

**Improving Network Reliability –
Liability Rules Must Recognize Investor Risk/Reward Strategies**

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Abstract

This paper describes how the liability regime for telecommunications carriers is shifting from one based on an absolute limit on liability in tariffs to a form of strict liability under the common law. It explains how the FCC has contributed to the acceleration of this process for interstate services through mandatory detariffing but without adequate consideration of the likely impacts on the achievability of other public policy goals for the telecommunications industry, such as universal service, broadband deployment or homeland security. This paper further describes how the federal government's inattention to the changing liabilities of telecommunications carriers under deregulatory policies stands in stark contrast to its treatment of other common carriers and public utilities. Yet prompt government consideration of the liability rules for telecommunications carriers is necessary, particularly in light of the terrorist acts of September 11, 2001 and the recent economic downturn of the telecommunications sectors. The paper concludes with preliminary conclusions for designing liability rules for telecommunications carriers.

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I. Introduction

Network reliability of telecommunications systems are affected not only by technological capabilities and limitations but also by the carriers' economic incentives to invest in any form of network design, improvement or innovation affecting the performance of their systems. These economic incentives depend, in part, on the liability rules applied to telecommunications carriers for damages arising from service interruptions and outages. The liability regime for telecommunications carriers is shifting from one based on an absolute limit on liability in tariffs to a form of strict liability under the common law. By mandatorily detariffing interstate, interexchange telecommunications services, the FCC has contributed to the acceleration of this process but without adequate consideration of the likely impacts on the achievability of other public policy goals for the telecommunications industry, such as universal service, broadband deployment or homeland security.

The federal government's inattention to the changing – potentially catastrophic levels of – liabilities of telecommunications carriers under deregulatory policies stands in stark contrast to its treatment of other common carriers and public utilities. For example, as this paper discusses, the federal government has addressed the impact of federal deregulatory policies on the liability regimes for other common carriers – such as airlines, railroads and surface transportation carriers – through legislation and agency study. Furthermore, Both the U.S. House of Representatives and the U.S. Senate have passed bills to extend and revise the limitations on liability and government indemnification provisions for nuclear power plant operators under the Price-Anderson Act.

Recent events also reveal the importance of federal government attention to the liability rules facing the telecommunications industry. For example, the terrorist attacks on the World Trade Center on September 11, 2001 highlight some of the vulnerabilities of the U.S. transportation and communications infrastructures that can be exploited to adversely affect national security and the economy. Congress did respond by passing special legislation to limit the liabilities of the air line industry and the owners of the World Trade Center, but the telecommunications industry was not addressed. Yet, future Congressional intervention regarding telecommunications carriers' liability may be necessary not only because telecommunications networks constitute a critical

infrastructure, but also because network security is dependent upon the financial viability of the carriers. The recent economic downturn in the telecommunication sector underscores the need for prompt and comprehensive evaluation of the factors that may threaten the financial viability of telecommunications carriers.

This paper is organized as follows. Section II describes the changing liability regime for telecommunications carriers that is being accelerated by the federal detariffing process. Section III discusses the impact on telecommunications carriers' economic incentives and why federal government action is necessary to prevent the shift in liability rules from undermining other public policy objectives. Section IV contrasts continuity in liability regimes for transportation carriers under deregulation and the Department of Transportation study of carrier liability with the shifting liability regime for telecommunications carriers in section II and the paucity of government attention to its effects on the public interest. Section V urges the federal government to embark on the analysis required to determine what liability regime is most appropriate for the nation's multi-faceted telecommunications needs in a competitive environment. It concludes by suggesting the types of liability rules that may be required for telecommunications carriers given the benefit of experience with other common carrier and public utility regimes. The paper ends with a statement of conclusions.

II. The Shifting Liability Regime for Telecommunications Carriers

The manner in which the liability regime for telecommunications carriers has developed differently from that of other common carriers in the U.S. is discussed in detail by the author in Cherry (1999).¹ Highlights of some of the critical historical developments are described in this section, so that the ramifications of detariffing and the need for corrective policy action can be better understood.

For over one hundred years, telecommunications carriers (telephone companies) have limited their liability for damages from service interruption or outages to a pro rata credit of the customer's service charge. Under a *tariffing* regime, the traditional justifications for upholding such limited liability provisions have been both legally and

¹ B. Cherry, *The Crisis in Telecommunications Carrier Liability* (Norwell, MA: Kluwer Academic Publishers) (1999). In both this prior work and the present paper, the term "telecommunications carrier" refers to the more modern meaning of providing telecommunications services. However, at times it will be

factually flawed, creating a liability regime different from all other common carriers, including telegraph companies. As a result proper legal analyses based on fundamental tort and contract law principles applicable to common carriers have never been conducted for telecommunications carriers. For this reason, as this section explains, the effects of *detariffing* on the telecommunications carrier-customer relationship have not been properly understood by policy makers. Whereas detariffing did not fundamentally alter the liability regimes of the airline, railroad and surface transportation carriers, it *does* alter the regime for telecommunications carriers. Yet, ironically, only the liability rules for transportation carriers received careful consideration during passage of federal deregulatory laws, as discussed in section IV.

A. Common Law Liability Rules for Common Carriers

The duties of common carriers are based on tort, not contract, law. They originated from the duties placed on “public callings” in a feudal economy during the Middle Ages in England.² The duties of public callings were to serve without discrimination at reasonable rates and with adequate care.

Public callings were also held strictly liable for damages for which their conduct was the proximate cause. The only exceptions were acts of God and of enemies of the king. As the tort theory of negligence evolved, common carriers were still held strictly liable for reasons of public policy: “[E]lse these carriers might have an opportunity of undoing all persons who had any dealings with them, by commingling with thieves &c. and yet doing it in such a clandestine manner, as would not be possible to be

necessary to differentiate between telephone and telegraph companies in order to accurately reflect their historically distinct, legal treatment.

² Public callings originated with passage of the Statute of Laborers in 1349 to prevent workers from extracting unreasonable wages due to large population loss from the Black Death. Over time, any service performed for the public outside of the feudalistic relationship of lord-to-man was considered a public calling. Examples include common carriers, innkeepers, blacksmiths and surgeons. With the decline of feudalism, most businesses came to be governed by the evolving common law of contracts. However, the tort obligations of public callings remained for a few classes of businesses, including common carriers. Notwithstanding the declining scope of businesses to which the obligations of public callings still applied, they were also imposed on a new class of businesses - public utilities - that evolved during the nineteenth century. For a discussion of the development of public callings, see M. Glaeser, Public Utilities in American Capitalism (New York, NY: The Macmillan Co.)(1957); and E. Adler, “Business Jurisprudence,” 28 Harv. L. Rev. 135.

discovered.”³ The only exceptions were the common law defenses of acts of God and of enemies of the king.

The common law of common carriers in the U.S. further developed based on these English common law principles. In the nineteenth century, with the rise of contract law, common carriers attempted to limit their tort liability in contracts with customers. Important U.S. Supreme Court cases decided the validity of such contracts in the context of railroads – a new form of transportation. In Railroad Co. v. Lockwood (1873),⁴ the Court held that a railroad company could not *exempt* itself from liability for negligence. However, in Hart v. Pennsylvania Railroad Co. (1884),⁵ the Court held that a common carrier could *limit* its common liability upon an agreed valuation by the parties. Shortly after Hart v. Pennsylvania Railroad Co., Congress passed the Interstate Commerce Act (ICA) of 1887, creating the Interstate Commerce Commission (ICC) with regulatory powers over railroads. Under the ICA, railroads were to file tariffs with the ICC that contained the rates and regulations governing the conditions of service.

After the ICA was amended in 1910 to extend its jurisdiction over telegraph and telephone companies, the U.S. Supreme Court further elaborated upon the validity of valuation agreements to limit common carrier liability. In Union Pacific R.R. Co. v. Burke (1921),⁶ the Court held that under the common law – not altered by the filed rate doctrine⁷ applicable to tariffs under the ICA – a valuation agreement was valid only where the customer is given a *choice of rates under which full liability is an option* and the rate is tied to the level of liability accepted by the carrier. This common law rule is often referred to as the *released value doctrine*. The holding in Union Pacific R.R. Co. v. Burke has been followed and endorsed by the Court in subsequent transportation common carrier cases.⁸

³ Coggs v. Bernard, 2 Ld. Raym. 909, 918 (1703).

⁴ 84 U.S. 357 (1873).

⁵ 112 U.S. 331 (1884).

⁶ 255 U.S. 317 (1921).

⁷ Under the filed rate doctrine, a carrier cannot deviate from the rates, terms and conditions of service provided in tariffs. The filed rate doctrine was established by the Court in interpreting section 3 of the ICA, which prohibited the provision of an undue preference or an unjust discrimination among customers, that was subsequently enacted in the Communications Act of 1934.

⁸ See, e.g., New York, New Haven & Hartford Railroad Co. v. Nothnagle, 346 U.S. 128 (1953); Bisso v. Inland Waterways Corp., 349 U.S. 85 (1955).

In the same year, the U.S. Supreme Court considered the validity of a limitation on liability clause for a telegraph company in Western Union v. Esteve Bros. (1921).⁹ In this case the Court upheld the limited liability clause in a tariff for an unrepeated message because the plaintiff could have chosen a repeated message at a higher rate and higher level of *limited* liability. However, the Court specifically declined to determine whether the rule in Union Pacific R.R. Co. v. Burke should be applied to telegraph companies to invalidate the higher limit on liability for a repeated message – as there was no rate available for the sender to insure full value - because the facts of the case did not require it to rule on the matter. The Court has never addressed this question in a subsequent case, whether for telegraph or telephone companies.

Yet, a month before Union v. Esteve Bros. was decided but after it was argued before the Court, the ICC found the limitations on liability provisions contained in the tariffs of telegraph companies to be unreasonable in Limitations on Liability in Transmitting Telegrams (1921),¹⁰ which is also known as the Second Unrepeated Message Case.¹¹ More specifically, the ICC found the maximum limit of \$50 for both repeated and unrepeated messages to be unreasonable, and raised the limit to \$500 for unrepeated messages and \$5000 for repeated messages. More importantly, the ICC required all telegraph companies to offer the sender the option to value a message in excess of \$5000 – with no cap on the value that could be declared - at a cost of one-tenth of 1 per cent of the stated value. Even though such valued messages would likely be infrequently used, the ICC found it important that telegraph carriers be potentially liable for the full amount consistent with common law liability.¹²

⁹ 256 U.S. 566 (1921).

¹⁰ 61 I.C.C. 541 (1921).

¹¹ In the Second Unrepeated Message Case, the ICC entered an order upon general investigation of the appropriateness of limitation on liability provisions for telegraph companies. The need for the investigation was triggered by an earlier case, Unrepeated Message Case, 44 I.C.C. 670 (1917), that was based on a complaint by a business customer as to an error in transmission of an unrepeated message.

¹² In this respect, the ICC stated:

“The present record amply demonstrates the need for a substantial revision of respondents’ rules concerning their liability on interstate messages. All other common carriers subject to the act have been made fully liable for their errors or negligence, notwithstanding attempted limitations by contracts, rules, or otherwise, except in instances where they have [been] expressly authorized by this Commission to maintain varying rates dependent upon the declared or agreed value of the article transported; and the record herein offers no sound reason why telegraph companies should longer be permitted to avoid liability for their errors

Thus, the ICC found that, even under tariffs, telegraph companies' limitations on liability provisions were valid only if the customer also has the option to declare the full value for which the carrier would be liable. This determination by the ICC is consistent with the common law rule set forth in Union Pacific R.R. Co. v. Burke, and has never been overruled. Therefore, even though the U.S. Supreme Court has never addressed the applicability of the released value doctrine to telegraph or telephone companies, the ICC – predecessor of the FCC – has done so for telegraph companies.

B. Misapplication of Western Union v. Esteve Bros. and the Filed Rate Doctrine to Telephone Companies

As discussed more fully in Cherry (1999), limitations of liability provisions for telephone companies originated in the subscriber contracts of the Bell companies in the nineteenth century prior to both the expiration of the telephone patents or regulation by any federal or state agencies.¹³ These provisions were not created by statute or by any state or federal commission, but were permitted to persist after telephone companies were brought under the jurisdiction of the ICC (later the FCC) and the state regulatory commissions.

No federal commission orders addressing the validity of limitations on liability provisions in telephone company tariffs were issued until the late 1970's and early 1980's, after enactment of the Communications Act of 1934 and the creation of the FCC. The first order was in American Satellite Corp. v. Southwestern Bell Telephone Co. (1977),¹⁴ in which the FCC simply stated that Southwestern Bell Telephone Co. may limit its liability in the absence of willful misconduct. It cited Western Union v. Esteve Bros. in support, but provided no discussion. Then in In the Matter of AT&T (1980),¹⁵ the FCC upheld AT&T's limited liability provision, again citing Western Union v. Esteve Bros. in a footnote but providing no discussion. Fifteen years later, in Richman Bros. Records, Inc. v. U.S. Sprint Communications Corp. (1995)¹⁶ the Common Carrier Bureau of the FCC issued a decision upholding the limited liability provision of Sprint. It based

or negligence or to limit it to the nominal amounts now provided for in their rules.” 61 I.C.C. at 549.

¹³ See note 1, *supra* at pp. 20-23.

¹⁴ 64 F.C.C. 2d 503 (1977).

¹⁵ 76 F.C.C. 2d 195 (1980).

¹⁶ 10 FCC Rcd. 13, 639 (1995).

its decision on the filed rate doctrine – not mentioned in the previous two orders - citing Western Union v. Esteve Bros. as authority.

This reliance on Western Union v. Esteve Bros., and later the filed rate doctrine, for upholding telephone companies' limited liability provisions is fundamentally flawed. First, the holding in Western Union v. Esteve Bros. was based on a set of facts that did not exist in any of the telephone cases. In Western Union v. Esteve Bros. the limited liability provision for the unrepeated message was held valid because there was another rate with a higher limit on liability (the repeated message) which the customer could have chosen. In the telephone company cases, no alternative rate and level of liability was offered to the customers.

Second, in Western Union v. Esteve Bros. the U.S. Supreme Court purposely declined to address whether the released value doctrine applied to telegraph companies because the facts of the case did not require it to. However, in the telephone company cases, the provision of only one rate and one level of liability meant that the case could not be properly decided without considering the applicability of the released value doctrine established in Union Pacific R.R. Co. v. Burke. In the preceding telephone cases, the Union Pacific R.R. Co. v. Burke case is not even mentioned.

Third, the ICC had already decided in the Second Repeated Message Case that telegraph companies must offer the customer the option to declare full value for which the company would be liable – in essence applying the released value doctrine. In each of the above telephone cases, the FCC never even acknowledged the existence of the Second Unrepeated Message Case of its predecessor, the ICC.

Fourth, the filed rate doctrine means that a given rate – and associated terms and conditions - must be applied nondiscriminatorily *among customers*. However, the released value doctrine determines whether the limitation on liability provision associated with the given rate is valid *for any customer*. Thus, the filed rate doctrine only means that a valid rate or provision, if filed in a tariff, must be applied nondiscriminatorily *across customers*. However, the filed rate doctrine does not address the underlying validity of a limitation on liability provision under the common law.

For all of these reasons, the FCC's historical reliance on Western Union v. Esteve Bros. and the filed rate doctrine to uphold the validity of telephone company's limitations

on liability provisions in tariffs has been fundamentally flawed. Unfortunately, proper evaluation as to the applicability of the released value doctrine to telephone companies has never been addressed by any agency or court, whether state or federal.¹⁷

C. Continuing Flawed Reasoning Under Detariffing

As just described, improper reliance on Western Union v. Esteve Bros. and the filed rate doctrine has been the basis for the FCC's *upholding* the validity of limitations on liability tariff provisions for telephone companies – now called telecommunications carriers.¹⁸ The FCC has recently used the same flawed reasoning to achieve the opposite result – for *rejecting* telecommunications carriers' limitations on liability provisions - and without fully understanding the consequences.

In its Domestic Detariffing Order,¹⁹ the FCC concluded that tariffs were not necessary to ensure that the rates, practices and classifications of nondominant interexchange carriers for interstate domestic interexchange services are just, reasonable and nondiscriminatory. In particular, the FCC eliminated tariffs in order to prevent carriers from invoking the filed rate doctrine to unilaterally change terms and conditions in its contractual relationships with customers in a manner not available in most commercial relationships. Believing the filed rate doctrine to be the basis for upholding the validity of telecommunications carrier's limitations on liability provisions, the FCC did make a cursory reference to the effect on the liability of telecommunications carriers. Dedicating only one sentence to the issue, the FCC stated that “[i]n addition, complete detariffing would further the public interest by preventing carriers from unilaterally limiting their liability for damages.”²⁰ In support of this statement, the FCC merely cited cases in a footnote, including Western Union v. Esteve Bros. and Richman Bros. Records, Inc. v. U.S. Sprint Communications.

¹⁷ See Cherry (1999), note 1, *supra*, for an in-depth discussion of why the common law liability of common carriers has remained unaddressed at both the federal and state levels.

¹⁸ See note 1, *supra*.

¹⁹ Second Report and Order, Policy and Rules Concerning the Interstate, Interexchange Marketplace, 11 F.C.C. Rcd 20730 (1996) (hereinafter referred to as the “Domestic Detariffing Order”). Although stayed upon appeal, the Domestic Detariffing Order was upheld in MCI Worldcom, Inc. v. FCC, 209 F.2d 760 (D.C. Cir. 2000). Domestic detariffing finally took effect on August 1, 2000 Common Carrier Bureau Extends Transition Period for Detariffing Consumer Domestic Long Distance Services, 16 F.C.C. Rcd. 2906 (2001). In Report and Order, Policy and Rules Concerning the International, Interexchange Marketplace, 16 F.C.C. Rcd 10,647 (2001), the FCC ordered detariffing for international interexchange services by January 20, 2002.

In this one statement and footnote, the FCC committed several errors. It repeated its flawed reliance on Western Union v. Esteve Bros. and the filed rate doctrine, but now to justify the opposite result – to reject limitations on liability provisions. Furthermore, the FCC made no effort to determine whether elimination of limitations of liability provisions was in fact in the public interest. Having traditionally relied on limitations on liability provisions, at least in part, to keep rates low,²¹ the FCC gave no explanation as to why the elimination of such provisions and the likely impact on rates was now in the public interest. Finally, the FCC failed to consider the effect that elimination of limitations on liability provisions might have on the carriers’ financial abilities to fulfill other regulatory obligations, such as universal service.

As a result, the FCC has never conducted a proper analysis of the limitations on liability provisions for telecommunications carriers. It did not conduct the analysis required under the released value doctrine while these provisions were filed as part of the telecommunications carriers’ tariffs, and effectively created an absolute limit on liability of a pro rata credit of the customer service charge. Nor did it consider the impact of eliminating this absolute limit on liability - by eliminating the filed rate doctrine which, although improperly so, had been used to uphold telecommunications carriers’ limitations on liability provisions – and replacing it with litigation under the common law and state consumer protection laws.

D. Rediscovering Unconscionability Since Detariffing

Under the common law of contracts, the general principle of unconscionability can be used to invalidate a provision of any contract.²² Unconscionability is usually found when “gross inequality of bargaining power, together with terms unreasonably favorable to the stronger party, ... show that the weaker party had no meaningful choice, no real alternative, or did not in fact assent or appear to assent to the unfair terms.”²³ Gross inequality of bargaining power is the reason why contracts of adhesion – that is, standardized contracts – are particularly suspect. The application of the principle of

²⁰ Id. at par. 55.

²¹ See In the Matter of AT&T, 76 F.C.C. 2d 195 (1980).

²² “If a contract or term thereof is unconscionable at the time the contract is made a court may refuse to enforce the contract, or may enforce the remainder of the contract without the unconscionable term, or may so limit the application of any unconscionable term so as to avoid an unconscionable result.” Restatement (Second) of Contracts, section 208.

unconscionability in the specific context of common carriers is the underlying basis of the U.S. Supreme Court cases invalidating exculpatory clauses and establishing the released value doctrine for transportation common carriers discussed in section II.B.²⁴

With the elimination of the filed rate doctrine under detariffing, the provisions of telecommunications carriers' contracts for interstate services are now being challenged under common law rules of contract law.²⁵ Significantly, in Ting v. AT&T (2002),²⁶ a class action suit was brought, claiming that AT&T's limited liability provisions in its Consumer Services Agreement violated the state Consumer Legal Remedies Act. Finding the defense of the filed rate doctrine to be inapplicable in a detariffed regime, the federal district court found that the provisions were unconscionable as a contract of adhesion with harsh and one-sided provisions.²⁷

Challenges of unconscionability are also being made with regard to contract provisions for intrastate services. For example, in Association of Communication Enterprises v. Ameritech Illinois (2002),²⁸ the Illinois Commerce Commission found the termination charges in Ameritech's service agreement with resellers under its ValueLink Services Tariff to be unlawful and unconscionable under Illinois law.

These challenges of unconscionability are in addition to state court and commission cases – predating federal detariffing – that foreshadowed the need to revisit the limitations on liability provisions for the provision of intrastate telecommunications.²⁹ However, all of these cases deferred reevaluation of the propriety of limitations on liability provisions to some unspecified future time.³⁰ More recently, the Indiana Utility

²³ Id. at Comment d.

²⁴ See, e.g., Restatement (Second) of Contracts, section 195 (1979 Main Vol.) Comment a; Restatement (Third) of Torts: Apportionment of Liability, Topic 1, Basis Rules of Comparative Responsibility (1999 Main Vol.); Henningsen v. Bloomfield Motors, Inc., 161 A. 2d 69 (N.J. Sup. Ct. 1960).

²⁵ Frontline Communications International, Inc. v. Sprint Communications Co., 178 F. Supp. 2d 432 (S.D.N.Y. 2001) (contract is subject to common law rules of contract interpretation as filed rate doctrine is inapplicable with federal detariffing).

²⁶ 182 F.Supp. 2d 902 (N.D.Cal. 2002).

²⁷ As a contract of adhesion the contract was deemed unfair as to the bargaining process (procedural unconscionability), and the oppressive terms of the agreement demonstrated the inequality of bargaining power (substantive unconscionability). 182 F. Supp. 2d at 927-936.

²⁸ 2002 WL 226889 (I.C.C. 2002).

²⁹ For a discussion of why limitations on liability provisions started to fall under scrutiny in some of the states prior to federal detariffing, see Cherry (1999), note 1, *supra* at 30-39, 43-44.

³⁰ In the Matter of the Investigation into Limitation of Liability Clauses Contained in Utility Tariffs, Case No. 85-1406-AU-COI, Public Utilities Commission of Ohio (Oct. 6, 1987), entry on rehearing (Nov. 24, 1987) (commission notes that the Ohio Supreme Court had improperly upheld a telephone company's

Regulatory Commission has opened an industry-wide public utility investigation to consider the propriety of limited liability provisions for service interruption tariffs, in response to a petition filed by consumer groups regarding Ameritech Indiana's provision to limit its liability to a pro rata credit of the monthly recurring charge.³¹

Thus, federal detariffing is triggering litigation as to the validity of interstate contract provisions - including limitations on liability - that had previously been blocked by invocation of the filed rate doctrine. State commissions are also starting to consider the validity of contract or tariff provisions - actions that had previously been hinted at but not pursued. The continuing legitimacy of the traditional liability regime of an absolute limit on liability (based on a pro rata credit of the customer's service charge) is now under serious threat. According to the common law principles of common carrier liability discussed throughout section II, telecommunications carriers should now be facing a regime based on strict liability with contracts to limit liability arguably subject to the released value doctrine.

III. Economic Ramifications of a Shifting Liability Regime

Change in liability rules governing telecommunications carriers will change carriers' economic incentives.³² The increased costs from the shifting liability regime described in section II can be thought of in terms of direct and indirect effects. The direct effects arise from raising the level of potential liability that increases the carriers' costs, such as the need to invest in greater precautions and to pay higher damage claims. Direct

limitation on liability provision based on an inaccurate understanding of the utilitymaking process, but defers consideration of the continued validity of such provisions to future judicial litigation); In the Matter of the Proceedings, on the Commission's Own Motion, to Consider Revisions to the Commission's Rule Limiting the Liability of Telephone Companies, Case No. U-8035, Michigan Public Service Commission (1986) (commission revokes a 40-year old rule to enable it to consider the appropriateness of limited liability provisions for telephone utilities in the future, and states that liability rules may need to differ among different telephone utilities with the rise of competition); In Re Illinois Bell Switching Station Litigation, 641 N.E.2d 440 (Ill. Sup. Ct. 1994) (in a concurring opinion, the Chief Justice states that enforceability of the limited liability provisions may not be appropriate in the future as regulation changes with technological advances and increased competition).

³¹ In Re Propriety of Tariff Provisions, Cause No. 42002, 2201 WL 797976 (Ind. U.R.C. 2001). Although not based on any conclusive evidence, the petition filed by consumers in Indiana may have been influenced by the then pending litigation in California in Ting v. AT&T.

³² An analysis of how to design economically efficient liability rules for telecommunications carriers is provided in Cherry (1999), note 1, *supra* at pp. 67-117. The analysis includes discussion of some of the economic effects of the shift in the liability regime discussed in section II. It is beyond the scope of this paper to reconstruct a detailed discussion of the matter, but the effects on important public policy objectives are summarized here.

effects also include the transaction costs of the parties negotiating differing levels of liability, as would be required by applicability of the released value doctrine. Indirect effects are those resulting from the interaction of the new governing liability rules with other regulatory rules and public policy goals.

A. Rate Levels and Universal Service

The increased costs resulting from the direct and indirect effects will need, at least in part, to be passed on to customers in terms of higher rates. This is because there is a limit to how much of the increased costs can be absorbed by shareholders in order to continue to attract capital and investment. The inability of shareholders to absorb the increased costs associated with the changing liability regime should be of particular concern given the recent downturn in the telecommunications sector.

Higher rate levels may pose some public policy concerns. First is the longstanding obligation of telecommunications carriers to provide services at just and reasonable rates. Depending upon how the increased rates are allocated among services and customer classes, there may be some customers for whom basic telecommunications services are no longer available at reasonable rates. Second, additional funding may be required for the universal service support mechanisms established under section 254 of the Telecommunications Act of 1996, to meet the rising rate levels for existing beneficiaries. Merely delegating a greater financial burden to the universal service programs may not be a sustainable proposition, however, given concerns as to the viability of maintaining the existing funding levels based on contributions from carriers.³³

There may be additional ramifications for universal service goals with the maintenance of asymmetric regulation among carriers when the liability for damages is no longer capped at the traditionally low levels. For example, the costs of fulfilling carrier of last resort obligations imposed on incumbent local exchange companies under state law – which are usually also the eligible carriers with an obligation to serve the

³³ See Further Notice of Proposed Rulemaking and Report and Order, Federal-State Joint Board on Universal Service, FCC 02-43 (released Feb. 26, 2002). Concerns regarding the viability of funding the federal universal service support mechanisms are driven, in large part, by the FCC's lack of authority to assess contributions based on intrastate revenues. Texas Office of Public Utility Counsel v. FCC, 183 F.3d 393, 448 (5th Cir. 1999).

entire serving area³⁴ - may rise significantly in light of the increased risk of providing service. To address those costs, universal service funding again may need to rise, or carriers will look for opportunities to avoid the obligation to serve unprofitable areas. In either event, maintenance of continuous, high quality service at reasonable rates may be difficult to maintain on a ubiquitous basis.

B. Unique Risks of High Risk, High Reliability Organizations

Telecommunications carriers also face certain risks of catastrophic potential that may dramatically alter the provision of telecommunications services with the shifting liability regime discussed in section II. This is because carriers bear the characteristics of high risk, high reliability organizations. Special attention to liability rules is essential for such organizations, because “no matter how effective conventional safety devices are, there is a form of accident that it inevitable.”³⁵ For these organizations, reliability is a more pressing issue than efficiency.

High risk, high reliability organizations (HRHR’s) are those bearing certain characteristics for which the occurrence of accidents of catastrophic potential is inevitable, or “normal”.³⁶ The inevitability of accidents is due to certain system characteristics of the organization, interactive complexity and tight coupling. Interactive complexity refers to the inability to anticipate and address in advance the circumstances giving rise to reliability problems. Tight coupling refers to the inability to intervene to constrain the operation of the system when problems do arise. Some systems may face relatively high risk of failure, but what makes HRHR’s unique is the catastrophic consequences of some of their failures. This is why such organizations are also referred to as high reliability organizations.

Examples of HRHR’s are aircraft carriers, nuclear power plants, nuclear weapons systems, space missions, chemical plants DNA research, and military early warning systems.³⁷ Telecommunications systems can also be considered HRHR’s, particularly in light of recent technological advances in communications and information systems. The

³⁴ Eligible carriers are defined under section 214(e) of the Telecommunications Act of 1996, and are the only carriers eligible to receive funding from federal universal service support mechanisms established under section 254.

³⁵ C. Perrow, Normal Accidents (New York, NY: Basic Books, Inc.) (1984) p. 3.

³⁶ For a analysis of the unique problems of high risk, high reliability organization, see C. Perrow, Normal Accidents (New York, NY: Basic Books, Inc.) (1984).

telecommunications network is based on sophisticated computer systems, complex software programs, and tight coupling between steps in the transmission of information both within and among providers. The consequences of outages can be extensive and potentially catastrophic, as demonstrated by AT&T's nationwide outage on Martin Luther King's birthday in 1990³⁸ and the Ameritech's loss of an entire 5ESS switch in the Hinsdale fire in 1988.³⁹

The importance of considering telecommunications carriers as HRHR's is understanding the need for an aggregate cap on liability in order to ensure the provision of service. For example, in 1957, Congress passed the Price-Anderson Act⁴⁰ which provided a framework for limiting the liability of nuclear power plant construction, ownership and operation by the private sector. Legislation was necessary because full liability coverage was unavailable from the private insurance industry and members of the power industry were unwilling to self-insure.⁴¹ In response, Congress passed the Price-Anderson Act that placed an absolute limit on tort liability of \$560 million for a given event. Other provisions included: (a) a requirement for all nuclear power plant licensees to obtain a specified amount of financial protection to cover public liability claims; (b) with financial protection from private insurance pools at a minimum of \$60 million and up to \$125 million; and (c) government indemnification for liability amounts above the financial protection amount and up to a maximum of \$500 million.⁴² These provisions have been amended several times but its fundamental framework, including the statutory cap on liability, remain in force today. In fact, both the U.S. House and Senate have recently passed bills to further update the Price-Anderson Act consistent with its current structure.⁴³

³⁷ Id. at pp. 97 & 327.

³⁸ See L. Lee, The Day the Phones Stopped (New York, NY: Donald I. Fine) (1991).

³⁹ See In Re Illinois Bell Switching Station Litigation, 641 N.E.2d 440 (Ill. Sup. Ct. 1994).

⁴⁰ The current provisions of the Price-Anderson Act are found at 42 U.S.C.A. sec. 2210.

⁴¹ Reasons for unavailability of insurance included: lack of actuarial experience; insufficient capacity for the industry to cover the magnitude of the potential liability; the catastrophic potential of a nuclear accident; the low volume of initial premiums; and an inadequate spread of risk. D.R. Anderson, "The Price-Anderson Act: Its Importance in the Development of Nuclear Power," 30 Chartered Property Casualty Underwriters Annals, 253-264 (1977).

⁴² Ibid. at pp. 255-256.

⁴³ The House has passed H.R. 2983, 107th Congress, 1st Session ; and the Senate has passed H.R. 4.

Given that telecommunications carriers have been able to limit their liability in subscriber contracts and tariffs, as described in section II, it is unknown whether Congress (or perhaps States' legislatures) would have had to grant some statutory cap on liability in order to encourage private investment in the telephone system. By detariffing, the FCC may have unwittingly eliminated a cap on liability that has played an important role in the widespread deployment and continuing operation of the telecommunications infrastructure. Therefore, it is certainly relevant to consider whether a cap on the aggregate liability for a given event is necessary to ensure continued operation and investment in the telecommunications industry – particularly at the level desired to meet existing universal service goals, much less the deployment of a broadband infrastructure.

The elimination of a cap on liability may also have negative impacts on investments in innovation. As an HRHR, some innovations may give rise to new forms or levels of potential catastrophic damages. Without some aggregate cap on liability, innovation will likely be skewed to less risky activities. Whether such an outcome is in the public interest is a matter that should be debated and expressly considered by policy makers, not simply accepted as the side effect of an insufficiently explored – and faulty – policy action in pursuit of some general notion of deregulatory philosophy.

C. Terrorism and Economic Downturn of the Telecommunications Sector

The severity of the economic effects of a shifting liability regime for telecommunications carriers described in subsections A and B will differ as circumstances change. In this regard, recent events heighten the need for prompt public policy attention for the liability rules affecting the telecommunications industry.

The terrorist acts of September 11, 2001 not only inflicted enormous damage and loss of life but also demonstrated widespread economic effects of catastrophic events. In order to prevent potentially devastating financial impacts, the Congress passed the Air Transportation Safety and System Stabilization Act⁴⁴ and the Aviation and Transportation and Security Act.⁴⁵ The former provides several provisions to mitigate the financial impact on air carriers by, for example, limiting the air carriers' liability for all claims arising from the terrorist-related aircraft crashes on September 11, 2001 to the amount of

⁴⁴49 U.S.C.A 40101 et seq., P.L. 107-42, enacted September 22, 2001.

⁴⁵ 49 U.S.C.A. sec. 114 et seq, P.L. 107-71, enacted November 19, 2001.

insurance coverage of the carriers, and providing federal credit instruments and compensation to air carriers for September 11, 2001 losses. The latter Act extends limitation on liability for terrorist-related damages caused on September 11, 2001 to aircraft manufacturers, airport sponsors and those with a property interest in the World Trade Center, as well as limits the liability of New York City to the greater of \$350 million or the City's insurance coverage.

The terrorist acts also seriously damaged some telecommunications facilities, but no legislation was passed by Congress to address the potential liability or financial losses suffered by telecommunications carriers. Most likely this is because legislative relief was not sought by telecommunications carriers. Telecommunications carriers likely sought no relief for reasons related to prevailing circumstances that may not persist over time. First, as the most severely impacted carrier, Verizon still files tariffs for its intrastate services and would expect continued protection of the tariff limited liability provisions. Second, perhaps more importantly, any affected telecommunications carrier would likely claim, if necessary, the common law defense of an act of the public enemy to exempt it from liability. Third, the events of September 11, 2001 predated the decision in AT&T v. Ting, discussed in section II.D, which was the first case after federal detariffing to invalidate AT&T's limitation on liability provisions in its Consumer Services Agreement as unconscionable.⁴⁶ The circumstances underlying each of these reasons may not prevail in future instances of third party actions that seriously damage telecommunications facilities.⁴⁷

Although Congressional intervention may not have been necessary to address financial consequences for telecommunications carriers with respect to the specific terrorist acts of September 11, 2001, it may be needed to better ensure national security in the future. This is because telecommunications is a critical infrastructure for national security, as stated in the Office of Homeland Security's first National Strategy for

⁴⁶ The events of September 11, 2001 also predated the decision in Frontline Communications International, Inc. v. Sprint Communications Co., see note 25, *supra*.

⁴⁷ As to the first, the relevant intrastate services may be detariffed. As to the second, some third party actions may be less likely to fall within a common law exception – such as acts of disgruntled employees, acts by hackers, or cable cuts by independent contractors. The third reason is already no longer true.

Homeland Security.⁴⁸ Furthermore, the telecommunications network security is dependent upon the financial viability of the carriers. The importance of this interdependence is evident given the recent downturn in the telecommunications sector, the rash of competitive local exchange company bankruptcies, questionable accounting practices, and the bankruptcy of Worldcom.

Richard Clarke, special adviser to President Bush for cyberspace, flagged financial health of carriers as key concern involved in network security at March meeting of National Security Telecom Advisory Committee (NSTC), several sources said....

“In a post-Sept. 11 environment, when we start looking at threats to national security, we have to broaden rather than narrow what the possible threats are,” said Lisa Crawford-Bruch, federal telecom contracting consultant and former head of AT&T’s FTS 2000 program. That makes financial viability of any provider of critical infrastructure, including telecom carriers, important, she said.⁴⁹

In addition, future terrorist acts may also threaten the financial viability of carriers – even if the common law defense of an act of the public enemy protects carriers from liability damage claims from customers - in that the carriers must still bear the financial burden of replacing damaged facilities and foregoing lost revenues while facilities are impaired.

For all these reasons, the federal government should be comprehensive in its evaluation of factors that may threaten the financial viability of telecommunications carriers. The shift in the liability regime occurring for telecommunications carriers as described in section II - particularly when coupled with the high risk, high reliability characteristics of telecommunications systems, the heightened risk of terrorism, and the compromised financial state of the telecommunications sector – is a significant change in circumstances warranting specific policy attention.

IV. Continuity in the Liability Regimes for Transportation Carriers

This section discusses how the shifting liability regime for telecommunications carriers described in section II is contrary to the experience of transportation carriers.⁵⁰

⁴⁸ National Strategy for Homeland Security, Office of Homeland Security, The White House, Washington, D.C. (July 2002), pp. 29-35.

⁴⁹ “Industry and Govt. Eye Role of Finances in Network Security,” Communications Daily, Vol. 22, No. 148 (August 1, 2002), p. 1

⁵⁰ This section discusses the liability regime of transportation carriers with regard to loss or injury to property. Additional liability rules apply for injury or death of passengers, but the comparison is less relevant for telecommunications carriers and would unduly lengthen this paper. This section also omits

First, common law principles of common carrier liability were retained under the federal statutory frameworks for railroads, motor carriers and air carriers. Primary jurisdiction was given to regulatory agencies to determine the reasonableness of the rates and terms (including limitations on liability provisions) of service. Second, upon deregulation of these carriers, the same common law principles remained in effect. In most respects, enforcement of common carrier liability simply returned in the first instance to the courts. Most importantly for purposes of comparison with telecommunications carriers, the released value doctrine clearly applied both before and after deregulation. Furthermore, even after deregulation, the federal government has continued to monitor and modify, where necessary, the liability regimes of transportation carriers.

A. Liability Regime Under Federal Agency Regulation

The liability of railroads has been governed by the Carmack Amendment (modifying section 20(11) of the Interstate Commerce Act) in its varying forms since 1906. The Carmack Amendment was initially enacted in 1906 to provide uniformity that had been lacking in litigation, as railroads continued to seek ways to avoid their common law liability.⁵¹ For example, the Carmack Amendment imposed liability on the initial carrier in order to end disputes as to which of interconnecting carriers was liable for damages or loss of property. Later legislation extended liability to the delivering carrier as well.⁵² The initial Carmack Amendment did not increase a carrier's common law liability and did not prohibit carriers from limiting liability to an agreed value.⁵³ Section 20(11) of the Interstate Commerce Act was further modified by the First Cummins Amendment in 1915 to abolish the released rates; but they were quickly restored by the Second Cummins Amendment in 1916 with a modification.⁵⁴ In the Second Cummins

discussion of the liability regime for water carriers. The regime is similar to that of the other transportation carriers, but discussion would be unduly complicated by the nuances developed to address unique circumstances of maritime shipping. For a discussion of cargo liability among all transportation carriers, see Cargo Liability Study, U.S. Department of Commerce (August 1998) (hereinafter referred to as "Cargo Liability Study of 1998").

⁵¹ See R. Sigmon, Miller's Law of Freight Loss and Damage Claims (4th edition) (Dubuque, IA: Wm. C. Brown Co. Publishers) (1976) pp. 9, 15.

⁵² *Ibid.* at p. 16 (further amendments were made in 1927 and 1930).

⁵³ *Ibid.* at pp. 15-16.

⁵⁴ *Ibid.* at pp. 10, 16; Cargo Liability Study of 1998, note 50, *supra* at p. 4.

Amendment, released rates to limit liability were permitted only if specifically authorized by the ICC.⁵⁵

Similar regulatory frameworks were later established for other surface transportation carriers and air carriers. ICC regulation, the Carmack Amendment (as amended over time), and the released rate doctrine were also made applicable to motor carriers in the Motor Carrier Act of 1935 and subsequently extended to surface freight forwarders.⁵⁶ In addition, the Civil Aeronautics Act of 1938 and the Federal Aviation Act of 1958 established a regulatory framework for air carriers similar to that for railroads. Although these acts affecting air carriers did not contain language equivalent to the Carmack Amendment, they did preserve the federal common law relating to agreed valuation tariffs under the released value doctrine established in Union Pacific R.R. Co. v. Burke.⁵⁷

B. Liability Regime After “Deregulation”

Several deregulatory acts affecting surface transportation carriers occurred during the 1980’s and 1990’s. They include the Motor Carrier Act of 1980, the Staggers Rail Act of 1980, the Surface Freight Forwarder Deregulation Act of 1986, the Trucking Industry Regulatory Reform Act of 1994, and the ICC Termination Act of 1995.

As a result of these acts, railroads are no longer required to file tariffs, and there is no government agency oversight of the reasonableness of rates. However, the liability of railroads is still governed by a modified form of the Carmack Amendment, codified at 49 U.S.C.A. sec. 11706.⁵⁸ Section 11706(a) continues to impose liability on the carrier for actual loss or injury to property. Section 11706(c) prohibits a carrier from exempting itself from liability, but does permit limitations on liability upon written declaration of the shipper or by written agreement between the shipper and the carrier. Furthermore, section 10502(e) prohibits the Surface Transportation Board⁵⁹ from exempting rail carriers from

⁵⁵ As discussed in section II, Union Pacific R.R. Co. v. Burke was decided in 1921, after the passage of the initial Carmack Amendment and the Second Cummins Amendment. It is this case that clarified the conditions under which valuation agreements are valid under the common law, known as the released value doctrine – that carrier liability could be limited to an agreed value only when the customer has a choice of rates under which full liability is an option.

⁵⁶ Sigmon, note 51, *supra* at p. 10.

⁵⁷ First Pennsylvania Bank v Eastern Airlines, 731 F.2d 1113, 1117 & FN 4 (3rd Cir. 1984).

⁵⁸ See Cargo Liability Study of 1998, note 50, *supra* at p. 10.

⁵⁹ The ICC Termination Act of 1995 created the Surface Transportation Board within the U.S. Department of Transportation.

its obligations under section 11706. The primary change under deregulation is that enforcement of section 11706 is solely by the courts.

Pursuant to the ICC Termination Act of 1995, the liability of certain motor carriers and freight forwarders is still governed by the Carmack Amendment, now codified as 49 U.S.C.A. 14706.⁶⁰ Section 14706 still imposes liability for actual loss or injury to property. Carriers may limit their liability to a value established by written or electronic declaration of the shipper or by written agreement between the carrier and the shipper if that value is reasonable under the circumstances. Reasonableness is determined by the courts under federal common law. Under section 14101(b), shippers are also allowed to contract out of Carmack Amendment liability under section 14706; but this provision is primarily used by large volume shippers.

Some motor carriers' activities are still subject to stricter regulation. For movement of household goods, carriers must still file tariffs subject to invalidation by the Surface Transportation Board.⁶¹ Furthermore, under section 14706(f), carriers must petition the Surface Transportation Board to modify, eliminate or establish rates for the transportation of household goods that limit the liability of the carrier to a value established by written declaration of the shipper or by written agreement. According to the U.S. Department of Transportation, Congress continued federal oversight for the carriage of household goods because it believed that consumers continued to need protective regulation.⁶²

Airline deregulation occurred with the passage of two federal acts.⁶³ The Air Cargo Deregulation Act of 1977 eliminated the primary jurisdiction of the Civil Aeronautics Board (CAB) to determine the reasonableness of a cargo carrier's rates and practices. The Airline Deregulation Act of 1978 called for the cessation of the CAB's authority to determine rates and practices of all carriers by January 1, 1983, and the complete abolition of the CAB by January 1, 1985. Pursuant to its exemption powers under these acts, the CAB also promulgated regulations exempting all air carriers of

⁶⁰ Some activities of motor carriers are exempt from the section 14706 liability regime under section 13506.

⁶¹ 49 U.S.C.A. section 13702 (2002).

⁶² Cargo Liability Study of 1998, note 50, *supra* at p. 6.

⁶³ For a discussion of the effect of deregulation on airline liability, see B. Leto, "Administrative Law – Airline Deregulation – Deregulatory Scheme had no Effect on the Applicable Substantive Law to Determine Liability of Shipper for Lost Shipment of Goods," 30 Vill. L. Rev. 890 (1985).

property from the tariff filing provision.⁶⁴ However, importantly, “deregulation ... had no impact upon the applicability of the federal common law’s released value doctrine....[I]t merely did away with the applicability of the doctrine of primary jurisdiction. After deregulation, the validity of the agreed value provision ... became a purely judicial question for determination by application of the federal common law patterned upon the policy of the Carmack amendment.”⁶⁵

Thus, both before and after the deregulatory acts affecting surface transportation and air carriers, these carriers’ ability to limit their liability has been constrained by the released value doctrine. Only the venue changed in which consumers could first challenge the reasonableness of limitations of liability - from the relevant agency under a tariff structure to the courts with the elimination of tariffs. This is dramatically different from the effect of detariffing on the liability regime for telecommunications carriers discussed in section II.

C. Cargo Liability Study of 1998

Ironically, notwithstanding the greater continuity in liability regimes for transportation carriers than telecommunications carriers, it is the Department of Transportation – not the FCC – that has studied the impact of deregulatory legislation on liability rules. As described in sections IV.A and B, the changes in *intramodal* liability regimes for transportation carriers consist primarily of eliminating enforcement of carrier liability rules by a federal agency and placing it solely in the hands of the courts. However, lack of a uniform *intermodal* – often referred to as multimodal – liability regime has posed problems, both before and after deregulation.⁶⁶ This is because the “legal rules governing carrier liability for loss and damage in transit were developed historically on a mode-by-mode basis.”⁶⁷ The differences need to be addressed for both domestic and international transportation.⁶⁸

⁶⁴ 14 C.F.R. section 291.31 (1978).

⁶⁵ *First Pennsylvania Bank v. Eastern Airlines*, 731 F.2d 1113, 1122 (1984). *Accord*, *Mauseth v. American Airlines*, 24 Fed. Appx. 809 (9th Cir. 2001).

⁶⁶ In this context, intermodal refers to the movement of passengers or freight from one mode of transportation to another.

⁶⁷ P. Dempsey, “The Law of Intermodal Transportation: What it was, What it is, What it Should be,” 27 *Transp. L. J.* 367, 410 (2000).

⁶⁸ For a discussion of differences in intermodal liability regimes of transportation carriers, *see* Dempsey, note 67, *supra*; S. Wood, “Multimodal Transportation: An American Perspective on Carrier Liability and Bill of Lading Issues,” 46 *Am. J. Comp. L.* 403 (1998).

For purposes of discussion here, what is important is that the U.S. Department of Transportation (DOT) has conducted two studies of cargo liability, one before and one during the period of deregulation. The first was conducted in 1975 to assist the U.S. Government in formulating a multimodal liability regime. The second is the Cargo Liability Study of 1998,⁶⁹ which was mandated by Congress in the ICC Termination Act of 1995 to determine whether any modifications or reforms should be made to the loss and damage provisions of section 14706 (the Carmack Amendment applicable to motor carriers).⁷⁰ The Cargo Liability Study of 1998 also explored liability issues on an intermodal basis, both domestically and internationally.

In the Cargo Liability Study of 1998, most of the recommendations for change relate to intermodal liability issues, particularly for international transportation. With regard to (intramodal) liability under section 14706, DOT generally concludes “that the current liability system functions reasonably well and that it requires only modest adjustment to assure fairness to all parties.”⁷¹ As for allowing liability to vary by released rates or contracts, DOT does examine differences in application among motor carriers that has led to lack of uniformity. However, DOT recommends that the current system of released rates continue until shippers and carriers come closer to agreement on an alternative liability regime, such as a set liability limit with the option that the shipper could declare a higher value and purchase excess valuation coverage.⁷²

In contrast with DOT, the FCC has never conducted a study of the carrier liability regime for telecommunications carriers, whether before or after detariffing. As discussed in section II, the FCC has issued orders related to limitations on liability using cursory and flawed legal analysis. A proper evaluation of what liability rules are in the public interest is long overdue – after all, the ICC concluded such an investigation for telegraph companies in 1921.⁷³ Furthermore, with convergence of technology platforms for the provision of broadband service, an intermodal study of liability regimes among broadband providers may be wise.

⁶⁹ See note 50, *supra*.

⁷⁰ 49 U.S.C.A. sec. 14706(g) (2002). In its 1975 study, DOT had also recommended a reexamination to detect trends in cargo liability. See Cargo Liability Study of 1998, note 50, *supra* at p. 5.

⁷¹ Cargo Liability Study of 1998, note 50, *supra* at p. 57.

⁷² *Ibid.* at pp. 58-59.

⁷³ See note 10, *supra*.

V. Toward a Revised Liability Regime for Telecommunications Carriers

To evaluate what liability rules are in the public interest requires an understanding of how liability rules affect economic incentives so that an appropriate balance can be reached between the interests of carriers and customers. Historically, in evaluating the appropriateness of liability regimes for transportation carriers, the federal government has valued uniformity of federal guidelines “to create a measure of predictability for interstate carriers in the exposure to damages they face.”⁷⁴ Furthermore, at times it may be necessary to protect carriers “against catastrophic, crippling liability by establishing monetary caps on awards and restricting the types of claims that may be brought against carriers, while accommodating the interests of injured [customers] by creating a presumption of liability against the carrier.”⁷⁵

In balancing the interests of carriers and shippers, the liability regimes among the transportation carriers are remarkably similar in terms of the higher level principles. Table 1 provides a summary of these principles after deregulation, and is based on a table provided by DOT in its Cargo Liability Study of 1998.⁷⁶

⁷⁴ Gordon v. United Van Lines, 130 F.3d 282,287 (7th Cir. 1997) (refers to limitation of liability to actual loss under the Carmack Amendment in holding that punitive and emotional distress damages are non-recoverable against motor carriers). *See also* American Airlines v. Wolens, 513 U.S. 219 (1995) (holds that preemption provision in the Airline Deregulation Act of 1978 bars actions alleging violations of state-imposed obligations, in this case under the Illinois Consumer Fraud and Deceptive Business Practices Act).

⁷⁵ King v. American Airlines, Inc., 284 F.3d 352, 357 (2d Cir. 2002) (refers to terms of the liability system for international air transportation under the Warsaw Convention). *Accord* El Al Israel Airlines, Ltd. V. Tsui Yuan Tseng, 525 U.S. 155 (1999).

⁷⁶ *See* note 50, *supra* at 15. For a discussion of the common law defenses, *see* Sigmon, note 51, *supra* at pp. 76-133.

Table 1. Cargo Liability Regimes of Transportation Carriers

Regime	Motor Carrier	Railroad	Domestic Air	International Air
Relevant law	ICC Termination Act (1995)	Stagger's Rail Act (1980)	Airline Deregulation Act of 1978	Warsaw Convention, amended by Montreal Protocol (1999)
Carrier Obligations	Reasonable, non-discriminatory service to the public	Reasonable, non-discriminatory service to the public	Reasonable, non-discriminatory service to the public	Reasonable, non-discriminatory service to the public
Basis of Liability	Strict Liability	Strict Liability	"Strict Accountability" (presumed fault of carrier)	Presumed fault of carrier, but court may exonerate wholly or partly on finding claimant negligent
Burden of Proof	On carrier as to defenses	On carrier as to defenses	On carrier as to defenses	On carrier to prove that it took all necessary measures or that it was impossible to take such measures
Limitations on Liability	Actual loss, except released rates and contract rates	Actual loss, except released rates and contract rates	None by law; released value doctrine	\$23/kg, but shipper may declare up to full value
Carrier Defenses	Common law defenses*; bill of lading exceptions	Common law defenses*; bill of lading exceptions	Common law defenses*; defenses in air waybill	Negligent piloting or navigation

* Common law defenses are: act of God; act of public enemy; act of public authority; inherent vice of goods; and act or fault of shipper.

As shown in Table 1, all carriers are required to provide reasonable, non-discriminatory service to the public.⁷⁷ In addition, all regimes impose strict liability – a presumption of fault – on the carrier, subject to some defenses for which the carrier bears the burden of proof. For domestic transportation, limitations on liability are permitted under a released value system for motor carriers, railroads and air carriers; and contracting out of the

Carmack Amendment requirements is permitted for railroads and motor carriers under certain circumstances.⁷⁸ For international cargo, a presumptive level of liability is preset at \$23/kg, but the shipper has the option to declare an amount up to the full value. Intermodal differences arise, not from differences in the underlying legal principles, but in the detail of application. For example, the terms in bills of lading and the dollar levels customarily found in released rates or contracts vary greatly among the types of carriers, and sometimes among types of cargo within a given mode of transportation.⁷⁹

Cherry (1999) develops preliminary conclusions for designing liability rules for telecommunications carriers. It is based on applying an economic analysis of liability rules, for which there is a well-developed literature,⁸⁰ in the context of telecommunications industry characteristics.⁸¹ The analysis also incorporates the effects that liability rules will likely have on the achievement of other regulatory rules and public policy objectives, such as those discussed in section III. These preliminary conclusions are outlined here to illustrate their similarities to rules developed for transportation carriers.

First, to reduce transaction costs in achieving an optimal level of care by the carrier and to provide uniformity of results across jurisdictions and similarly situated customers, telecommunications carriers should be subject to a standard of strict liability as opposed to negligence. In recognition of events beyond the carrier's control, the common law defenses of acts of God, the public enemy, and public authority should remain available. As generally required under tort law, a customer would still have to prove that the carrier's actions were the proximate cause of the damages. Liability based on strict liability with certain common law defenses is consistent with the legal principles applied to transportation carriers.

⁷⁷ These are the tort obligations of common carriers. *See* note 2, *supra*.

⁷⁸ *See* section IV.B, *supra*.

⁷⁹ *See Cargo Liability Study of 1998*, note 50, *supra* at pp. 39-54.

⁸⁰ Modern literature of the economic analysis of liability rules began with an article written by R. H. Coase, "The Problem of Social Cost," 3 *Journal of Law & Economics*, No. 3, 1-44.

⁸¹ Relevant characteristics affecting the operation of liability rules include carriers' ability to differentiate levels of reliability among services, facilities, or customers; billing system characteristics; appropriate lengths of contract terms; interconnection rules; high risk, high reliability organizational characteristics; and factors affecting customer's moral hazard and adverse selection. *See* Cherry (1999), note 1, *supra* at pp. 83-95.

Second, to address problems of moral hazard, the strict liability standard should be modified to induce appropriate precautions by customers. To induce due care by the customer ex ante to an event of service interruption or outage, the carrier should be able to invoke the defense of contributory negligence. This is consistent with the common law defense of acts considered the fault of the shipper (sender).⁸² In addition, to induce due care ex post to the event, customers should bear a duty to mitigate damages. The availability of competitive alternatives would be a relevant factor in both situations, and may differ among services and/or classes of customers.

Third, the level of liability to which a telecommunications carrier should be strictly liable should be presumptively limited, not unlimited. In this regard, a presumption of unlimited liability would include carrier liability for extraordinary damages due to unique circumstances of the customer. On the other hand, a presumption of limited liability would exclude carrier liability for such extraordinary damages unless specifically negotiated among the parties.⁸³ The economic efficiency properties of imposing a presumptively limited or unlimited liability rule depend upon the ability of the parties to contract around the initial liability rule and the transaction costs of doing so. Bebachuk and Shavell show that a presumption of limited liability is generally superior, and unambiguously so when the number of customers likely to suffer extraordinary damages is a minority (so that transaction costs are economized by requiring such customers to communicate their special circumstances to the carrier).⁸⁴ A limited liability rule would also be more consistent with achieving other existing regulatory obligations and objectives, such as those discussed in section III. A presumption of limited liability is consistent with the statutory requirement that liability of railroads and motor carriers is limited to actual loss, which has been interpreted to exclude recovery for punitive damages, emotional distress, or state-imposed obligations.⁸⁵

Fourth, circumstances will vary among services and classes of customers as to whether bargaining should be permitted around a limited liability rule. If bargaining is

⁸² See Sigmon, note 51, *supra* at pp. 76-133.

⁸³ A presumption of limited liability, excluding liability for extraordinary damages, is the common law rule developed under contract law in *Hadley v. Baxendale*, 9 Ex. 341 (1854).

⁸⁴ L. Bebachuk & S. Shavell, "Information and the Scope of Liability for Breach of Contract: The Rule of *Hadley v. Baxendale*," 9 J. of Law, Economics & Organization 98 (1991).

⁸⁵ See note 74 *supra*.

permitted, then the liability rule would be presumptively limited; if no bargaining is permitted, then liability is absolutely limited to some prespecified amount. For larger volume customers, there is more equality in bargaining power with carriers, and carriers can differentiate levels of reliability among such customers. Therefore, bargaining should be permitted on some form of released value or contract basis. This is consistent with the use of released value and contract rates by transportation carriers. However, for the mass market – generally residential and small business customers - such circumstances do not prevail. The vast inequality of bargaining power among the customers and carriers, and the difficulties in providing differing levels of reliability to customers (particularly those in the same geographic area), indicate the need to consider an absolute limit on liability for the mass market.⁸⁶ This is consistent with the absolute limit on liability that has historically prevailed under tariffs for telecommunications carriers. However, at what prespecified amount liability should be limited requires empirical evaluation of social costs and benefits in light of other policy objectives discussed in section III. Furthermore, such evaluation may indicate the need for liability limits to vary among serving areas to reflect significant differences in costs of providing service.

Fifth, the characteristics of telecommunications carriers as high risk, high reliability organizations indicate the need to consider an absolute limit on liability for the aggregate level of damages for which a telecommunications carrier would be liable to all customers arising from a single event of service interruption or outage. A limit on aggregate liability would protect carriers from the uncertainty of catastrophic levels of liability and thereby be more consistent with achievement of ubiquitous availability of service at reasonable rates. Such a rule would be consistent with Congressional treatment of nuclear power plants,⁸⁷ air carriers,⁸⁸ and the terrorist acts on September 11, 2001.⁸⁹ However, setting an appropriate threshold for such an aggregate limit on liability would again require empirical evaluation of factors specific to the telecommunications sector.

⁸⁶ This is consistent with placing stricter regulation on motor carriers' transport of household goods given the inequality of bargaining power between the carriers and household customers. *See* notes 61 and 62, *supra*.

⁸⁷ *See* notes 40-43, *supra*, and accompanying text.

⁸⁸ *See* note 75, *supra*, and accompanying text.

⁸⁹ *See* section III.C, *supra*.

Finally, due to the asymmetric regulatory burdens borne by some carriers relative to others, liability rules may need to differ among types of carriers. For example, obligations of carriers of last resort and eligible carriers – usually incumbent local exchange carriers – may require different liability rules to enable such carriers to financially meet their obligations. The potential need for liability rules that differ among carriers has already been foreseen by the Michigan Public Service Commission.⁹⁰ It is also consistent with the varying application of the Carmack Amendment among motor carriers.⁹¹

These preliminary conclusions provide a useful framework for the changes in liability rules that should be contemplated for telecommunications carriers. The anomalous inattention to liability rules of telecommunications carriers in a deregulatory environment needs to be rectified through an appropriate balancing of interests between carriers and customers. This will require a systematic evaluation of the economic effects of liability rules in the context of specific telecommunications industry characteristics and public policy objectives. In this regard, experience with the treatment of transportation carriers, as well as appreciation of the historical role that limited liability has played in the telecommunications industry, are important sources of insights.

Conclusion

For over a hundred years, telecommunications carriers have limited their liability for damages to customers arising from service interruptions and outages to a pro rata credit of the customer's service charge. This absolute limit on liability is contrary to the common law of common carrier liability and the statutory liability regimes imposed on other common carriers, such transportation carriers and even telegraph companies. Furthermore, its persistence for telecommunications carriers is due to the misapplication of prior case law, particularly Western Union v. Esteve Bros., and the filed rate doctrine. With federal detariffing of interstate and international interexchange telecommunications services, the validity of traditional limitations on liability provisions are being successfully challenged on the grounds of unconscionability. As a result, the liability

⁹⁰ See note 30, *supra*.

⁹¹ See note 61, *supra*, and Cargo Liability Study of 1998, note 50, *supra*.

regime of telecommunications is now shifting from an absolute limit on liability towards one of strict liability (with a potential of unlimited liability) under the common law of common carriers.

Given the economic effects of this shift in liability rules, the continuing achievement of other public policy goals may be jeopardized in the long run. These goals include reasonable rate levels, the ubiquitous availability of service, and the sustainability of federal universal service support mechanisms. The characteristics of telecommunications carriers as high risk, high reliability organizations, coupled with vulnerabilities to acts of terrorism and the recent economic downturn in the telecommunications sector, further exacerbate the risks of failing to fulfill these public policy objectives.

This shift in the liability regime for telecommunications carriers is occurring, however, without any explicit consideration of whether or not it is in the public interest. This inattention is contrary to that which has been given to other carriers. Since 1906, Congress has been actively involved in codifying liability rules for transportation carriers. Furthermore, both during periods of regulation and deregulation, the U.S. Department of Transportation has conducted cargo liability studies to determine whether liability rules properly balance the interests of carrier and shippers. An investigation regarding appropriate liability rules for telegraph companies was also done by the Interstate Commerce Commission in 1921, and the liability rules established then still exist today. Yet, no such analysis has ever been conducted by the FCC nor considered by Congress for telecommunications carriers. With the passage of the Telecommunications Act of 1996, a comprehensive evaluation of appropriate liability rules for telecommunications carriers is long overdue. Furthermore, with the continuously growing importance of broadband services, an intermodal evaluation of liability rules among competing technology platforms will also be needed.

Cherry (1999) provides preliminary conclusions for designing liability rules for telecommunications carriers. These rules are similar to those already in place for transportation carriers. For example, carrier liability should be based on a standard of strict liability, presumptively limited to non-extraordinary damages, with contributory negligence and common law defenses. Released value rates or contract rates should be

available for certain services and customer classes, such as large volume users with telecommunications intensive businesses. However, an absolute limit on liability may need to be retained for other services and customer classes, such as residential and small business customers, where carriers retain much greater bargaining power but limited ability to differentiate standards of service reliability. Furthermore, given the characteristics of telecommunications carriers as high risk, high reliability organizations, an absolute limit on the aggregate level of damages for a given event may be in the public interest. Finally, due to asymmetric regulatory burdens, liability rules may also need to vary among differently situated carriers. In any event, empirical assessment of the factors specific to the telecommunications sector are required, and long overdue, for determining appropriate liability rules for telecommunications carriers.