

“Reasonable” Hourly Rates, Settlement and the Legal Expenses Insurance

Yue Qiao*
University of Surrey

February 23, 2005

Abstract

We derive the optimal rate for attorneys in a principal-agent framework under hourly fees arrangement. A missing market, which the attorney’s effort is not contractable, is introduced in our model. The “reasonable” hourly rate, which can align the conflict of preferences between the legal professional body and the plaintiff, may exist only when the attorney’s work hours and her effort are complements. If this rate exists, any other rates would reduce the value of the plaintiff’s settlement demand and also the expected benefit of the lawsuit. Moreover, the legal expenses insurance contract transfers both the plaintiff’s obligation and related rights to the insurer. (JEL K40)

1 Introduction

For decades, the debate amongst litigants, attorneys, policy-makers, and scholars about the “reasonable” attorney’s fees never ends. As the most widely used approach to pay for attorney’s service, hourly fee arrangement, under which the attorney’s reward is based on the number of hours she¹ invested in, inevitably becomes an object of public questioning. Since the payment contract between litigant and attorney is also regulated by rules of court and by professional bodies, the existence of the “reasonable” fees and how to set the fees attract scholars’ attentions (e.g. see Brickman (2003)).

*Department of Economics, University of Surrey, Guildford, GU2 7XH, The United Kingdom.

¹In this paper, we use “she” to denote the attorney and use “he” to denote the plaintiff.

Rich of literature from jurisprudence study gives principles of setting payment contracts. Gravelle & Waterson (1993) states them as:

“Lawyer-client contracts can be evaluated by the extent to which they (a) compensate plaintiffs after an accident by making it easy to sue and obtain redress, (b) induce settlements rather than costly trials, and (c) provide incentives for defendants to take care.”

Under these principles, a “reasonable” hourly fee is the fee that not only maximize litigants’ interests but also align the conflicts of interests between litigants and legislators². In practice, attorney’s professional bodies play important roles in the fees setting. Therefore, the “reasonable” hourly fee should at least align the interests between the plaintiff and professional bodies.

Developed by Landes (1971), Posner (1979), Shavell (1982), and others, numbers of literature analyze the legal costs and their influences on litigation theoretically and empirically³. These literature has revealed litigants’ behaviors and decisions and given economic explanations for litigation. While these literature generated deep insights, one contractability problem arises from previous researches. For solving the agent problem, nearly most literature of hourly fees research equals attorney’s effort to her work hours. In our view, the difference between them are more important. The attorney’s reward is relied upon how many hours she worked in the case. However, the litigant concerns the probability of prevailing instead. Obviously, attorney’s work hours is not the only factor that can determine the probability. The efficiency or the productivity of the attorney’s work also has a vital influence on the result of the lawsuit. This means sometimes the attorney has to supply her own input to pursue the prevailing, which is costly to her. We call this input effort in our paper. The attorney’s effort is not contractable but it affects the litigant’s decision.

An important integration in financing a legal dispute is the involvement of a third party (e.g. insurance company). The influence of the third-party in fees setting and decision making is a comparatively new topic in law and economics research. On those literature related to our study, Cooter & Porat (1993) and Polinsky & Rubinfeld (2003) examine the payment contract between insured plaintiffs and their attorney. These paper gaze on the moral-hazard problems under contingent fee arrangement. Kirstein & Rickman

²In this paper, we ignore the differences between legislators and policy-makers.

³e.g. see the review by Cooter & Rubinfeld (1989).

(2002) also analyze the third party contingency contracts. They focus not on the principal-agent problems between the plaintiff and his attorney but on the contract between the third-party and the plaintiff.

While these literature generated deep insights, they mainly focus on the two-way relationship either between the litigant and the attorney or between the insurer and the litigant. In our view, the theory that can interpret the complex problems in legal expenses insurance must contains the interactions amongst the litigant, the insurer and the attorney. It is so-called three-way relationship. Bowles & Rickman (1998) states the complications of three-way relationship in legal expenses insurance and unveils its health care parallels. Our paper follows the methodology they gave. We focus on the interactions among the three parties and adapt health care strategic model Ellis & McGuire (1986) and Ma & McGuire (1997) in our analysis.

The paper proceeds as follows. In the next section, we present our basic model of the strategic interactions between a plaintiff and his attorney. Firstly, we examine the situation of all cases going to trial. The plaintiff pursues his prevailing in the trial. The probability of prevailing depends on a plaintiff controlled variable (numbers of the attorney's work hour) and a attorney controlled variable (her effort), neither of them can be contracted directly. When the hourly rate is given, the attorney chooses her effort level. Observing the effort level, the plaintiff determines how many attorney's work hours he would purchase. Since the attorney will keep her expected utility non-negative, the setting of the hourly rate may affect the interaction between her and the plaintiff. Secondly, we introduce the probability of settlement to our basic model. As we stated before, since the hourly rate may affect the interaction and therefore influences the probability of prevailing, it may also affect the attorney's settlement demand. In this section, we will seek for how hourly rates influence the interactions and if there is a "reasonable" rate that can satisfy both clients and policy-makers.

In section three, we add an insurer into our model. Under this situation, the original two-way agent relationship is replaced by a three-way relationship. Therefore, all parties' decisions have to be considered on an insurance-payment system. In this part, we analyze normatively upon the payment contract and the right of the settlement decision by examining the settings of hourly rates. Finally, in the last section, we summarize and conclude our findings.

2 The Model

Our model follows Polinsky & Rubinfeld (2003) in adapting Ma & McGuire (1997) to the civil litigation context. However, unlike Polinsky and Rubinfeld, we focus on the effects of attorney's hourly rate on her effort, or in another word, the principle-agent problem in civil litigation. Therefore, we also draw on Kirstein & Rickman (2002) and Hay (1996).

When a plaintiff who is knowledgeable about the costs and benefits of litigation is involved in a legal dispute, he may retain an attorney on an hourly basis to pursue a claim against the defendant. Suppose the American Cost Rule applies here, under which parties bear their own litigation costs⁴. The benefit of the plaintiff relies on his probability of prevailing in the trial, which can be modeled by a production process. The production of the prevailing requires two inputs: the quantity of the attorney worked in the case and the effort the attorney invested in.

By quantity of the attorney's work we mean the number of hours she worked for the plaintiff, on which her payment is based. The quantity of the attorney's work is decided by the plaintiff. It can be measured and verified *ex post*. By the effort of the attorney we accept the conventional meaning of effort. It increases the quality of the case, or in another word the probability of prevailing, but is difficult to measure and verify. Providing effort is costly for the attorney. Since effort is not verifiable, it can not be rewarded by the payment contract.⁵

We now define the elements of our model as following:

a award at trial if the plaintiff prevails;

τ number of hours worked by the attorney;

ε the effort is invested in the case by the attorney;

$p(\tau, \varepsilon)$ the probability of prevailing, $1 \geq p \geq 0$, $p' > 0$, and $p'' < 0$;

⁴There are two general approaches to fee shifting: the English Cost Rule which requests the loser pays some or all of the winner's costs, and the American Cost Rule whereby each side is responsible for its own lawyers' fees regardless of who wins and who loses. In Asia, although reforms are undergoing, so far China and some other countries still use the American rule.

⁵Here we basically accept the definitions of quantity and effort by Ma & McGuire (1997) and by Laffont & Tirole (1993).

w the attorney's hourly rate;

c the marginal cost of the case, which is borne by the attorney;

$G(\varepsilon)$ disutility of the attorney's effort, $G(0) = 0$, $G' > 0$, and $G'' > 0$.

2.1 All cases go to trial

For keeping the analysis tractable, in this subsection we ignore the choice of settlement. Thus, the sequential of our game consists of four stages:

1. The plaintiff is involved in a legal dispute. He retains a lawyer on hourly basis as his deputy;
2. The attorney chooses her effort ε ;
3. After observing the attorney's choice of effort, the plaintiff chooses the quantity of the attorney's work τ ;⁶
4. The trial finishes. The plaintiff pays to his attorney.

We now proceed to find the sub-game equilibrium of this game, and begin with Stage 3. Suppose that the attorney's hourly rate has been decided in Stage 1 and the attorney has chosen her effort level in Stage 2. Thus, in Stage 3 the plaintiff choose the quantity level τ to maximize his expected benefit,

$$EB = pa - w\tau \tag{1}$$

thus,

$$p_{\tau}a - w = 0. \tag{2}$$

The demand behavior of the plaintiff is expressed in above equation: the plaintiff chooses τ to set his marginal benefit equal to the attorney's rate. Note that the plaintiff will file a suit only if he has non-negative expected value⁷, that is:

$$pa - w\tau \geq 0. \tag{3}$$

⁶Note that the alternative assumptions in which the attorney's decision is after the plaintiff or simultaneously are unpalatable, because in both case the quantity choice cannot provide any incentive for the attorney to provide effort.

⁷Here we simply assume that the plaintiff will file a suit if the expected value of the suit is zero and hold this assumption strictly.

To the attorney, equation (2) is the plaintiff's reaction function against her choice of effort, ε , given the hourly rate w . Thus the attorney influences the plaintiff's quantity choice by her effort.

From (2), we can derive:

$$\frac{d\tau}{d\varepsilon} = -\frac{p_{\tau\varepsilon}}{p_{\tau\tau}}. \quad (4)$$

This equation reflects the relationship between two inputs of the probability function. The sign of $\frac{d\tau}{d\varepsilon}$ is the same as $p_{\tau\varepsilon}$. If the quantity and effort are substitutes, which means $p_{\tau\varepsilon} < 0$, then a lower effort ε can induce a higher quantity demand. Alternatively, if the quantity and effort are complements, which means $p_{\tau\varepsilon} > 0$, then a higher τ can only be induced by a higher ε .⁸

Now we consider the attorney's decision in Stage 2. Anticipating the plaintiff's reaction in Stage 3, the attorney chooses her effort ε to maximize her utility function, which is given by:

$$V = (w - c)\tau - G(\varepsilon). \quad (5)$$

The attorney's participation constraint requests $V \geq 0$. Since $G(\varepsilon)$ is non-negative, $w \geq c$.

Hence, in subgame-perfect equilibrium, the quantity τ and the effort ε are given the solution of the following:

Program A: Choose τ and ε to maximize

$$(w - c)\tau - G(\varepsilon). \quad (6)$$

subject to $p_{\tau}a = w$.

In above program, only w appear as parameter. So we define:

$\Omega = \{(\tau, \varepsilon): \text{there exist } w \text{ for which } (\tau, \varepsilon) \text{ solves Program A given } w \}$.

Following Ma and McGuire, we name Ω as *implementable set*. It contains all those (τ, ε) pairs which solve subgame-perfect equilibrium when given the

⁸In general, the sign of the cross partial derivative of the probability p may change according to both input τ and ε .

parameter w .

With equation (4), the quantity is a function of the effort, we derive the first-order derivative of (5) with respect to ε . It gives:

$$-\frac{p_{\tau\varepsilon}}{p_{\tau\tau}}(w - c) - G'(\varepsilon). \quad (7)$$

Consider a quantity-effort pair (τ, ε) belonging to the implementable set Ω . Suppose at (τ, ε) , τ and ε are complements, that is $p_{\tau\varepsilon} > 0$. Since $w \geq c$, the slope of the attorney's profit (7) can be non-negative. This means for a higher profit, the attorney will increase her effort. But suppose at (τ, ε) , τ and ε are substitutes, since (7) is always negative, whatever the value of τ and ε , the attorney is willing to invest less effort for a higher profit.

Furthermore, in a comparative statics analysis, if τ and ε are substitutes, the relationship of variables and the parameters is given by:

$$\begin{aligned} \frac{\partial\tau}{\partial w} &= -\frac{p_{\tau\varepsilon}^2}{H} > 0 \\ \frac{\partial\varepsilon}{\partial w} &= \frac{p_{\tau\varepsilon}p_{\tau\tau}}{H} < 0 \end{aligned} \quad (8)$$

where $H < 0$ is the bordered Hessian. We confirm that under substitutes, an increasing in hourly rate will lead to a declining effort. Obviously, if τ and ε are substitutes, the pure hourly payment contract cannot bring any incentive for the attorney to provide effort. To summarize, we state:

PROPOSITION 1: *Whether a hourly rate is “reasonable” or not relies on the relationship between the quantity and the effort. If they are substitutes, the pure hourly payment contract itself is “unreasonable”.*

In reality, however, we observe the attorney's effort is always above its minimum ($\varepsilon > 0$). This may be caused by other incentives such as the ethical rule and the attorney's reputation concerning which request her to provide effort, in spite of the payment contract.

Now we go back to Stage 1. The so-called “reasonable” hourly rate represents the preferences of the people who made it. Since hourly rate is always set by the contract between the plaintiff and the attorney or by policy-makers,

we discuss them separately to show the conflict of their interests.

For the plaintiff, his purpose is to maximize his expected benefit from the lawsuit, the reasonable hourly rate becomes the solution of following program:

Program B: Choose w , τ , and ε to maximize

$$pa - w\tau$$

subject to $(\tau, \varepsilon) \in \Omega$, $EB \geq 0$, and $V \geq 0$.

For the policy-maker, the meaning of “reasonable” rate is at least the rate that can maximize the combined value of the lawsuit⁹. Therefore, the reasonable hourly rate is the solution of the program follows:

Program C: Choose w , τ , and ε to maximize

$$pa - c\tau - G(\varepsilon)$$

subject to $(\tau, \varepsilon) \in \Omega$, $EB \geq 0$, and $V \geq 0$.

If the quantity τ and effort ε are substitutes, since the effort is not contractable, the attorney can always keep her utility positive even under the ethical rule. So, there is not a rate that can align the interests of the plaintiff and policy-makers.

If the quantity τ and effort ε are complements, since (7) is non-negative, there may be a rate w^* that can align the interests of the plaintiff and the policy-maker. That is $w^*\tau = c\tau + G(\varepsilon)$, where $(\tau, \varepsilon) \in \Omega$.

PROPOSITION 2: *The conflict of preferences between policy-makers and the plaintiff makes the so-called “reasonable” hourly rate seldom appear. Only when the quantity and effort are complements, there may be a “reasonable” rate that can satisfy the conflicting interests.*

⁹Theoretically, policy-makers should concern social optimum, which includes both the plaintiff’s and the defendant’s welfare as well as the effects of the judgement on other lawsuits. Here, for simplicity, we adopt Santore & Viard (2001) here.

2.2 Settlements are possible

In this section we extend our analysis to allow for the possibility of a settlement. Unlike Polinsky & Rubinfeld (2003), we use a symmetric information model of settlement, in which both the plaintiff and the defendant know the defence cost at trial. The plaintiff offers a take-it-or-leave-it settlement demand, which is accepted or rejected by the defendant.

Let:

C^d defendant's litigation cost¹⁰;

s the plaintiff's settlement demand;

$q(s)$ the probability of the defendant accepts the settlement offer, $1 \geq q \geq 0$, and $q' < 0$.

The sequential of the settlement game contains five stages:

1. The plaintiff offers a settlement demand s . The defendant either accepts the settlement offer or rejects it. If the defendant accepts the offer, the game ends;
2. If the plaintiff rejects the offer, the plaintiff retains an attorney on hourly basis;
3. The attorney chooses her effort ε ;
4. After observing the attorney's choice of effort, the plaintiff chooses the quantity of the attorney's work τ ;
5. The trial finishes. The plaintiff pays to his attorney.

Firstly, we examine the defendant's decision on whether accepts or rejects the settlement offer. If the defendant knows that the plaintiff's threat to go to trial is credible, he will accept the settlement if and only if:

$$s \leq pa + C^d. \tag{9}$$

We choose a special value of s , where $s = pa + C^d$, at or below this value the defendant will accept the offer and above this value the settlement offer

¹⁰Actually, the defendant's litigation cost depends on his agent problem. If so, the analysis will be more complex. For simplicity, we assume the cost is a constant here.

will be rejected.

The plaintiff will choose the settlement demand s to maximize his expected benefit:

$$EB = (1 - q)(pa - w\tau) + q(s) \cdot s. \quad (10)$$

The derivative of (10) with respect to s is given by:

$$q'(s)(s - pa + w\tau) + q(s). \quad (11)$$

Obviously, with increasing in value of settlement offer, the plaintiff reduces the probability that the defendant will accept the offer, which is given by $q'(s)$. Now we substitute $s = pa + C^d$ into (11), the slope of the plaintiff's expected benefit can be written as:

$$q'(s)(C^d + w\tau) + q(s). \quad (12)$$

It is clear that if we do not consider the interaction between the attorney and the plaintiff, a higher hourly rate will reduce the expected benefit of the plaintiff.

Now, we consider this problem in our settlement game. Since the last three stages of the settlement game is the same as the trial game we discussed in previous section. Equation (1) to (8) and the *implemented set* Ω can still be applied here.

In stage 1, the optimal settlement decision of the plaintiff is given by the solution to the following program:

Program D: Choose s , w , τ , and ε to maximize

$$[1 - q(s)](p \cdot a - w\tau) + q(s) \cdot s$$

subject to $(\tau, \varepsilon) \in \Omega$, $p \cdot a + C^d \geq s$, $EB \geq 0$, and $V \geq 0$.

Suppose when $(\tau^*, \varepsilon^*) \in \Omega$ there exists a reasonable hourly rate w^* which is the solution of Program B. Then, the plaintiff's expected benefit at trial

becomes $p^* \cdot a - w^* \tau^*$. Since it is the optimum, any change in the hourly rate w will reduce the plaintiff's on trial welfare. Program D depends on the plaintiff's on trial welfare. The change of rate reduces the plaintiff's expected benefit as well. Also, from (11), the change of w will reduce the value of settlement demand¹¹.

PROPOSITION 3: *If the reasonable hourly rate exists, it can also induce the plaintiff's highest value of settlement demand.*

Furthermore, if the constraint $s = pa + C^d$ is feasible, the value of settlement demand s becomes the function of the probability of prevailing p , and therefore the implicit functions of the quantity τ and the effort ε . Hence, the optimal plaintiff's settlement decision is given by the solution of:

Program D': Choose w , τ , and ε to maximize

$$[1 - q(s)](p \cdot a - w\tau) + q(s) \cdot s$$

subject to $(\tau, \varepsilon) \in \Omega$, $EB \geq 0$, and $V \geq 0$.

Obviously, This program is a relaxed version of program D. It says that the settlement offer decision can be adjusted by the interactions between the plaintiff and the attorney, as well as the attorney's hourly rate.

3 Legal expenses insurance

Having established the general model of legal dispute, we turn our attention to legal expenses insurance and its effects on the plaintiff's and the attorney's choices. Based on our previous settlement model, the extensive form of the legal expenses insurance model consists of six stages.

1. The insurer chooses the elements of the insurance and payment systems;
2. Natural decides whether the plaintiff is involved in a legal dispute with probability r . If not, the game ends, otherwise, the plaintiff seeks legal resolution;

¹¹Mathematically, the slope of the plaintiff's expected benefit becomes steeper when the hourly rate changes from the reasonable value. In common sense, since the plaintiff's expected on trial welfare reduces, he also reduce his expectation in settlement.

3. The plaintiff provides a settlement offer. The defendant either accepts it or rejects it. If the offer is accepted, the game ends. Otherwise, the case goes to trial;
4. An attorney is retained to work for the plaintiff. She chooses her effort ε ;
5. After observing the attorney's choice of effort, the plaintiff chooses the hours of the attorney's work τ
6. The trial finishes. The insurer pays the attorney.

To note that our model is a co-insurance model, which means for avoiding the plaintiff's over-utilization, the insurer sets a co-payment per hour β , ($0 < \beta < w$), for the plaintiff.¹² This co-payment is paid to the insurer. We also assume the monitor mechanism is effective. Thus, in stage 6, the attorney can not cheat in reporting her work hours.

Hence, the plaintiff's expected benefit can be written as:

$$EB = r[(1 - q)(pa - \beta\tau) + qs - \alpha] + (1 - r)(-\alpha) \quad (13)$$

where α is the insurance premium. As we mentioned in previous section, there is a participation constraint: $pa - \beta\tau \geq 0$.

The attorney is risk neutral with request to money. Her utility function is:

$$V = r(1 - q)[(w - c)\tau - G(\varepsilon)]. \quad (14)$$

Her participation constraint is $V \geq 0$.

The insurer has a profit function:

$$\pi = \alpha - r(1 - q)(w - \beta)\tau.$$

We assume the legal expenses insurance market is a competitive market. Thus:

$$\alpha = r(1 - q)(w - \beta)\tau. \quad (15)$$

Now we proceed to find the subgame-perfect equilibrium, and we start from Stage 5. Suppose that in Stage 1, the insurance-payment system is set,

¹²This setting follows Ellis & McGuire (1986).

and in Stage 2, nature determined that the plaintiff is involved in a legal dispute. Then, in Stage 3, the defendant rejected the plaintiff's settlement offer. In stage 4, the attorney chose her effort ε . The plaintiff chooses the plaintiff's work hour τ to maximize his expected benefit. His optimal choice of τ is given by the first-order condition of $pa - \beta\tau$ respect to τ , which is:

$$\beta = p_{\tau}a. \quad (16)$$

The equation (16) is the plaintiff's reaction functions against the attorney's choice of ε given the co-payment β . From (16), we derive the relationship between τ and ε , that is:

$$\frac{d\tau}{d\varepsilon} = -\frac{p_{\tau\varepsilon}}{p_{\tau\tau}}. \quad (17)$$

The equation (17) is the same as (4), so we adopt the definitions of substitutes and complements which follows (4). In Stage 4, anticipating the plaintiff's reaction, the attorney chooses ε to maximize her utility. In any subgame-perfect equilibrium, the plaintiff's choice τ and the attorney's choice ε are given by the solution of Program E:

Program E: For $\beta < w$, choose τ , and ε to maximize

$$(w - c)\tau - G(\varepsilon)$$

subject to $\beta = p_{\tau}a$.

Like in Section 2, we define an implementable set Ω^I :

$\Omega^I = \{(\tau, \varepsilon): \text{there exist } (\beta, w), \text{ with } 0 < \beta < w \text{ and } w \geq c, \text{ for which } (\tau, \varepsilon) \text{ solves Program E given } (\beta, w)\}$.

From the constraint of Program E, τ can be treated as a function of ε . The first derivation of the object function with respect to ε is:

$$(w - c)\frac{d\tau}{d\varepsilon} - G'(\varepsilon).$$

Since $\frac{d\tau}{d\varepsilon}$ is given by (17), above equation becomes:

$$- (w - c)\frac{p_{\tau\varepsilon}}{p_{\tau\tau}} - G'(\varepsilon). \quad (18)$$

The equation (18) is the same as (7). They give the same information that if τ and ε are complements, there exists ε which is above its minimum. If τ and ε are substitutes, since $w > c$, (18) is less than zero, the more effort the attorney invests into the case the less utility she can obtain. This implies that if τ and ε are substitutes, the pure hourly basis payment contract has no incentive to the attorney's effort in the case. Therefore, an alternative payment contract such like fixed fee, conditional fee, should be considered by the insurer.

PROPOSITION 4: *Since the relationship between the attorney's work hour and her effort is not clear, the pure hourly fee is not the best approach in the insurer's payment contract.*

Now, we go to Stage 2 to examine the settlement decision. Before the trial, the expected benefit of the plaintiff is:

$$EB = [1 - q(s)](p \cdot a - \beta\tau) + q(s) \cdot s^I. \quad (19)$$

Suppose there exists a (τ^*, ε^*) pair that $(\tau^*, \varepsilon^*) \in \Omega$ and also $(\tau^*, \varepsilon^*) \in \Omega^I$, we re-write (19) as:

$$EB = [1 - q(s)](p^* \cdot a - \beta\tau^*) + q(s) \cdot s^I. \quad (20)$$

Comparing (19) to (10), since $w > \beta$, to maximize his benefit in case of the insurance, the plaintiff will offer a higher value of settlement¹³. Furthermore, in this case the defendant is more likely to reject the offer. If we hold the principle that a "reasonable" insurance system should induce settlement rather than trial, the right of offering the settlement demand no longer belongs to the plaintiff. It should go to the insure. Hence, we can reach a conclusion that:

PROPOSITION 5: *Under hourly fees arrangement, the "reasonable" legal insurance not only transfers the plaintiff's obligations but also his re-*

¹³It is reasonable that an insured plaintiff can utilize more legal resources than those self-financed plaintiffs. Correspondingly, he would expect higher rewards both in settlement and trial.

lated rights to the insurer.

Moreover, in a system of the insurer determining the settlement offer, since the probability of settlement increase, from (15), the premium reduces. If so, as consumers, most insured clients are better off.

4 Conclusion

In this paper, we have introduced a missing market, which is the attorney's un-contractible effort, to analyze the economics of civil litigation under the hourly fees arrangement. Three points are highlighted as our conclusion. First, the argument of the "reasonable" hourly fees may never be solved. With the un-contractible effort, the attorney's wage is not the only incentive to produce the probability of prevailing. The interaction between the plaintiff and the attorney plays an important role in the result of the lawsuit. A reasonable hourly rate, which can align the conflict of preferences between the policy-maker and the plaintiff, may exist only when the attorney's work hour and her effort are complements. In the alternative situation, pure hourly fees arrangement itself is not fair. Second, if the plaintiff has the right to settle, the hourly rate does affect his settlement demand. If the reasonable rate exists, any other rates would reduce the value of the plaintiff's settlement demand and also the expected benefit of the lawsuit. Third, when the plaintiff is financed by the third-party, *e.g.* an insurer, those incentive problems should be considered in an insurance-payment system. We find that the hourly fees arrangement in attorney's payment contract may be plausible. And the insurance contract transfers both the plaintiff's obligation and related rights to the insurer.

References

- Bowles, R. & Rickman, N. (1998), 'Asymmetric information, moral hazard and the insurance of legal expenses', *The Geneva Papers on Risk and Insurance* **23**(87), 196–209.
- Brickman, L. (2003), 'Effective hourly rates of contingency-fee lawyers: Competing data and non-competitive fees', *Washington University Law Quarterly* **81**(3), 653–736.

- Cooter, R. D. & Rubinfeld, D. L. (1989), 'Economic analysis of legal disputes and their resolution', *Journal of Economic Literature* **27**(3), 1067–1097.
- Cooter, R. & Porat, A. (1993), 'Anti-insurance', *The Journal of Legal Study* **31**, 203–232.
- Ellis, R. & McGuire, T. (1986), 'Provider response to prospective payment: Cost sharing and supply', *The Journal of Health Economics* **2**(5), 129–51.
- Gravelle, H. & Waterson, M. (1993), 'No win, no fee: Some economics of contingent legal fees', *The Economic Journal* **103**, 1205–1220.
- Hay, B. L. (1996), 'Contingent fees and agency costs', *The Journal of Legal Study* **25**(2), 503–533.
- Kirstein, R. & Rickman, N. (2002), 'Third party contingency contracts in settlement and litigation', *German Working Papers in Law and Economics* **2002**(21).
- Laffont, J.-J. & Tirole, J. (1993), *A Theory of Incentives in Procurement and Regulation*, The MIT Press.
- Landes, W. M. (1971), 'An economic analysis of the courts', *The Journal of Legal Study* **14**(1), 61–107.
- Ma, C. & McGuire, T. (1997), 'Optimal health insurance and provider payment', *American Economic Review* **87**(4), 685–704.
- Polinsky, M. A. & Rubinfeld, D. L. (2003), 'Aligning the interests of lawyers and clients', *American Law and Economic Review* **5**(1), 165–188.
- Posner, R. A. (1979), 'An economic approach to legal procedure and judicial administration', *The Journal of Legal Study* **2**(2), 399–458.
- Santore, R. & Viard, A. D. (2001), 'Legal fee restrictions, moral hazard, and attorney rents', *The Journal of Law and Economics* **19**, 549–572.
- Shavell, S. (1982), 'Suit, settlement, and trial : A theoretical analysis under alternative methods for the allocation of legal costs', *The Journal of Legal Study* **11**(1), 55–81.