The Proof is in the Numbers: An Economic Analysis of the English Rule of Nemo Dat

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I. Introduction

Common illiteracy made it difficult for most people to rely on written deeds as proof of ownership in medieval England. As a result, most transfers of real property featured simple public ceremonies to spread the knowledge of who the rightful owner of what was as far as possible. The witnesses, who observed these memorable events, constituted a living proof and record of ownership.[1] For instance, during the ceremonies for the transfer of land, known as *livery of seisin*, a seller would grab 'turf and twig taken from the very land to be transferred'[2] and hand it over to the buyer. Then, the seller would thrash 'a child who had witnessed the passing of turf and twig severely enough so that the child would remember that day as long as he or she lived'.[3] Future buyers could subsequently rely on these witnesses as a record of ownership in order to ascertain the vendor's quality of title.[4] The development and persistent use of these formalities in the passing of title to real property – mainly because of the substantial sums involved – made it difficult for rogues to sell something they never truly owned. However, the opposite is true for personal property: '[C]ontracts for the sale of personal property are on the whole informal and the buyer is not required to inquire formally about the

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1   Samuel Thorne, 'Livery of Seisin' (1936) 52 Law Quarterly Review 345, 352.

2   ibid 350–1.

3   Robert Cooter and Thomas Ulen, *Law & Economics* (6th edn, Pearson 2013) 150.

4   cf The Laws (c. 673–685?) of Hlothhere and Eadric, Kings of Kent: 'If a man of Kent buys property in London, he is to have then two or three honest ceorls, or the king's town-reeve, as witness.'; Frederick Levi Attenborough, *The Laws of the Earliest English Kings* (Cambridge University Press 1922) 23.

seller's right to sell.'[5] As a result, it was common then as it is now that an innocent good faith buyer may ultimately end up paying for stolen or misappropriated goods from a non-owner.[6]

What was particularly troublesome then for the innocent buyer was that any transfer of personal property was subject to the 1115 treatise *Leges Henrici Primi*, named after King Henry I of England. According to these laws, once the theft is proven, the original owner 'is to be allowed to replevy his goods.'[7] A buyer who bought property from someone who only pretended to be the real owner could not keep what he bought once the actual owner had discovered where his property ended up.

The principle behind this rule dates back to the Roman maxim[8] of *'[n]emo plus iuris ad alium transferre potest quam ipse haberet'*,[9] which states that 'no one can transfer a better title to goods than he himself possesses.'[10] The same principle is operative in the present property law regime in England and Wales, as incorporated through the Roman maxim's codification in s 21(1) of the Sale of Goods Act 1979.[11] The rationale behind the rule of *nemo dat* is the effective enforcement and protection of property rights in a society that functions on the basis of individual freedom. In a decentralised economy, rational individuals will aim to maximise their wealth by increasing the value of real and personal properties under their ownership.[12] As important the effective protection of private property is, so too is the safeguarding of the competing interest of commercial security in contractual arrangements. Whereas the former interest favours the true owner of chattel, the latter promotes the interests of the innocent good faith buyer, which is essential to an economy which is based on trade and which intends 'to encourage the maximization of

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[5] Angela Foster, 'Sale by a Non-owner: Striking a fair Balance between the Rights of the true Owner and a Buyer in Good Faith' (2004) 9 Coventry Law Journal 1, 3.

[6] This paper uses the common definition of 'good faith' as absence of notice, i.e. a good faith buyer is ignorant as to the seller's actual title and authority to sell. (cf *Bishopsgate Motor Finance Corp. Ltd v Transport Brakes Ltd* [1949] 1 KB 322, 337 and cf Michael Bridge, *Personal Property Law* (4th edn, Clarendon Press 2015) 214.

[7] Frederic William Maitland, 'The Seisin of Chattels' (1885) 1 Law Quarterly Review 324, 325; LJ Downer (ed), *Leges Henrici Primi* (Clarendon Press 1972) ch 26 (*De furti placito* (trans. Concerning the plea of theft)), 128–9.

[8] For a concise discussion of Roman law as a source of the *Leges* cf Downer (n 7) 31–4.

[9] Ulpianus, 'Libro 46 Ad Edictum' in A Watson (ed), *The Digest of Justinian, Volume 4* (University of Pennsylvania Press, 1998) Dig. 50.17.54.

[10] *Benjamin's Sale of Goods* (9th edn, Sweet and Maxwell 2016) para 7-001.

[11] Sale of Goods Act 1979, s 21(1): 'Subject to this Act [see ss 21, 236, 47 and 48], where goods are sold by a person who is not their owner, and who does not sell them under the authority or with the consent of the owner, the buyer acquires no better title to the goods than the seller had.'

[12] cf Richard Posner, *Economic Analysis of Law* (9th edn, Wolters Kluwer Law & Business 2014) 42–46.

wealth through exchange'.[13] The importance of striking a fair balance between the rights of the owner to protect her chattel and those of the buyer to commercial security and contractual reliability is succinctly explained by Denning LJ:

> In the development of our law, two principles have striven for mastery. The first is for the protection of property: no one can give a better title than he himself possesses. The second is for the protection of commercial transactions: The first principle has held sway for a long time, but it has been modified by the common law itself and by statute so as to meet the needs of our own times.[14]

As Denning LJ's reasoning implies, the law in England and Wales aims to find the right balance between these two competing interests. Although the law operates on a *nemo dat* basis, several exceptions, which will be discussed in detail in the next section, were introduced over time to find a reasoned balance between both policies.[15] The legal presumption, however, as *nemo dat* itself demonstrates, is firmly in favour of the protection of property and therefore promotes the original owner's ability to recover stolen or misappropriated goods.[16]

Contrastingly, other jurisdictions have opted for the opposite: a presumption favouring the good faith buyer and general commercial expediency. Germany,[17] France,[18] Spain[19] and China[20], for instance, implement a good faith purchase rule[21] whereas England and Wales[22] as well as the United States[23] reward under a *nemo dat* rule the original owner of private property. Focusing on the laws of England and Wales, this paper will argue that either rule is inefficient and leads to a wasteful allocation of property rights, as both incentivise the affected parties to

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[13] Bridge (n 6) 196.
[14] *Bishopsgate Motor Finance Corp. Ltd v Transport Brakes Ltd* [1949] 1 KB 322, 336–338. The case concerned an original owner's unsuccessful attempt to set aside an auctioneer's sale of a car to a good faith buyer in a market-overt claiming the seller failed to abide by market rules and regulations. cf *Comyns v Boyer* (1596) 2 Cro Eliz 485)
[15] Michael Bridge, *The Sale of Goods* (3rd edn, Oxford University Press 2014) ch 5.42.
[16] The original owner's claim will be subject to the provisions made in s 4 of the Limitation Act 1980.
[17] Buergerliches Gesetzbuch [BGB]: German Civil Code §§929, 932 and 935.
[18] Code Civil [C. civ.]: French Civil Code, Arts 711, 2276 and 2280.
[19] Código Civil [C. C.]: Spanish Civil Code, Arts 348, 436, 447, 463 and 464.
[20] Xianxing Fagui Huibian: Chinese Property Law, Arts 39, 106, 241 and 243.
[21] DE Murray, 'Sale in Market Overt' (1960) 9 The International and Comparative Law Quarterly 24, 29–30. The good faith purchase rule has its origins in ss 9, 279 and 281 of the Code of Hammurabi. The former section requires both the owner and the buyer to bring witnesses as proof of ownership before an open court and the latter two sections concern disputes as to slave ownership in a market overt.
[22] Sale of Goods Act 1979, s 21(1).
[23] cf *Solomon R Guggenheim Foundation v Lubell*, 569 N.E.2d 426 (NY 1991) and Universal Commercial Code [U.C.C.] §1-103 (2011).

opt for privately efficient incentives rather than for socially optimal ones.[24] A case for reform based on the tort of negligence will be advanced on the basis of recent scholarship in the field of law and economics.[25] The reform proposal hinges on a judicially determined socially efficient standard of precaution for the owner. In brief, if the owner complied with the standard at the time of the theft, then she will succeed over the good faith buyer's claim to ownership. If she failed to meet the required standard, then the good faith buyer will succeed.[26]

The proposal is not only a socially efficient solution to the *nemo dat* problem, but the competing interests of protecting private property whilst allowing commercial expediency are also best served under this reform suggestion.[27] Moreover, it will be argued that this reform proposal is not just a theoretical undertaking, but that it is pragmatically feasible in particular as the courts solidify their experience over time in assessing reoccurring patterns of negligent behaviour.[28] Even judicial errors in determining the legal standard of precaution are unlikely to be overly troublesome as owners will adapt their behaviour to judicial errors under a rule of negligence.[29]

The next section will analyse the present *nemo dat* law in England and Wales and outline its exceptions, focusing on those that are most relevant to the reform proposal made below. The third section of this paper will apply economic considerations to *nemo dat* and the good faith purchase rule to evidence that either is undesirable. The fourth section follows with a reform proposal and its economic analysis. Eventually, the fifth section concludes this paper.

II. Doctrinal Analysis of the English Law of Nemo Dat

A. Introductory remarks

Unlike bilateral cases, in which person A transfers under a mutual agreement the legal title to her property to person B, cases involving a typical *nemo dat* scenario are at least of a tripartite nature. In these cases, the question is

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[24] A socially efficient rule is achieved when the marginal social cost equals the marginal social benefit. (see Robert Cooter and Thomas Ulen (n 3) 200 and see G Calabresi, *The Cost of Accidents: A Legal and Economic Analysis* (Yale University Press 1970) 24ff.

[25] For a detailed analysis, as to why a joint and uniform application of property and tort law is useful in answering questions of entitlement to goods see Guido Calabresi and Douglas Melamed, 'Property Rules, Liability Rules and Inalienability: One View of the Cathedral' (1972) 85 Harvard Law Review 1089 and see (n 110) below.

[26] See s IV.A below.

[27] See s IV.B below.

[28] See s IV.C below.

[29] See s IV.D below.

whether the transferor can legitimately 'transfer a property interest superior to the one vested in the transferor' himself and by doing so succeeding in 'derogating from (or overriding) the property interest of the true owner' for the benefit of the transferee.[30] This triangular relationship can be simplified as involving O, an original owner, T, a thief[31] who steals[32] or misappropriates the chattel from O, and B, a good faith buyer who obtained the chattel either from T directly or through a chain of several innocent parties, such as merchants, through whose hands the good had already passed. T usually either absconds, 'has dissipated his ill-gotten gains' or is generally not worth suing.[33] As a result, O typically brings a claim in conversion against B.[34] For B to succeed, he must prove that his case comes within one of the recognised exceptions to the *nemo dat* presumption, which will be analysed in the next section.

B. Exceptions to the rule of nemo dat

There are both common law and statutory exceptions to the English rule of *nemo dat*.[35] The first common law exception is the voidable title rule. If the original owner defeasibly transferred a good to a third party and failed to rescind that transaction before the third party transfers the title of that object to a good faith

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[30] Bridge (n 6) 195.

[31] The abbreviation T is used for convenience to generally refer to any dishonest agent (transferee) who transfers property from the owner to a third party.

[32] Richard Hasen and Richard McAdams, 'The Surprisingly Complex Case Against Theft' (1997) 17 International Review of Law and Economics 367, 370–4.Theft generally destroys value. Presuming that a thief steals goods in accordance to their market exchange value, the true owner usually values the goods above the price the market is willing to pay for them.

[33] Bridge (n 6) 196.

[34] Although Baron Bramwell intimated that no single definition of the tort of conversion can be given (*Burroughes v Bayne* (1860) 5 H&N 296, 308–311), Atkin J did so by stating that 'dealing [intentionally] with goods in a manner inconsistent with the rights of the true owner amounts to a conversion'. (*Lancashire and Yorkshire Railway Co v MacNicoll* (1918) All ER 537, 540–541). Similarly, Lord Nicholls reasoned that a wilful 'encroachment on the rights of the owner as to exclude him from use and possession of goods' amounts to conversion. (*Kuwait Airways Corpn v Iraqi Airways Co* [2002] 2 AC 883; [2002] UKHL 19 [39]).

[35] These exceptions refer to the transfer of goods only; different rules and exceptions apply for the transfer of money and negotiable instruments. cf *Lipkin Gorman v Karpnale Ltd* [1991] 2 AC 548 on the issue of gaming chips being neither goods nor money (575), *Moss v Hancock* [1899] 2 QB 111 on the issue of stolen property passing into currency and *Banque Belge pour l'Etranger v Hambrouck* [1921] 1 KB 321 on the issue of stolen money passing into currency (326 and 329)). For a general discussion on a definition of goods see Bridge (n 15) chs 2.02–2.25.

buyer,[36] then the second transaction[37] will be conclusive and override any claim by an original owner to his or her goods.[38] The market overt rule constitutes the second common law exception. Although the rule is now repealed by the Sale of Goods (Amendment) Act 1994, it remains theoretically significant, for it was the only rule which called for judicial disregard as to the circumstances around the way the transaction between O and T occurred. This rule, therefore, effectively allowed T to 'launder doubtful titles'.[39] The abolition of this rule was generally welcomed by legal scholars, as the primary beneficiaries under it were thieves and 'a few antique dealers who, it seems, trade in stolen goods.'[40] The third and final category of common law exceptions is the doctrine of apparent authority. Unlike situations in which the transferor is found to have exercised a transaction with implied authority, or scenarios revolving around the apparent ownership doctrine, the rule of apparent authority 'applies where the third-party purchaser reasonably but incorrectly apprehends that an agent has the owner's permission to sell.'[41]

The most prominent statutory exceptions, which originate from the doctrine of apparent authority, concern dispositions by 'mercantile agents in possession of goods, or of documents of title, with the owner's consent,[42] as well as dispositions by sellers[43] and buyers[44] in possession'.[45] Given that it is neither possible nor desirable to lay out each of these exceptions in detail within the limited scope of this paper, it appears most beneficial for it to proceed with a substantive analysis of the two main common law exceptions to *nemo dat*: the voidable title rule and the doctrine of apparent authority. These exceptions shall demonstrate the unsatisfactorily difficult hurdles a good faith buyer needs to overcome, the unnecessary complexities behind

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[36]   cf Sale of Goods Act 1979, s 23.

[37]   Whereas s 23 of the Sale of Goods Act 1979 applies to instances, in which the transaction between the third party and the good faith buyer is a sale, the common law rules apply to any other kind of transaction.

[38]   Bridge (n 15) ch 5.44.

[39]   ibid ch 5.44.

[40]   Brian Davenport and Anthony Ross, 'Market Overt' in Palmer and McKendrick (eds), *Interests in Goods* (Routledge 1998) ch 14, 352.

[41]   Bridge (n 15) ch 5.44.

[42]   Factors Act 1889, s 2.

[43]   Factors Act 1889, s 8; Sale of Goods Act 1979, s 24.

[44]   Factors Act 1889, s 9; Sale of Goods Act 1979, s 25(1).

[45]   Bridge (n 15) ch 5.45.

the current patch-work quilt of *nemo dat* and the necessity for fundamental reform.

(i)   Sales under a Voidable Title

Under this rule, which is codified in s 23 of the Sale of Goods Act 1979, B acquires a 'perfect title to goods out of an imperfect title'[46] from the seller,[47] if at the point in time of the transaction the seller's title has not been rescinded.[48] The section's applicability is contingent upon the question of whether the contract between the seller and T is voidable 'on the ground of fraud, misrepresentation, non-disclosure, equitable mistake, or duress or undue influence, as opposed to [being] void (…) for mistaken identity, a lack of coincidence between the terms of the offer and the acceptance and where goods have been stolen.'[49] Parliament's intention behind the s 23 exception to *nemo dat* is the protection of *bona fide* buyers against actions in conversion in regards to goods B acquired on the basis of fraud.[50] Any party can only transfer title to an object to another party if the contract was voidable. Contrastingly, mere possession of goods under a void contract between T and the seller allows O to override any party's claim to ownership.[51]

The material distinction as to whether a contract is void or voidable depends on the circumstances in which it was made. Contracts between O and T at arm's length (i.e. through written correspondence) are more likely to be void, while those that are made in face-to-face dealings are likely to be regarded as voidable.[52] Although the case of *Shogun Finance* retained this distinction,[53] the dissentients' concerns, who were 'prepared to overrule *Cundy v Lindsay* (…) [as they] saw no categorical difference' between those two types of contractual negotiation, should not be disregarded.[54] Lord Millett, for instance, employed comparative

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[46] Foster (n 5) 4.

[47] It is immaterial under this exception whether the disposition to the seller by a third party is made through a pledge or a sale. cf *Whitehorn Bros v Davison* [1911] 1 KB 463 and *Babcock v Lawson* (1880) 5 QB 284.

[48] cf *Cundy v Lindsay* (1878) 3 App Cas 459; *Phillips v Brooks* [1919] 2 KB 243; *Dennant v Skinner* [1948] 2 KB 164; *Robin and Rambler Coaches Ltd v Turner* [1947] 2 All ER 284; *Lewis v Averay* [1972] 1 QB 98.

[49] Foster (n 5) 4.

[50] cf *Shogun Finance Ltd v Hudson* [2004] 1 AC 919; [2003] UKHL 62, [35] (Lord Nicholls); *Babcock v Lawson* (1880) 5 QB 284, 286 (Bramwell LJ).

[51] Bridge (n 15) ch 5.48.

[52] This principle originates from *Cundy v Lindsay* (1878) 3 App Cas 459, 465 (Lord Cairns) and was affirmed by a bare majority in the House of Lords in *Shogun Finance Ltd v Hudson* [2004] 1 AC 919; [2003] UKHL 62 [153] (Lord Phillips).

[53] *Shogun Finance Ltd v Hudson* [2004] 1 AC 919, [2003] UKHL 62 [55] (Lord Hobhouse). His Lordship stated that the principles, which emanated from *Cundy v Lindsay* (1878) 3 App Cas 459 are 'clear and sound and need no revision. To cast doubt upon them can only be a disservice to English law.'

[54] Bridge (n 15) ch 5.50.

legal considerations with the German Civil Code,[55] which his Lordship considered superior to the English rule. In particular, he emphasised that B's rights in England and Wales rely entirely on the arbitrary distinction as to how the contract was concluded. As a result, his Lordship called for reform of the *nemo dat* doctrine, noting rightly that there is a difficulty in not conflating contract with property law and that the German law, of course, 'is a consequence of the law of property rather than the law of contract'.[56] Under the German law, as long as B can evidence good faith in court, he will succeed over O's interest in the property.[57] In Germany, O needs to rebut B's claim to good faith by evidencing that B was either aware or grossly negligent as to his awareness that the chattel did not belong to the person he purchased it from.[58]

Although many legal scholars[59] agree with Lord Millett's analysis and call for reform,[60] the majority in the House of Lords found that any 'attempt to use this appeal to advocate, on the basis of continental legal systems, which are open to cogent criticism, the abandonment of the soundly based *nemo dat quod non habet* rule (…) would be not only improper but even more damaging.'[61] It should be noted that even under continental European good faith purchase rules, *nemo dat* still operates as the base principle within the law of property.[62] Lord Millett's comparative use of German law sought to refine *nemo dat* by explaining how the reallocation of 'risks in private contracts' could overcome the problems created by the English rule: a rule which determines the parties' rights not on the basis of risk-allocation and considerations as to who is best placed to insure against certain risks, but through

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[55]   cf Bürgerliches Gesetzbuch [BGB]: German Civil Code §§ 929, 932 and 935.

[56]   Shogun Finance Ltd v Hudson [2004] 1 AC 919; [2003] UKHL 62, [85] (Lord Millett).

[57]   Bürgerliches Gesetzbuch [BGB]: German Civil Code §932(1): Gutgläubiger Erwerb vom Nicht-berechtigten (Good faith acquisition from a person not entitled).

[58]   Bürgerliches Gesetzbuch [BGB]: German Civil Code §932(2).

[59]   Foster (n 5) 12–14; Catherine Elliott, 'No justice for innocent purchasers of dishonestly ob-tained goods: Shogun Finance v Hudson' (2004). Journal of Business Law (May), 381, 386–387; Christopher Hare, 'Identity mistakes: a missed opportunity?' (2004). 67 Modern Law Review 993, 994–995 and 1003–1004; Karen Scott, 'Mistaken identity, contract formation and cutting the Gordian knot' (2004) 3 Lloyd's Maritime and Commercial Law Quarterly 292, 295–296; Ca-tharine MacMillan, 'Mistake as to identity clarified?' (2004) 120 Law Quarterly Review 369, 372.

[60]   *Shogun Finance Ltd v Hudson* [2004] 1 AC 919; [2003] UKHL 62 [84] (Lord Millett): 'We cannot leave the law as it is.'

[61]   *Shogun Finance Ltd v Hudson* [2004] 1 AC 919; [2003] UKHL 62 [55] (Lord Hobhouse).

[62]   In the Czech Republic *nemo dat* is codified under   123, 126 and 134 of the Czech Civil Code (Občanský zákoník); in Germany it is codified under § 929 of the German Civil Code (BGB), in France it is codified under article 711 of the Code Civil, in Italy it is codified under article 832 of the Codice Civile, in Spain it is codified under article 348 of the Código Civil and in Switzerland it is codified under articles 641 and 715 of the Code Civil.

the arbitrary way a contract is concluded.[63]

(ii) The Doctrine of Apparent Authority: Estoppel by Negligence

The second common law exception is the doctrine of apparent authority. Within the doctrine of apparent authority and apparent ownership the main exceptions to *nemo dat* are based on the equitable doctrines of estoppel by representation,[64] by conduct[65] and by negligence. The following text will focus on estoppel by negligence, as this exception is most relevant to this paper's reform proposal.

If O's conduct is found to be careless 'in respect of the goods in such a way as to cause loss to the third party'[66], O will be estopped 'by his conduct (…) from denying the seller's authority to sell'.[67] The common law origin of this rule is typically attributed to the case of *Lickbarrow v Mason*,[68] in which the court succinctly held that 'wherever one of two innocent persons must suffer by the acts of a third, he who has enabled such third person to occasion the loss must sustain it.'[69] Whereas this principle appears *prima facie*, tailored in B's favour, subsequent cases clarified that 'the scope of the estoppel doctrine is extremely limited',[70] that practical reliance on *Lickbarrow's* rationale is virtually futile[71] and that the judicial presumption ever since remained in favour of private property protection tolerating only 'circumscribed exceptions to a strong *nemo dat* rule.'[72]

In order for B to succeed he must show (1) that O owed her a duty of care, (2) that O negligently breached this duty and finally (3) that O's 'negligence was

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[63] Werner Ebke and Bettina Steinhauer, 'The Doctrine of Good Faith in German Contract Law' in Jack Beatson and Daniel Friedmann (eds), '*Good Faith and Fault in Contract Law*' (Clarendon Press, 1995) 171.

[64] The definition of estoppel by representation in the sale of goods context can be found in *Greenwood v Martins Bank Ltd* [1933] AC 51. At 57, Lord Tomlin highlighted the three elements to establish estoppel: (1) a representation which induces a party to embark on certain conduct, (2) an act or omission that resulted from the representation and (3) detriment. For a general discussion of estoppel by representation, see Bridge (n 15) chs 5.63–5.66.

[65] cf *Johnson v Crédit Lyonnais Co* (1877) 3 CPD 32; *Central Newbury Car Auctions Ltd v Unity Finance Ltd* [1957] 1 QB 371; *McVicar v Herman* (1958) 13 DLR (2d) 419. For a general discussion of estoppel by conduct, see Bridge (n 15) chs 5.67–5.79.

[66] Foster (n 5) 3.

[67] Sale of Goods Act 1979, s 21(1).

[68] *Lickbarrow v Mason* (1783) 2 TR 63.

[69] ibid 70 (Ashhurst J).

[70] Foster (n 5) 3.

[71] cf *Farquharson Bros & Co v King & Co* [1902] AC 325, 335f and 342, *Rimmer v Webster* [1902] 2 Ch 163, 169 and *London Joint Stock Bank v Macmillan* [1918] AC 777, 836. Similarly, most claims on the basis of estoppel by representation in the *nemo dat* context were unsuccessful. cf *Mercantile Bank of India Ltd v Central Bank of India Ltd* [1938] AC 387.

[72] Bridge (n 6) 203.

the proximate or real cause' of B purchasing the stolen or misappropriated good.[73] In practice, the establishment of a duty of care appears to be the most difficult hurdle to satisfy. On the question of the existence of a duty of care, Pearson LJ, expressed that 'the principal task is to find what situations or relationships may give rise to the duty to be careful'.[74] In *Moorgate Mercantile v Twitchings*[75], for instance, the claimant finance company negligently failed to register a car it owned and let on a hire-purchase agreement with the Hire-Purchase Information Scheme. This omission enabled a rogue to sell the car to the defendant, who purchased it in good faith. The House of Lords, referring to the similar precedent of *Central Newbury Car Auctions v Unity Finance*,[76] in which the owner's negligence opened a window of opportunity for the rogue to make registration documents disappear,[77] rejected the claim that the finance company owed a duty of care 'towards persons dealing with the rogue in possession'.[78] Similar to Denning LJ's dissent in *Central Newbury Car*,[79] Lord Wilberforce's minority speech in *Twitchings*, found that a business entity could, because of its professional and commercial nature, reasonably be expected to owe a duty of care to protect innocent purchasers, who may not have access to the same resources to minimise the risk of fraud.[80]

In general, O's reasonable foresight that B would presume T to be the true owner of the chattel, because of O's negligence, will not suffice to establish a duty of care in favour of B.[81] The situations in which a duty of care is not recognised are manifold and comprise in addition to the failure to register property, (see *Twitchings*[82]): (1) O's failure to take precaution to prevent the theft,[83] (2) O's negligence resulting in the loss of the chattel,[84] (3) O's failure to report the theft,[85]

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[73]   *Mercantile Credit Co Ltd v Hamblin* [1965] 2 QB 242, 270–272 (Pearson LJ). Although the court found on the peculiar facts of this case that there was a duty of care, it held that this duty was not broken.

[74]   ibid 271 (Pearson LJ).

[75]   *Moorgate Mercantile v Twitchings* [1977] AC 890.

[76]   *Central Newbury Car Auctions v Unity Finance Ltd* [1957] 1 QB 371.

[77]   ibid 385–386. The majority in the Court of Appeal (Hodson LJ and Morris LJ) found that no estoppel could be raised. Denning LJ dissented stating that the owner ought to have foreseen the risk.

[78]   Bridge (n 6) 204.

[79]   cf *Central Newbury Car Auctions v Unity Finance Ltd* [1957] 1 QB 371, 383–386. Also see (n 77).

[80]   *Moorgate Mercantile v Twitchings* [1977] AC 890, 906 (Lord Wilberforce).

[81]   ibid 919–921 (Lord Edmund-Davies).

[82]   *Benjamin's Sale of Goods* (n 10) para 7-016.

[83]   cf *Jerome v Bentley & Co* [1952] 2 All ER 114, 118 and *Central Newbury Car Auctions v Unity Finance Ltd* [1957] 1 QB 371, 394.

[84]   *Farquharson Bros & Co v King & Co* [1902] AC 325, 335f and *Central Newbury Car Auctions v Unity Finance Ltd* [1957] 1 QB 371, 381.

[85]   *Debs v Sibec Developments* [1990] RTR 91, 98f.

(4) O's careless decision to entrust a third party with the property[86] and (5) O's decision to convey control over property or the business itself to a third party, which subsequently sells it to B.[87]

Unsurprisingly, estoppel is branded as a 'rather weak source of protection' for the good faith buyer.[88] Although T's fraudulent sale to B is generally a consequence subordinated to O's negligent conduct, 'courts have exhibited a tendency to hold that, where the seller has been guilty of fraud, the effective cause of the buyer's loss is the fraud of the seller, and not the negligence of the true owner',[89] further weakening B's prospects of succeeding against O's action in conversion.[90]

C. Reform proposals within the current property law paradigm

As the analysis above demonstrates, the exceptions to the law of *nemo dat* are unsatisfactory and disproportionately tilted in the favour of an original owner.[91] The voidable title rule uses arbitrary circumstances to determine B's rights and the doctrine of apparent authority is generally weak and ineffective in assisting B's claims.[92] Reform proposals were first advanced by the Law Reform Committee in 1966.[93] These recommendations were rejected by Parliament. Ever since then, academics have debated the merits of the rule, urging Parliament to enact 'more flexible rules (…) [which would] promote consumer protection'.[94] From this debate and the minority judgements, the following seven major reform proposals can be isolated:

> (1) Place the risk on owners for their decisions to entrust goods to third parties,[95] who would then, for whatever reasons, but usually out of mistake, sell those goods on to good faith

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[86] *Beverley Acceptances Ltd v Oakley* [1982] RTR 417, 439–441.

[87] cf *Haines Bros Earthmoving Pty Ltd v Rosecell Pty Ltd* [2016] NSWCA 112.

[88] Bridge (n 6) 204.

[89] *Benjamin's Sale of Goods* (n 10) para 7-017.

[90] *Mercantile Credit Co Ltd v Hamblin* [1965] 2 QB 242, 275 and 278; *United Dominions Trust Ltd v Western v B S Romanay* [1976] QB 513, 516 and 523.

[91] Foster (n 5) 11.

[92] JWA Thornely, '*Thieves, Rogues, Innocent Purchasers and Legislative Tangles*' (1988). 47 Commercial Law Journal 15, 18.

[93] Law Reform Committee, '*Twelfth Report on the Transfer of Title to Chattels*' (Command Paper 2958, April 1966).

[94] Foster (n 5) 12.

[95] cf Mitchell Polinsky, *An Introduction to Law and Economics* (4th edn, Wolters Kluwer Law & Business 2011), 57-62. The idea behind this suggestion is that the owner is in the best position to ensure against the risk of losing the chattel.

buyers.[96]

(2) Apportion the loss created by the dilemma between the parties proportionally to their respective fault.[97] The Law Reform Committee rejected this idea for practical reasons,[98] explaining that apportionment of loss is difficult to reconcile with *nemo dat's* underlying property paradigm, that it would be detrimental to blameless owners and that it would lead to uncertainty as to each party's expected gains from potential litigation, which in turn would reduce the probability of them reaching mutual settlements before trial.[99]

(3) Resurrect and modernise the market-overt rule by repealing the relevant provisions within the Sale of Goods (Amendment) Act 1994.[100]

(4) Impose a general duty on the buyer to inquire into the quality of the seller's title.[101]

(5) Create a hybrid model combining both the *nemo dat* rule and a good faith purchase rule, as is presently done in Spanish property law.[102] The rule combines the two property paradigms by protecting an original owner's claim to her chattel whenever a stolen or misappropriated object was purchased by a merchant from a thief and applies the continental good faith purchase rule whenever a chattel is stolen from a merchant.

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[96] Aubrey Diamond, *A Review of Security Interests in Property* (HMSO 1989), para 13.6.

[97] *Ingram v Little* [1961] 1 QB 31, 73–74.

[98] Some goods are indivisible. A rule of contributory fault could therefore only work 'if the state auctioned
off stolen or misappropriated goods and divided the proceeds according to the parties' negligence'. Such a rule would be difficult and expensive to implement, only deter few and therefore unlikely to be cost-justified (Alan Schwartz and Robert Scott, 'Rethinking the Laws of Good Faith Purchase' (2011) 111 Columbia Law Review 1332, 1354). Its main advantage is that under more realistic conditions, presuming that parties face evidentiary uncertainty rather than complete information, contributory negligence is best placed to give all affected parties efficient incentives (Robert Cooter and Thomas Ulen, 'An Economic Case for Comparative Negligence' (1986) 61 New York University Law Review 1067, 1086–1092).

[99] Patrick Atiyah, '*Law Reform Committee: Twelfth Report*' (1966). 29 Modern Law Review 541, 544.

[100] Foster (n 5) 12–13.

[101] ibid 13.

[102] José Cándido Paz-Ares, '*Seguridad Jurica y Seguridad del Trafico*' (1985). Revista de Derecho Mercantil 7, 9–10.

This extinguishes the merchant's ability to bring an action in conversion against a good faith buyer to whom the thief will have transferred the title.[103] Whereas the *nemo dat* element 'discourages merchants from "fencing" stolen goods, thus reducing the profitability of theft', the good faith purchase element 'increases the ease with which goods circulate among merchants in commerce and passes to the final consumer.'[104]

(6) Abolish the present *nemo dat* paradigm and replace it with a rule of equity and commercial fairness. This would require to take into account all the case's circumstances and to ask questions such as 'who is best placed to bear the risks'.[105]

(7) Have 'stolen or misappropriated goods escheat to the state.'[106] Although such a rule may appear useful in incentivising both parties to take additional care to avoid the good faith purchase problem from arising in the first place, it also extinguishes any reason for the owner to search for stolen or misappropriated goods. [107]

Any of the above reform proposals fails to bring about a satisfactory outcome for all involved parties, because of the underlying property paradigms' inability to 'directly create incentives for parties to take particular actions, or refrain from those actions.'[108] Instead, both *nemo dat* and the good faith purchase rule allocate property rights *ex ante* among the parties, which is the key problem. As a result, only one party, namely the one both rules disfavour, is left with optimal incentives to either take precautions against theft or to take precautions to avoid purchasing stolen goods. Either disfavoured party can anticipate that their claim to title will fail in court.[109] The reform proposal made below is superior to the ones advanced above, as the entire property paradigm is changed to provide both parties with optimal incentives. This can be achieved by adopting a negligence paradigm.

D. Negligence's superiority and distinctions to the nemo dat rule

[103] ibid 30–33.
[104] Cooter and Ulen (n 3) 153.
[105] Foster (n 5) 13–14.
[106] Schwartz and Scott (n 98) 1354.
[107] ibid 1354.
[108] Schwartz and Scott (n 98) 1339.
[109] ibid 1339.

As opposed to any *ex ante* presumption of entitlements, negligence allows to directly incentivise both parties to do or to avoid certain actions or omissions. The allure of the tort of negligence in its joint application with property law therefore lies not only in its ability to create efficient incentives for all agents, but also in its ability to realise distributive results of entitlements to stolen or misappropriated goods which would otherwise be impossible to attain under property law alone.[110]

It should be noted that this negligence paradigm is entirely different from the principles created by the voidable title rule and the doctrine of apparent authority, as it will completely avoid the underlying equitable framework of both exceptions to *nemo dat*. In essence, the reform proposal presumes that any owner has a duty to *reasonably* guard his or her valuable property. Consequently, it only focuses on the question as to whether O chose a socially optimal level of precaution at the time the theft occurred. The proposal therefore avoids (1) arbitrary distinctions resulting in void or voidable titles, as seen under the voidable title exception.[111] Equally, the proposal does not require the existence of a close relationship between O and B to give rise to a duty of care, as seen under the estoppel by negligence rule within the doctrine of apparent authority. As a result, it also avoids (2) problematic duties of care and (3) the necessity for equitable and uncertain principles of loss and detriment.[112] Finally, while this section predominantly laid out the legal shortcomings of the present property law regime, the next section will explain *how* these shortcomings manifest a wasteful allocation of property rights.[113]

III. An Economic Analysis of the Present Property Paradigm

A. Introductory remarks

As explored above, the law in England and Wales adopts under *nemo dat* a rule which favours O over B. In other jurisdictions,[114] however, a good faith purchase rule creates the opposite result favouring B over O. Accordingly, the English rule of *nemo dat* is pierced with several exceptions to accommodate the need to balance private property protection and commercial expediency. The tension in this regard lies in the fact that O's incentive to invest in private property to maximise her wealth is significantly reduced if she knows in advance that upon

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[110] Guido Calabresi and Douglas Melamed, 'Property Rules, Liability Rules and Inalienability: One View of the Cathedral' (1972) 85 Harvard Law Review 1089, 1110.

[111] See s II.B.a above.

[112] See s II.B.b above.

[113] Although the next section will focus on the English *nemo dat* rule, it will also consider the inefficiencies created by the continental European good faith purchase rule.

[114] See (n 62) above.

theft of her goods, she will permanently lose them to B, as long as B can prove he bought them in good faith.[115] In the light of this conundrum, the question arises which rule[116] is socially more efficient.[117] Let C_O stand for the owner's costs to avert the theft and C_B for the buyer's costs in inquiring into the seller's title. Accordingly, if $C_O < C_B$ applies, then a good faith purchase rule is more efficient. Contrastingly, if $C_O > C_B$ is true, then *nemo dat* is more efficient.[118]

The socially efficient value for C_O equals the marginal decrease in the probability of the theft occurring times the value of the chattel to O. Similarly, C_B should equal the marginal increase in the likelihood of purchasing the chattel from a seller with good title multiplied by the value of the chattel to B.[119]

In order for O and B to invest at the socially efficient level, they must choose optimal precaution: What is desirable is a situation, in which O will invest in optimal precaution against theft and B will invest in optimal precaution against buying goods from a non-owner, i.e. B invests into an optimal inquiry into the quality of the title of the person styling herself to be the owner and seller of the goods. Under a *nemo dat* rule, however, O can expect to succeed in recovering stolen or misappropriated goods. Consequently, O will opt for a suboptimal level of precaution. Conversely, B will invest in an optimal inquiry into the seller's title, because of her anticipation that she cannot keep stolen or misappropriated goods. If O and B's rights were reversed, the opposite would apply. Under a good faith purchase rule, O would choose the optimal level precaution against theft knowing that once a good is stolen and sold, B will acquire the title over it provided she bought it in good faith. Unsurprisingly in this scenario, B will invest sub-optimally into an inquiry of the seller's title.[120] The problems with both rules are summarised in table 1 below:

TABLE 1: LEVELS OF PRECAUTION UNDER DIFFERENT
RULES

	Nemo dat rule	Good faith purchase rule

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[115] cf Frank Michelman, '*Ethics, Economics and the Law of Property*' (2003). 39 Tulsa Law Review 663, 686f.

[116] The economic analysis will not be applied to individual rules, such as estoppel by negligence within the doctrine of apparent authority, but to the underlying property paradigms (i.e. *nemo dat* and the good faith purchase rule) themselves.

[117] Efficiency in this regard is concerned with the sum of any situation's aggregate benefits and costs and not its distribution (equity) among the agents. See Polinsky (n 95) 7–11.

[118] Cooter and Ulen (n 3) 153.

[119] Schwartz and Scott (n 98) 1339.

[120] ibid 1138–1140.

| Owner's precaution | Suboptimal | Optimal |
| Buyer's precaution | Optimal | Suboptimal |

Either rule fails to incentivise *both* parties to simultaneously opt for an efficient standard of precaution. This scenario is referred to by economists as a double moral hazard problem.[121] The reason for O and B's inversely correlated choices and wasteful behaviours result from the law's failure to incentivise the affected parties appropriately. For an optimal behaviour, O and B need to face a potential loss at the same time, which neither rule accomplishes, as both rules allocate property rights *ex ante* between the parties and therefore quasi-insure[122] one of the parties from the outset against a potential loss.[123]

In addition to this double moral hazard problem, B's incentive to inquire properly into the seller's title is reduced by B's knowledge that O may never discover where his goods ended up, creating an additional incentive to invest suboptimally.[124] After these introductory considerations, the causes and effects of the two main agents in choosing optimal or sub-optimal levels of precaution shall now be analysed in detail in the sections that follow below.

B. An economic analysis of the english nemo dat presumption

It is assumed that under *nemo dat* O will prevail over B in litigation, that O and B are two rational and risk neutral agents and that society prefers privately efficient rules.[125] What shall be analysed at this point is how *nemo dat* provides to O (1) an inefficient incentive to protect the chattel from theft, but equally (2) provides an efficient incentive to search for a good once it has been stolen or misappropriated and (3) how it incentivises B to choose a suboptimal investment into the quality of the seller's title.

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[121] cf Steven Shavell, *Foundations of Economic Analysis of Law* (Belknap Press of Harvard University Press 2004) 203f.

[122] cf Posner (n 12) 111.

[123] Cooter and Ulen (n 3) 48. In accordance with microeconomic theory, the *ex ante* allocation of property rights functions similarly to an insurance for either O or B depending on which property paradigm is followed. *Nemo dat*, for instance, creates a moral hazard by changing O's behaviour in such a way as to increase the likelihood of theft. Cooter and Ulen put it concisely: '[T]he very fact that your loss is insured may cause you to act so as to increase the probability of a loss.'

[124] Schwartz and Scott (n 98) 1347.

[125] ibid 1344. This paper follows Schwartz and Scott's equations and scholarship on the economic analysis of the good faith purchase and theft rules and on the recovery of stolen or misappropriated goods.

Firstly, for O to search for her stolen chattel, the expected value of the chattel to O must exceed the costs for searching, which can be denoted as z.[126] The probability that searching for the lost goods will result in their discovery is abbreviated as x(z). Consequently, O values the discovery of the goods by multiplying the likelihood of discovering the property with their subjective value v to O. From this result, the costs for searching must be subtracted and O is expected to maximise her payoff:[127]

$$Max_z \; x(z)v - z$$

$$(1) \; x'(z)v = 1$$

As can be seen from equation (1), the socially optimal search z^* is achieved when the marginal benefit in finding the goods *(x'(z)v)* equals the marginal cost of discovering them. In other words, given that O will be allowed to keep the goods upon discovery under *nemo dat*, she will search efficiently for stolen or misappropriated chattel.

Secondly, O is expected to opt for a standard of precaution which will maximise her payoff from owning the chattel. This can be expressed as the likelihood of keeping the goods multiplied with O's subjective value of the chattel before the time the theft occurs (t^0),[128] which is added to the expected value of discovering what has been lost. This value for the discovery is also dependent on an optimal search z^*, as analysed above, and reflects the multiplied likelihoods of theft, discovery and the goods' value themselves, from which the search costs and O's costs for taking precaution must be deducted.[129] Finally, the payoff from discovering lost goods changes as time progresses from t^0 (pre-theft) to t^3 (post-discovery),[130] denoted by the discount factor δ^{t3}.

$$Max_c \; p(c)v(t^0) + \; \delta^{t3}\{(1 - p(c))[x(z^*)v - \; z^*]\} - c$$

$$(2) \; p'(c)\{v(t^0) - [\delta^{t3} \; (x(z^*)v - z^*]\} = 1$$

Contrastingly, O's socially optimal level of precaution can be described as follows: It is desirable that O reduces the probability of theft by investing into her precaution until the costs associated with this task equal the social costs of

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[126] A glossary of the used mathematical symbols and coefficients can be found in the appendix.

[127] Schwartz and Scott (n 98) 1348.

[128] ibid 1344–1345. As the stolen good's value changes over time, the following timeline, suggested by Schwartz and Scott, will be used for clarification: $v(t^0)$ represents O's valuation before the theft (i.e. during the precautionary phase); $v(t^1)$ stands for the valuation at the moment of the theft; $v(t^2)$ is the valuation during O's attempts to find the stolen good and, finally, $v(t^3)$ is the chattel's valuation at the point in time of its discovery.

[129] ibid 1348.

[130] ibid 1344–1345.

protection at the margin.[131] This socially optimal level of care c^* can be expressed as:

$$Max_c\, p(c)v(t^0) - c$$

$$(3)\, p'(c)v(t^0) = 1$$

    Since O will only attempt to discover the lost chattel if the costs associated with the search are lower than the expected payoff from doing so, the term $[\delta^{t3}(x(z^*)\,v - z^*)]$ in equation (2) must be positive. As a result, the left part of equation (3) must be bigger than the left part of equation (2). This discrepancy is due to the fact that O chooses under *nemo dat* (equation (2)) a privately sub-optimal level of precaution $c\~$, because of her *ex-ante* knowledge that the law will allow her to recover any lost good upon its discovery. Unsurprisingly, the end result is: $c^* > c\~$.

    In other words, assume that O could, for instance, recover lost property instantly. In such a scenario δt^3 would equal 1, as would $x(z^*)$. The value-reducing delay in discovery, which is considered through the discount factor δ becomes irrelevant, as does the probability of finding the lost goods. That probability in this hypothetical is certainty of instant discovery. This subsequently leaves the term $[\delta^{t3}(x(z^*)v - z^*)]$ in equation (2) negative, which indicates that O takes zero precaution. As explained above, society's social welfare could be maximised if O chooses precaution in accordance with equation (3). This result can be achieved in equation (2) if O's precaution level renders the term $[\delta^{t3}(x(z^*)v - z^*)]$ equal to 0, which would make equations (2) and (3) identical. Instead, under *nemo dat* and more realistic conditions the term $[\delta^{t3}(x(z^*)v - z^*)]$ ranges between 0 and 1, which signifies O's suboptimal choice of precaution.[132]

    Contrastingly, from B's perspective the aim is to choose a level of inquiry w (i.e. costs), which will maximise his payoff from acquiring the chattel from a true owner or from a non-owner under the condition that despite O's optimal search z^*, he will never be discovered.[133] Eventually, from this joint probability the inquiry costs w need to be subtracted:

$$Max_w\, [p(w) + (1 - p(w))(1 - x(z^*))] - w$$

$$(4)\, p'(w)vx(z^*) = 1$$

    Although it is self-explanatory, it is important to note that v now represents B's subjective valuation of the chattel and not O's valuation. Equation (4) represents B's privately efficient choice of inquiry w$\~$ into the seller's title. For the socially efficient level of inquiry, though, the conditions under *nemo dat* are assumed to comprise the fact that O will prevail over B and that O always discovers that her

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[131]   ibid 1346.
[132]   ibid 1349.
[133]   ibid 1349f.

goods ended up with B. Accordingly, the socially efficient level of inquiry for B, which maximises his payoff from buying goods, can be expressed as:[134]

$$Max_w\ p(w)v - w$$

$$(5)\ p'(w)v = 1$$

According to equation (5), B will invest w^* in checking the quality of the title until the gain at the margin from keeping what he has bought *(p'(w)v)* equals the marginal cost of the title inquiry, which is the socially desirable level of investment.[135] Assume $x(z^*)$, O's optimal search, in B's privately efficient solution in equation (4) would indeed be optimal and therefore equal 1. In this case, B's private investigative effort would mirror the socially efficient level of investigation w^*. As a result, both equations (4) and (5) would be identical. However, as can be assumed that O's search effort is not optimal and that there are instances in which O will not discover her lost chattel at all, $x(z^*)$ is necessarily smaller than 1. Consequently, B is incentivised to invest a suboptimal amount $w^\sim$ into the inquiry of the seller's title: $w^* > w^\sim$.

In brief, only if O's likelihood of finding lost goods increased, then also B's complementary investigative effort would increase and approach the socially desirable level.[136]

Overall, the economic analysis of the present English *nemo dat* rule shows that (a) although its presumption in favour of O disincentives O to take measures which may aid in thwarting the risk of theft, (b) the same presumption incentivises O to increase the search effort for lost chattel to a more productive level and (c), simultaneously, B does not invest an optimal amount in ensuring that he buys property from a true-owner.

C. THE ALTERNATIVE: AN ECONOMIC ANALYSIS OF THE GOOD FAITH PURCHASE RULE

It is important to recall that under a good faith purchase rule the legal presumption will favour B to keep stolen or misappropriated goods. Although the rule, as indicated above in table 1, incentivises O to take appropriate care in foiling

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[134] ibid 1347.

[135] See Ashim Mallik, 'A Note on the Buyer's Problem' (1987) 15 The Annals of Statistics 1329 and Andreas Faller and Ludger Rüschendorf, 'On Approximative Solutions of Optimal Stopping Problems' (2011) 43 Advances in Applied Probability 1086, 1104. The buyer's incentive for a socially optimal inquiry, as explained through equation (5), is a simplified version of what economists term an optimal stopping problem. In fact, B keeps investing into an investigation of the seller's title until the probability of buying with good title is so high that further investment can no longer be justified.

[136] Schwartz and Scott (n 98) 1349.

theft of her chattel, it creates an inefficient incentive for O to search properly for lost goods, as she presumes that B will be allowed to retain goods bought in good faith.[137] The likelihood that O will receive the lost goods back is consequently the product of the probability that O discovers the whereabouts of her property $(x(z))$ multiplied by the probability that during litigation B can prove at the cost f that he acquired the chattel in good faith, which can be summarised as *[x(z) (1-(p(f)))]*.

Given that under a good faith purchase rule the presumption is in favour of B retaining the goods in question, $(1 - p(f))$ will be positive (i.e. between 0 and 1) and subsequently the likelihood that O will receive the chattel back is smaller than the likelihood of her discovering it, which reduces O's incentive to search optimally.

Under the conditions that O may not find B or that alternatively B successfully evidences good faith during litigation (i.e. two joint probabilities), B is incentivised under the good faith purchase rule to opt for a level of investigation at cost f that will maximise his payoff from acquiring what potentially may turn out to be stolen property. This can be expressed as:[138]

$$Max_f \left[\left(1 - \left(x(z) \left(1 - \left(p(f) \right) \right) \right) \right) + x(z)\left(1 - \left(p(f) \right) p(f') \right) \right] - f'$$

$$(6) \; p'(f')[v(x(z) \, (1 - (p(f)))] \; = \; 1$$

As becomes evident from a comparison of equation (6) with B's privately optimal behaviour under *nemo dat* (equation (4)), B will opt under a good faith purchase rule for a lower level of investigation than he would under *nemo dat*. Similarly, since the presumption is in B's favour under the good faith purchase rule, B will invest less in inquiring into the quality of the seller's title, because the costs associated with $p(f)$ are likely to be smaller than $p(w)$ under *nemo dat*.

In brief, a good faith purchase rule (a) incentivises O to reduce the risk of theft, (b) makes O's search effort once a chattel is lost suboptimal and (c) reduces B's investigation into the quality of the seller's title.[139] The findings under made in this section of this paper are summarised in Table 2 below:

137 ibid 1350.
138 ibid 1351.
139 ibid 1351f.

TABLE 2: THE AGENTS' INCENTIVES UNDER BOTH RULES

	O's precaution against theft	O's search efforts	B's quality of title inquiry
Nemo dat	suboptimal	optimal	suboptimal[140]
Good faith purchase rule	optimal	suboptimal	suboptimal

D. COMPARING NEMO DAT TO A GOOD FAITH PURCHASE RULE

At this point, the question arises which of the two rules is socially more efficient. The answer lies in a comparison of both O and B's marginal productivity of precaution[141] denoted as MP_O and MP_B.[142] As explained in table 1 above, for instance, changing from a *nemo dat* rule to one rewarding the good faith purchaser results in a positive improvement to O's precaution (ΔMP_O). Conversely, under the same change, B's precaution falls to a less socially efficient level (ΔMP_B). As a result, the abolition of the English property paradigm of *nemo dat* and a comprehensive change towards a good faith purchase rule is desirable in terms of social efficiency and welfare only if $\Delta MP_O - \Delta MP_O > 0$.[143] However, the task of collecting sufficient empirical data to conclude firm evidence out of this inequation is virtually impossible[144] and the discussion above shows how neither rule can result in efficient behaviour for all concerned agents.[145] The solution and reform proposal to this legal problem will be introduced in the next section of this paper.

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[140] Although an optimal inquiry may be expected under nemo dat, B's anticipation that O may never find him incentivises B to not inquire optimally, as is explained above.

[141] I.e. O's precaution to foil the theft and B's precaution to inquire into the quality of the seller's title.

[142] In economics, marginal productivity is denoted as the quotient of the change in input ΔX and output ΔY: $MP = \Delta X / \Delta Y$. For a general discussion on marginal productivity in the legal context see Posner (n 12) 427–431.

[143] Schwartz and Scott (n 98) 1353.

[144] ibid 1353. Alan Schwartz and Robert Scott note the difficulty, for example, in pinpointing 'comparative effectiveness of guarding a particular warehouse versus purchasing only from reputable stores that sold the warehoused goods.'

[145] See Tables 1 and 2 above.

IV. The Reform Proposal: a Negligence Regime

A. Setting a socially optimal standard of precaution

In order to maximise social welfare and efficiency O and B must face a simultaneous potential loss.[146] This can be achieved by changing the current *nemo dat* paradigm to a negligence rule.[147] The rule would function on the basis of a judicially determined socially efficient standard of care c^*.[148] If O met this standard, she will be allowed to recover the goods and if she fell below it at the time the theft occurred, then B will be entitled to keep them. Making B strictly liable anytime O meets the socially efficient standard of care is due to the agents' disparate hurdles in meeting their respective socially optimal levels of actions i.e. c^* and w^*: Whereas B must only inquire into the quality of the title, O's positive incentive to protect her chattel is marginalised by her 'ability to recover her property once it is stolen'.[149] In other words, O's incentive to foil any potential theft is to a degree adversely affected by her knowledge that she may not be able to discover and locate her stolen goods. This is why O's 'precaution level must be regulated directly to overcome this offsetting effect'.[150] Contrastingly, B merely needs to inquire into the quality of the seller's title. Given that B has no knowledge as to whether a good was stolen or not and if it was, whether the owner was negligent or not in protecting it from theft, making B strictly liable to any non-negligent owner will 'move the buyer closer to the optimal inquiry level'.[151]

In essence, comparing the negligence rule with the current *nemo dat* regime suggests overall improvements in both parties' incentives. Although the average risk-neutral buyer will be closer to w^* out of fear of being strictly liable to O when purchasing stolen goods, a risk-seeking buyer may still choose to inquire only with w, because O may never discover him. Contrastingly, for O to recover her goods, she must invest in c^*, the socially optimal amount of precaution, which will give O a right to repossession of her chattel. This will incentivise O to voluntarily adopt c^* and to search optimally as well (z^*), as she can expect to succeed in litigation once

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[146] The root cause of inefficiency is the double-moral hazard problem discussed under s 3(1) above.
[147] Schwartz and Scott (n 98) 1355ff.
[148] The question as to whether the judiciary is able to directly observe and distinguish between negligent and non-negligent behaviour will be addressed under s 4(3) below.
[149] Schwartz and Scott (n 98) 1354.
[150] ibid 1354.
[151] ibid 1354.

she finds B.[152] These findings are summarised in Table 3:

TABLE 3: THE NEGLIGENCE RULE OUTPERFORMS THE
OTHER PARADIGMS IN BRINGING THE AGENTS CLOSER TO
SOCIALLY EFFICIENT BEHAVIOURS.

	O's precaution against theft	O's search efforts	B's quality of title inquiry
Negligence Rule	optimal	optimal	between suboptimal and optimal
Nemo dat	suboptimal	optimal	suboptimal
Good faith purchase rule	optimal	suboptimal	suboptimal

B. AN ECONOMIC ANALYSIS OF THE PROPOSED NEGLIGENCE RULE

The overall purpose of the negligence rule is to minimise social costs. As discussed above, it is important to directly regulate O's precaution to a socially optimal level. Given that B's behaviour is best regulated by making him strictly liable to O's conduct, the courts will only need to assess the precaution O has actually taken and compare it to the socially desired level of precaution.

The expected social cost curve E(SC) for O is the sum of two graphs:[153] Let k be a cost factor for the level of precaution c that O chooses. It can be assumed that kc, the first graph, (Figure 1), is a linear function. The more O spends on precaution, the higher his precaution will be. The second graph is the product of the probability of theft, which is adversely correlated to the chosen level of precaution[154] and the monetary loss (i.e. O's valuation of the good) incurred by the theft of the good. This graph can be abbreviated as $p(c)v(t)$[155] and essentially denotes the expected harm of the theft.[156]
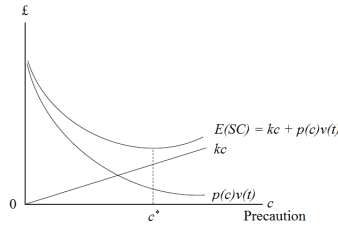
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[152] ibid 1355.
[153] cf Calabresi (n 24) 286ff.
[154] The higher the precaution the lower the probability of theft and vice versa.
[155] v(t) hereinafter refers to $v(t^0)$. See (n 128) above.
[156] cf Cooter and Ulen (n 3) 199-200.

The expected social cost curve, which is also depicted in Figure 1[157], is therefore:

FIGURE 1: THE EXPECTED SOCIAL COST CURVE
(ESC) FOR TORTIOUS NEGLIGENCE.

O's precaution is efficient if her cost of additional care equals the decrease in costs associated with the likelihood of the harm occurring, as can be seen from equation (8) below. Put differently, the marginal cost must equal the marginal benefit[158]. The efficient level of precaution c^* in E(SC) can be found by setting the first derivative in regards to precaution c equal to zero:

$$0 = kc + p(c)v(t)$$

$$kc = -\big(p(c)v(t)\big)$$

$$(8)\; k = -(p'(c^*)v(t))$$

As can be seen from E(SC) in Figure 1, the slope is negative, resulting in the minus sign in equation (8) making $(-(p'(c)))$ a positive expression. In interpreting c^*, it follows that in litigation, O would lose her goods to B if her precaution was below the optimal standard of precaution: $(c < c^*) \rightarrow (k < (p'(c^*)v(t))$. Taking more precaution in such a scenario would be 'cost-justified' and socially desirable.[159]

Conversely, if O's precaution equals or is greater than the socially optimal level, then she will be allowed to take her goods back:[160]

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[157] The graph was taken from Cooter and Ulen (n 3) 200. Some coefficients may have been adapted in their notation for the purposes of uniformity and consistency.

[158] ibid 201.

[159] ibid 201.

[160] O's precaution should equal or be as close as possible to c^*, as there will not be any additional benefit to exceeding c^*.
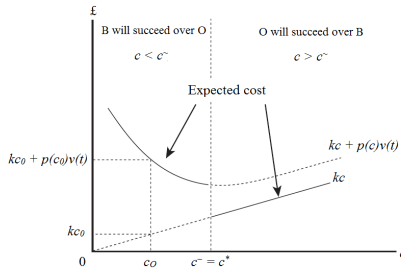
$(c \geq c^*) \rightarrow k \geq (p'(c^*)v(t))$.

The paragraph above assumes that the court sets the legal standard of precaution denoted as $c\tilde{}$ equal to c^*. Accordingly, if O's precaution is below the legal standard $c\tilde{}$, then she will lose in court to B. If it equalled or exceeded $c\tilde{}$, then she would succeed in repossessing her lost chattel.

Assume O's precaution is below $c\tilde{}$ and denoted as c_O. As can be seen from Figure 2,[161] the expected cost $(kc_O + p(c_O)v(t))$ to O at c_O is higher than it is at $c\tilde{}$. This is due to the discontinuity to the expected cost curve, which is created at the point O complies with the legal standard $c\tilde{}$.[162] Given that the lowest point on the curve is where the legal standard is set, a rational agent, such as O, is incentivised to minimise costs by getting as close to the legal standard as possible, which in turn is the socially optimal level of precaution.[163]

Two concerns arise at this point: Firstly, the analysis above assumes that a court of law is able to find c^* and set $c\tilde{}$ accordingly to it and secondly, that an agent is able to evidence compliance with $c\tilde{}$.[164] This paper shall address both of these issues in the following section.

FIGURE 2: EXPECTED COST CURVE WITH A
DISCONTINUITY AT THE LEGAL STANDARD C$\tilde{}$.

C. FINDING AND EVIDENCING THE SOCIALLY OPTIMAL
STANDARD OF PRECAUTION

As stated in the introduction, this paper submits that the instrumental values of protection of private property and commercial expediency are best

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[161] The graph was taken from Cooter and Ulen (n 3) 207. NB: Some coefficients may have been adapted in their notation for the purposes of uniformity and consistency.

[162] ibid 205–207.

[163] Cooter and Ulen (n 3) 206.

[164] Schwartz and Scott (n 98) 1357.

served under a negligence paradigm for property law. Unpredictability of results is likely to impair both these values. Firstly, a volatile legal standard fails to incentivise agents appropriately from guarding or interfering with private property.[165] Secondly, a volatile standard also reduces general commercial expediency by making unnecessary litigation more likely. This is due to the fact that volatility in c~ reduces the probability of pre-trial settlements as the parties own predictions as to the outcome of the litigation will increasingly diverge.[166]

Consequently, it is essential for the courts to determine with certainty what this legal standard, which should mirror the socially optimal level of precaution, will be. The economic model for O's socially optimal standard of precaution was already discussed above in equations (3) and (8). Accordingly, a court should set the standard of O's precaution on the basis of comparing the marginal social cost with the marginal social benefit, as in $k = -(p'(c^*)v(t))$.[167] For instance, assume O inherited a painting[168] valued at £100,000 and that there is one domestic burglary for every 1,000 households in the area she lives.[169] As a result, the court should reasonably expect O to invest at least £100 in protecting the painting from theft in order to avoid being negligent. Consequently, O must evidence to the court that within the operative facts of her case were measures of precaution, such as the installation of multi-point locks on doors and windows that amount to an investment in precaution of at least £100.

Factors which a court may want to take into account as signifiers for negligence and in assessing whether O reached c~ are virtually endless:

As examples, it could be negligence not to have a burglar alarm, not to have a good lock on doors, not to have a safe and to put valuables in it, not to have night lights, not to bar ground-floor windows in certain neighbourhoods, not to hire guards in museums, not to attempt to conceal valuable shipments or to hire guards for them, not to have an internal control system that permits inventory to be

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[165] Kenneth Abraham, 'The Trouble with Negligence' (2001). 54 Vanderbilt Law Review 1187,1202–1203.

[166] cf George Priest and Benjamin Klein, 'The Selection of Disputes for Litigation' (1984) 13 Journal of Legal studies 1, 10–11.

[167] This task is essentially the calculation of the standard of precaution in accordance to the Hand rule, which developed out of the famous case of *United States v Carrol Towing Co* 159 F.2d 169 (2d Cir 1947). The rule can be found in its contemporary application in the following US cases: *Raab v Utah Ry.*, 221 P.3d 219, 232 (2009); *In re City of New York*, 522 F.3d 279, 285 (2d Cir. 2008); *Bourne v Marty Gilman Inc.*, 452 F.3d 632 (7th Cir. 2006); and others).

[168] Schwartz and Scott (n 98) 1361. O is able to identify her stolen good, because this painting is assumed to be unique, which is also why O will search for it. If a good is generic, it is more difficult for O to evidence her ownership of it. Physically tagging goods, in order to link them to the original owner, is a solution to this issue and should qualify as proof of O's investment towards c~.

[169] The probability of a domestic burglary occurring in this fictitious scenario is therefore 0.001 or 0.1%.

tracked, not to use security cameras, or not to bolt mobile equipment to immobile structures.[170]

It can be assumed that the repetition of cases with 'comparatively small [factual] variations' over time will allow the courts to understand better which factors are cost-justified and allow them to find an optimal standard of precaution more easily.[171] Put differently, a negligence rule will ripen over time as the courts' accumulate more and more relevant experience. Having now outlined essential considerations as to the setting of the legal standard of precaution and the verifiability of negligence, the next section will discuss the possibility and the effects of judicial errors affecting O's precaution.

D. Modest errors in setting an optimal standard of precaution and uncertainty

As a final issue, it is important to note that judges may sometimes err in deciding cases and finding c^*. Often, any given factual matrix may be 'shrouded in a fog of uncertainty, [and the] interested parties such as the plaintiff and the defendant provide biased information, and few people [including the judges] have expert information about risks and precaution.'[172] A particular tendency for courts to struggle in setting the legal standard of precaution arises in cases in which the stolen or misappropriated good in question has no exact market value, but its loss is incompensable to the owner. This is the case if the chattel in question is something as unique as a particular family photograph or an ancestor's military medal for bravery and valour.[173]

Generally, it can be assumed that O will always attempt to comply with the legal standard of precaution and therefore adapt to judicial errors in determining this standard. In other words, if $\tilde{c}$ is excessive, then O's precaution will also be excessive. Equally, if $\tilde{c}$ is lower than c^*, then O will also adopt a lower and deficient standard of precaution to comply with the law. Accordingly, O's expected cost under non-compliance with a wrongly set legal standard of precaution is $\pounds[\varepsilon(kc) + p(c)v(t)]$ and with compliance it is only $\pounds[\varepsilon(kc)]$. Epsilon (ε) denotes the judicial

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[170] Schwartz and Scott (n 98) 1361. Schwartz and Scott name these factors 'negligence proxies'.

[171] cf Mark DeWolfe, *The Common Law by Oliver Wendell Holmes* (Little Brown & Co 1963) 989.

[172] Cooter and Ulen (n 3) 217–218.

[173] Robert Cooter, 'Hand Rule Damages for Incompensable Losses' (2003). 40 San Diego Law Review 1097, 1105–1108.

error factor in setting c~.[174] For example, if judges consistently employ a modest error in finding c~ and set it 10 per cent over the socially desirable standard c*, then ε corresponds to an error factor of 1.1.[175]

What if O is unable to predict the court's behaviour, because of persistent minor errors in finding c*?[176] In such a case, which assumes that the judicial errors 'follow a random distribution with zero mean'[177] (i.e. in half of all the cases the judges set the legal standard of care, for example, 10 per cent below c* and in the other half of all cases they set it 10 per cent above it),[178] owners will increase precaution to allow for a 'margin of error within which they will not be liable'.[179] O will do so, because at the point their behaviour complies with c~, their expected costs in reaching ε(kc) are likely to be significantly lower than the cost of non-compliance £[ε(kc) + p(c)v(t)]. For this reason, it can be said that modest errors are unlikely to be a significant concern. The errors themselves are also, as stated above in s 4(3), likely to diminish as the judiciary gathers more and more expertise over time in assessing re-occurring tortious acts within a framework of similar factual circumstances.

V. Conclusion

The central idea of this paper is that the current English application of *nemo dat* leads to a wasteful allocation of property rights between private parties which fails to adequately accommodate the competing interests of private property protection and commercial expediency. The present *ex ante* allocation of property rights in conjunction with its weak exceptions under the voidable title rule and the doctrine of apparent authority do a disservice to an exchange-based market society and disproportionately allow for buyers in good faith to lose during litigation. The reform proposal based on the tort of negligence does not attempt to reform these

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[174] Robert Cooter and Ariel Porat, 'Does risk to oneself increase care owed to others? Law and economics in conflict' (2000) XXIX Journal of Legal Studies 19, 31. As an example, Cooter submits that in assessing whether an agent breached the legal standard, judges often tend to ignore the fact that risk to oneself increases the care owed to others. If in any particular case, precaution is able to minimise the risk to oneself *and* to others, then the usual 'legal interpretation underestimates the reduction in risk relative to the economic interpretation, often by 50 percent. The consequence is a lower legal standard of care than required to minimize social costs.'

[175] O's expected cost when complying with this particular standard of care will therefore be £[1.1(kc)].

[176] The following reasoning can be applied analogously if the same issue arises not because the judges keep erring, but owners do in predicting their behaviour.

[177] Cooter and Ulen (n 3) 220.

[178] Put differently, ε fluctuates in this scenario consistently between 0.9 and 1.1.

[179] Cooter and Ulen (n 3) 221.

weak exceptions, as most current scholarship on this issue does,[180] but changes the entire property paradigm by removing any *ex-ante* ownership presumptions and making the entitlement to the good in question contingent upon the owner's behaviour. As a result, the affected parties are equipped with socially efficient incentives.

Although the author believes in the pragmatic application of the reform proposal, it must be noted that, as always, economic models cannot resemble and adequately predict the sheer complexity of human behaviour. It may be tempting to give situations and fact patterns, for the purpose of simplicity, certain labels only to realise that they fit uneasily into the marked slots of 'efficient' and 'inefficient'. Nevertheless, this paper highlights the proposal's feasibility by relaxing some of the simplifying assumptions made under sections IV.A and IV.B by adding thoughts on the issues of finding, evidencing and complying with a socially desirable standard, even if that standard is wrongly determined.[181] The purpose of this undertaking was to bring the negligence model closer to reality.

Even though it is highly unlikely that Parliament will reform this area of law within the foreseeable future, it must be emphasised that tort law appears to be more promising than retaining the English status quo, which has long been plagued by 'internal inconsistency and illogicality'.[182] Property law alone cannot attain the redistributive results which a composite of property and tort law is able to achieve. This combination is not only socially more efficient, but it also carries a normative connotation of fault which would otherwise be lost. It allows a society which values the ideas of private property protection and commercial and transactional convenience to appropriately label a party's actions or omissions as reasonable and justified or as blameworthy and undeserving of public protection in a court of law.

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[180] See ss II.C and II.D above.
[181] See ss IV.C and IV.D above.
[182] Bridge (n 15) ch 5.42.

GLOSSARY

Symbol	Meaning
O	The original owner.
T	Transferee (usually a thief or a rogue).
B	The good faith buyer.
v	The agent's valuation of a particular good.
z	The owner's expected costs for searching for the lost good.
x	The owner's probability of finding the lost good.
z^*	The owner's socially optimal search costs.
t^0	Timing of the theft: Before the theft.
t^1	Timing of the theft: At the moment of the theft.
t^2	Timing of the theft: The period after the theft and before the discovery.
t^3	Timing of the theft: At the moment of discovery.
c	Precaution.
p	Probability. (Usually in regards to the occurrence of the theft).
δ	The owner's discount factor. It denotes that the owner's expected payoff of finding a good changes over time.
c^*	The socially optimal level of precaution
c~	Denotes depending on the context either the owner's privately efficient level of precaution or the legal standard at which the level of precaution is set.
w	The buyer's costs of inquiring into the quality of the seller's title.
w^*	The socially optimal costs for the buyer's investigation.
f	The buyer's expected costs for evidencing good faith at trial.
E(SC)	Denotes the owner's expected social cost curve.
k	A cost factor in relation to the precaution (c) the owner chooses.
ε	Error factor.