THE RESTITUTIONARY AND ECONOMIC ANALYSES OF SALVAGE LAW

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1 Introduction

Maritime salvage has evolved over many hundreds of years into a branch of law that operates within the Admiralty jurisdiction of the High Court. Because its roots are based on civilian principles, Admiralty law allows for recovery of benefits conferred outside of contract in cases where the common law would not. Salvage law is a prime example of the Admiralty Court's jurisdiction to place principles of fairness and justice above fixed contractual rules. The Court has the power, conferred both by law and statute, to modify or annul contracts for salvage that are grossly unfair to one party even when the source of the unfairness is the substance of the contract itself. The inherently stressful nature of the circumstances in which salvage contracts tend to be made means the possibility of abuse is always present. Time is often critical, and the consequences of failure to reach a contract can include loss of the entire ship and its cargo, liability for pollution, and even loss of life. To mitigate the pressure on the parties, most salvage agreements allow for the price to be fixed by arbitration after the salvage operation is concluded. The most common contract for major salvage operations is the Lloyds Open Form Salvage Agreement, a standard-form document that can be agreed to by the parties at the incident without the need for protracted negotiation. The Lloyds Open Form (LOF) is an example of a contractual solution to the problems associated with negotiating in a high-stress situation such as salvage. LOF was developed by hull insurers, salvors, and cargo interests to create a contract that would serve all of their interests. The first version was used at the end of the nineteenth century and it has been periodically modified to suit changing circumstances ever since.

In this article I shall outline a brief history of salvage law and canvass two competing approaches that seek to explain and justify the way the Courts of Admiralty deal with claims for salvage both within and outside of contract. Typically the facility of the Admiralty jurisdiction to reward those whose efforts preserve property is justified on the basis of equity and public policy. For instance, it would be inequitable for a saved party to be enriched at the expense of her rescuer without compensating the rescuer for the service. Further, there is a wider public interest in encouraging volunteers to undertake rescues at sea. This public interest justifies the reward element of salvage payments. Francis Rose and others have characterised salvage awards as a form of restitution for unjust enrichment, whereas legal economists such as Richard Posner prefer an analysis that seeks to explain the evolution of salvage law as progress towards an allocatively efficient use of rescue and safety resources. I shall describe these two models for explaining salvage and examine how each can be applied to modern developments in salvage law and in particular the more recent need to reward salvors for their efforts in preventing environmental pollution. The demise of the original 'no cure no pay' system of salvage awards appears to strain the restitutionary analysis of salvage to breaking point. I shall conclude that while the economic model appears to fit salvage law better than the restitutionary one, the dismissal of public policy and equitable considerations as valid sources of the law ignores the explicit statements of judges and lawmakers of the rationale for the prevailing system of salvage law.

2. History of salvage law

The right of a maritime rescuer to be rewarded with a portion of the value of the saved property has been recognised for as long as there has been commercial trade at sea. The modern Admiralty jurisdiction can trace back its origins to Roman civil law and possibly further to the Rhodian maritime code of 900BC. Because Admiralty law evolved in parallel with the English common law, certain principles apply to maritime cases that do not apply to the same circumstances on land. The law of salvage is an example of this. In general, under the common law, a volunteer who rescues property from danger is not entitled to seek a reward from the owner of the property. However, if the property in danger is on the sea, then the rescuer has a right to a reward backed up by a lien against the property itself. The Court of Admiralty was historically a separate jurisdiction from the common law and Chancery courts. Admiralty law was based on civilian principles and practised exclusively by

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¹ Geoffrey Brice Maritime Law of Salvage (3rd ed, Sweet & Maxwell, London, 1999) 6.

² A necessitous intervener may in some cases claim compensation for expense incurred but this does not amount to a reward for the public policy purpose of encouraging intervention. See Francis D Rose, 'Restitution for the Rescuer' (1989) 9 Oxford Journal of Legal Studies 167-204

³ Francis D Rose Kennedy & Rose: The Law of Salvage (6th ed, 2002) 2.

members of the Doctors' Commons – civil lawyers who dealt with Admiralty and ecclesiastical law. Before the invention of steam-powered vessels, salvage law was primarily concerned with the recovery of property following the stranding of a vessel. Historically, the Crown reserved the right to deal with unclaimed property saved from shipwrecks or washed ashore. However, the right to property found on the high seas was granted by the Crown to the Lord High Admiral. The jurisdiction evolved from being the personal right of the Admiral into the High Court of Admiralty, and its authority extended beyond unclaimed property to all goods found at sea. ⁴ The Admiralty Court was able to award salvage to rescuers to be paid by the owners of the property. In addition to the Admiralty jurisdiction, control over goods washed ashore was exercised by local authorities via the common law. The common law courts sought to limit Admiralty jurisdiction to the high seas and strongly resisted any attempts to encroach inland, such as upon waterways and lakes.

The territorial dispute between the common law courts and Admiralty meant the Admiralty jurisdiction in England was limited to property recovered on the high seas until the nineteenth century, when jurisdiction was extended to include the body of the country by legislation.⁵ The Judicature Acts of 1873–1875 abolished the High Court of Admiralty and set up a unified High Court, which applied Admiralty law in cases falling within Admiralty jurisdiction. The general position at common law is that a person cannot be forced to pay for an unrequested benefit.⁶ Thus, a rescuer has no right to restitution for saving another's property and cannot impose a debt upon the owner merely by saving property. This means the same act may attract salvage if carried out within Admiralty jurisdiction but not if done within the common law jurisdiction.⁷ No matter what the skills employed or danger faced, a volunteer rescuer has no salvage claim for saving property from a burning building, whereas the same act at sea would attract a reward.⁸ However, the common law courts did recognise salvage as a defence against being sued for detinue⁹ and, in a limited way, as necessitous intervention where an agency relationship pre-existed between the parties.¹⁰ The merger of the Admiralty jurisdiction with common law and equity in the High Court meant that liability for salvage did not develop further in the common law.¹¹

In New Zealand the Admiralty jurisdiction is exercised in the High Court under the Admiralty Act 1973 (NZ). This Act is modelled on the Administration of Justice Act of 1956 (UK). In England this was superseded by the Supreme Court Act 1981 (UK), leading to a disconnection between Admiralty law in England and in New Zealand. Salvage in New Zealand is governed by Part 17 of the Maritime Transport Act 1994 (NZ), which incorporates the International Convention on Salvage 1989 (1989 Convention) in its entirety

3. The Nature of Salvage Law

Admiralty law is said to be equitable in character and is generally concerned with what is fair and just in each case rather than with rigid adherence to rules. This historic fluidity in approach has persisted to the present and may be contrasted with the Chancery law of equity, which evolved from a flexible system of fairness and justice into a more systematic body of rules. In 1875, the Courts of Chancery, Admiralty and common law were merged into a single High Court and so the doctrines of equity are now available to Admiralty judges in their decision-making. However, the Admiralty Court will look at the overall circumstances of a case and is quite prepared to depart from rules in the interests of equity. For example, contracts for salvage are subject to modification by the courts if the agreed price is deemed too high or too low to be fair to both parties. This contrasts with the common law principle that the court will not question the adequacy of consideration or change the substance of a contract between parties. A justification for this difference between common law and Admiralty is that Admiralty seeks to balance the need to encourage salvors for public policy reasons against the risk of unfair contracts being agreed under duress in circumstances of emergency. Delay caused by protracted negotiations could be disastrous, and there is always the potential for one of the parties to exploit the emergency by placing undue pressure on the other to agree to an inflated price. Justice Storey articulated this principle in *The Emulous*; 17

⁴ Rose, above n 3, 52.

⁵ Ibid 57.

⁶ Falcke v Scottish Imperial Ins Co (1886) 43 Ch D 234, 248.

⁷ The Goring [1988] AC 831.

⁸ Mason v The Blaireau, (1804) 6 US (2 Cranch) 240, 266.

⁹ Rose, above n 3, 68; Hartford v Jones etc (1698) 1 Ld Raym 393.

¹⁰ Rose, above n 3, 72; *Newman v Walters* (1804) 3 Bos & Pul. 612.

¹¹ Rose, above n 3, 74.

¹² Butterworths, *Laws NZ*, Maritime Law: Admiralty para 1(4).

¹³ Rose, above n 3, 12.

¹⁴ The Juliana (1882) 2Dods. 504.

¹⁵ Rose, above n 3, 416.

¹⁶ Ibid 414.

¹⁷ (1832) F. Cas. 4480.

[N]o system of jurisprudence, purporting to be founded upon moral or religious, or even rational principles could tolerate for a moment the doctrine, that a salvor might avail himself of the calamities of others to force upon them a contract, unjust, oppressive and exorbitant; that he might turn the price of safety into the price of ruin; that he might turn an act, demanded by Christian and public duty, into a traffic of profit, which would outrage human feelings, and disgrace human justice.

This emphasis on the morality of the contract was prevalent in Admiralty and influenced decisions on salvage even at the height of the classical liberal view of contract held by common law courts of the nineteenth century.

Consistent with the fluid character of Admiralty law, the definition of salvage is not fixed. *Kennedy & Rose* gives a working definition of salvage as; ¹⁸

...a service which confers a benefit by saving or helping to save a recognised subject of salvage when in danger from which it cannot be extricated unaided, if and so far as the rendering of such service is voluntary in the sense of being attributable neither to a pre-existing obligation nor solely for the interests of the salvor.

This definition contains the essential elements of salvage service, which are: a recognised subject of salvage; danger necessitating salvage service; a volunteer salvor; and success. The amount of a salvage award under Admiralty law is always a matter of discretion for a tribunal or arbitrator. Even where a fixed price contract has been agreed, the *1989 Convention* gives the Court the right to modify the contract if the price is deemed too high or too low to be fair to all parties. **In the salves states that the quantum of a salvage award is determined in accordance with three principles: *(1) The salvee should pay for the benefit received; 2) the salvor should be rewarded for the service provided; 3) the reward should reflect public policy. **20

An essential element of salvage service is danger. If the property is not in danger, the service provided is not salvage. The nature of the danger is open to interpretation. It is settled law that the danger may be merely 'reasonably apprehended' if the salvors have taken risks to avert what they perceived as an imminent risk to the property. Clift and Gay point out that the danger element of salvage has become essential only since a major shift in the nature of salvage services in the nineteenth century. Before the advent of steam-powered vessels capable of towing a ship out of danger and thus saving it from total loss, salvage law was concerned with rewarding the recovery of property that had actually been lost. In keeping with the restitutionary focus of civil law, the award was based upon the value of the recovered property. With the shift towards preventative salvage, claims were made against property in danger of being lost. Instead of the reward being calculated based on the value of the salvors' work, the reward continued to be determined by the value of the property and proof the property was in danger of being lost became an essential element of salvage.

An issue that has become relevant in recent times is the question of whether a ship owner's potential liability to third parties amounts to danger. In *The Whippingham*²³ it was held that 'saving ... a vessel from causing damage to other ships which might result in a claim is a [salvage] service'. Even if claims for damage were ultimately unsuccessful, the unrecovered costs of defending litigation had been avoided due to the salvors' actions. For example, in the event of a major oil tanker casualty, the ship owner would be liable for environmental damage caused by an oil spill. This could amount to many times the value of the ship itself. It could be argued that even where no physical property has been saved to form the basis of a salvage claim, the salvor could claim some portion of the ship owner's averted liability. *The Whippingham* case implies conferring a benefit alone is sufficient to support a salvage claim, but Brice contends liability salvage cannot exist without some coexisting salvage of the property from a recognised danger. Before the *1989 Convention* was agreed, liability salvage was put forward by some as a solution to the problem of rewarding salvors for their efforts to prevent environmental damage. A major criticism of liability salvage is that potential liabilities are unquantifiable after they have been averted. Even in cases where the damage actually occurred, such as the *Torrey Canyon* disaster, the external cost of damage from the spill was found to be 'extensive but

¹⁸ Rose, above n 3, 8.

¹⁹ International Convention on Salvage, opened for signature 28 April 1989, IMO-454A, (entered into force 14 July 1996) (1989 Convention), Article 7.

²⁰ Rose above n 3, 646.

²¹ The Phantom (1866) LR 1 A&E 58, 60; The Hamtun [1999] Lloyds Rep 883.

²² Rhys Clift and Robert Gay 'The Shifting Nature of Salvage Law: A View from a Distance' (2004-2005) 79 *Tulane Law Review* 1355, 1360.

²³ (1934) 48 Ll.L.Rep 49.

²⁴ Brice, above n 1, 387.

²⁵ Ibid 389

²⁶ Steven F Friedell, 'Salvage and the Public Interest' (1982-1983) 4 *Cardozo Law Review* 431.

unquantifiable'. 27 This issue was partially addressed by the introduction of special compensation in LOF and the Article 14 award in the 1989 Convention, which took liability salvage off the international agenda. However, given the increasing gap between the costs of environmental salvage and potential salvage awards, some interests are again advocating for the introduction of a system of liability salvage to operate in parallel with the LOF and salvage convention regimes.²

Salvage law is strongly influenced by public policy. As will be discussed below, the element of the salvage award that rewards meritorious behaviour cannot be explained by the principles of unjust enrichment. The reward is intended to encourage future salvors in the interests of the public good. In this way the reward element of salvage awards has been described as akin to a tax on ship and cargo owners because it ensures it will be worthwhile for salvors to undertake salvage services in the future and thus enhance the safety of all those who trade at sea.²⁹ This public policy aspect of salvage awards (intended to encourage salvors to undertake rescue operations) leads to the court's willingness to be lenient with rescuers. Under the common law contracts may be vitiated due to a number of factors such as mistake, duress, or misrepresentation. The rules governing these factors are well established, and if the vitiating factor is established, the contract may be avoided. Under Admiralty law, however, a contract that is void or voidable due to misconduct by one party may still give rise to obligations on the part of the victim. For example, a fixed price contract for salvage found to have been agreed under duress by the salvor may be modified by the court to award the salvor a fair price for his efforts even though under the common law the victim would not be bound by the contract at all. This principle has been codified both in the 1989 Convention³¹ and its predecessor, the Brussels Salvage Convention 1910 (1910 Convention).32

4. **Environmental Salvage**

From the mid nineteenth century, technical improvements in shipping made salvage operations both more costly and more lucrative. Steam-powered tugs were able to rescue ships from danger where previously they would have been lost. Specialised salvage tugs began to be stationed near busy shipping lanes. The public benefit of having professional salvors rather than opportunists was reflected in the enhancement of salvage awards for professionals.³³ To encourage professional salvage firms it was necessary for salvage awards to cover the cost of keeping a vessel on standby waiting for a casualty. Versions of the Lloyds Open Form Contract had been in use since the 1890s. These provided for arbitration under English law to determine the salvage award. The first international convention on salvage law was the Brussels Convention of 1910.34 Essentially it codified the English law of salvage as it stood at the time. Nearly half of the world's tonnage at that time was registered in the British Empire, and seven states controlled over 80 per cent of shipping.³⁵ This made it relatively easy to gain consensus for an international convention on salvage law. In particular, the doctrine of 'no cure no pay' was adopted and the criteria for determining salvage awards reflected those considered in the English Court of Admiralty. 36 As ships grew larger, both the Admiralty law and the Brussels Convention proved to be inadequate in situations where the cost of salvage exceeded the value of the salved property. Traditionally, in this type of case, the salvor would choose not to take on the task and the owner would lose her property. With the advent of large crude oil tankers, however, it was not an option to simply abandon the stricken vessel to its fate. Major incidents of coastal oil pollution were a catalyst for a new international convention that sought to realign the financial interests of the salvors with the public interest in mitigating pollution.

The evolution of the maritime salvage contract has been punctuated by several high-profile marine casualties

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²⁷ Paul Burrows et al, 'The Economics of Accidental Oil Pollution by Tankers in Coastal Waters' (1974) 3 Journal of Public Economics

²⁸ Hans van Rooij, (President, International Salvage Union) Address to Oil Pollution 2006 Conference London, May 8-9, 2006, International Salvage Union Website.

http://www.marine-salvage.com/media_information/index.asp?page=papers/oil%20pollution%202006.htm, at 16 July 2007. SM Waddams, *Dimensions of Private Law* (Cambridge University Press, New York, 2003) 217; The Glengyle L.R [1898] 97.

³⁰ Rose, above n3, 415; *The Medina* (1876-77) LR 2 PD 5.

³¹ Art 7 above n19. 'A contract... may be annulled or modified [if] ... the contract has been entered into under undue influence or the influence of danger and its terms are inequitable; or ... the payment under the contract is in an excessive degree too large or too small for the services actually rendered.'.

³² Convention for the Unification of Certain Rules of Law Respecting Assistance and Salvage at Sea, Signed at Brussels, Sept 23 1910 ('Salvage Convention 1910') Art 7: 'In all cases, when it is proved that the consent of one of the parties is vitiated by fraud or concealment, or when the remuneration is, in proportion to the services rendered, in an excessive degree too large or too small, the agreement may be annulled or modified by the court at the request of the party affected.'.

³³ The Queen Elizabeth (1949) 82 Ll L Rep 803.

³⁴ Above n, 32.

³⁵ Michael Kerr 'The International Convention on Salvage 1989 - How it Came to Be' (1990) 39 International and Comparative Law Quarterly 530.

Rose, above n 3, 645.

that required new approaches to the allocation of risk and remuneration in salvage operations. The increased transport of large amounts of crude oil and other pollutants around the world means that the costs of environmental clean-up and compensation may far exceed the value of the salved vessel and its cargo. Under both the traditional Admiralty law of pure salvage and the 1910 Convention there was no incentive for a professional salvor to undertake a rescue operation where the costs would have outweighed any potential salvage award. In 1967, the laden oil tanker The Torey Canyon went aground off the Scilly Isles and spilt 100,000 tonnes of its cargo of crude oil, leaving about 19,000 tonnes on board.³⁷ Despite the efforts of salvors to refloat the vessel, it was eventually bombed by the Royal Navy in an effort to burn off some of the spilt oil before it reached the coastline. This meant total destruction of the salvors' security and the loss of their right to be paid, as a 'cure' was not provided. The value of the vessel was £5.89 million in 1967 pounds and the value of the cargo was £600,000. It was in the salvors' interest to spend more effort in preserving the ship than preventing the escape of the cargo, despite the fact that eventually the total quantifiable cost of the oil spill amounted to £14.24 million. 38 In the end the salvors received nothing for their efforts to save the hull, as it was completely destroyed and the delay in burning off the crude oil meant most of the cargo was washed up on the Cornish coastline. This incident was among the first of many that made it clear a new compensation regime was required that would give salvors an incentive to prevent pollution even at the expense of the vessel itself. Incidents such as The Torrey Canyon made professional salvors reluctant to attempt to save leaking tankers, and so environmental pollution occurred that could otherwise have been mitigated.

As the consequences of environmental pollution from shipping casualties became apparent, coastal states began implementing laws governing the management of marine casualties that threatened their coastlines. Salvors were no longer able to run a salvage operation according to their own priorities and to maximise the possibility of successfully saving the maximum amount of valuable property. States demanded that salvage measures prioritised the prevention of pollution and reserved the right to intervene or oversee the salvage operation to prevent pollution in accordance with international conventions. An unintended effect of the new regimes was to discourage salvors from taking on complicated operations, as they were no longer in a position to manage the risks. With straightforward property salvage, those who benefit from the salvage must pay the salvor. However, where there is threatened environmental damage, the beneficiaries of the salvage operation may be the state or coastal land interests. Although the ship owner has a liability for any pollution that occurs, the benefit to the coastal state may outweigh what it would recoup from a culpable ship owner. The salvor has no salvage claim against third parties either for expenses incurred in preventing pollution or as portion of the value of the property saved.

The question of how to compensate salvors for effort expended in preventing oil spills and other environmental damage was first addressed in a limited way by the oil industry itself. By signing up to voluntary regimes such as TOVALOP and CRISTAL, 40 tanker owners undertook to compensate coastal interests for pollution and clean-up costs. This was of indirect benefit to salvors but did not prove to be a strong incentive for professional salvage companies to undertake high-risk operations where environmental damage was likely.⁴¹ A modification to the LOF contract in 1980 diluted the 'no cure no pay' principle by introducing a 'safety net' clause. This change was in response to another major tanker casualty, The Amoco Cadiz, which foundered off the French coastline after a tow line parted during a salvage attempt, causing massive environmental damage. The safety net clause in LOF 1980 was restricted to tankers loaded or partly loaded with oil. It provided for the payment of the salvor's expenses plus an increment of 15 per cent even when the salvage had been unsuccessful or partially successful. 42 The implementation of the 'safety net' clause in LOF 1980 was the impetus for the Comité International Maritime (CMI) to draft the outline of a new salvage convention, which ultimately became the 1989 Convention, 43 and in turn the 1989 Convention was incorporated into the 1990 and subsequent versions of LOF. 44 The main innovation of the 1989 Convention was Article 14. This provides for special compensation for salvors when their efforts have prevented or minimised threatened damage to the environment. The special compensation award is equivalent to the salvor's expenses plus an increment of up to 30 per cent or up to 100

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³⁷ Paul Burrows et al, 'The Economics of Accidental Oil Pollution by Tankers in Coastal Waters' (1974) 3 *Journal of Public Economics*, 251, 257.

³⁸ Ibid 258, see also Wayne T Brough 'Liability Salvage – By Private Ordering' (1990) 19 Journal of Legal Studies 95.

³⁹ For example, The International Convention on Oil Pollution Preparedness, Response and Co-operation, adopted 30 Nov 1990, IMO-554A (Entered into force 13 May 1995) (*'OPRC Convention'*); 1989 Convention Art 9; Rose, above n 19.

⁴⁰ 'Tanker Owners Voluntary Agreement Concerning Liability for Oil Pollution' and 'Contract Regarding an Interim Supplement to Tanker Liability for Oil Pollution'.

⁴¹ Kerr, above n 35, 534.

⁴² Ibid 536.

⁴³ Ibid 539.

⁴⁴ Geoffrey Brice 'Salvage and the Marine Environment' (1995-1996) 70 *Tulane Law Review* 669, 673.

per cent in special circumstances. 45 Unlike a standard salvage award, special compensation is payable only by the hull interests and not the cargo interests. Special compensation for preventing damage to the environment is not restitution for unjust enrichment. This payment is triggered when the award under normal Admiralty principles is insufficient to cover the expenses of the salvor as specified in Article 14 of the 1989 Convention. The compensation is not linked to actual savings made by the ship owner in averted liability but is determined by the cost of the work done by the salvor while still limited by the salved value of the property.

The adequacy of the special compensation available to salvors under Article 14 of the 1989 Convention was brought into question by the *Nagasaki Spirit* casualty in 1992. 46 The House of Lords held the payment available to the salvor under Article 14 did not include an element of profit, but only direct expenses incurred and compensation for the cost of keeping vessels on standby. Lord Mustill said the Convention does not create a new category of 'environmental salvage' and 'the right to special compensation depends on the performance of "salvage operations" which ... are defined by article 1(a) as operations to 'assist a vessel in distress'. 47 The ruling in the Nagasaki Spirit led to a further innovation in the year 2000 version of Lloyds Open Form, when an optional additional clause was added. This 'SCOPIC' 48 clause deals with environmental salvage and allows for remuneration based on a standard tariff when a traditional salvage award based on Article 13 of the 1989 Convention is insufficient. The SCOPIC clause is incorporated in LOF at the time of signing but does not take effect until it is invoked in writing at the salvor's option. This is a strategic decision on the part of the salvor because an article 13 award in excess of the compensation available under SCOPIC is discounted by half of the difference between the two. 49

Developments in salvage law over the last century have been in response to technical advances and shifts in priorities. As ships, particularly oil tankers, grew larger, the potential for catastrophic spills increased. At the same time, increasing environmental awareness means liability for pollution is sheeted home to the vessel owners and their insurers. The traditional model for determining salvage awards has proved insufficient to encourage salvors in the face of high costs and decreased likelihood of success. The 1989 Convention and LOF are mutually reinforcing as each incorporates principles from the other and developments in the law relating to one has led to adaptation by the other. For example, the safety net clause in LOF paved the way for Article 14, the shortcomings of which led to the development of the SCOPIC clause. Developments of this kind move salvage law further away from its original focus on the saving of property and the requirement for success in order to have a valid claim for salvage. This shift in the basis for salvage awards may serve to illuminate which of the competing analyses of the underlying justification of salvage law is the best fit.

5. Salvage Law as Restitution

The Admiralty jurisdiction rewards salvors based on the principle that an owner of saved property is liable to pay for any benefit received. This reflects the origins of Admiralty law in Roman law, which generally prohibits unjust enrichment at the expense of another and through the doctrine of negotiorum gestio compensates those who act on behalf of another in an emergency. 50 Negotiorum gestio is a civilian concept where, through necessity, a volunteer takes over the affairs of another and acts as an agent. 51 The act need not have a successful outcome provided it was reasonable given the circumstances. The common law has historically not recognised this concept, as it is in conflict with the fundamental principle that a person cannot be liable for benefits conferred against her will. In Falke v Scottish Imperial Insurance Co, 52 Bowen LJ stated that the general rule in common law is that resources spent to confer an unrequested benefit on another do not create a liability to repay the expenditure. He distinguished maritime salvage law from this principle on the grounds of the special nature of the mercantile enterprise and the risks inherent in trading at sea. The issue of common law restitution for salvage was argued in *The Goring*. 53 In that case a claim was made for salvage after a vessel was rescued in the river Thames. As the river was outside Admiralty jurisdiction, no salvage award could be made but the question arose whether the common law could reimburse expenses for an act undertaken for the benefit of the property owner in circumstances of necessity. In the Court of Appeal, Donaldson MR stated: 'a claim for salvage

⁴⁸ Special Compensation P&I Club Clauses.

^{45 1989} Convention, Art 14 (2).

⁴⁶ [1997] AC 455. ⁴⁷ Ibid 468.

⁴⁹ Liang Chen 'Salvage: Recent Developments in the Law of Salvage of the Marine Environment' (2001) 16 International Journal of Marine & Coastal Law 686, 693.

⁰ S Stoljar, The Law of Quasi Contract (2nd ed, The Law Book Co, Sydney, 1989) 171-176; Rose, Restitution for the Rescuer, above n2.

⁵¹ FD Rose, above n 2, 170.

^{52 (1886)} Ch.D 234.

⁵³ [1988] AC 831.

remuneration, otherwise than by contract, is a cause of action unknown to the common law. 54 Aitkin suggests that the unifying element in the instances where the English courts do recognise negotiorum gestio is that the circumstances were historically governed by the Ecclesiastical or Admiralty courts, both founded on civil law principles.⁵⁵ The main examples of negotiorum gestio are the burial of bodies and maritime salvage. The common law system of regulating contractual relations between individuals is not compatible with the concept of negotiorum gestio, as it is essentially holding someone to an obligation for which they did not contract. However, both in salvage and the burial of the dead there is an overriding public good in encouraging people to look after the affairs of another even without consent.

Two commonly accepted rationalisations for the concept of salvage are the prohibition against unjust enrichment and the public policy requirement to reward salvors. Maritime salvage has been characterised as a type of restitution for unjust enrichment. 56 The owner of the marine property (the ship and its cargo) benefits by the act of the rescuer and it would be unjust for the property owner to keep the benefit at the rescuer's expense. Restitution as a branch of law is concerned with situations where there is unjustified enrichment of the defendant at the expense of the plaintiff. Under restitution law the measure of recovery is either the value received by the defendant or the value remains with the defendant.⁵⁷ When the enrichment of the defendant occurs through the unrequested intervention of the plaintiff, the general position under the common law is that no restitution is available. As Lord Bowen said in Falcke v Scottish Imperial Insurance Society, 'liabilities are not to be forced on people behind their backs any more than you can confer a benefit upon a man against his will'. 58 Lord Bowen went on to refer to salvage and general average under maritime law as exceptions to this general proposition. It has been argued, however, that recovery would be available for rescue under the common law if all the criteria for necessitous intervention were met. Rose states that the emergency nature of the event authorises the plaintiff to act without the express authority of the property owner. 59 In most modern salvage cases, however, salvage is undertaken with the express permission of the property owner or his agent. Even though this agreement may constitute a contract, a large body of case law affirms the right to a reward is based on the benefit conferred and not on an explicit or implied contract.

Stoljar argues that modern salvage law, which since the advent of steam tugs and specialised professional salvors is concerned with preventing damage to the ship or property rather than retrieving property already lost, must be based at least on a quasi-contract. An essential element of a salvage service is property must be in danger. Stoljar points out the salvor would have no claim at all if danger could not be proven. The presence of real or apprehended danger can be proven by the use of distress signals. 61 As the salvor is invariably summoned to assist by a distress signal or other communication, in proving the operation is salvage, the salvor also shows that his activities were requested. The operation could be viewed as an emergency contract, the essential terms of which are yet to be decided. Stoliar argues modern salvage services are contracts implied in fact. 62 Gaskell contends Stoljar's argument is unconvincing because danger must be proved objectively and the salvee could deny having made a request. Although most modern salvage cases could be argued to be requested services, this is not always the case and is not the determining factor of the existence of salvage. Thus, quasi-contract does not appear to be an explanation of the nature of modern salvage but is perhaps a parallel justification of some salvage claims. Like Stoljar, Hedley argues maritime salvage is an example of a contract where there is a failure of formality. 63 The service may be performed without the parties agreeing all the terms. Hedley points out pure (non-contractual) salvage is assessed according to standard industry contractual terms and contractual salvage is not allowed to depart too far from what is fair and reasonable according to the same standard.⁶⁴ Hedley asserts that whether the justification be equitable or economic, parties to a salvage service are essentially being forced into contracts with each other. By contrast, Birks states salvage law was 'never infected by the explanation in terms of implied contract'.65 Although many salvage situations would appear to have all of the elements required to imply a contract between the parties, these elements are not necessary for a right to salvage to exist.

In a claim for restitution it is necessary that the defendant is enriched in some way. Restitution requires that the

⁵⁴ [1987] 1 QB 687, 704.

⁵⁵ Lee JW Aitken 'Negotiorum Gestio and the Common Law: A Jurisdictional Approach' (1986-1988) 11 Sydney Law Review 566, 568.

⁵⁶ Rose, above n 2.

⁵⁷ Rose 'Restitution and Maritime Law' in EJH Schrage (ed) *Unjust Enrichment and the Law of Contract* (Kluwer, The Hague, 2001) 367, 378; Rose, 'Restitution for the Rescuer' above n 2, 169. (1886) Ch.D 234, 248.

⁵⁹ Rose . above n 2, 170.

⁶⁰ The Troilus [1950]; The Hestia [1895].

⁶¹ The Wilhelmine (1842) 1 Not. Of Cas. 376.

⁶² S Stoljar, The Law of Quasi Contract (2nd ed, 1989) 171-176.

⁶³ Steve Hedley, 'Implied Contract and Restitution' (2004) 63(2) Cambridge Law Journal 435, 444.

⁶⁵ Peter Birks An Introduction to the Law of Restitution (2nd ed, Clarendon Press, Oxford, 1989) 304.

person enriched is the person liable to pay. This is also the case in salvage law, where the owners of the salved property are liable for the salvage award. Rose asserts the salvage law requirement is met by the condition of 'no cure no pay' in salvage contracts and in the *1989 Convention* requirement that the service must have a useful result. 66 Success is one of the essential elements of pure (non-contractual) salvage. As the rescued party already owned the property before the rescue took place, the enrichment is not the acquisition of additional property but rather prevention of a loss. Birks observes it is unclear what the nature of the enrichment might be. 67 It could be either the value of the salvor's work or the value of the defendant's property. The justification for restitution is 'vitiated voluntariness': the rescuer was compelled to act by the circumstances. Because the rescuer did not have a choice whether to act or not, it would be unjustifiable the defendant would benefit at the rescuer's expense. However, most salvage is not undertaken under compulsion but rather by professional salvors that have made a choice to come to the aid of a stricken vessel. Further, the level of a salvage award is deliberately enhanced by the courts for salvors who maintain vessels on standby expressly for salvage purposes. 88 It is often stated the purpose of salvage awards is to encourage salvors to voluntarily undertake rescues as a matter of public policy. 69 An act undertaken voluntarily with the intention of gaining a reward does not on its face fall within the criteria for restitution.

A salvage award has three purposes: remuneration of the work done, reimbursement of expenses incurred, and a reward. The amount of the award is completely discretionary. Salvage awards differ from restitutionary payments because of the reward element. This part of the award does not relate directly to the benefit received by the defendant if the benefit is measured as the value of the service provided by the rescuer and not the value of the property saved. The rescued party will never be deprived of the entire value of their property, as it is an essential feature of salvage awards that the salvee actually benefits from the salvage service. Rose states that the question of whether salvage fits into a restitutionary model depends upon the flexibility of the law of restitution. If the criteria for restitution for necessitous intervention are flexible, then salvage may be made to fit within them. If the criteria are rigid, the availability of special compensation and the reward element of the general salvage award fall outside strict restitution boundaries.

The claim to restitution in maritime salvage cases does not rest on the fact the rescuer was compelled to act by the urgency of the situation, although that may often be the case. The justification for necessitous intervention in general is that the intervener had no choice but to act for the benefit of the defendant. As Birks suggests, voluntariness is vitiated by the emergency. ⁷¹ However, in the case of salvage, there is no requirement that the rescuer is compelled, morally or otherwise, to assist. In fact, professional salvors are generally considered by the courts to be deserving of a higher award than rescuers who happen upon the casualty despite there being no moral component to the professional salvor's act. 72 This can be seen from the public policy perspective of encouraging a salvage industry with boats on standby for the general good, but contrasts with the common law criteria for necessitous intervention. Birks states that restitution only applies where the extent of the defendant's liability is the benefit gained at the plaintiff's expense. 73 Because salvage awards do more than merely compensate salvors for their outlay by including a reward element, it is arguable that they are not restitutionary. However, salvage awards are capped at the value of the salved property and so in this way cannot exceed the benefit obtained by the owner. If the reward part of the salvage award was merely a reflection of the value of the salvor's work, it may be restitutionary, but if the reward is a windfall designed to encourage similar acts in the future, a salvage award does not fall within restitutionary criteria. Maritime salvage evolved from a public policy requirement to encourage rescue at sea. Birks describes salvage as a borderline case in the category of restitution because while the court seeks to fix a reward that is fair and reasonable, and therefore does not refer directly to the benefit conferred upon the defendant, the criteria for determining this amount could be argued to reflect the value of the work done by the salvor.⁷⁴

6. Economic Analysis of Salvage Law

An alternative to the restitutionary analysis of the justification of salvage law is the economic analysis of the law. The economic analysis suggests that judge-made law, while ostensibly striving to achieve fairness and justice, is in fact evolving the most allocatively efficient system of resource distribution in an environment

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^{66 1989} Convention, Article 12, above n 19.

⁶⁷ Birks above n 65, 307.

⁶⁸ The Glengyle LR [1898] 97.

⁶⁹ For example *The Queen Elizabeth* (1949) 82 Lloyds LR 803.

⁷⁰ Rose. above n 57.

⁷¹ Birks above n 65, 304.

⁷² The Glengyle L.R [1898] p97; The Queen Elizabeth (1949) 82 Lloyds LR 803.

⁷³ Birks above n 65, 307.

⁷⁴ Ibid.

where transaction costs would otherwise be prohibitively high.⁷⁵ One criticism of the economic analysis is this: it fails to acknowledge that ideas of justice, equity and public efficacy have clearly been important in the development of the law. 'Economic analysis illuminates the understanding of private law but does not exclude considerations of justice between the individual parties nor wider considerations of social policy.'76 Landes and Posner argue that principles promoting efficiency tend to survive in law over time. This evolution of law in favour of efficient outcomes can be seen in salvage law because little has changed in the structure of the relationship between salvor and casualty in millennia. However, there have been some fundamental changes in this area in recent decades, namely, the prioritisation of environmental salvage and the assumption of control of salvage operations by state authorities. These new considerations mean that the allocation of resources to safety and rescue must account for potential liabilities far exceeding the value of the salved property. Maritime law is pushed further in the direction of economic efficiency by the international nature of the subject matter. Any jurisdiction seeking to impose an inefficient regime to govern Admiralty matters would lose out by parties contracting choice-of-law clauses for other, more efficient, jurisdictions. This is evident in salvage law where Lloyds Open Form specifies arbitration in London under English law, and so the majority of major salvage cases are heard in a jurisdiction with an efficient regime for settling claims.⁷⁷

Landes and Posner argue the law does not allow rewards for rescuers on land in the same way as at sea, not because of the historically different origins of Admiralty and common law, or for the public policy reasons canvassed above, but rather because there is no demand for a system of private rescue on land in the same way as at sea. Rescue on land is generally covered by state agencies and so the costs to the land-based rescuer are often low. Altruism will generally provide enough incentive for Good Samaritanism without the additional need for a system rewarding the rescue of property. ⁷⁸ Landes and Posner reject the notion judge-made law in the area of salvage is based on the notion of fairness and justice. They assert the rules are best explained as efforts to bring about efficient results. This is in some way reflected in the protection the law affords to the parties in respect of agreements made in emergency conditions. Salvage contracts involve a bilateral monopoly; there is generally only one casualty, and typically only one potential salvor on the scene. This gives a wide scope of possible prices negotiated by the parties and potentially allows one party to exploit the weakness of the other, for example through duress, unconscionable bargain, or misrepresentation. 79 Professional salvage vessels are highly specialised and expensive to operate. Salvage awards must compensate for the costs of having vessels on standby until a casualty arises. Therefore, the incentive of high rewards for salvage increases the overall safety of the mercantile venture, because professional salvors will be willing to meet the expense of their operation in the hope of a substantial reward.

Private ordering is the system of institutions for settling disputes and supporting contracts beyond the governance of the court. 80 Private ordering is especially relevant in salvage contracts because of the uncertain nature of the service to be provided and the lack of a fixed price. The system of arbitration has developed over time to provide efficient settlement of claims and therefore to reduce transaction costs in salvage contracts. The Lloyds arbitration system allows for 'documents-only' arbitration on a fixed-cost basis in cases where values are likely to be low. This type of private ordering of contractual obligations reduces litigation and uncertainty and increases efficiency. Salvage contracts are generally single transactions where repeated dealings between the parties are unlikely. This type of transaction gives no incentive to the parties to act fairly toward each other. To prevent the rescued party from reneging on the agreed salvage contract, a maritime lien is available over the property saved. Further, the fixing of the award through arbitration after the event means there is no incentive for the ship owner to understate the nature of the casualty or the work involved in the rescue when negotiating with the salvor. The facility of arbitration and the court's ability to strike down any agreement deemed excessive prevents the salvor from taking advantage of the urgent situation and extracting an exorbitant fee. Brough and other economists characterise these types of legal refinement in economic terms rather than as measures taken in the interests of justice.⁸¹ The governance structures around salvage law reduce transaction costs in a bargaining environment where uncertainty and opportunism are inevitable.

⁷⁵ Hanoch Dagan 'In Defense of the Good Samaritan' (1998-1999) 97 Michigan Law Review 1152.

⁷⁶ SM Waddams *Dimensions of Private Law* (Cambridge University Press, New York, 2003) 197.

⁷⁷ William M Landes and Richard A Posner 'Salvors, Finders, Good Samaritans, and Other Rescuers' (1978) 7 Journal of Legal Studies 83, 118. ⁷⁸ Ibid 93.

⁷⁹ An example of misrepresentation in salvage is a situation where the master of the stricken vessel misrepresents the extent of the damage to the vessel and therefore prevents the salvor from making an informed decision to accept the salvage contract, The Henry (1851) 15 Jur 353, 354. In the Unique Mariner (No.1) [1978] 1 Lloyd's Rep 438, the owners of the salved vessel claimed that the salver had misrepresented to the stricken vessel's master that he had been sent by the vessel's agents.

⁸⁰ Oliver E Williamson 'Assessing Contract' (1985) 1 Journal of Law Economics & Organization 177, 193.

⁸¹ Wayne T Brough 'Liability Salvage - By Private Ordering' (1990) 19 Journal of Legal Studies 95.

Because of the international character of maritime commerce, parties can choose the jurisdiction that has the most efficient laws relating to salvage contracts. This is done either by the flag of the vessels concerned or by contract such as the LOF provision that salvage awards will be determined by arbitration in London. The popularity of the Lloyds form reflects its contribution to economic efficiency in determining the price of salvage awards. In contrast to marine rescue, rescue on land tends to be done by public authorities. *Landes and Posner* argue this reduces the scope of efficient private rescue to the extent that sophisticated systems governing rescue have not developed. Because maritime rescue is almost inevitably private, the rules governing it have developed efficiently so as to encourage salvors and make the maritime venture worth saving.

Landes and Posner use a model of contingent payment to show how price is determined efficiently in a rescue market. This reflects the 'no cure no pay' nature of salvage contracts. According to the model, in an efficient system the price of rescue should go down the higher the probability of success. This economic analysis of salvage awards is reflected in the criteria used in arbitration to determine the amount of salvage. Straightforward jobs with a high probability of success generally get smaller payments than high-risk operations. Thus, the criteria for determining awards reflect the outcome that is most economically efficient in terms of the allocation of resources to safety measures and rescue capability. Note that Landes and Posner use criteria for determining awards that predate the 1989 Convention. However, their argument can be applied to Article 13 of the 1989 Convention to show that criteria for determining awards is consistent with the most economically efficient price for rescue.

In general the law will not allow someone to be held liable to pay for services they have not requested. The courts will not create a contract between parties and are disapproving of officious or meddling interveners. Landes and Posner assert that where there is an opportunity for negotiation it is inefficient to allow recovery for an unrequested benefit. An example is a situation where a ship is in peril but not immediate danger and a rescue vessel is available nearby. There is ample time for negotiation of a suitable contract and so any unrequested intervention ought not to attract an award. Because the transaction costs of negotiating a rescue contract are low in this situation, the general law of contract should apply. This situation is contrasted with one where the vessel is in immediate danger and there is no time to negotiate for the services of the rescuer. In this case the cost of negotiation is high (the likely total loss of the vessel), so special rules might apply to reduce the transaction cost. In the case of marine casualties these rules are the law of salvage or the special contingent nature of salvage contracts.

Claims for restitution may be denied because of officiousness – an unwanted imposition of a service or contract. *Landes and Posner* characterise the nature of officiousness as an imposition of a contract in a situation where the transaction costs of a properly negotiated bargain are low. ⁸⁵ This corresponds with the view put forward by Rose that necessary intervention does merit restitution. In such a case the transaction costs of negotiation are high and a coerced exchange is justified. An example is an emergency situation where quick action is required to avert disaster, such as getting a line to a vessel that has broken its moorings or putting out a fire on board. However, there is a second situation common in salvage cases where there may be ample time to negotiate a bargain but because of the bilateral monopoly of the parties the range of possible prices is very broad. In general there is only one ship in distress that needs the salvage service and one possible salvor to do the job. Here the transaction costs of negotiation are high because there is no optimal price, and so the bargaining process may be protracted with a strong possibility of failing to reach a resolution. ⁸⁶

Another source of high transaction costs associated with time pressure is the number of potential salvors the ship owner could contract with prior to the event is prohibitively high if there is to be a realistic chance a precontracted salvor is available in the right place when a casualty occurs. Perhaps the owner of a fleet trading in a limited area could contract with a local salvor on favourable terms to rescue any of its vessels if required but this would not be a viable solution for the majority of merchant vessels. Coastguard membership for yacht owners in Auckland is akin to this situation. Membership entitles the yacht owner to an unlimited number of free tows from the coastguard each year subject to certain conditions. The Coastguard charges a commercial tow rate for non-members or those who join at the time of the incident. ⁸⁷ This is efficient on *Landes and Posners*' model because the provider will be available in the area covered but there are alternatives available to

https://www.safeshop.co.nz/coastguard/information.php?info_id=88&CGsessID=0f1d15b9dd8a0dd409eba50649b472bf, at 11 March 2009.

⁸² Landes and Posner above n 77, 118.

⁸³ Landes and Posner above n 77, 101, 102 The criteria they used can be found in Rose The Law of Salvage, above n 3 644.

Landes and Posner 'above n 77, 101.

⁸⁵ Ibid, 90.

⁸⁶ Brough above n 81, 98.

⁸⁷ NZ Coastguard, Northern Region,

the boat owner, such as other commercial operators or self-insurance. In this case an ex-ante rescue contract has low transaction costs.

In high transaction cost situations such as contracts for salvage, the law can reduce the costs by introducing non-contractual rules to govern the transaction, such as restitution or salvage awards. *Landes and Posner* predict that the rule for determining the level of the award will promote efficiency in the allocation of social resources. In the case of salvage, a system where the salvor is entitled to 100 per cent of the value of the salved property would lead to an inefficient allocation of resources to safety and rescue equipment. Ship owners would stand to lose all of their assets and so would over-invest in safety, and rescuers who stand to gain the entire value of the vessel would over-invest in rescue resources. To be efficient the rescuer's share of the value of the property ought to vary according to the elasticity of the probability of rescue with the input of more rescue resources. In other words, the more the salvor invests in the operation, the higher the award should be, provided the investment has increased the likelihood of success.

The standard salvage contract worked well to promote efficiency and reduce transaction costs when the only interests at stake were those of the salvor and of the property owner. However, the risk of environmental disaster accompanies most marine casualties, particularly those involving oil tankers or large cargo ships, means the prioritisation of saved property as the measure of success no longer reflects the main goals of a salvage operation and disconnects the potential reward from the actual service provided. The costs of preventing or minimising an oil spill can far exceed the value of the maritime property saved. In salvage operations where environmental damage is not a factor, the interests of all parties are convergent. The salvor, ship, and cargo owners all benefit from maximising the value of property saved. 88 The institution of general average means all interests share the burden if one party's property is sacrificed for the benefit of the whole venture. In the years since Landes and Posner analysed the criteria for awarding salvage using an economic model, the criteria have changed to reflect the importance of saving the environment from pollution. The 1989 Convention entered into force in 1996. Prior to its entry into force, however, the Convention's criteria for determining salvage awards were incorporated into Lloyds Open Form and into the British Merchant Shipping Act. The 1989 Convention, in particular Article 14, removed the strict doctrine of 'no cure no pay' from salvage awards. Instead, where environmental damage is threatened, salvors are able to claim their expenses plus, if there is success, a percentage of those expenses as a top-up where the award under normal salvage criteria does not meet salvor's costs. However, the salved fund is still limited to the total value of the ship and cargo saved. The inclusion of the Article 14 award in the Convention reflects the reality that, with increasing costs and liabilities incurred trying to avert environmental disasters, the incentive for salvors to undertake these jobs was inadequate. Landes and Posner assert that the criteria for awarding salvage are a way to establish the market price of the salvage service as if it had been negotiated in an open, competitive market. 89 The Article 14 award seeks to correct the price to reflect the expenditure of salvors on valuable services that will not contribute to the eventual salved fund. This appears to fit the economic analysis of maritime salvage.

Prior to the 1989 Convention, the criteria for determining salvage awards was set out in the 1910 Convention and largely followed English Admiralty law. Landes and Posner analyse these criteria and assert that the factors taken into account when determining a salvage award reflect the market value of the salvor's services. By assessing the skill, time, and danger involved in the rescue, the court or arbitrator can approximate the price of the rescue if it had been negotiated on an open (non-monopolistic) market. The 1989 Convention specifies criteria not included under traditional Admiralty law or the 1910 Convention, such as the skill of the salvor in protecting the environment. This is a public good but still reflects that a skilful salvor could command a higher price than an unskilled one. No account is taken of the value of the ship owner's potential liability for environmental pollution when determining the salvage award but the risk of liability run by the salvors is taken into account. This factor was an issue in the aftermath of the Tasman Spirit casualty when it was held that a delay caused by a salvor being held liable for pollution by port authorities did not frustrate a charter contract because the salvor is compensated for liabilities in his award.

7. Conclusion

The changes in the nature of salvage services over the past half century have required constant modification of the rules for compensating salvors. These modifications are underpinned by the fundamental principles of

90 Ibid

⁸⁸ Landes and Posner above n 77, 102.

⁸⁹ Ibid 101.

⁹¹ Art 13 above n 19.

⁹² *The Sea Angel* [2007] EWCA Civ 547.

salvage law, such as the limitation of salvage awards to the value of the maritime property saved. The ability of a theory of salvage law to accommodate and account for the changes to modern salvage law is a good test of whether the theory explains the justification of the law. By this test, the economic analysis is better able to account for the underlying principles of salvage than restitution. While the restitutionary analysis may account for the law of salvage as originally envisaged, the increased emphasis on preventing or minimising environmental damage means a modern salvage award does more than merely reverse an unjust enrichment. Rose concedes modern salvage awards contain elements that are not restitutionary but he denies this negates the underlying restitutionary principle of salvage law, which is 'dependent on the salvee benefiting from the salvage service'. 93 It is true any award based on either Article 13 or the SCOPIC clause is capped at the salved value of the vessel and, in practice, the salvee is always left with some value from the service. However, two of the fundamental principles of salvage, the reward element and the voluntary nature of the service, are incompatible with a restitutionary analysis of salvage law. The public policy component of the salvage award has always been a fundamental principle of the doctrine. This requirement to reward salvors so as to encourage others to undertake salvage and to promote the deployment of specialised salvage vessels cannot be dismissed as merely a gloss on top of an otherwise restitutionary doctrine. The departure from the principle of 'no cure, no pay' required by environmental salvage has further emphasised the inadequacy of restitution to account for salvage principles.

In contrast to the restitutionary analysis, the developments in salvage law to provide for environmental salvage appear to strengthen the economic analysis of salvage. The swift evolution of the rules governing salvage awards, both by statute and by contract, shows regimes not allocating salvage awards in an efficient way will be quickly superseded by other regimes. For example, the decision in *The Nagasaki Spirit* not to include a profit element in the calculation of salvors' expenses made environmental salvage unattractive to professional salvors as they would not receive an adequate return on their investment. Thus, the SCOPIC clause was developed as an alternative to Article 14. This overtly sets market rates for salvage services rendered something Landes and Posner claimed was being done implicitly by the award criteria in pure salvage. 94 The general principle of the economic analysis is that mechanisms to determine salvage remuneration will settle contracts where the price is to be established after the service is performed in as allocatively efficient manner as if they had been negotiated ex ante on an open market. 95 The development of the Article 13 criteria for determining salvage awards since Landes and Posner's paper is consistent with the hypothesis that the criteria provide relevant information for determining a fair market price for the service actually rendered. Further, the introduction of Article 14 and the SCOPIC clause reinforce the economic analysis because they are innovations intended to make salvage awards correspond with the price necessary to keep professional salvors in the market. However, the suggestion equitable and public policy considerations play no part in the determination of salvage awards ignores the repeated statements by judges to the contrary. The need to keep professional salvors in the market is a public policy consideration even if the tool used to achieve this goal is one of economic incentive. The economic analysis goes further towards a justification of the law of salvage than the restitutionary one but, if it ignores public policy, fails to account for why an efficient market is needed in the first place.

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⁹³ FD Rose, above n 57, 379.

⁹⁴ Landes and Posnerabove n 77.

⁹⁵ Ibid.