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# THE DUAL ORIGIN OF THE DUTY TO DISCLOSE IN ROMAN LAW

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# The Dual Origin of the Duty to Disclose in Roman Law<sup>\*</sup>

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## Abstract

The Roman law remedies for failure to disclose in sales contracts were developed by two different institutions: the *aediles*, with jurisdiction on market transactions effected through auctions, and the *praetor*, with general jurisdiction including private transactions. The aedilician remedies—the *actiones redhibitoria* and *quanti minoris*—allowed for rapid transactions and inexpensive litigation but generated some allocative losses *ex post*, as they did not enable the parties to exchange information about idiosyncratic characteristics of the goods for sale. In contrast, the remedy developed by the *praetor*—the *actio ex empto*—implied lengthier transactions and more expensive litigation but eliminated the *ex post* allocative loss, as it fully protected the buyers' idiosyncratic interests. Our analysis reveals that these Roman law remedies maximized the value of the underlying contracts and sheds new light on how differences in the lawmaking institutions affect the law produced by them.

*JEL classification:* K20, L22, L23, N83.

*Keywords:* restitution, contract damages, breach, duty of disclosure, *actio quanti minoris*, *actio redhibitoria*, *actio empti ad redhibendum*, on and off contract remedies.

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## 1 Introduction

To guarantee the good functioning of markets, it is crucial that buyers have the possibility to invoke legal protection if the goods they purchased turn out to lack essential characteristics. Two different institutions, the *aediles curules* (having jurisdiction on regulated cattle and slave markets) and the *praetor* (having general jurisdiction on contracts), developed remedies for nonconformity in sale contracts in Roman law. The aedilitian remedies gave buyers a choice between an off-the-contract remedy, determining the restitution of both the good and the price paid (*actio redhibitoria*), and an on-the-contract remedy, affirming the contract while reducing the price (*actio quanti minoris*).<sup>1</sup> Instead, the *praetor* initially provided a single on-the-contract remedy (*actio ex empto*), affirming the contract but allowing the buyer to claim damages (*damnum emergens*, close to the modern reliance damages), which could possibly go beyond the restitution of the price paid.<sup>2</sup>

Under pre-Justinian Roman law, aedilitian and praetorian remedies were strikingly different along three additional dimensions: first, the aedilitian remedies could be claimed only for a limited set of clearly enumerated defects, while the praetorian remedies were open-ended; second, the aedilitian remedies applied irrespective of the bad faith (*dolus*) of the seller, while the praetorian remedies required to prove the *dolus*; third, the aedilitian remedies were subject to short statutes of limitation—six months for the *actio redhibitoria* and one year for the *actio quanti minoris*<sup>3</sup>—while the praetorian remedies were not subject to prescription.

In this chapter, after offering some details on the lawmaking institutions and the remedies (Sections 3 and 4), we will show that the differences in the remedies were designed to maximize the value of transactions. The aedilitian remedies (*actio redhibitoria* and *actio quanti minoris*) maximized the value of a typical “market transaction” concluded between a professional seller and a private buyer in the markets that were under the jurisdiction of the *aediles*. In contrast, the praetorian remedy (*actio ex empto*) maximized the value of the typical “private transaction” concluded between two private parties outside a regulated market. In addition, the differences between these two sets of remedies allowed buyers to optimally choose between private and market transactions, thereby optimally opting into the two different sets of remedies and hence further

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<sup>1</sup> For an economic analysis of modern on- and off-contract remedies see Brooks and Stremitzer (2011; 2012).

<sup>2</sup> See Talamanca (1990:657-8) and Arangio-Ruiz (1956:237-9 and 242-3). An *actio empti ad redhibendum* (or *actio empti ad resolvendam emptionem*, reshinding the contract) is first attested in the imperial period. We will provide details on this remedy below in the text.

<sup>3</sup> These *actiones* could also be used to obtain a warranty against eviction from the seller (through *stipulatio*); in this case the terms were shorter. See Arangio Ruiz (1956:367-8).

enhancing their efficiency (Section 5). The availability of efficient boilerplate prescriptions reduces the need for ad hoc contractual arrangements and hence reduces transactions costs.

We focus our attention on the city of Rome.<sup>4</sup> The remedies we study developed at a time when the jurisdictions of the two magistrates were clearly distinct. The *aediles curules* were magistrates in charge of public order in markets where cattle and slaves were sold through auctions. As part of the *cura annonae*—concerning the good functioning of the markets and the distribution of foodstuff—they had the power of *iurisdictio* and adjudication only concerning controversies arising in the regulated markets. Most likely, they developed first the *actio redhibitoria* (plausibly, in the mid second century BC) and later the *actio quanti minoris* (plausibly before the first century BC).<sup>5</sup> The *praetor*, instead, had general jurisdiction on contracts, not limited to specific types of transactions. The *actio ex empto* was probably introduced in the third century BC.<sup>6</sup> Later, in the Augustan period (first century AD), the *praetor* also introduced an off-the-contract remedy, the *actio ex empto ad redhibendum*, including the possibility to obtain restitution. By the time of Justinian Corpus Iuris Civilis, both the *aediles* and the *praetor* gradually lost their initial independence in the administration of justice and the aedilitian remedies were extended to all kinds of sales. As a result, the aedilitian and praetorian remedies converged and blurred together. The timing of emergence and evolution of the different remedies, and especially the fact that in the aedilitian remedies the on-the-contract remedy followed the off-the-contract remedy, will be shown to be consistent with the view that the remedies were designed to maximize the value of transactions. We will conclude with some considerations on why both the *aediles* and the *praetor* so effectively catered to the interests of the contracting parties to whom their remedies were addressed (Section 6).

The core of our argument is as follows. Remedies for defects in sale contracts address a fundamental economic problem: the seller is usually better informed than the buyer about the characteristics of the goods for sale and might have incentives to conceal defects or misrepresent other characteristics. Both the aedilitian and the praetorian remedies addressed this problem but did so in different ways. The *aediles* allowed buyers a remedy only if the seller had not provided the correct information about the quality of the goods. All buyers value goods of higher quality (for instance, a trustworthy slave) more than goods of lower quality (for instance, a slave prone to theft).

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<sup>4</sup> But see TPSulp. 42, l. 1-2, and TPSulp., l. 3-4 with references to the aedilitian edict, showing the validity of the remedies within the Italian territory.

<sup>5</sup> See Donadio (2004:40-54, especially 45)

<sup>6</sup> See Donadio (2004:37-8 and 2007:510-11). Cf. Watson (1987:167-75).

Other idiosyncratic characteristics of the goods (for instance, specific slave skills, such as baking) that might be important for some individual buyers but not for others were left out of the reach of the aedilician remedies. This allowed for quick transactions (only information about quality was exchanged) and fast dispute resolution (only some predefined quality markers were subject to scrutiny *ex post*). In addition, the buyer did not need to prove the bad faith of the seller, which further simplified and accelerated dispute resolution. Finally, quality was relatively easy to verify after the purchase, so that the statute of limitation for the aedilician remedies could be short. In turn, a short statute of limitations reduced the cost of having some goods returned to innocent sellers—those who had misled the buyer in good faith. The downside of the aedilician remedies was that they did not allow for an effective exchange of information about idiosyncratic characteristics of the good prior to the contract, which had a negative effect on the value of the transaction in all those cases in which a buyer valued such characteristics.

In contrast, the praetorian remedy allowed for the verification of both quality and idiosyncratic characteristics but limited the liability of the seller to cases of bad faith. This made trials potentially longer and more expensive but had two positive effects. On the one hand, sellers had incentives to reveal more information than under the aedilician remedies, which increased the value of the transaction for those buyers who valued idiosyncratic characteristics besides quality. On the other hand, sellers were not liable for innocent misrepresentation, which had a dampening effect on prices as did not include in the contract an implicit insurance against such an eventuality. The praetorian remedies were not subject to prescription. This was likely due to the fact that some characteristics might become evident after a long time, hence the buyer needed to be given more time in order to have effective protection; moreover, since goods were not returned to the seller under the *actio ex empto*, the absence of a prescription period did not expose the seller to resale risk. The measure of compensation could not be established in relation to a market price due to the private nature of the transaction; therefore, damages were calculated according to the buyer's negative interest, that is, his situation before the contract.

Typically, buyers involved in market transactions were most likely those with little interest in idiosyncratic characteristics, while those looking for specific slaves or cattle would probably self-select into private transactions. As a result, the transactions that fell under the jurisdiction of the aediles were those for which the aedilician remedies were most effective—and, hence, buyers had, even if given a choice, no incentives to opt for a praetorian remedy. Likewise, the transactions that fell under the jurisdiction of the *praetor* were those involving idiosyncratic buyers who valued the extended protection given by the praetorian remedies. In the following, we will elaborate upon and

demonstrate these claims.

## 2 Institutions and remedies

### 2.1 Institutions

The praetorship was created in 367 BC to take over some of the duties of the consuls. In exchange for opening the consulship to plebeians, the patricians obtained that the *praetor* would be a patrician. Yet, the first plebeian *praetor* was elected as early as 337 BC, so that the praetorship cannot be defined as a patrician institution. The *praetor*, elected by the tribal assembly (the *comitia tributa*),<sup>7</sup> had the power of *iurisdictio*, that is, to resolve disputes between litigants<sup>8</sup> and of *ius edicendi*, that is, the power to issue an edict listing the remedies that were available to litigants during the year. This gave successive praetors the power to introduce new remedies and, *de facto*, to make law. This power was limited by successive reforms during the imperial period, starting with the emperor Hadrian, which slowly centralized the administration of justice in the hands of the imperial bureaucracy.

The *aediles* were lower-ranking plebeian magistrates created in 449 BC<sup>9</sup> and elected by the Plebeian Council (*concilia plebis*) with the task to collaborate with the main plebeian magistrates, the *tribunes*, in overseeing and policing markets. Two additional patrician *aediles* elected by the *comitia tributa* were added probably after 367 BC. Like the *praetor*, also the *aediles* were in charge for one year and their functions included the *cura urbis* (the management of the city roads, baths and buildings), the *cura ludorum* (the management of the public games), and the *cura annonae* (the control and policing of the city markets<sup>10</sup>). The *aediles* had limited coercive powers, including the power to issue fines and, within their prerogatives concerning markets, *iurisdictio* and *ius edicendi*, the power to resolve disputes and issue an annual edict listing remedies available to litigants.

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<sup>7</sup> The *comitia tributa* were a gathering of the Roman citizens divided into thirty-five tribes. Each tribe had one vote irrespective of the number of its members. The *praetor* was in charge for one year and his main function, but not the only one, was the administration of justice.

<sup>8</sup> The *praetor urbanus* had jurisdiction on disputes between Roman citizens. Proceedings before the *praetor* were *in iure*: the *praetor* would typically give the parties a *formula*, stating the parties' claims and instructing the *iudex* to verify the facts and award a remedy accordingly. From the third century BC, a *praetor peregrinus* with jurisdiction on disputes involving foreigners was added to the *praetor urbanus*. The number of praetors was increased over time as the empire grew.

<sup>9</sup> See the *lex Valeria Horatia de tribunicia potestate*.

<sup>10</sup> On permanent and periodic markets see de Ligt (1993) and de Ligt and de Neeve (1988:391-416). Cf. also Lo Cascio (2000).

However, differently from the *praetor*'s edict, the edict of the *aediles* was limited to the remedies necessary to resolve the disputes arising in the markets under their jurisdiction.<sup>11</sup>

Therefore, the aedilitian remedies and, in particular the *actio redhibitoria*, were created as specific solutions for cases in which the seller had failed to disclose a particular defect (*vitium*) to the buyer prior to a sale effected in markets where cattle and slaves were traded.<sup>12</sup> Sales in these markets were typically executed through an open ascending price auction (now known as English auction): goods were offered for sale by an auctioneer (*praeco*) for a base price and assigned to the highest bidder.<sup>13</sup> The auctions were announced in advance (TPSulp. 83-86, 88, 90-93)<sup>14</sup> and organized by a banker (*argentarius* or *coactor*)<sup>15</sup> who could also lend money to the buyer.<sup>16</sup> If the banker was hired by the seller—normally through a contract of hire, *locatio conductio*<sup>17</sup>—he could also guarantee (*promissio auctionatoris*; Donadio 2011) the payment of the price after having deducted the expenses for the organization of the auction (TPSulp. 81; D. 46.3.88.5). As with the *praetor*, also the edict of the *aediles* gradually lost importance during the imperial period.

## 2.2 Remedies

It is not known when exactly the aedilitian remedies were introduced. However, it seems certain that the aediles introduced first the *actio redhibitoria* (most likely before the second century BC; Donadio 2004:45) and later the *actio quanti minoris* (most likely before the first century BC; Cic., *de off.* 3.17.71 and 3.23.91; Jakab 1997:126-27). Both remedies imposed on the seller a duty to disclose whether the good for sale was affected by any of the defects indicated in the aedilician edict. Failure to do so gave rise to the buyers' right to ask for a remedy. Note that not all defects were relevant but only those listed, although later the jurists tried to give an expansive interpretation of such list.

Legal and epigraphic sources provide examples of slaves who are considered defective (wandering or runaway slaves) or diseased (dumb, shortsighted, or dim-sighted: D. 21.1.9, Ulp. 44

<sup>11</sup> On the aedilitian edict as *portio iuris honorarii* see Guarino (1955 and 1956). Cf. Volterra (1955 and 1956).

<sup>12</sup> See Serrao (2000). Cf. Donadio, (2007:464 and fn. 11) with additional literature references. On the economic analysis of the aedilician remedies see Kupisch (2002:21-54 esp. 41 fn. 74).

<sup>13</sup> On modern auction theory see Krishna (2002); McAfee and McMillan (1987). On the function of auctions in the Roman period see Malmendier (2002:101-05). Cf. Ankum (1972:377-93).

<sup>14</sup> TPSulp. 81 describes a case in which the intermediary lends money to the buyer to pay the seller. TPSulp. 90-93 documents instead cash payments by the buyer. For epigraphic evidence see Camodeca (1999:185-206); Gröschler (1997:35-38). Cf. Wolf (2010:105-21) and Bove (1975:322-31).

<sup>15</sup> See Andreau (1974:77-81).

<sup>16</sup> See the *apochae Iucundianae* (for ex. CIL IV 3340, 1-137) and TPSulp. 82. For more details see Camodeca (1999:185).

<sup>17</sup> On the *locatio conductio* see Thielmann (1961). Cf. Thomas (1966) and Bove (1975:327).

*ad Sab.*; D. 21.1.10.3 and D. 21.1.10.4, Ulp. 1 *ad ed. aed. cur.*). A well-known text by the jurist Ulpian (D. 21.1.1.1, Ulp. 1 *ad ed. aed. cur.*) states that “[t]hose who sell slaves are to apprise purchasers of any disease or defect in their wares and whether a given slave is runaway, a loiterer on errands, or still subject to noxal liability [...] Again vendors must declare at the time of sale all that follows: any capital offense committed by the slave; any attempt which he has made upon his own life; and whether he has been sent into the arena to fight wild animals”.<sup>18</sup>

With the *actio redhibitoria*<sup>19</sup> the buyer returned the good and asked for the restitution of the price paid, obtaining a result that tended to restore the *status quo ante* (*in integrum restitutio*; D. 21.1.23.7; D. 21.1.60). The responsibility of the seller was independent of his actual knowledge of the defect and hence was not based on his bad faith.<sup>20</sup> Yet, Ulpian adds that “[i]f a defect in or disease of the slave be perceptible (and defects reveal themselves generally through symptoms), it may be said that the edict has no place; its concern is simply to ensure that a purchaser is not deceived” (D. 21.1.6, Ulp. 1 *ad ed. aed. cur.*). The ordinary prescription period was six months from the day on which the contract of sale was concluded.

Instead, with the *actio quanti minoris*,<sup>21</sup> which was introduced with respect to the sale of cattle and then extended to the sale of slave, the buyer affirmed the contract but asked for the reduction of the price. A *iudex* would then calculate the new price with reference to the going market price for a similar (but defected) good. Also in this case, the responsibility of the seller was not based on his bad faith. The ordinary prescription period was one year from the day the contract was concluded.<sup>22</sup>

The praetorian remedy, the *actio ex empto*, was older than the aedilician remedies (third century BC) and gave the buyer the possibility to ask for damages, while affirming the contract. Understandably, since there was no market price to refer to, damages had to be calculated according to the buyer’s negative interest (*damnum emergens*) and were meant to make the buyer whole with respect to his position prior to the contract. Damages did not include the buyer’s lost profits (*lucrum cessans*) but only his reliance expenditures and the difference between the price paid and his valuation of the good, which approximated the price that the buyer would have paid rather than the objective market price. Differently from the aedilician remedies, the *actio ex empto* required proof

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<sup>18</sup> For this and other quotes we use the English edition of the Digest by Watson (2009).

<sup>19</sup> See Arangio-Ruiz (1956:353-58); Burdese (1975:594-600); Donadio (2004:173-177); Garofalo (1998:57 f.); Guarino (1955:295-96; 1956:352-57); Jakab (1997:127-29); Manna (1994:137-46); Memmer (1990:1-45); Volterra (1955:3-7); Watson (1965:86ff.).

<sup>20</sup> See Hallebeek (2009:10-179).

<sup>21</sup> Donadio (2007:518-522); Arangio Ruiz (1990:384, 391); Giffard (1931:682 ff.).

<sup>22</sup> See Talamanca (1990:591).

of the seller's bad faith but could be used to claim any kind of defect and was not subject to prescription.<sup>23</sup> As a result, the *praetor* could consider the idiosyncratic interests of the buyer with respect to the good purchased and not only the quality indicators listed by the *aediles*.

The *actio ex empto* affirmed the contract. During the Augustan period there are traces of an *actio empti ad redhibendum*,<sup>24</sup> giving the buyer the possibility to ask for restitution, an innovation first advocated by the jurist Labeo (D. 19.1.11.3, Ulp., 32 *ad ed.*). This was a later innovation, anticipating a gradual convergence of the remedies as the functions of both *aediles* and *praetor* were absorbed by the imperial administration of justice. Table 1 summarizes the differences between the three original remedies.

	Aedilitian remedies		Praetorian remedies
	<i>Actio redhibitoria</i>	<i>Actio quanti minoris</i>	<i>Actio ex empto</i>
Effect	Contract undone	Contract affirmed	Contract affirmed
Seller's liability	Restitution of the price	Reduction of the price	Reliance damages
Seller's bad faith	Not relevant	Not relevant	Relevant
Type of defect	Only listed defects	Only listed defects	Any defect
Prescription	Six month	One year	No prescription

Table 1. Aedilitian and praetorian remedies.

Although there has been a long discussion as to the relationship among these remedies,<sup>25</sup> it seems clear that the aedilitian remedies could be given only by the *aediles* within their jurisdiction and, likewise, the praetorian remedy could only be awarded by the *praetor*. Thus, buyers seeking a specific form of protection had to file a case in the corresponding court. A buyer in a private sale could only file with the *praetor* using the *actio ex empto*, since the *aediles* had no jurisdiction outside the regulated markets. A buyer in a market sale could file with the *aediles* and choose between restitution (*actio redhibitoria*) and price reduction (*actio quanti minoris*). In addition, given the general jurisdiction of the *praetor* it seems plausible that a buyer in a market sale could also file with the *praetor* using the *actio ex empto* (Donadio 2004:34). Therefore, a buyer who felt that the aedilitian remedies did not fully protect his interests could choose to file a case with the *praetor*. Yet, as we will argue, this latter option was probably not in the interest of buyers and

<sup>23</sup> Donadio (2007:458 fn. 7 and 510-518).

<sup>24</sup> Serrao (1959:267-71); Vacca (1994:60 ff.).

<sup>25</sup> See Donadio (2004) for a detailed review of this debate.

hence, although there are no data to support this claim, was probably used infrequently.

### 3 Asymmetric information and symmetric ignorance in sale contracts

In a typical sale contract, sellers have more information than buyers about the quality of goods for sale, a problem known as asymmetric information.<sup>26</sup> A feature of “quality” is that it has a common ranking for buyers. This is not to say that all buyers attach the same value to goods—valuations do indeed typically differ across individuals—but rather that all buyers value high-quality goods more than low-quality goods. As a result, sellers could exploit their informational advantage to the detriment of buyers, by selling low-quality goods as if they were high-quality goods. Uncertainty about quality makes buyers wary and unwilling to pay high prices. This in turn makes it unattractive for sellers to sell products of high quality and generates a downward spiral that drives high-quality products out of the market (adverse selection; Akerlof 1970). This well-known problem can be solved by imposing a legal duty to disclose information about quality on sellers, which in turn can be sustained by penalties for failure to do so (Kronman 1978). We will show that both the aedilician remedies and the praetorian remedies addressed this problem.

Yet, reality is often more complex than that. Goods for sale might have other “idiosyncratic characteristics”, which, in contrast to quality, buyers rank differently. To clarify, a buyer might be willing to pay more for a slave baker rather than for a slave actor, while another buyer might have the reverse preferences. Buyers’ preferences are typically private information. Thus, as long as a seller does not know a specific buyer’s idiosyncratic preferences, he cannot exploit his informational advantage about the good’s idiosyncratic characteristics. This state of “symmetric ignorance” (Barzel et al. 2006) might actually facilitate trade if compared to asymmetric information: since both parties are uninformed, they could trade all goods for their expected value, without fear of being exploited. Ex ante, neither party has an incentive to strategically withdraw from trade and, hence, the adverse selection problem does not arise.<sup>27</sup>

In contrast to asymmetric information, there are two ways to deal with symmetric ignorance. One solution requires inducing buyers to reveal their type to sellers and, subsequently, imposing a

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<sup>26</sup> On the historical development of the legal relevance of information disparities see Decock and Hallebeek (2010:89-133).

<sup>27</sup> It is worth noting that, if the buyers learned about the good’s characteristics they would be better informed than sellers and an inverse-adverse-selection problem would arise, due to the fact that buyers could exploit their informational advantage to the detriment of sellers (Barzel et al. 2006).

duty to disclose upon sellers. As we will demonstrate, this was the effect of the praetorian remedy. Another solution consists of preventing the parties from exchanging information, thereby avoiding that a situation of symmetric ignorance might degenerate into one of asymmetric information. Yet, in this case, a buyer might end up with a good having undesired characteristic. We will show that this was the effect of the aedilician remedies. It is worth nothing that both sets of remedies were designed to assure that trading parties had the same information (or lack thereof).

### 3.1 A simple model

In this section, we sketch a very simple model of sales. The model is meant to capture the essential features of the transactions that generated the cases brought before the Roman magistrates and hence disregards many important details of these transactions. Yet, the stylized transactions that we describe in the following provide the basic ingredients of our argument.

We consider a typical transaction between two parties, a seller and a buyer, for the sale of a good. Sellers are homogeneous, while buyers are of two types: one half of the buyers are of type *A* (for instance, they run a business in which they employ *actors*) while the other half are of type *B* (for instance, they run a business in which they employ *bakers*).

		<i>Idiosyncratic characteristic</i>				<i>Idiosyncratic characteristic</i>				<i>Idiosyncratic characteristic</i>	
		<i>A</i>	<i>B</i>			<i>A</i>	<i>B</i>			<i>A</i>	<i>B</i>
<i>Quality</i>	<i>H</i>	$q + c$	$q$	<i>Quality</i>	<i>H</i>	$q$	$q + c$	<i>Quality</i>	<i>H</i>	$h$	$h$
	<i>L</i>	$c$	$0$		<i>L</i>	$0$	$c$		<i>L</i>	$l$	$l$
		Buyer <i>A</i>				Buyer <i>B</i>				Seller	

Table 2: Buyers' and seller's valuations of the goods.

Goods for sale can be distinguished along two dimensions: quality and idiosyncratic characteristics. Quality can be either high (*H*) or low (*L*), so that one half of the goods have high quality (for instance, a healthy slave) and one half of the goods have low quality (an unhealthy slave). The idiosyncratic characteristic of the good can be either *A* (for instance, the slave is an actor) or *B* (the slave is a baker). The crucial difference between quality and idiosyncratic

characteristics is that all buyers value high quality more than low quality, while they value the idiosyncratic characteristic in an idiosyncratic way: buyer *A* prefers good *A* while buyer *B* prefers good *B*. To operationalize these ideas, let us specify the buyer's valuations as in Table 2: high quality is valued at  $q$  by both buyers; further, each buyer attaches a value  $c$  to his preferred characteristic. The valuation of a good by a certain buyer is simply assumed to be the sum of these two values. Ideally, an efficient market should allocate goods with characteristic *A* to buyers of type *A* and goods with characteristic *B* to buyers of type *B*. Finally, the seller values high-quality goods at  $h$  and low-quality goods at  $l$ , irrespective of their characteristics.

In an ideal world with complete information, all transactions would be efficient. However, in the real world, inefficiencies can arise because of asymmetric information. Typically, sellers know more about the goods for sale than buyers; hence, we assume that sellers know the quality level and the idiosyncratic characteristics of the goods, while the buyers only know their probabilities. This is a plausible assumption because learning about, say, a slave takes time and sellers might have acquired this information prior to the sale. Conversely, buyers know their own preferences. This bilateral asymmetric information can lead to inefficiencies. To illustrate, consider an example.

If goods were sold without regard to asymmetric information, the price for a representative good would be somewhere between the buyer's expected valuations, which is equal to<sup>28</sup>  $(q + c) / 2$ , and the seller's average valuation, which is equal to  $(h + l) / 2$ . If, for instance,  $q = 120$ ,  $c = 60$ ,  $h = 100$  and  $l = 20$ , all goods could in theory be sold irrespective of quality and idiosyncratic characteristics, because the expected buyer's valuation,  $(120 + 60) / 2 = 90$ , is higher than the average seller's valuation for the same goods,  $(100 + 20) / 2 = 60$ , and hence there is a price in between these values (say, 75) that would make both of them better off.

However, the well-known problem of adverse selection (Akerlof 1970) might impair some or all of these transactions. To see why, consider that the seller knows the quality of the good and he values high-quality goods at 100. Hence, although on average the seller makes a gain by selling all goods at, say, 75, he makes an even bigger gain if the good is of low quality; this gain is partially offset by a loss associated with goods of high quality, which are sold below value. Thus, if the price is less than 100, the seller, having information on quality, will withdraw high-quality goods from the pool of goods for sale. Since the maximum price that a buyer is willing to pay for a good of unknown quality is 90, the only goods that the seller will put on the market are low-quality goods,

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<sup>28</sup> The buyer does not know the level of quality and the idiosyncratic characteristic of the good but knows that half of the goods have high quality and that half of the goods have his preferred characteristic. Therefore, the expected value of a good is  $q / 2 + c / 2$ .

those goods that the seller values at less than 90. If buyers anticipate the seller's behavior, as they should rationally do, they will expect to be sold only low-quality goods and hence their willingness to pay will drop to<sup>29</sup>  $c / 2 = 30$ . In turn, since the seller values low-quality goods at 20, the price will be between 20 and 30 (say, 25). The result is that the market shrinks, with only low-quality goods being sold due to asymmetric information and the ensuing adverse selection problem—which, in turn, drives high-quality goods out of the market and pushes prices down.

Note that if the seller could communicate the information he possesses about quality, high- and low-quality goods could be sold at different prices. Buyers are willing to pay  $120 + 60 / 2 = 150$  for a high-quality good with uncertain idiosyncratic characteristics, which the seller is willing to sell for at least 100. The problem with this is that information exchange needs to be supported by penalties for reticent or fraudulent behavior. Absent such penalties, the seller's claims about the quality of the goods for sale are not credible and hence information cannot be effectively exchanged. Both the *praetor* and the *aediles* developed remedies to address this problem and, more specifically, to allow information exchange about quality.

Note further than exchanging information about quality is not enough to ensure perfect matching, since *A*-goods could still end up in the hands of *B*-buyers and *B*-goods in the hands of *A*-buyers. If buyers knew the idiosyncratic characteristics and sellers knew the buyers' types, high-quality goods could be traded for a price between  $120 + 60 = 180$  (the buyer's valuation of his preferred good) and 100 (the seller's valuation), while low-quality goods could be traded for a price between 60 and 20. With full information, *A*-buyers would buy *A*-goods and *B*-buyers would buy *B*-goods. By ensuring perfect matching ex post, full information would enhance the value of the transaction for both parties. The remedies introduced by the *praetor* and the *aediles* addressed this problem in diametrically different ways. While the praetorian remedies stimulated exchange of information about idiosyncratic characteristics—striving to achieve symmetric information on both dimensions—the aedilitian remedies impaired it—leaving the parties symmetrically ignorant about idiosyncratic characteristics but symmetrically informed about quality.

### 3.2 Transactions before the *aediles*

The typical transaction within the jurisdiction of the *aediles* involved a professional seller selling goods through an auction. Since an auction does not involve negotiations, the seller did not learn the buyer's type. Similarly, the buyer remained uninformed about the goods' idiosyncratic

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<sup>29</sup> Recall that the buyer still buys without knowing the idiosyncratic characteristic in this basic setup.

characteristics and quality, since transactions were closed rapidly and the buyer normally did not have enough time to thoroughly inspect the good. Therefore, asymmetric information persisted both with respect to quality and with respect to idiosyncratic characteristics.

The extent to which parties could credibly exchange information depended on the penalties that the aedilician remedies placed on false or reticent information. The *aediles* liability regime was as follows:

1. Scope: a seller was liable only for defects pertaining to quality, which were listed by the *aediles*.
2. Subjective knowledge: the seller's subjective knowledge was irrelevant (no inquiry about *dolus*).
3. Remedy: the buyer could choose between restitution (*actio redhibitoria*) and reduction of the price (*actio quanti minoris*).
4. Prescription: short prescription terms.

The aedilician remedies supported information exchange only with respect to quality, so that sellers had incentives to reveal information about quality and buyers could rely on it. This solved the adverse selection problem examined above. With respect to the idiosyncratic characteristics, both parties lacked some piece of information and hence none of the party was in a position to exploit his superior knowledge. Since the buyer ignored the good's idiosyncratic characteristic and the seller ignored the buyer's type, the parties were in fact in a position of symmetric ignorance. Therefore, goods were mismatched with some probability. In our simple model, half of the goods are sold to the "wrong" buyer: an *A*-buyer could end up with a *B*-good or vice versa. The aedilician remedies induced transactions that were partially inefficient. In our simple model, we can measure this inefficiency precisely: it is  $c / 2$ , because in half of the cases the good is sold to the buyer who values it the least and hence a value  $c$  is lost.<sup>30</sup>

Yet, this allocative disadvantage was balanced by a reduction in the overall costs of the transactions, due to the other features of the aedilician remedies:

- Market expediency: transactions were fast and did not involve lengthy negotiations precisely because information exchange was limited to important quality features and could be standardized through, for instance, the use of placards at auctions, the *tituli*.
- Market effectiveness: if quality turned out to be low, buyers could retain the good for a

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<sup>30</sup> We implicitly assume that all goods would be sold under perfect information. This assumption is inessential for the qualitative results of the analysis.

lower price, if they wished to do so; this reduced the need for additional transactions *ex post* since some buyers might value the good even if the good was of low quality and hence they would have bought it (for the lower price) even if they had been informed. In such cases, restitution is inefficient and price reduction is a better alternative.

- Low litigation costs: if problems arose, litigation was rapid and probably not very costly, since it only involved the verification of predetermined quality markers and did not require an inquiry into the seller's subjective knowledge.
- Convenient allocation of risk: the seller bore the risk of unnoticed quality failures because he was liable even if he did not know that quality was low. This was optimal, given that a professional seller was better placed to resell goods than a buyer and because this risk was reduced by the short statutes of limitation, which allowed for the quick reselling of the goods that were returned to the seller through the *actio redhibitoria*.

### 3.3 Transactions before the *praetor*

The typical transaction before the jurisdiction of the *praetor* involved a seller who sold a good directly to a buyer. During the negotiations prior to the contract, the seller could learn the buyer's type. For instance, the buyer searched for a good with specific characteristics (say, a slave baker) and thereby revealed his type. In this case, the seller became asymmetrically better informed along both dimensions and hence had an incentive to convey incorrect information both about quality and about idiosyncratic characteristics. As a result, the praetorian remedies were designed to induce information exchange by sellers along both dimensions:

1. Scope: a seller was liable for all defects, not only those pertaining to quality.
2. Subjective knowledge: the seller's subjective knowledge was relevant (the buyer needed to prove *dolus*).
3. Remedy: the *actio ex empto* allowed the buyer to receive damages equal to the difference between the price paid and the value of the good to him (*damnum emergens*).
4. Prescription: no prescription term.

The praetorian remedy induced information exchange along both dimensions and hence obtained a more efficient matching between goods and buyers, thereby removing the efficiency loss typical of the aedilician remedies. This was done at the price of inferior market expediency, since negotiations took probably longer and were more involved, and higher litigation costs, since the

inquiry also concerned the idiosyncratic characteristics of the good and the subjective knowledge of the seller.

Since the remedy of the *actio ex empto*, at least until the introduction of an *actio empti ad redhibendum*, did not allow for the restitution of the good but only for the payment of damages, ex post market effectiveness was also lower. Some goods that the buyer would not have bought under perfect information remained nevertheless in his possession—at least until they were resold. Moreover, the praetorian remedies induced a different allocation of risk than the aedilitian remedies. Since the seller was only liable with *dolus*, the buyer bore the risk of quality failures or of unsatisfactory characteristics that the seller innocently ignored. Assigning more risk to the buyer occurred in account of the fact that sellers were not necessarily professionals and hence it was not necessarily optimal to shift liability to them.

### 3.4 The buyers' choice of market versus private transactions

In the model, buyers with a large appreciation of idiosyncratic characteristics compared to quality (large  $c$  relative to  $q$ ) have an incentive to self-select into personal transactions. They care about obtaining the good of their preferred type and are willing to bear the higher quality risks (due to the fact that liability is only for *dolus*) and the larger negotiation and litigation costs associated with operating under the praetorian remedies. In contrast, buyers characterized by a low appreciation of idiosyncratic characteristics relative to quality (small  $c$  relative to  $q$ ) have an incentive to self-select into market transactions and hence accept the risk of not obtaining the good of their favorite type and, in exchange, face less risk about quality and smaller negotiation and litigation costs.

The buyers' behavior enhanced the efficiency of the remedies. The aedilitian remedies suffered from inefficient matching, but this problem was less severe if buyers who chose market transactions were, as we postulate, characterized by small appreciation for idiosyncratic characteristics. Hence, the cost-saving properties of the aedilitian remedies could be advanced without much loss in terms of allocative efficiency. This argument also suggests that buyers who initially chose market transactions were unlikely to be willing to opt for the praetorian remedies and their higher resolution costs. In turn, buyers who chose personal transactions were characterized by a large appreciation for idiosyncratic characteristics, which made the costs associated to the praetorian remedies worth bearing.

## 4 Analysis

### 4.1 The aedilitian remedies

The aedilitian remedies applied to contracting parties that interacted in the cattle and slave markets of Rome, in which sales were effected through auctions. Since sellers did not generally have the possibility to interact with buyers prior to the sale, they were not in a position to learn about a buyer's preferences and hence could not easily exploit their private information about the idiosyncratic characteristics of the goods for sale. The aedilitian remedies left buyers' interests in idiosyncratic characteristics unprotected: buyer could only claim the remedies if the seller had withheld information about the quality characteristics listed in the *aediles'* edict, which did not allow the *aediles* to consider a buyer's idiosyncratic interests.

Therefore, sellers could, if they wanted, give misleading information about characteristics of the goods other than quality. This apparently inefficient solution in fact allowed for quick transactions. Sellers would expose the goods for sale (cattle or slaves) together with a placard (*titulus*) indicating possible defects, the slave's nationality and other standard quality markers.<sup>31</sup> Since the only meaningful exchange of information could pertain quality, sellers and buyers would not engage in lengthy negotiations but rather traded on the basis of standardized procedures.

The aedilitian remedies, however, gave sellers incentives to reveal information about quality truthfully and, in turn, induced buyers to rely on such information. If a buyer discovered that the good he purchased had one of the defects listed in the edict, which the seller had not disclosed, he could choose between the *actio redhibitoria* (restitution) and the *actio quanti minoris* (price reduction). This choice assured that buyers never paid more than their willingness to pay, irrespective of the quality of the goods purchased. To clarify, the market generated, say, two prices: a high price for high-quality goods and a low price for low-quality goods. The *actio quanti minoris* adjusted downwards the price of goods with undisclosed defects, so that the seller had to pay back to the buyer the difference between the high price and the low price. Since buyers' valuations vary, a buyer who had purchased a good for a high price under the assumption that the good was of high quality might not want to retain the good once he discovered that the good was of low quality even

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<sup>31</sup> About *tituli* Gellius (Noctes Atticae 4.2.1) reports that “*Titulus servorum singulorum scripto sit curato ita, ut intellegi recte possit, quid morbi vitiiue cuique sit, quis fugitivus errove sit noxave solutus non sit.*” (“See to it that the sale ticket of each slave be so written that it can be known exactly what disease or defect each one has, which one is a runaway or a vagabond, or is still under condemnation for some offence.” Translated by John C. Rolfe.) The text suggests that, by reading the *titulus*, purchasers obtained information about diseases, defects, noxal liability, propensity for stealing or loitering, which might reduce the value of the slave.

if the price was reduced. In this case, the buyer could opt for the *actio redhibitoria*. If instead the buyer was willing to buy a low-quality good, he could choose the *actio quanti minoris*.

These considerations also explain why the *actio redhibitoria* emerged earlier than the *actio quanti minoris*. Restitution is a safer remedy from the perspective of buyers as it brings the buyer back to the *status quo ante*. In contrast, price reduction could make some buyers worse-off with respect to the *status quo*, because it might impose a loss on buyers who have a very low valuation for low-quality goods, and hence are unwilling to buy a low-quality good for a low price. Assuming plausibly that buyers faced high transaction costs when reselling goods, this outcome would be inefficient *ex post* as would not optimally allocate goods to buyers.

Yet, in combination with the *actio redhibitoria*, the *actio quanti minoris* enhanced the overall efficiency of the aedilitian administration of justice. In fact, it allowed buyers who were willing to retain low-quality goods to do so, thereby saving on the transaction costs generated by returning the goods and offering them for sale at the next market. On the seller's side, the buyer's choice was relatively inconspicuous since most sellers were professionals who sold both high-quality and low-quality goods for the market price. Therefore, if the buyer decided to retain the good, we can assume that the seller was still willing to sell for the low price.

In addition, both remedies had short prescription periods. This was possible due to the fact that only quality needed to be verified by buyers. In addition, this allowed returned goods to be resold relatively quickly and hence reduced the resale costs borne by sellers. This was an important feature of the aedilitian remedies. Since both remedies applied irrespective of bad faith (*dolus*), sellers were in fact obliged to offer an implicit insurance against the eventuality that an unnoticed defect might materialize. It was probably efficient to allocate the risk of unnoticed defects to sellers due to the professional nature of most sellers and also because this risk was reduced by applying relatively short prescription periods.

Summing up, the aedilitian remedies allowed for quick transactions—because they reduced the amount of information that the parties exchanged—and for quick, relatively inexpensive trials—since they only allowed litigation on quality and did not examine *dolus*. Moreover, by offering buyers a choice between undoing and affirming the contract, they optimized the *ex post* allocation of goods to buyers with respect to quality. Short prescription periods reduced the risk to sellers. Yet, the downside was a loss of efficiency *ex post*: since sellers could not credibly reveal information about idiosyncratic characteristics, buyers might end up with goods having undesired characteristics. The magnitude of this loss depended on how much buyers valued idiosyncratic characteristics. This problem was addressed by the praetorian remedy.

## 4.2 The pretorian remedies

The *praetor* initially offered only one remedy, the *actio ex empto*, affirming the contract and awarding damages to the buyer. This remedy principally concerned private transactions—where buyers and sellers negotiated and exchanged information more intensely than in an auction—and only secondarily to market transactions. In private transactions, a buyer looking for a specific good (for instance, a slave actor) would implicitly reveal his type to the seller and hence put the seller in a position to exploit his informational advantage both about the good's quality (for instance, whether the slave was prone to theft) and about its idiosyncratic characteristics (for instance, whether the slave was a good actor). Therefore, the buyer needed protection along both dimensions. Accordingly, the *actio ex empto* could be used to claim damages for undisclosed information about any characteristic of the good.

Since both parties in a private transaction were likely to be private individuals rather than professional sellers, it is not obvious that the seller was in the best position to bear the risk of unnoticed negative characteristics. The *actio ex empto* awarded damages only in case of bad faith (*dolus*), thereby allocating this risk to the buyer. Since unnoticed characteristics could also be of positive value, the buyer bore in fact offsetting risks of both negative and positive discoveries.

This also explains why there was no prescription period: a buyer needed time to verify the characteristics of the good and to collect information about the seller's prior knowledge. The natural decay of evidence over time implicitly constrained the date within which a successful suit could be brought.

Moreover, since he was dealing with private transactions, the *praetor* could not refer to the market price of a good having different characteristics from those claimed by the seller as there generally was no such market price. Hence, the compensation paid to the buyer was in the form of negative-interest damages, designed to bring the buyer back to his position before the contract and including damages beyond the price paid. This also shows that the *actio ex empto* did not have the same problems observed for the *actio quanti minoris* because it took into account each buyer's private valuation for the good.

This system made negotiations and trials more complex and possibly more expensive but allowed a more effective exchange of information and hence supported private transactions that allocated goods ex post to buyers more efficiently than the aedilitian markets did, especially with respect to those buyers who valued idiosyncratic characteristics.

## 5 Forum shopping

Contractual parties had an opportunity to choose between praetorian and aedilitian remedies at two points in time. First, buyers and sellers could decide whether to trade in a market or through private transactions. If they opted for a private transaction, they would then fall under the exclusive jurisdiction of the *praetor*. If instead they opted for a market transaction, the buyer could possibly have a choice between filing a case with the *aediles* or with the *praetor*.

We have shown that the aedilitian remedies allowed for less expensive negotiations and litigation and involved less quality risk for buyers than the praetorian remedies. Yet, they generated larger allocative losses *ex post* due to the fact that idiosyncratic buyers' interests were left unprotected. Therefore, buyers who valued a good's idiosyncratic characteristics (for instance, a buyer looking for a slave with very specific skills) probably preferred to trade through private transactions. In contrast, buyers looking for a standard good and only interested in quality were most likely better off when purchasing in a market.

The self-selection of different types of buyers into different types of transactions made the typical transaction that fell under the jurisdiction of the *praetor* essentially different from the typical transaction falling under the *aediles* and reinforced the overall efficiency of the system. Since the buyers operating in markets were not too interested in idiosyncratic characteristics, the actual *ex post* efficiency losses were likely to be small. Moreover, these buyers were unlikely *ex post* to opt for the praetorian remedy, as it involved higher litigation costs and more quality risk and only a (small, given the types of buyers) advantage due to the better protection of idiosyncratic interests. Conversely, buyers interested in idiosyncratic characteristics were more likely to opt for private transactions and thereby the higher negotiation and litigation costs balanced large gains due to the more efficient allocation of goods *ex post*.

## 6 Conclusions

In this chapter, we have shown how the aedilitian and the praetorian remedies for defects in sale contracts addressed the contractors' needs to efficiently address the problems created by asymmetric information. While the aedilitian remedies catered to buyers purely interested in quality and induced quick, standardized transactions and inexpensive litigation, the praetorian remedies catered to buyers interested in idiosyncratic features of the goods for sale and effectively protected those interested at the price of lengthier negotiations and more expensive litigation. These remedies

slowly converged.

An interesting question is how and why the *praetor* and the *aediles* fostered the economic interests of the parties on which they had jurisdiction. The remedies they created accumulated into an edict that, for the most part, was passed over from a magistrate to the next. In both cases, magistrates holding these functions were ascending the *cursus honorum* (the customary career progression) and aspired to higher functions. Since both the *praetor* and the *aediles* were in charge for only one year and were assisted by a council of jurists, they had little chances to entrench themselves in office and had instead clear incentives to do a good job in order to be subsequently elected to a higher office. The edict was announced at the beginning of the year and there was little room for subsequent adjustments. As a result, the lawmaking effort by both magistrates was directed to the general interests of contracting parties rather than prey to special interests of individual litigants. This might have well been the engine that moved lawmaking in ancient Roman and produced such remarkable legal solutions to omnipresent problems.

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