLA Law Review, Vol. 44, No. 1, (1996).

Grundfest, Joseph and Huang, Peter H: "Real Options and the Economic Analysis of Litigation: A Preliminary Inquiry" May 1996, Working Paper No. 131, John M. Olin Program in Law and Economics, Stanford Law School

Grundfest, Joseph A. and Huang, Peter H., "The Unexpected Value of Litigation" . Stanford Law Review, Vol. 58, p. 1267, 2006 Available at SSRN: <http://ssrn.com/abstract=899098> or DOI: [10.2139/ssrn.585803](https://doi.org/10.2139/ssrn.585803)

Hensler, Deborah R. and Rowe, Jr., Thomas D., "Beyond 'It Just Ain't Worth It': Alternative Strategies for Damage Class Action Reform" . Law and Contemporary Problems, Vol. 64, 2001 Available at SSRN: <http://ssrn.com/abstract=274949> or DOI: [10.2139/ssrn.274949](https://doi.org/10.2139/ssrn.274949)

Hua, Xinyu and Spier, Kathryn E., "Information and Externalities in Sequential Litigation" (May 11, 2004). Available at SSRN: <http://ssrn.com/abstract=556163> or DOI: [10.2139/ssrn.556163](https://doi.org/10.2139/ssrn.556163)

Huang, Peter H., "Lawsuit Abandonment Options in Possibly Frivolous Litigation Games" . Review of Litigation, Vol. 23, January 2004 Available at SSRN: <http://ssrn.com/abstract=474681> or DOI: [10.2139/ssrn.474681](https://doi.org/10.2139/ssrn.474681)

Hylton, Keith N. and Drahozal, Christopher R., "The Economics of Litigation and Arbitration: An Application to Franchise Contracts" . Boston Univ. School of Law Working Paper No. 01-03. Available at SSRN: <http://ssrn.com/abstract=266545> or DOI: [10.2139/ssrn.266545](https://doi.org/10.2139/ssrn.266545)

Hylton, Keith N., "Welfare Implications of Costly Litigation under Strict Liability" . American Law and Economics Review, Vol. 4, No. 1, pp. 18-43, 2002 Available at SSRN: <http://ssrn.com/abstract=874194>

Hyman, David A. and Silver, Charles M., "Medical Malpractice Litigation and Tort Reform: It's the Incentives, Stupid" . Vanderbilt Law Review, Vol. 59, p. 1085, 2006 Available at SSRN: <http://ssrn.com/abstract=942995>

Inns of Court School of Law: "Civil Litigation 2005/6" 2006 Edition, Oxford University Press

Johnson, Marilyn F., Nelson, Karen K. and Pritchard, Adam C., "Do the Merits Matter More? Class Actions under the Private Securities Litigation Reform Act" (September 2002). Michigan Law and Economics Research Paper No. 02-011; Stanford Law and Economics Olin Working Paper No. 249. Available at SSRN: <http://ssrn.com/abstract=349500> or DOI: [10.2139/ssrn.349500](https://doi.org/10.2139/ssrn.349500)

Katz, Avery W., "Indemnity of Legal Fees" (March 24, 1997). Encyclopedia of Law and Economics (Edward Elgar and the University of Ghent, 1997), Boudewijn Bouckaert and Gerrit De Geest, eds. Available at SSRN: <http://ssrn.com/abstract=57958> or DOI: [10.2139/ssrn.57958](https://doi.org/10.2139/ssrn.57958)

Klement, Alon, "Threats to Sue and Cost Divisibility under Asymmetric Information" (November 27, 1999). Harvard Law School, Law and Economics Discussion Paper No. 273. Available at SSRN: <http://ssrn.com/abstract=199302> or DOI: [10.2139/ssrn.199302](https://doi.org/10.2139/ssrn.199302) International Review of Law and Economics, Vol. 23, pp. 261-272

Klemperer, Paul, "Why Every Economist Should Learn Some Auction Theory" (July 2000). Available at SSRN: <http://ssrn.com/abstract=241350> or DOI: [10.2139/ssrn.241350](https://doi.org/10.2139/ssrn.241350)

Landeo, Claudia M., Nikitin, Maxim and Babcock, Linda C., "Split-Awards and Disputes: An Experimental Study of a Strategic Model of Litigation" (May 4, 2005). Available at SSRN: <http://ssrn.com/abstract=587541> or DOI: [10.2139/ssrn.587541](https://doi.org/10.2139/ssrn.587541)

MacManus, Susan A., "Litigation Costs, Budget Impacts, and Cost Containment Strategies: Evidence from California Cities" . Public Budgeting & Finance, Vol. 17, pp. 28-47, December 1997 Available at SSRN: <http://ssrn.com/abstract=465710>

McGee, Robert W. , "Who Really Benefits from Liability Litigation?" (July 1996). Dumont Institute Policy Analysis No. 24. Available at SSRN: <http://ssrn.com/abstract=82596> or DOI: [10.2139/ssrn.82596](https://doi.org/10.2139/ssrn.82596)

Mildred, Mark, "Cost-sharing in Group Litigation: Preserving Access to Justice" . Modern Law Review, Vol. 65, pp. 597-602, 2002 Available at SSRN: <http://ssrn.com/abstract=317850>

Morgenstern, Oskar and von Neumann John (1947) The Theory of Games and Economic Behavior Princeton University Press

Nash, John (1950) "Equilibrium points in n-person games" Proceedings of the National Academy of Sciences 36(1):48-49.

Nash, John (1951) "Non-Cooperative Games" The Annals of Mathematics 54(2):286-295.

Oyer, Paul and Schaefer, Scott, "Layoffs and Litigation" (July 1998). Available at SSRN: <http://ssrn.com/abstract=112052> or DOI: [10.2139/ssrn.112052](https://doi.org/10.2139/ssrn.112052)

Pecorino, Paul and van Boening, Mark V., "Bargaining with Asymmetric Dispute Costs" (July 2006). Available at SSRN: <http://ssrn.com/abstract=922063>

Pindyck, Robert S., "Irreversible Investment, Capacity Choice, and the Value of the Firm" (July 1986). NBER Working Paper No. W1980. Available at SSRN: <http://ssrn.com/abstract=227080>

Polinsky, A Mitchell: "Optimal Awards and Penalties When the Probability of Prevailing Varies Among Plaintiffs" RAND Journal of Economics, Vol. 27, No. 2, Summer 1996.

Polinsky, A Mitchell; Rubinfeld Daniel L: "Aligning the Interests of Lawyers and Clients" American Law and Economics Review, Vol. 5, No. 1, pp. 165-188, Spring 2003

Relis, Tamara, "It's Not About the Money!: A Theory on Misconceptions of Plaintiffs' Litigation Aims" . University of Pittsburgh Law Review, Vol. 68, No. 2, 2007 Available at SSRN: <http://ssrn.com/abstract=909522>

Rhee, Robert J., "Tort Arbitrage" (March 2007). Available at SSRN: <http://ssrn.com/abstract=967487>

Rhee, Robert J., "A Price Theory of Legal Bargaining: An Inquiry into the Selection of Settlement and Trial Under Uncertainty" . Emory Law Journal, 2006 Available at SSRN: <http://ssrn.com/abstract=898006>

Ripken, Susanna Kim, "Conflicting Ideologies of Group Litigation: Who may Challenge Settlements in Class Actions and Derivative Suits?" . Tennessee Law Review, Vol. 66, No. 1, pp. 81, Fall 1998 Available at SSRN: <http://ssrn.com/abstract=925345>

Ritter, Cyril, "The Winner Takes it All: Recovering Lawyers' Fees and Other Costs Before the Community Courts" (August 2006). Available at SSRN: <http://ssrn.com/abstract=926977>

Rose William: "Blackstone's Civil Practice 2006" Oxford University Press

Rosenberg, David, "Avoiding Duplicative Litigation of Similar Claims: The Superiority of Class Action vs. Collateral Estoppel vs. Standard Claims Market" (December 2002). Harvard Law School, Public Law Research Paper No. 44;

Harvard Law and Economics Discussion Paper No. 394. Available at SSRN: <http://ssrn.com/abstract=354100> or DOI: [10.2139/ssrn.354100](https://doi.org/10.2139/ssrn.354100)

Sanchirico, Chris William, "The Economic Analysis of Evidence, Procedure, and Litigation" . U of Penn, Inst for Law & Econ Research Paper No. 06-04 Available at SSRN: <http://ssrn.com/abstract=877979>

Sanchirico, Chris William, "Harnessing Adversarial Process: Optimal Strategic Complementarities in Litigation" (February 2005). U of Penn, Inst. for Law & Econ Research Paper No. 05-01 Available at SSRN: <http://ssrn.com/abstract=788564> or DOI: [10.2139/ssrn.661166](https://doi.org/10.2139/ssrn.661166)

Scott, Robert E. and Triantis, George G., "Principles of Contract Design" . Yale Law Journal, Vol. 115, 2005-06 Available at SSRN: <http://ssrn.com/abstract=722263>

Sharfman Keith: "Valuation Averaging: A New Procedure for Resolving Valuation Disputes " Minnesota Law Review, Vol. 88, pp. 357-383, December 2003

Shavell Steven: "The Level of Litigation: Private Versus Social Optimality " June 1996, John M. Olin Center for Law, Economics, and Business, Harvard Law School, Discussion Paper No. 184

Shavell Steven: "The Fundamental Divergence Between the Private and the Social Motive to Use the Legal System " Journal of Legal Studies, Vol. 24, No. 4 (1997).

Shepherd, George B; Cloud Morgan: "Time and Money: Discovery Leads to Hourly Billing" University of Illinois Law Review

Sichelman, Ted M, "Why Barring Settlement Bars Legitimate Suits: A Critique of Professors Rosenberg and Shavell's "Option to Bar Settlement" as "A Solution to the Problem of Nuisance Suits"" (May 13, 2007). Available at SSRN: <http://ssrn.com/abstract=986234>

Silver, Charles M., "Does Civil Justice Cost Too Much?" . U of Texas Law, Public Law Research Paper No. 37 Available at SSRN: <http://ssrn.com/abstract=314964> or DOI: [10.2139/ssrn.314964](https://doi.org/10.2139/ssrn.314964)

Silver, Charles M., "When Should Government Regulate Lawyer-Client Relationships? The Campaign to Prevent Insurers from Managing Defense Costs" . U of Texas Law, Public Law Research Paper No. 36 Available at SSRN: <http://ssrn.com/abstract=314919> or DOI: [10.2139/ssrn.314919](https://doi.org/10.2139/ssrn.314919)

Solicitors Regulatory Authority: "Solicitors' Code of Conduct" <http://www.sra.org.uk/code-of-conduct.page>

Spier, Kathryn E: "Settlement Bargaining and the Design of Damage Awards" Journal of Law, Economics & Organization: Volume 10 Number 1, April 1994

Stein, Alex and Harel, Alon, "Law & Economics at the Animal Farm: Offering a New Solution to the Class Action Agency Problem" . Available at SSRN: <http://ssrn.com/abstract=271431> or DOI: [10.2139/ssrn.271431](https://doi.org/10.2139/ssrn.271431)

Thornburg, Beth G., "Designer Trials" . Journal of Dispute Resolution, 2006 Available at SSRN: <http://ssrn.com/abstract=895001>

United Kingdom: Statutory Instrument 2003 No. 1240 The Conditional Fee Agreements (Miscellaneous Amendments) Regulations 2003 <http://www.opsi.gov.uk/si/si2003/20031240.htm>

United Kingdom Department for Constitutional Affairs: "New regulation for conditional fee agreements, A consultation by the Department for Constitutional Affairs" August 2005 CP(R) 22/04

United Kingdom Ministry of Justice: Part 36 Offers: Civil Procedure Rules Part 36, http://www.justice.gov.uk/civil/procrules_fin/contents/parts/part36.htm

United Kingdom Ministry of Justice: Freezing Orders and Security for Costs: Civil Procedure Rules Part 25, http://www.justice.gov.uk/civil/procrules_fin/contents/parts/part25.htm

Watts A: "Bargaining through an Expert Attorney" Journal of Law, Economics, & Organization: Volume 10 Number 1, April 1994.

"White Book 2007" Thompson, Sweet and Maxwell 2007

Whitford, Andrew B: " The Structures of Interest Coalitions: Evidence from Environmental Litigation" Business and Politics, Vol. 5, No. 1, pp. 45-64, 2003

Zhou, Jun, "In Litigation: How Far Do the Haves Come Out Ahead?" (January 2007). TILEC Discussion Paper No. 2007-002 Available at SSRN: <http://ssrn.com/abstract=963104>