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The Sky is Falling (or is it?): International Contracts and the Y2K Problem

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The Sky is Falling (or is it?): International Contracts and the Y2K Problem

Mark B. Baker*

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I. INTRODUCTION

One day Henny Penny was eating corn in the farmyard when . . .
whack! . . . an acorn fell on her head. "Oh, my," said Henny Penny.
"The sky is falling! The sky is falling. I must go and tell the King."
So she went along and she went along and she went along until

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she met Cocky Locky. "Hello, Henny Penny," said Cocky Locky. "Where are you going?" "The sky is falling and I must go and tell the King," said Henny Penny. "Oh! May I go with you?" asked Cocky Locky. "Certainly!" said Henny Penny. So they went along and they went along and they went along until they met Ducky Lucky. "Hello, Henny Penny and Cocky Locky," said Ducky Lucky. "Where are you going?" "The sky is falling and we must go and tell the King," said Henny Penny and Cocky Locky. "Oh! May I go with you?" asked Ducky Lucky. "Certainly!" said Henny Penny and Cocky Locky. So they went along and they went along and they went along until they met Goosey Loosey. "Hello, Henny Penny, Cocky Locky and Ducky Lucky," said Goosey Loosey. "Where are you going?" "The sky is falling and we must go and tell the King," said Henny Penny, Cocky Locky and Ducky Lucky. "Oh! May I go with you?" asked Goosey Loosey. "Certainly!" said Henny Penny, Cocky Locky and Ducky Lucky. So they went along and they went along and they went along until they met Turkey Lurkey. "Hello, Henny Penny, Cocky Locky, Ducky Lucky and Goosey Loosey," said Turkey Lurkey. "Where are you going?" "The sky is falling and we must go and tell the King," said Henny Penny, Cocky Locky, Ducky Lucky and Goosey Loosey. "Oh! May I go with you?" asked Turkey Lurkey. "Certainly!" said Henny Penny, Cocky Locky, Ducky Lucky and Goosey Loosey. So they went along and they went along and they went along until they met Foxy Loxy. "Greetings, Henny Penny, Cocky Locky, Ducky Lucky, Goosey Loosey and Turkey Lurkey," said Foxy Loxy. "Where are you going?" "The sky is falling and we must go and tell the King," said Henny Penny, Cocky Locky, Ducky Lucky, Goosey Loosey and Turkey Lurkey. "You'll never get there in time," said Foxy Loxy. "Come with me and I'll show you the shortcut." "Certainly!" said Henny Penny, Cocky Locky, Ducky Lucky, Goosey Loosey and Turkey Lurkey. And they followed Foxy Loxy right into his cave. Henny Penny, Cocky Locky, Ducky Lucky, Goosey Loosey and Turkey Lurkey were never seen again . . . and no one ever told the King the sky was falling."¹

When recently asked what actions were underway in preparation for the Year 2000 (Y2K) computer bug, a director of a leading French bank proclaimed: "The Year 2000 question is a conspiracy cooked up by the Americans and the British to create a smokescreen and distract attention away from preparations for

1. This old tale is often told with a protagonist named *Chicken Little*. H. WERNER ZIMMERMAN, *HENNY PENNY* (1989). A fable offers a similar admonishment:

A Stag, blind of one eye, was grazing close to the sea-shore and kept his sound eye turned towards the land, so as to be able to perceive the approach of the hounds, while the blind eye he turned towards the sea, never suspecting that any danger would threaten him from that quarter. As it fell out, however, some sailors, coasting along the shore, spied him and shot an arrow at him, by which he was mortally wounded. As he lay dying, he said to himself, 'Wretch that I am! I bethought me of the dangers of the land, whence none assailed me: but I feared no peril from the sea, yet thence has come my ruin.

"Misfortune often assails us from an unexpected quarter."

AESOP, *The Stag With One Eye*, in *AESOP'S FABLES* (V.S. Vernon Jones trans., 1967).

the single European currency."² This Euro-envy conspiracy theory appears disingenuous: a 1998 survey projected that only one percent of French firms were going to fail to account for the Y2K Bug problem by January 1, 1999.³ However, the same survey predicted that seventy-four percent of German firms were going to fail to meet the Y2K deadline.⁴ Other surveys conclude that companies in the United States and Australia are blazing ahead of others in their battle against the Y2K Bug.⁵ Yet, Canadian, British, Israeli, Swedish, French, Italian, Japanese, and German firms lag behind the United States and Australia at a rate of six to eighteen months.⁶ Developing countries, suffering from pirated software and aging hardware, will most likely feel the bite of the Bug before it even arrives.⁷ Indeed, multinational businesses have begun to demand advance payment for goods because the effects of Y2K in developing nations will most likely

2. *The Millennium Bug Survey: Countries that Count*, ECONOMIST, Sept. 19, 1998, at 13. The French director may not have been so cavalier had he known of the \$13 million hit a New Zealand aluminum smelter endured after its software could not recognize a leap year. See David Jordan, *The Year 2000 Assessment Process*, 521 PLI/PAT 73, 76 (June, 1998). However, there exist other Y2K naysayers.

At the denial extreme, we have astronomer Clifford Stoll, author of the high-tech critique *Silicon Snake Oil*, who in a January 1, 1997, debate with Y2K consciousness-raiser Peter de Jager claimed that the Year 2000 problem can be fixed in a long weekend, and chief information officer David Starr of Reader's Digest Association, who told *Computerworld* in mid-1997 that Y2K is a fraud. Even more stringently, Jim Wilson, the science editor of *Popular Mechanics*, has dismissed Y2K as an urban legend, apparently on the grounds that the computer industry couldn't possibly be that stupid.

Wendy M. Grossman, *The End of the World as We Know It* (visited Oct. 9, 1998) <<http://www.sciam.com/1998/1098issue/1098cyber.html>>.

3. See *The Millennium Bug Survey: Are You Ready?*, ECONOMIST, Sept. 19, 1998, at 10.

4. See *id.* However, the article points out the following anomaly in the survey results: "Year 2000 work will account for 90% of annual IT budgets in Germany and only 20% in France. Does that mean the French are wildly underestimating their problems? Or that Germany faces the bigger task?" *Id.*

5. See *id.* Another study found that "71% of U.S. private and public entities have a formal Year 2000 program in place, while in Asia that number drops to 63%, and in Europe it drops even further to 57%." Stephen J. Schulte, *The Year 2000 Problem: A Technological Time Bomb*, 1046 PLI /CORP 705, 712 (April, 1998) (citing Borzou Daragahi, *Survey: Firms Outside U.S. Lag in Y2K Readiness*, SEC. INDUS. NEWS, Dec. 22, 1997, at 3).

6. See *id.* Japan uses not only conventional calendar dating but the emperor system as well. The emperor system uses two digits, which may alleviate some of the pressures firms feel as the impending Year 2000 approaches. See *id.* at 15.

7. See *The Millennium Bug Survey: No Hiding Place*, ECONOMIST, Sept. 19, 1998, at 14.

be severe.⁸ Such disparities in our global marketplace will force international players to address not only their own Y2K problems, but those of their trading partners as well. Specifically, parties to an international supply chain must acknowledge that their Y2K readiness is only as effective as the chain's weakest link.⁹ That weak link could result in contractual liability, and there appears to be no lack of liability to go around.¹⁰

8. See *id.* For example, the Indonesian telephone company and electricity board expect to beat the Y2K deadline. However, the water company has yet to begin Y2K preparations. See *id.*

9. See Schulte, *supra* note 5, at 710.

With a year to go before 2000, Montgomery Ward & Co. systems guru Morton Mease says he's confident the Chicago-based retail chain's computers will be free of Millennium Bugs. It's everybody else's computers that worry him. In his worst nightmares, Mease envisions stores being looted if Year 2000-induced power failures knock out lights and alarms. He frets about apparel plants in Asia standing idle if fabric shipments suffer Year 2000 delays. And he trembles at the thought of merchandise getting stranded by the truckload in small town U.S.A. if Year 2000 snafus disable fuel stations and the like [T]he systems of vendors and clients are beginning to take center stage, as companies recognize that outside problems could cripple their businesses just as thoroughly as internal failures.

Greg Burns, *Your Systems Might Be Y2K Compliant, But What About Your Suppliers, Customers?*, FORT WORTH STAR TELEGRAM (last updated Dec. 31, 1998) <<http://www.startext.net/news/doc/1047/1:COMP52/1:COMP52123198.html>>.

10. Y2K litigation began in the summer of 1997 with *Produce Palace International v. Tec-America*, a case which involved a commercial plaintiff suing for losses resulting from cash register failures to read credit cards with expiration dates beyond 1999. The case settled "on September 10, 1998 for \$250,000 and hardware and a service contract." Legislators are scrambling to pass bills limiting Y2K liability. *ITAA's Year 2000 Program: Year 2000 Law Suits (Filed & "Potential")* (visited Oct. 9, 1998) <<http://www.ita.org/Y2Klaw.htm>>.

Additionally, in response to Y2K concerns and to boost investor confidence, the SEC published an Interpretive Release concerning Y2K issues. See generally Statement of the Commission Regarding Disclosure of Year 2000 Issues and Consequences of Public Companies, Investment Advisers, Investment Companies and Municipal Securities Issuers, 17 C.F.R. pts. 231, 241, 271, 276 (1998); James R. Doty, *The SEC Talks About Y2K: Agency Issues a Release to Guide Reporting Obligations*, BUS. L. TODAY, November/December 1998, at 46, 46 (stating that the release "carries the force of a commission vote on specific interpretations of disclosure policies"); SEC Homepage (visited Jan. 18, 1999) <<http://www.sec.gov>>. To find support for the release, see Reports To Be Made by Certain Brokers and Dealers, 17 C.F.R. pt. 240 (1998); Year 2000 Readiness Reports To Be Made by Certain Transfer Agents, 17 C.F.R. pt. 240; Staff Legal Bulletin No. 5, Fed. Sec. L. Rep. (CCH) ¶ 60,005, at 50,115 (superseded by Statement of the Commission Regarding Disclosure of Year 2000 Issues and Consequences of Public Companies, Investment Advisers, Investment Companies and Municipal Securities Issuers, *supra*).

The release outlines disclosure policies for public companies and reiterates the safe harbors for forward-looking statements made in such disclosures designated in the Private Securities Litigation Reform Act of 1995. A public

The projected cost of globally remedying the Y2K problem ranges from \$300 billion to \$600 billion.¹¹ Add the cost of lawyers and the estimate surges to \$1 trillion.¹² Like a modern version of Cinderella, when the clock strikes midnight on January 1, 2000, many will scurry to find their prince charming of legal remedies.¹³ This paper addresses one such possibility vis-a-vis failures in the supply chain by examining the doctrines of impossibility and impracticability within the contexts of American and international contract law. Part II explains the origins of the Y2K Bug and possible results on January 1, 2000. Part III

company must disclose information related to its Y2K readiness if one of two tests is met: (i) if a company has not completed its Y2K assessment or (ii) if management concludes that Y2K problems could arise, without accounting for any endeavors the company has taken to prevent Y2K problems. See Doty, *supra*, at 49. The latter test is quite broad, encompassing most public companies. "If disclosure is required under that test, the SEC believes that full and fair disclosure includes: the company's state of readiness; the costs of addressing the company's Year 2000 issues; the risks of the company's Y2K issues; and the company's contingency plans." *Id.* at 48. Additionally, in addressing an issue particularly relevant to this paper, "[e]ach company is also directed to consider whether its own Y2K circumstances require MD&A disclosure of additional information." Most importantly, in the SEC's view, a company's assessment will not be complete unless the company has considered third-party relationships (including vendor, supplier, and customer relationships), and has taken reasonable steps to verify the Y2K readiness of any third party that could cause a material impact. *Id.*

A company that makes forward-looking statements based on third-party representations will fall within the statutory safe harbors of the Private Securities Litigation Reform Act of 1995. See *id.* at 50.

The release also addresses disclosure issues that investment advisers, investment companies, and municipal issuers confront. See generally Statement of the Commission Regarding Disclosure of Year 2000 Issues and Consequences of Public Companies, Investment Advisers, Investment Companies and Municipal Securities Issuers, *supra*; Doty, *supra*, at 50-51.

11. See Deborah L. Bayles, *Preventing an Infestation of the Millennium Bug*, COLO. LAW., Oct. 26, 1997, at 123.

12. See *The Millennium Bug Survey: Midnight's Children*, ECONOMIST, Sept. 19, 1998, at 15. Some commentators predict that legal costs resulting from the Y2K Bug will reach a mere \$100 billion. See Howard L. Nations, et al., *The Multiple Roles of Lawyers in Coping with the Fallout from the Trillion-Dollar Computer Glitch*, LEGAL IMPLICATIONS OF THE MILLENNIUM BUG: 2000 (State Bar of Tex., 21st Ann. Adv. Civ. Trial Course), at K-2.

13. Actually, there are several critical dates that precede January 1, 2000. September 1, 1999 begins the federal government's fiscal year 2000. September 9, 1999 (09/09/99) is a date used by many systems as a default date. For example, data concerning prisoners are entered on computer information sheets, including their respective dates of release. The date of release for lifers and death row inhabitants is entered 09/09/99. Another critical date is February 29, 2000. The Year 2000 is a "super leap year" which essentially means that February 29, 2000 will be a day that occurs only every four hundred years. Computers that cognize the date 01/01/00 may not recognize that the Year 2000 is a leap year, resulting in more complications. See Nations et al., *supra* note 12, at K-6-K-7.

examines the doctrine of impracticability in the Uniform Commercial Code (U.C.C.) Section 2-615 within the context of Y2K problems.¹⁴ Part IV considers the international treaty of the Convention on the International Sale of Goods (CISG) within the Y2K context.¹⁵ Part V concludes that when courts address Y2K failures they should apply a negligence standard rather than the standard under traditional contract law.

II. THE Y2K MILLENNIUM BUG

The Y2K problem presents a two-fold challenge. First, older computer systems, by and large, recognize calendar years in a two digit form.¹⁶ For example, the computer reads "98" as 1998. When 2000 arrives, computers will assume that "00" represents the year 1900 as opposed to the year 2000.¹⁷ Not having any work assigned on January 1, 1900, the computer will be unable to function. Alternatively, the computer will continue to function but will make significant miscalculations.¹⁸

14. See U.C.C. § 2-615 (1995). Part III will also briefly address the American common law doctrine of impossibility.

15. See United Nations Convention on Contracts for the International Sale of Goods, S. TREATY DOC. No. 98-9, 19 I.L.M. 671 (codified at 15 U.S.C. § 5528 (1992)) (entered into force Jan. 1, 1988) [hereinafter CISG].

16. See *The Millennium Bug Survey: Time Runs Out*, ECONOMIST, Sept. 19, 1998, at 1.

17. See Nations et al., *supra* note 12, at K-2. The Millennium itself purportedly arrived around 1997, although computers, like most people, failed to recognize it:

Whenever the millennium is, it's not really next year, even if that's when just about everybody will be marketing it [B]y more careful calculations, the millennium began a few years ago. A large part of the misunderstanding stems from Dionysius Exiguus—Latin for 'Dennis the Short'—a 6th century monk who should be thought of as the original millennium bug. Dennis laid down the basis for the calendars we use today by figuring how far in the past Christ's birth was. As it turns out, he was off by several years. Historians now place the Nativity no later than 4 B.C., the year King Herod died. By that reckoning, the 3rd millennium would have commenced no later than 1997.

Richard Lacayo, *The End of the World As We Know It?*, TIME, Jan. 18, 1999, at 60, 62.

18. See Schulte, *supra* note 5, at 709. Miscalculations can cause lasting headaches. One couple experienced trouble when their insurance company installed Y2K-compliant software which "garbled date entries and miscalculated insurance premiums." As a result, their credit card was charged a total of \$17,800. Additionally, U.C.C. filings have been affected. The Metropolitan National Bank of Springfield discovered that one of its liens had disappeared since, instead of expiring in 2001, the computer read the lien as expiring in 1901. See Finn Bullers & David Hayes, *In KC, Some Already Have Seen What Glitches Can Do*, THE STAR (visited Oct. 15, 1998) <<http://www.kcstar.com/item/pages/>

The second problem is that the Year 2000 is a "super leap year."¹⁹ Leap years occur every four years except those years ending in "00." However, "to compensate for a minor discrepancy in time that develops over the centuries, there is a super leap year in each year that is divisible by [four hundred]."²⁰ Thus, the computers that survive January 1 may fail to account for February 29, resulting in a belated Millennium Bug bite identical to that expected on January 1, 2000.²¹

The essential question is why did programmers chose the two digit form for calendar years as opposed to the four digit form? The answer is rather simple—money. In the early days of computer programming, computer memory was a precious commodity. "[O]ne megabyte of magnetic disk storage (enough for a solid novel) in 1965 was \$761, compared with seventy-five cents today [1998] and perhaps thirty-four cents in 2000."²² When one adjusts those numbers for inflation, the comparison becomes

y2k.pat.business/30da66a1.926,.html>.

19. See Nations et al., *supra* note 12, at K-7.

20. See *id.* at K-7. Additionally, January 1, 2000, is the date that the European Common Market introduces the Eurodollar. At least in Europe, this presents additional difficulties come 2000. See *id.*

21. This programming problem seems relatively simple to remedy, and it is. However, consider this statement by Paloma O'Riley of the Cassandra Project:

Well, actually, the [Y2K] problem itself is technically very simple. What the catch is we've waited too long to start working on it. It's kind of like the Golden Gate Bridge. If you told a worker to remove and replace a rivet on the bridge, that's very easy to do. It hardly takes any time at all. But if you told the worker that he needs to change out all the rivets on the bridge and he only has 48 hours to do it, that's a problem.

The Year 2000 Bug: Time to Sound the Alarm, or Just a Lot of Hype? (ABC television broadcast, Oct. 20, 1998) (transcript available at <http://www.abc-news.go.com/onair/nightline/transcripts/ntl_981020_trans.html>).

22. *The Millennium Bug Survey: Small Cause*, ECONOMIST, Sept. 19, 1998, at 2. One Y2K commentator and former computer programmer estimated that in the early days of computer programming, "[a] megabyte of memory was \$100,000, compared to \$1.98 today." David Haynes & Finn Bullers, *Chances to Fix Problem Squandered for Decades*, THE STAR (visited Oct. 15, 1998) <<http://www.kcstar.com/item/pages/y2k.pat.business/30da66a5.926.html>> (quoting Ed Yourdon).

Prior to magnetic disk storage, programmers used punch cards which allowed for only eighty characters per card. See Jim Landers, *Lost Chances Litter Year 2000 Bug's Path*, DALLAS MORNING NEWS (visited Oct. 5, 1998) <<http://www.dallasnews.com/technology-nf/techbiz1.htm>>. One commentator disagrees with the idea that the two digit calendar year reduced costs. According to Leon Kappelman, the two digit calendar year saved a software application still in use after thirty-five years \$18,571 to \$42,857. For software in use for the past twenty-five years, the two digit year saved \$1,400 to \$3,000 per year. Software in use for the past fifteen years saved \$40 to \$83 a year due to the two digit calendar year. See Leon A. Kappelman, *Time to Debunk Y2K Myths—To Stand There Staring at the Oncoming Y2K Lights Reduces No Risks*, INFO. WK. (visited Oct. 9, 1998) <<http://www.techweb.com/se/directlink.cgi?IWK19980928S0075>>.

even more dramatic. Thus, during computer programming's infancy, programmers used the two-digit form for the calendar year to save memory space.²³ The two digit year became the industry norm, and the Y2K Bug is the result.²⁴

Companies will most likely encounter troubles despite their diligent attempts to achieve Y2K compliance.²⁵ Consider, for example, the Y2K problem and its impact on the delivery of necessities such as electricity, water, and telephone service.²⁶ Texas provides a case study with respect to electricity:

23. Another reason for the Y2K problem is that programmers simply did not anticipate that their software would be in use when the Year 2000 arrived. *See id.*

24. The history of the two-digit year is an interesting one. As would be expected, the Pentagon led the pack in the development of computer software. Eventually, the Department of Defense decided that a "computer grammar" needed to be developed to unify industry practice. In the 1950s, the Common Business Oriented Language (COBOL) emerged which allowed for either four or two-digit calendar years. In the 1960s, the American Standard Code for Information Interchange (ASCII) shared the status of being an industry standard along with COBOL. In 1967, President Lyndon Johnson directed the National Board of Standards to set the national standard for data processing software. The resulting standard, which took effect in 1970, was a two-digit calendar year. In 1971, a subcommittee of the American National Standards Institute (a collaborative effort between industry and the government to arrive at voluntary standards) published ANSI X3.30-1971 which stated that the four-digit calendar year was a preferred method to the two-digit year. On the international front, a similar standard was adopted by the International Organization of Standardization. Since the four-digit calendar year was optional, and since the two-digit year had already become the norm, programmers continued to use the two-digit format. The first article addressing the Y2K problem was published in 1979 and the second admonition arrived in 1986. *See Landers, supra* note 22. In addition, the programming industry has been particularly stubborn about acknowledging this problem: "[e]ven up until 1997 some computer manufacturers and some software publishers were sending out products that could be hobbled by the year 2000 problem." *See Haynes & Bullers, supra* note 22.

25. According to the federal definition,

Year 2000 Compliant . . . means that the information technology accurately processes date/time data (including, but not limited to, calculating, comparing and sequencing) from, into and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations, to the extent that other information technology, used in combination with the information technology being acquired, properly exchanges date/time data with it.

Sharon R. Klein & Kara W. Swanson, *Getting Ready: Where Might Your Client Find a Y2K Problem?*, BUS. L. TODAY, Sept./Oct. 1998, at 20, 22.

26. [T]he telecommunications network is global. That means carriers in the rich countries have a business interest in the readiness of their opposite numbers elsewhere. A survey of carriers in 113 countries by the American State Department in March found that fewer than half expected to be millennium-ready on time.

The Millennium Bug Survey: Bare Essentials, ECONOMIST, Sept. 19, 1998, at 12.

In January [1998], the Public Utility Commission of Texas surveyed the state's 176 generation and distribution companies on their Y2K readiness. Only 44 percent responded. None were yet compliant, and none had any clear idea when they would be. Among Texas electric co-ops, only 18 percent had written plans for Y2K preparations, and 24 percent said they hadn't yet begun planning. So the PUC, which has absolute regulatory control over these agencies roared back with a list of recommendations, including "continuing to monitor Y2K issues" and putting up a Web page about the problem. About 20 percent of U.S. electric power comes from nuclear plants. The number of compliant plants so far: 0. Better stock up on candles and batteries, Texans.²⁷

Embedded systems, mini-computers which operate machinery, are also of vital concern. Examples of embedded systems that may cause mechanical problems come 2000 are those that operate security systems, elevators, heating and air conditioning systems, and, perhaps most startling, medical equipment.²⁸ One "Y2K analyst in London predicts that the failure of medical equipment will lead to approximately fifteen hundred deaths in England alone."²⁹

Even if the above systems operate perfectly when the Year 2000 arrives, members of a supply chain must consider whether their suppliers and customers are prepared for the new year. Hopefully, the parties comprising the supply chain have begun dialogue with suppliers and customers in anticipation of 2000.³⁰ However, litigation seems inevitable.³¹ The following section

27. Jim Seymour, *My Biggest Worry*, PC MAG. ONLINE (visited Oct. 9, 1998) <<http://www.zdnet.com/pcmag/special/y2k/features/worry/index3.html>>. Some people have taken unconventional steps to prevent falling prey to the Y2K Bug. For example, the ABC news show, *Nightline*, featured a family of Y2K Survivalists. The family has invested in remote desert land and hoarded enough food and weapons to be completely self-sufficient. See *The Year 2000 Bug: Time to Sound the Alarm, or Just a Lot of Hype?*, *supra* note 21. Another family has, among other things, invested in a water bed which will provide an additional 300 gallons of water should it become necessary. See *Lacayo*, *supra* note 17, at 60.

28. See *Jordan*, *supra* note 2, at 75. See also Andrew Pollack, *Chips Are Hidden in Washing Machines, Microwaves and Even Reservoirs*, N.Y. TIMES, Jan. 4, 1999, at C17 ("As companies and government agencies race to fix the Year 2000 computer problem, they have discovered to their chagrin that problems lurk not only in computer rooms and personal computers.").

29. Nations et al., *supra* note 12, at K-1. The problem is not better among American health care systems, eighty-seven percent of which are predicted to experience Y2K problems. See *id.* (citing Thomas Hoffman, *Year 2000: Hospitals Diagnose Themselves in Critical Condition*, COMPUTERWORLD <<http://www2.computer-world.com/home/print.nsf/All/9803022E62>>).

30. Australian companies have begun informal meetings with critical suppliers in an attempt to discuss Y2K issues and various possible contingency plans should millennium problems arise. See Margaret Banaghan, *Costings Are Looking Less Than Realistic*, INFO. ECON. YEAR 2000 UPDATE (visited Oct. 15, 1998) <<http://www.brw.com.au/content/280998/brw28.htm>>.

31. See *Midnight's Children*, *supra* note 12.

provides a guide to supply failures in America and considers whether such failures make delivery of goods through the supply chain commercially impracticable.

III. COMMERCIAL IMPRACTICABILITY AND UNIFORM COMMERCIAL CODE SECTION 2-615

A. History

The doctrine of *Pacta Sunt Servanda* (that a contract must be fulfilled regardless of the circumstances) traditionally controlled common law.³² A breaching party could expect something akin to strict liability as a result. However, the legal stomach eventually soured at the idea of strict liability in every contract case. Thus, two specific circumstances excused performance of contracts: (1) death of one of the parties, or (2) a change in the legal scene making performance of the contract illegal.³³ The doctrine of

32. The principle which controlled the decision of the cases referred to rests upon a solid foundation of reason and justice. It regards the sanctity of contracts. It requires parties to do what they have agreed to do. If unexpected impediments lie in the way, and a loss must ensue, it leaves the loss where the contract places it. If the parties have made no provision for a dispensation, the rule of law gives none. It does not allow a contract fairly made to be annulled, and it does not permit to be interpolated what the parties themselves have not stipulated.

Dermott v. Jones, 69 U.S. 1, 8 (1864). See also *Paradine v. Jane*, 28 Eng. Rep. 897 (K.B. 1647); JOHN D. CALAMARI & JOSEPH M. PERILLO, *CONTRACTS* 529 (4th ed. 1998).

33. In the fourteenth century, the defense of impossibility was used in cases involving obligations related to issues other than sales. See John D. Wladis, *Impracticability as Risk Allocation: The Effect of Changed Circumstances Upon Contract Obligations for the Sale of Goods*, 22 GA. L. REV. 503, 506 (1988). According to Wladis, the first sales case involving impossibility is *Hinde v. Whitehouse*, reported in 1806. See *id.* (citing *Hinde v. Whitehouse*, 7 East 558, 103 Eng. Rep. 216 (1806)). Commentators have attributed the relatively late emergence of impossibility in sales cases compared to its application in other cases to several bases. Williston and Corbin gave two reasons for impossibility's late emergence: "(1) that the law did not enforce bilateral contracts (a promise for a promise) until the sixteenth century, and (2) for two centuries after the recognition of bilateral contracts, the exchanged promises were, in the absence of express words of condition, held to be mutually independent." *Id.* at 508. Conversely, Wladis suggests that the eventual use of impossibility in sales cases resulted from use of the writ of *assumpsit* in the sixteenth century. See *id.* at 512. Before the rise of the writ of *assumpsit* (which was preceded by an action in debt), only those informal contracts that were partially performed could be enforced in the King's courts. See *id.* at 508. Wladis surmises that most merchants during this period conducted business via informal contracts to avoid the cost of forming a sealed instrument. See *id.* Thus, if impossibility arose

impossibility, expanding circumstances wherein breach was excused, later arose to address situations where the harshness of strict liability was not appealing.³⁴ It included "1) destruction, deterioration or unavailability of the subject matter or the tangible means of performance;³⁵ 2) failure of the contemplated mode of delivery or payment;³⁶ 3) supervening prohibition or prevention by law; 4) failure of the intangible means of performance; and 5) death or illness."³⁷

A recent case articulates in classic form the test of this common law doctrine: "In order to prove impossibility: (1) a contingency must occur; (2) performance must be impossible, not just more difficult or more expensive; and (3) the nonoccurrence of the contingency must be a basic assumption of the agreement."³⁸ The first prong of the test—that something

before any performance on a contract, enforcement of the contract was impossible. *See id.* On the other hand, if the buyer had partially performed and performance was impossible for the seller, the contract would be enforced. *See id.* at 509.

Once the writ of *assumpsit* arose, a buyer could recover more than the value of the goods. *See id.* at 511. Thus, "the buyer had incentive to sue, and the seller had incentive to raise the defense of impossibility of performance." *Id.* at 512. However, there still remained a delay from the time the action of *assumpsit* arose and a defense of impossibility would lie. *See id.* Wladis attributes this to use of the rule of risk which dictated that title to goods passed to the buyer once the contract was completed. *See id.* (citing Hinde, *supra*; Sales of Goods Act, 1893, 56 & 57 Vict. Ch. 71 § 20, *reenacted*, Sale of Goods Act, 1979, Ch. 54 § 20). As commercial dealings increased in sophistication, the rule of risk became outmoded and the defense of impossibility arose. *See id.*

34. The doctrine remained based on the notion of implied contractual terms. *See Opera Co. v. Wolf Trap Found. for the Performing Arts*, 817 F.2d 1094, 1098 (4th Cir. 1987) (noting the relaxation of the doctrine of impossibility to encompass situations other than death, illegality, or destruction of the contract's subject matter to include simply "thing[s] essential to [the contract's] performance") (quoting *Texas Co. v. Hogarth Shipping Co.*, 256 U.S. 619, 629-30 (1921)). However, courts and commentators later rejected this notion in favor of a doctrine that "supplement[s] the defects of the actual contract." *Id.* (quoting 6 ARTHUR LINTON CORBIN, CORBIN ON CONTRACTS § 1331 (2d ed. 1962)).

35. The U.C.C. has incorporated § 2-613, entitled *Casualty to Identified Goods*. This section gives a buyer options if goods identified in a contract are destroyed either in part or in whole due to the fault of neither the seller nor the buyer. If the loss of goods is total, then the contract is avoided. However, "[i]f the loss is partial, the buyer may either avoid or perform under the contract. To the extent the goods are accepted, the buyer is entitled to an allowance against the price for the deficiency without further relief against the seller." *See Sarah Howard Jenkins, Exemption for Nonperformance: UCC, CISG, UNIDROIT Principles—A Comparative Assessment*, 72 TUL. L. REV. 2015, 2021-22 (1998).

36. U.C.C. § 2-614, entitled *Substituted Performance*, addresses the problems involved when the intended mode of performance (whether it be mode of delivery or mode of payment) fails. *See U.C.C. § 2-614* (1995).

37. CALAMARI & PERILLO, *supra* note 32, at 498.

38. *Kessler v. Tortoise Dev., Inc.*, 937 P.2d 417, 420 (Idaho 1997) (citing *Haessly v. Safeco Title Ins. Co.*, 825 P.2d 1119, 1121 (Idaho 1992)).

unexpected have occurred—commonly depends on whether the contingency was foreseeable. If the contingency was foreseeable at the time of contracting, the parties should have allocated the risk of that contingency occurring.³⁹ Thus, failing to account for all foreseeable contingencies will typically result in a finding that the promisor assumed the risk.⁴⁰ If a party can prove that a contingency was not foreseeable and the risk of such contingency occurring was not assumed, the court will determine whether performance of the contract was made impossible due to the contingency.⁴¹

In sum, the doctrine of impossibility remains inflexible, available only to a few defendants. For example, this stringent standard does not encompass less calamitous situations such as an increase in the cost of performance.⁴² The Uniform Commercial Code's answer to the doctrine of impossibility incorporates language that seemingly liberalizes the doctrine, although its actual effect remains debatable. This approach is discussed below.

B. Uniform Commercial Code

Article 2 of the Uniform Commercial Code (U.C.C.) incorporates a test of commercial impracticability somewhat similar to that of impossibility articulated above.⁴³ Section 2-615, entitled *Excuse by Failure of Presupposed Conditions*, reads:

Except so far as a seller may have assumed a greater obligation and subject to the preceding section on substituted performance:

- (a) Delay in delivery or non-delivery in whole or in part by a seller who complies with paragraph (b) and (c) is not a breach of his duty under a contract for sale if performance as agreed has been made impracticable by the occurrence of a contingency the non-occurrence of which was a basic

39. See Jenkins, *supra* note 35, at 2020 (stating that liberalizing this doctrine would "frustrate[] the expectations of the parties in view of the custom that parties are bound in the absence of stated contingencies").

40. See *id.* at 2020.

41. See *supra* note 39 and accompanying text.

42. While it may be an overstatement to say that increased cost and difficulty of performance never constitute impracticability, to justify relief there must be more of a variation between expected cost and the cost of performing by an available alternative than is present in this case, where the promisor can legitimately be presumed to have accepted some degree of abnormal risk, and where impracticability is urged on the basis of added expense alone.

Transatlantic Financing Corp. v. United States, 363 F.2d 312, 319 (D.C. Cir. 1966).

43. See U.C.C. § 2-615 (1995); *supra* note 39 and accompanying text.

assumption on which the contract was made or by compliance in good faith with any applicable foreign or domestic governmental regulation or order whether or not it later proves to be invalid.⁴⁴

Courts have whittled this section down to three conditions: "(1) a contingency must occur, (2) performance must thereby be made 'impracticable' and (3) the non-occurrence of the contingency must have been a basic assumption on which the contract was made."⁴⁵ The first and third conditions are measured by a foreseeability test, thus making the test essentially two-pronged.⁴⁶ If the contingency was foreseeable then, as the language in Section 2-615 notes, it can be presumed that the seller assumed the risk of the contingency occurring by failing to account for it in the contract.⁴⁷

Whether courts require absolute foreseeability or mere unexpectedness of the contingency remains ambiguous. The Fourth Circuit Court of Appeals thoughtfully explained the degree of foreseeability intended to apply to the modern rule in *Opera Co. v. Wolf Trap Foundation for the Performing Arts*:

As the Court in *Mishara Const. Co. v. Transit-Mixed Concrete Corp.* [citation omitted] remarked this question is much broader than mere foreseeability and is, "Was the contingency which developed one which the parties could reasonably be thought to have foreseen as a *real possibility* which could affect performance?" and this question is in turn what Judge Learned Hand in *Companhia De Navegacao Lloyd Brasileiro v. C. G. Blake Co.* [citation omitted] said was "in the end a question of how unexpected at the time [the contract was made] was the event which prevented performance." After all, as Williston has said, practically any occurrence can be foreseen but whether the foreseeability is sufficient to render unacceptable the defense of impossibility is "one of degree" of the foreseeability and whether the non-occurrence of the event was sufficiently unlikely or unreasonable to constitute a reason for

44. U.C.C. § 2-615 (1995).

45. *Neal-Cooper Grain Co. v. Texas Gulf Sulphur Co.*, 508 F.2d 283, 293 (7th Cir. 1974).

46. See Stephen G. York, *Re: The Impracticability Doctrine of the U.C.C.*, 29 DUQ. L. REV. 221, 223, 229-31 (1991) (arguing that the two-prong inquiry frustrates the drafters' contemplation of the doctrine of impracticability).

47. Note that U.C.C. § 2-615 only relates to sellers. By virtue of U.C.C. § 1-103, the common law doctrine of frustration of the venture should apply in cases where buyers seek to defend a suit based upon impossibility. These suits are coined "frustration of purpose." See CALAMARI & PERILLO, *supra* note 32, at 516 ("The Restatement Second sets forth the same rule for frustration as it does for impossibility."); RESTATEMENT (SECOND) OF CONTRACTS § 265 (1979); *Columbian Nat'l Title Ins. Co. v. Township Title Servs., Inc.*, 659 F. Supp. 796, 802-04 (D. Kan. 1987). The revised U.C.C. will explicitly "reflect an intent by the drafters to foreclose any use of impracticability by buyers and to limit buyers to the relief available under the common law doctrine of frustration of purpose under section 1-103." Jenkins, *supra* note 35, at 2023.

refusing to apply the doctrine. And that is the rule which we think accords with modern reasoning of the doctrine as an equitable doctrine and is the one we approve.⁴⁸

*Transatlantic Financing Corp. v. United States*⁴⁹ provides an example of the foreseeability prong of the modern doctrine of impracticability in action. Transatlantic entered into a charter agreement with the United States to carry cargo from the United States to Iran.⁵⁰ The charter did not specify the route to be taken by Transatlantic.⁵¹ However, the typical route to Iran entailed passage through the Suez Canal, and the Egyptian government closed the canal before Transatlantic could perform.⁵² Instead,

48. *Opera Co. v. Wolf Trap Found. for the Performing Arts*, 817 F.2d 1094, 1101-02 (4th Cir. 1987) (noting that some courts do, however, require absolute foreseeability). This Article adopts the view that foreseeability is not absolute, but is nonetheless objective and certainly hinges on the expectedness of the occurrence, in this case, the expectedness of Y2K difficulties.

49. 363 F.2d 312 (D.C. Cir. 1966).

50. See *id.* at 314. When impossibility first emerged, courts allowed the defense only in few circumstances:

Although impossibility as a defense to an express promise was . . . flatly denied, a promise of personal service must have been held excused by death or unavoidable illness from very early times; and that a supervening statute making performance clearly illegal would discharge the obligation of covenant was also early recognized.

18 S. WILLISTON, A TREATISE ON THE LAW OF CONTRACTS § 1931 (3d ed. 1978) (citing cases). Furthermore, "[i]t was not until after the middle of the nineteenth century that it was held that the destruction or non-existence of inanimate subject matter to which a contract related would excuse a promisor from liability." *Id.*

Later liberalization of the impossibility doctrine may have resulted from increased commercial intercourse. See *Opera Co.*, 817 F.2d at 1097. In the famous English case of *Taylor v. Caldwell*, the court chose to liberalize the doctrine based upon a notion that contracts contain fundamental implied conditions upon which the contract is based. See *id.* (citing *Taylor v. Caldwell*, 3 B.&S. 826, 122 Eng. Rep. 309, 324, 6 R.C. 603 (1863) ("[E]xcuse is by law implied, because from the nature of the contract it is apparent that the parties contracted on the basis of the continued existence of the particular person or chattel.")). Without these implied conditions, the contract could not be fulfilled. Twenty years later, the United States Supreme Court adopted *Taylor's* rationale in *The Tornado*. See *id.* (quoting *The Tornado*, 2 S. Ct. 746 (1883)).

Increasingly, though, commentators and text writers were uncomfortable with the implied condition rationale for the new doctrine of impossibility of performance [M]odern authorities also abandoned any absolute definition of impossibility and, following the example of the Uniform Commercial Code, have adopted impracticability or commercial impracticability as synonymous with impossibility in the application of the doctrine of impossibility of performance as an excuse for breach of contract.

Opera Co., 817 F.2d at 1098-99.

51. *Transatlantic*, 363 F.2d at 314.

52. See *id.*

Transatlantic reached Iran via the Cape of Good Hope, increasing the voyage's costs significantly.⁵³ Transatlantic argued that once the Suez Canal was closed, the contract was impossible to perform.⁵⁴ The court found that the closing of the Suez was foreseeable among those conducting business dependent on that area.⁵⁵ "We know or may safely assume that the parties were aware . . . that the Canal might become a dangerous area."⁵⁶ In other words, the court held that the event was not unexpected among those with commercial interests in the region. As a result of "the tension [in the Suez Canal] . . . freight rates [were affected], and it is arguable that the risk of closure became part of the dickered terms."⁵⁷ Because the freight rate paid by the United States presumably accounted for the possible closure of the Suez Canal, Transatlantic assumed the risk that the canal would in fact be closed. Had the canal not closed, Transatlantic would have gained a windfall of sorts, but, as it turned out, the canal did close and Transatlantic was the party bearing the resulting loss.

53. See *id.* at 319.

54. See *id.* at 314-15.

55. See *id.* at 318.

56. *Id.*

57. *Id.* There were several cases resulting from the closing of the Suez Canal in 1956 and in 1967. See *Glidden Co. v. Hellenic Lines*, 275 F.2d 253 (2d Cir. 1960); *The Captain George K.* [1970] 2 Lloyd's Rep. 21 (Q.B. 1969). One of these cases is *American Trading and Production Corporation v. Shell International Marine Limited*, 453 F.2d 939 (2d Cir. 1972). The facts are similar to those of *Transatlantic*: because of the closure of the Suez Canal, a chartered vessel was forced to travel along the Cape of Good Hope to satisfy the voyage, thus resulting in increased costs of \$131,978.44. The operator of the vessel argued that the contract was legally impracticable to perform. Based upon reasoning similar to that in *Transatlantic*, the court held that the contract was not impracticable to fulfill. It focused on the idea that "[m]ere increase in cost alone is not a sufficient excuse for non-performance." The increased costs represented only one-third of the contracted price for the voyage. *Id.* at 992.

In another Suez Canal case, *The Eugenia*, parties to a charter acknowledged the possibility that the Canal would be blocked. However, they chose to "leave it to the lawyers to sort out" if the event occurred. *The Eugenia*, 1964 1 All E.R. 161, 163 (Q.B. 1964). The vessel indeed was trapped in the Suez Canal due to Egyptian military action. Once the ship was trapped, the charterers argued that the contract was frustrated. The court held, first, that the charterers had breached the contract and that the frustration could not be the result of that breach. See *id.* at 165. Second, the court held that the contract was not frustrated: the contract did not specify that the vessel must sail through the Suez Canal. Additionally, the vessel eventually reached its destination via the Cape of Good Hope, a voyage that lasted 138 days as opposed to the 108 days a trip through the Suez Canal would have taken. See *id.* at 167. Thus, the blocking of the Canal did not create "a fundamentally different situation . . . for which the parties [had] made no provision . . ." *Id.* at 166.

By comparison, if a seller does not assume the risk, paragraph (a) of Section 2-615 states that if the contingency that occurs makes contract performance *impracticable*, then a seller's failure to deliver in a timely manner, if at all, is an excused breach. This test looks remarkably similar to that of the doctrine of impossibility except for the use of the term "impracticable" instead of "impossible."⁵⁸

The difference in the two terms leads one through a semantic nightmare. Under the common law doctrine of impossibility, impossibility means impossibility. Performance cannot be merely difficult or even unreasonable; nothing short of impossibility of performance will excuse a breach of contract.⁵⁹ The U.C.C. does not define impracticability,⁶⁰ but the Restatement (Second) of

58. RESTATEMENT (SECOND) OF CONTRACTS § 261 cmt. d (1979). Before the U.C.C., caselaw continued to look to impossibility rather than impracticability. Wladis summarizes pre-Code caselaw:

[It] displayed an apparent consensus that sellers should be excused for nonperformance caused by supervening events only in limited circumstances, primarily: (1) where an excuse clause covered the event; (2) where the seller's performance had been prevented by government action; or (3) where the goods were to come from some source or by some means either specified in the contract or contemplated by the parties.

Wladis, *supra* note 33, at 529. He then concludes that "[these pre-Code courts] seem to have engaged in an incipient process of risk allocation." *Id.*

59. See *Transatlantic*, 259 F. Supp. at 728 ("if the supervening event only renders attainment of the ultimate objective more oppressive or more expensive, the contractor has [a] duty to go forward without extra compensation"); *Marshick v. Marshick*, 545 P.2d 436, 439 (Ariz. Ct. App. 1976) ("contractual duties [must] be impossible for anyone to perform." (emphasis in original)); *Hudson v. D & V Mason Contractors, Inc.*, 252 A.2d 166, 169 (Del. Super. Ct. 1969) ("A contract is not invalid . . . because it turns out to be difficult or burdensome to perform.") (quoting *Safe Harbor Fishing Club v. Safe Harbor Realty Co.*, 107 A.2d 635 (1953); *White Lakes Shopping Ctr., Inc. v. Jefferson Standard Life Ins. Co.*, 490 P.2d 609, 612 (Kan. 1971) ("The impossibility which will, or may, excuse the performance of a contract must exist in the nature of the thing to be done. It must not exist merely because of the inability or incapacity of the promisor . . . to do it."); *Roundup Cattle Feeders v. Fred Horpestad*, 603 P.2d 1044, 1047 (Mont. 1979). But see *Capitol Vial, Inc. v. International Bioproducts, Inc.*, 980 F. Supp. 628, 632 (N.D.N.Y. 1997) ("extreme and unreasonable hardship" suffices to prove impossibility); *Stock & Grove, Inc. v. United States*, 493 F.2d 629, 643 (Ct. Cl. 1974) (not requiring literal or physical impossibility but instead noting that "difficulty, cost, and time factors can make performance practically or commercially impossible.").

60. Comment 4 of § 2-615 describes instances of commercial impracticability:

Increased cost alone does not excuse performance unless the rise in cost is due to some unforeseen contingency which alters the essential nature of the performance. Neither is a rise or a collapse in the market in itself a justification But a severe shortage of raw materials or of supplies due to a contingency such as war, embargo, local crop failure, unforeseen

Contracts instructs that "impracticability means more than impracticality."⁶¹ As a result, courts at times have considered impracticability as a different animal than impossibility. For example, some courts hold that impossibility encompasses both strict impossibility and practical impossibility.⁶² The court in

shutdown of major sources of supply or the like, . . . is within the contemplation of this section.

U.C.C. § 2-615 cmt. 4 (1995).

61. Section 261 of the Restatement reads:

Where, after a contract is made, a party's performance is made impracticable without his fault by the occurrence of an event the non-occurrence of which was a basic assumption on which the contract was made, his duty to render that performance is discharged, unless the language or the circumstances indicate the contrary.

RESTATEMENT (SECOND) OF CONTRACTS § 261 (1979). Comment d reads:

Events that come within the rule stated in this Section are generally due either to 'acts of God' or to acts of third parties. If the event that prevents the obligor's performance is caused by the obligee, it will ordinarily amount to a breach by the latter and the situation will be governed by the rules stated in Chapter 10, without regard to this Section If the event is due to the fault of the obligor himself, this Section does not apply. As used here 'fault' may include not only 'willful' wrongs, but such other types of conduct as that amounting to breach of contract or to negligence Although the rule stated in this Section is sometimes phrased in terms of 'impossibility,' it has long been recognized that it may operate to discharge a party's duty even though the event has not made performance absolutely impossible. This Section, therefore, uses 'impracticable,' the term employed by Uniform Commercial Code section 2-615(a), to describe the required extent of the impediment to performance. Performance may be impracticable because extreme and unreasonable difficulty, expense, injury, or loss to one of the parties will be involved. A severe shortage of raw materials or of supplies due to war, embargo, local crop failure, unforeseen shutdown of major sources of supply, or the like, which either causes a marked increase in cost or prevents performance altogether may bring the case within the rule stated in this Section. Performance may also be impracticable because it will involve a risk of injury to person or to property, of one of the parties or of others, that is disproportionate to the ends to be attained by performance. However, 'impracticability' means more than 'impracticality.' A mere change in the degree of difficulty or expense due to such causes as increased wages, prices of raw materials, or costs of construction, unless well beyond the normal range, does not amount to impracticability since it is this sort of risk that a fixed-price contract is intended to cover. Furthermore, a party is expected to use reasonable efforts to surmount obstacles to performance [citation omitted], and a performance is impracticable only if it is so in spite of such efforts.

RESTATEMENT (SECOND) OF CONTRACTS § 261 cmt. d (1979).

62. See *F.J. Busse, Inc. v. Department of Gen. Servs.*, 408 A.2d 578, 581 (Pa. Commw. Ct. 1979) ("Legal impossibility means not only strict impossibility, but impracticability because of extreme and unreasonable difficulty, expense, injury or loss involved."); *Portland Section of the Council of Jewish Women v.*

Opera Co., for example, simply asked whether the non-occurrence of the contingency—in that case, no electricity—was an assumption upon which the contract was based.⁶³ Because it was, impossibility, or at least impracticability was met.⁶⁴ Conversely, one commentator argues that courts generally force impracticability into impossibility, thus creating an unnecessarily high bar for defendants claiming the defense.⁶⁵

Perhaps the answer to this ambiguity rests with the idea of objective versus subjective impracticability. One court noted: "A distinction [should be] drawn between impracticability which is 'subjective' and 'objective.' This has been described as the difference, respectively, between 'I cannot do it' and 'the thing cannot be done.' Only objective impracticability may serve to relieve a party of his or her contractual obligation."⁶⁶ By making commercial impracticability purely objective, the defense begins to look more like impossibility than impracticability.

In *Tallackson Potato Co. v. MTK Potato Co.*, the court adopted a broad view of objectivity.⁶⁷ The court argued that impossibility embraces the idea of impracticability, but that the "[defendant] must show that it cannot perform and that performance could not be completed by anyone."⁶⁸ Such a standard—requiring that no one could perform the contract—seems to lean towards the

Sisters of Charity, 513 P.2d 1183, 1188 (Or. 1973) ("The law on the subject of impossibility or hardship is unclear since much of the area is a matter of discretion in enforcing a given contract. However, the modern trend appears to be to allow the defense in more cases than formerly . . ." (citation omitted)).

63. See *Opera Co.*, 817 F.2d at 1102.

64. See *id.*

65. Forcing impracticability into impossibility runs counter to the intent of the U.C.C.'s drafters:

[T]he comments [of the U.C.C.] indicate that Llewellyn intended the Code impracticability defense to be available in more situations than the common law impossibility doctrine would allow. Unfortunately, "[i]n spite of the intent of the draftsmen of section 2-615 to achieve innovation and liberalization of the law, the judiciary . . . [has] shut the door to further judicial interpretation and expansion.' This means that courts have treated 'Code impracticability [to be] very much like the common law doctrine of impossibility.' Consequently, the courts' interpretation of section 2-615(a) has not been true to the drafters' intent.

See York, *supra* note 46, at 238 (quoting Paula Walter, *Commercial Impracticability in Contracts*, 61 ST. JOHN'S L. REV. 225, 259 (1987)).

66. *Sunflower Elec. Coop. v. Tomlinson Oil Co.*, 638 P.2d 963, 970 (Kan. Ct. App. 1981).

67. *Tallackson Potato Co., Inc. v. MTK Potato Co.*, 278 N.W.2d 417, 424 & n.6 (N.D. 1979).

68. *Id.* at 424. One commentator argues that equating impracticability with impossibility runs contrary to the intent of the U.C.C. drafters. See York, *supra* note 46, at 237-38.

impossibility side of the continuum as opposed to the more liberal standard of impracticability.

On the other side of the spectrum, in *Opera Co.* the electricity failed and an opera had to be cancelled.⁶⁹ The court found that functioning electricity was a basis of the contract, and as a result, the contract could not be performed.⁷⁰ If the standard had been that of *Tallackson*—that the performance had to be impossible for anyone to perform—the outcome may have been different because it seems plausible that some theatrical troupe could have indeed operated without electricity. Thus, the outcome of an impracticability defense will be greatly influenced by how broadly the court interprets the objective impracticability element of the Section 2-615 test.

C. Application to Y2K

Y2K problems seem inevitable; such problems have already arisen.⁷¹ Therefore, members of a supply chain should give great weight to the idea that, at the very least, disruptions in that supply chain will occur. At the worst, the supply chain will break down completely. Because contracts and their resulting obligations form the mortar of a supply chain, any party left in the “cold” as a result of a “break” in the supply chain will probably look to litigation for recoupment. Due to the strict liability nature of contract law and the interdependency of supply chains, very few “outs” exist for breaching parties, regardless of their own Y2K readiness.

Consider the following elementary hypothetical using domestic law. Because of a disruption in an international supply chain due to Y2K problems, an American buyer brings suit based on breach of contract against an American seller for failing to

69. *Opera Co. v. Wolf Trap Found. of Performing Arts*, 817 F.2d 1094, 1096 (1987).

70. *See id.* at 1103.

71. *See supra* note 2. Other problems have arisen as well. For example, thirty-one percent of Australia's largest one thousand companies complain of trouble with software due to the Millennium Bug. *See* Stuart Kennedy, *Millennium Bug Already Loose*, COMPUTER DAILY NEWS, Feb. 17, 1998, at 1998 WL 5029841. Additionally, some Australian prisoners were released prematurely due to Y2K glitches. *See* Stuart Kennedy, *Year 2000 Bug is Already Biting*, COMPUTER DAILY NEWS, Sept. 5, 1997, at 1997 WL 13910336. In Sweden and Singapore, taxi meters have malfunctioned. *See Nation/World Briefs*, CHICAGO SUN-TIMES, Jan. 4, 1999, at 21. In the United States, movie-goers found that AMC theater registers could not process credit card purchases by credit cards expiring in 2000 or beyond. *See Year 2000 Bug Already Bit Some Businesses*, ST. LOUIS POST DISPATCH, Feb. 4, 1998, at C7.

deliver the contracted goods.⁷² The contract breached makes no mention of Y2K, and thus neither party explicitly assumed the risk of Y2K supply chain disturbances. In such an event, American contract law will govern, and the defendant may consider using U.C.C. Section 2-615 as a defense to the breach. Courts will use the two pronged method described above to determine whether such a defense is viable.⁷³ Before embarking on such an inquiry, however, our hypothetical must divide supply chain defendants into two intuitive groups: those defendants that commit breach because of their failure to address Y2K, and those Y2K-compliant defendants that breach due to "upstream" Y2K problems. In the former case, it seems apparent that the defendant is foreclosed from claiming commercial impracticability. In the latter case, the same seems true save for rare exceptions.

1. Non Y2K-Compliant Defendant

The case against a non-compliant supplier that breaches because of its failure to address Y2K seems simple, thus negating the necessity for a lengthy commentary. This simplicity comes from two notions. First, courts conduct the two-pronged test in a fairly methodical order.⁷⁴ They first consider whether the unexpected contingency that caused the breach was foreseeable. If the foreseeability prong is not met, then the court will not have to consider the commercial impracticability of fulfilling the contract, no matter the situation. Given that Y2K and its potential problems are well-recognized in the United States, it is unlikely that a contracting party could successfully argue that Y2K problems were unforeseeable. Television and radio shows, magazines, newspapers, industry publications, and myriad Internet sites have focused on the ramifications of the Millennium Bug.⁷⁵ Because the Y2K Bug has generated so much attention, it seems inevitable that any problems associated with it are foreseeable. Thus, a non-compliant defendant will most likely fail the foreseeability prong of the Section 2-615 test.

Nonetheless, the question of timing arises. Courts measure the timing of foreseeability at the time into which the contract was entered.⁷⁶ Thus, when the contract at issue is (very) long-term, perhaps an argument that the Y2K computer glitch was not

72. See also *supra* note 35.

73. See York, *supra* note 46 and accompanying text.

74. See *id.*

75. See *supra* notes 2-15 and accompanying text.

76. See *Alimenta (U.S.A.), Inc. v. Gibbs Nathaniel (Canada) Ltd.*, 802 F.2d 1362, 1366 (11th Cir. 1986); *Heat Exchangers, Inc. v. Map Constr. Corp.*, 368 A.2d 1088, 1093-94 (Md. Ct. Spec. App. 1977).

foreseeable—or extremely unexpected—at the signing of the contract would be plausible.⁷⁷ Practically speaking, however, sympathy may not be forthcoming from judge or jury when a defendant opts for a “wait and see approach” instead of incorporating Y2K into its long term contracts as soon as the problem is apparent.

What most effectively bars a non-compliant defendant’s use of excuse derives from caselaw and the Restatement (Second) of Contracts. A defendant claiming excuse due to impracticability must have done all that is reasonable to have prevented the impossibility from occurring.⁷⁸ Thus, this rule forecloses use of the defense by the non-compliant defendant if the non-compliant defendant failed to address Y2K computer glitches.⁷⁹

2. Y2K-Compliant Defendant

In our hypothetical, the compliant defendant breached the contract between itself and the plaintiff buyer because of Y2K

77. The common law doctrine of supervening impossibility should also be noted here. Some courts have held that impossibility that arises after formation of the contract will not excuse a defendant. See *Metropolitan Dade County v. Babcock Co.*, 287 So.2d 139, 142 (Fla. Dist. Ct. App. 1973); *Damazo v. Neal*, 363 A.2d 252, 256 (Md. Ct. Spec. App. 1976). However, the U.C.C. says nothing about supervening impracticability, thus this doctrine may be irrelevant to our discussion. See U.C.C. § 2-615 (1995).

In any event, the first warnings of potential Y2K problems came in the late 1970s and early 1980s. See *supra* note 22.

78. “A party is expected to use reasonable efforts to surmount obstacles to performance, and a performance is impracticable only if it is so in spite of such efforts.” RESTATEMENT (SECOND) OF CONTRACTS § 261 cmt. d (1979).

79. Presumably, the non-compliant defendant could have attempted to remedy Y2K problems yet failed. The Restatement (Second) of Contracts presents several cases that discuss the type of effort required to satisfy the Restatement’s test of “reasonable efforts to surmount obstacles to performance.” See *Stock & Grove, Inc. v. United States*, 493 F.2d 629 (Ct. Cl. 1974) (performance beyond state of the art); *Foster Wheeler Corp. v. United States*, 513 F.2d 588 (Ct. Cl. 1975). This Article assumes that the non-compliant defendant simply dismissed the importance of Y2K readiness.

An additional wrinkle should be mentioned. One commentator has noted a trend among American cases that is particularly relevant in the face of potential Y2K problems:

I suggest that it is not accident . . . that the courts are more willing to find an excuse where the supervening event has drastic consequences only for one contract or a small number of contracts than where the supervening event affects an enormous number of transactions.

Joseph M. Perillo, *Force Majeure and Hardship Under the UNIDROIT Principles of International Commercial Contracts*, 5 TUL. J. INT’L & COMP. L. 5, 18 (Spring 1997).

If such a trend does indeed exist, parties who fail to perform due to Y2K problems may find that excuse simply is not available to them unless those problems are not widespread.

failures of its upstream suppliers. Putting aside indemnification issues,⁸⁰ the compliant defendant may very well argue that performance of the contract was made commercially impracticable due to the upstream Y2K failures. Many reported cases address commercial impracticability due to upstream supplier failure and state that the determinative issue is whether the contract specified the source from which the supplier-promisor was to receive its goods.⁸¹

This result stems from the two-prong test discussed above. The circumstance at issue is whether the failure of an upstream supplier to deliver its goods to the promisor was foreseeable or an unexpected event. Courts generally hold that such a failure is foreseeable.⁸² Because the event is foreseeable and not explicitly

80. To succeed in a defense based on § 2-615, the defendant supplier in a supply chain must "[turn] over to the buyer . . . his rights against the defaulting source of supply to the extent of the buyer's contract in relation to which excuse is being claimed." U.C.C. § 2-615 cmt. 5 (1995).

81. See generally *Luria Bros. & Co. v. Piolet Bros. Scrap Iron & Metal, Inc.*, 600 F.2d 103 (7th Cir. 1979); *Morin Bldg. Prods. Co. v. Volk Constr., Inc.*, 500 F. Supp. 82 (D.C. Mont. 1980); *Center Garment Co., Inc. v. United Refrigerator Co.*, 341 N.E.2d 669 (Mass. 1976); *Barbarossa & Sons, Inc. v. Iten Chevrolet, Inc.*, 265 N.W.2d 655 (Minn. 1978); *Lambert v. Columbus*, 496 N.W.2d 540 (Neb. 1993); *Zamoiski Co. v. Tenavision, Inc.*, 1986 WL 10274 (S.D.N.Y. 1986); *Frank B. Bozzo, Inc. v. Electric Weld Div. of Ft. Pitt Bridge Div.*, 423 A.2d 702 (Pa. Super. Ct. 1980).

82. See *Barbarossa*, 265 N.W.2d 655; *Zamoiski*, 1986 WL 10274; *Alamance County Bd. of Educ. v. Bobby Murray Chevrolet, Inc.*, 465 S.E.2d 306 (N.C. Ct. App. 1996); *Magnetic Copy Servs., Inc. v. Seismic Specialists, Inc.*, 805 P.2d 1161 (Colo. Ct. App. 1990).

Note that such findings fail to comport with the idea proffered by the court in *Opera Co.* The court stated that foreseeability should only be one factor in what is essentially a case by case analysis of the parties' respective positions at the formation of the contract. According to the opinion, a court should first resolve:

how likely the occurrence of the event in question was and, second whether its occurrence, based on past experience, was of such reasonable likelihood that the obligor should not merely foresee the risk but, because of the degree of its likelihood, the obligor should have guarded against it or provided for non-liability against the risk.

Opera Co. v. Wolf Trap Found. for the Performing Arts, 817 F.2d 1094, 1103 (4th Cir. 1987).

Courts find that failure of an upstream supplier is foreseeable unless that supplier is named in the contract. However, under the court's analysis above, courts would have to consider each contract individually to consider whether there was a risk, the potential of which was strong enough for the parties to assign liability in the contract. For example, a compliant defendant could rely on a supplier that has never failed to deliver but unfortunately fails to do so because of Y2K computer glitches. If such is the case, under the court's reasoning above, there would have been no reason for the compliant defendant to name that supplier in the contract since failure by that supplier was unexpected. As a result, the upstream supplier's failure would be held unforeseeable. However, courts typically forego such analysis and adhere to the general rule that the

taken into account in the breached contract, the defense will necessarily fail. Courts will presume that such a risk was accounted for in the purchase price and that as a result the promisor thereby assumed the risk.⁸³

If, however, the upstream supplier is identified as the sole source from which the goods are to be received by the promisor, courts find that the promisee-buyer, as opposed to the promisor-supplier, assumed the risk of a supply failure. Additionally, the comments to Section 2-615 advise that when a contract specifies a source of the promisor's goods, that specific source becomes a basic assumption of the contract: "In the case of failure of production by an agreed source for causes beyond the seller's control, the seller should, if possible, be excused since production by an agreed source is without more a basic assumption of the contract."⁸⁴

An example of this logic is found in *Selland Pontiac-GMC, Inc. v. King*.⁸⁵ In this case, King performed as both a buyer and a seller in a miniature supply chain.⁸⁶ King was to buy school bus bodies manufactured by Superior Manufacturing and then build the bodies onto chassis provided by the buyer, Selland.⁸⁷ Selland would then buy the completed bodies from King.⁸⁸ The contract between Selland and King specified that the bus bodies were to come from Superior Manufacturing.⁸⁹ Superior subsequently went out of business and as a result, King breached the contract.⁹⁰ Selland sued King and King relied on commercial impracticability.⁹¹

The court first outlined the general rule with which most courts concur: "A partial failure of a seller's source of supply generally has been treated as a foreseeable contingency, the risk of which is allocated to the seller absent a specific provision to the contrary in the contract."⁹² However, in the event that the upstream supplier is specified in a contract, the failure of the upstream supplier is grounds for a defense of commercial

failure of an upstream supplier is foreseeable. See *infra* note 46 and accompanying text.

83. See *infra* note 46 and accompanying text.

84. U.C.C. § 2-615 cmt. 5 (1995).

85. See *Selland Pontiac-GMC, Inc. v. King*, 384 N.W.2d 490 (Minn. Ct. App. 1986).

86. See *id.* at 491.

87. See *id.*

88. See *id.*

89. See *id.* at 492.

90. See *id.* at 491-92.

91. See *id.*

92. See *id.* at 493 (quoting *Barbarossa & Sons*, 265 N.W.2d at 659-60).

impracticability.⁹³ Thus, the court found that King's performance was excused.⁹⁴

Applying this notion to our compliant defendant, if the supply source is specified in the compliant defendant's contract with the plaintiff-buyer, then the defense of commercial impracticability may succeed. However, this defense is subject to yet another barrier, which is illustrated in *Zidell Explorations, Inc. v. Conval International, Ltd.*, a case analogous to our international supply chain hypothetical.⁹⁵

93. Here the seller's supplier was specified in the contract. Superior was also specified in King's price quotation to Selland. In [a distinguishable case] the supplier did not cease to manufacture, but simply cancelled the orders of some of its dealers. Here both parties testified that they had no knowledge of Superior's questionable financial circumstances when they contracted and King did not expressly assume the risk of Superior's ceasing production.

Id.

94. *See id.*; *see also* *Olson v. Spitzer*, 257 N.W.2d 459 (S.D. 1977) (seller excused from performance when, after contracting to sell to plaintiffs a John Deere tractor combine with a four row cornhead implement, seller was unable to obtain implement from manufacturer).

95. *Zidell Explorations, Inc. v. Conval Int'l, Ltd.*, 719 F.2d 1465, 1467-68 (9th Cir. 1983). *Zidell* involved not only a breach of contract claim, but claims under anti-trust laws. In the opinion's Statement of Facts, the court more fully explains the intercourse between the parties:

Appellants Conval Corporation ('Conval') and The Lunkenheimer Company ('TLC') [footnote omitted] are brother-sister corporations, both wholly owned subsidiaries of Condec Corporation. Appellant Conval International, Limited ('CIL') is a wholly owned subsidiary of Conval. All are involved in the sale of cast steel industrial valves under the Lunkenheimer brand name. CIL handled the sale of foreign-made valves, while TLC handled the sale of domestic valves within the United States.

Appellee Zidell is the nation's largest distributor of foreign-made industrial valves. In March 1978, CIL and Zidell discussed a proposal to make Zidell the exclusive distributor of foreign-made Lunkenheimer valves. The valves were manufactured under license by Energoinvest, a Yugoslavian company, and imported into the United States by CIL. Under the proposed exclusive distributorship agreement, Zidell agreed to buy a minimum of \$5 million per annum of valves from CIL. Prices were to be negotiated concurrently with and in relationship to price changes made by Energoinvest. There was some evidence that CIL attempted to avoid disclosing the existence of the agreement to TLC, the manufacturer of domestically produced Lunkenheimer valves. The imported valves were priced about 40% lower than their domestic counterparts, and CIL apparently feared that TLC would view the Zidell agreement as a threat to its sales of domestic Lunkenheimer valves. CIL sold several orders of valves to Zidell at what CIL calls "distress" prices. It now contends that those prices were not intended to be the regular prices under the agreement, but were merely intended to clear a large backlog of inventory. Through July 1978, CIL actively aided Zidell in its efforts to market the foreign-made valves.

The *Zidell* case involves an international supply chain. Conval International domestically sold Yugoslavian valves manufactured by Energoinvest.⁹⁶ Conval International and Zidell entered into a contract in which Zidell would distribute the Yugoslavian valves in the United States.⁹⁷ Due to a pricing dispute, Conval International refused to deliver the valves.⁹⁸ Zidell attempted to deal with Energoinvest directly to no avail.⁹⁹ Zidell sued Conval International for breach of contract and Conval argued that "Energoinvest refused to manufacture [the valves contracted for],

In July 1978, after complaints from TLC's distributors, officers of TLC began to protest the Zidell agreement, citing the damaging effect of marketing foreign-made valves on domestic valve sales. Following these protests, CIL wrote to Zidell claiming that Zidell had never returned a signed copy of the exclusive distributorship agreement. Zidell presented CIL a copy of the signed agreement and a forwarding cover letter dated June 12, 1978, and CIL agreed to honor the contract.

However, a series of disputes soon ensued. CIL refused to honor several orders placed by Zidell, claiming that Zidell was attempting to place those orders at 'distress' prices that were no longer in effect. CIL presented Zidell with a new price list, but Zidell insisted that the old prices were to govern until CIL actually faced price increases from Energoinvest. After rejecting several large orders placed by Zidell, CIL charged that Zidell was not ordering at the minimum \$5 million level stipulated in the contract and attempted to terminate the contract. Zidell tried to obtain foreign-made Lunkenheimer valves directly from Energoinvest, but found that CIL had demanded that Energoinvest make no such sales. When Energoinvest refused to produce certain large valves ordered by Zidell through CIL, CIL did not seek to compel Energoinvest to perform or attempt to deliver substitute goods; it simply refused to honor the contract with Zidell. Zidell began to withhold payment to CIL in an effort to force CIL to honor its orders.

In December 1978, CIL notified Zidell that it would be terminated as exclusive distributor effective January 31, 1979. Upon CIL's termination of Zidell, CIL and TLC worked jointly to establish a distribution network for foreign-made Lunkenheimer valves. The foreign-made valves were distributed through basically the same channels as were the domestic valves. Still anxious to purchase Lunkenheimer valves, but unwilling to pay what it considered to be 'extraordinarily high' prices quoted by CIL, Zidell attempted to purchase the valves through European traders. Zidell found the European traders unwilling to deal because of restrictions in their contracts with Energoinvest.

Zidell then brought the present action in the United States District Court for the District of Oregon, charging CIL with breach of contract and all defendants with conspiracy to violate the antitrust laws.

Id.

- 96. *See id.*
- 97. *See id.*
- 98. *See id.*
- 99. *See id.*

and that this refusal rendered [Conval International's] performance under the contract impossible. . . ."100

The Ninth Circuit agreed with the district court's holding that the contract at issue was a contract involving an agreed source.¹⁰¹ After so finding, the court turned to comment 5 to U.C.C. Section 2-615, which insists that defendants claiming commercial impracticability satisfy two prerequisite conditions. First, the seller-defendant must have done all in its power to "assure that the agreed supplier would perform."¹⁰² Second, the seller-defendant must have relinquished any rights it had in a breach of contract action against the agreed source to the buyer-plaintiff.¹⁰³ In the first instance, the court held that it was conceivable that Conval International had exercised "all due measures" to assure that Energoinvest would produce the valves.¹⁰⁴ Thus, the court held that this issue should have been sent to the jury.¹⁰⁵ In the second instance, the court noted that Conval International had yet to tender its rights against Energoinvest to Zidell, but the court "decline[d] to hold . . . that a failure to tender rights against the supplier constitutes a per se violation of the obligation of good faith" that would defeat the defendant-seller's defense of commercial impracticability.¹⁰⁶ Thus, Conval International's claim of commercial impracticability of performance should also have gone to the jury.¹⁰⁷

Zidell's focus on official comment 5 to U.C.C. Section 2-615 underscores the importance that a seller "employ[] all due measures to assure himself that his source will not fail." This

100. *Zidell*, 719 F.2d at 1472.

101. *See id.* Courts insist that the contract have an agreed source, otherwise, it is the defendant-seller's burden to "employ any practicable alternative means of fulfilling the contract" *Luria Bros. & Co., Inc. v. Piolet Bros. Scrap Iron & Metal, Inc.*, 600 F.2d at 112 (quoting *Chemetron Corp. v. McLouth Steel Corp.*, 381 F. Supp. 245, 257 (N.D. Ill., E.D. 1974)).

[T]he district court explicitly construed the contract to mean that 'Zidell was to be the exclusive distributor in the United States of Lunkenheimer International valves. In other words, of the Lunkenheimer International valves that were manufactured by Energoinvest in Yugoslavia.' We see no error in this construction . . . it is difficult to imagine a contract with such a provision in which there was no agreed source.

Zidell, 719 F.2d at 1472.

102. *Id.*

103. *See Zidell*, 719 F.2d at 1472; *see also* U.C.C. § 2-615 cmt. 5 (1995).

104. *See Zidell*, 719 F.2d at 1472.

105. *See id.*

106. *See Zidell*, 719 F.2d at 1473. The court pragmatically noted that "[i]t is not hard to imagine situations in which a seller could reasonably and in good faith conclude that immediately delivering a lawsuit into the hands of the buyer would be counterproductive for all the parties concerned." *Id.*

107. *See id.*

comment presents a timing issue particularly relevant to the Y2K problem. The *Zidell* court focused only on what Conval International had done after Energoinvest refused to manufacture the valves. However, considering that a seller must “assure himself that his source *will not fail*,”¹⁰⁸ perhaps the court should have considered—required Conval International to produce—evidence pertaining to what Conval International had done at the time of contracting and over the life of the contract to ensure performance.

For example, consider the *Ziddell* case in a Y2K context. Suppose Energoinvest failed to make the valves because of a catastrophic shut-down due to Y2K failures and that Conval International had reason to know that Energoinvest was not Y2K-compliant. Should Conval International have taken a course of action insisting that Energoinvest be Y2K-compliant? If so, would failure to do so foreclose Conval’s defense of commercial impracticability? Considering the plain language of comment 5, it appears that some foresight on the part of a supplier is necessary to try to prevent failures in the upstream supply chain. Thus, it would seem reasonable to address these concerns in supply chain contracts.¹⁰⁹

One particularly relevant article has presented language which, when inserted in a contract, could perform the function of assuring suppliers that their sources will not fail:

Each party covenants and agrees that it will not permit a Year 2000 problem in computer systems, software or equipment owned, leased or licensed by it, its affiliates or subsidiaries to interfere with its performance under this agreement. Each party further agrees to request, from those of its suppliers whose performance may materially affect that party’s performance hereunder, that each such supplier undertake the same obligation with respect to such material performance. The parties will use reasonable commercial efforts to cooperate and share information to further comply with this article, and to minimize the impact of any Year 2000 problem on performance of this agreement. Each party will inform the other party of any circumstance indicating a possible obstacle to such compliance, and the steps being taken to avoid or overcome the obstacle.¹¹⁰

108. *Id.* (emphasis added).

109. See Donald A. Cohn & Paul S. Wittman, *How Y2K Could Affect the Supply Chain: A Problem for Day-to-Day Contracts*, BUS. L. TODAY, Sept./Oct. 1998, at 37.

110. *Id.* at 39. The authors additionally define a “Year 2000 Problem” and insert a clause which would essentially place the risk of subcontractors’ Y2K failures on the opposite party. For example, the buyer would assume the risk that the seller’s upstream suppliers might fail due to Y2K and vice versa. In this manner, the authors argue, the risks are satisfactorily distributed throughout the supply chain without becoming a “hot potato.” Because this Article is considering

By inserting comparable language into supply contracts, a potential defendant-seller could use the contract itself to show that it had "employed all due measures to assure himself that his source will not fail."¹¹¹

3. Conclusion

This section has analyzed law involving U.C.C. Section 2-615 and the doctrine of commercial impracticability. Courts, when faced with a defense of commercial impracticability, will consider first whether the occurrence creating the commercial impracticability was foreseeable. If so, then the defense must fail unless they plaintiff-buyer explicitly assumed the risk. Second, if the occurrence was unforeseeable, the court will decide whether the occurrence made performance commercially impracticable.

only those circumstances when a contract involves an agreed source, their proposed language would serve as evidence that a defendant-seller had in fact done all it could to assure itself that its supplier would not fail due to Y2K problems. However, if a contract does not involve an agreed source, the proposed language and further risk-shifting devices could prove helpful. *See id.*

111. U.C.C. § 2-615 cmt. 5 (1995). Additionally, some courts have held that when a supplier's failure to deliver is known by the defendant-seller and that defendant-seller did nothing to assure adequate performance, the defense of commercial impracticability is not available. *See Deardorff-Jackson Co. v. National Produce Distribs., Inc.*, 4 U.C.C. Rep. Serv. (CBC) 1164 (Dep't Agric. 1967). Thus, the language proposed above may satisfy the § 2-615 comment 5 requirement that the defendant-seller "[employ] all due measures to assure himself that his source will not fail," but additional steps involving assurance of adequate performance should also be undertaken when supply problems become apparent. For example, U.C.C. § 2-609 grants contracting parties the right to demand adequate assurance of performance.

(1) A contract for sale imposes an obligation on each party that the other's expectation of receiving due performance will not be impaired. When reasonable grounds for insecurity arise with respect to the performance of either party the other may in writing demand adequate assurance of due performance and until he receives such assurance may if commercially reasonable suspend any performance for which he has not already received the agreed return.

(4) After receipt of a justified demand failure to provide within a reasonable time not exceeding thirty days such assurance of due performance as is adequate under the circumstances of the particular case is a repudiation of the contract.

U.C.C. § 2-609 (1995).

Considering the nature of some contracts, reversion to a remedy such as U.C.C. § 2-609 may be extreme. Especially in light of the Y2K Bug, any assurance of performance is questionable. Even with extensive testing, most are unsure as to what will arrive come January 1, 2000. Thus, more diplomatic methods of ensuring Y2K compliance (or at least an attempt thereof) are in order. For an example of an amenable way to allocate risks in a supply chain, see generally Cohn & Williams, *supra* note 109.

This section also presented two hypothetical defendant-sellers that were faced with Y2K problems. In the first case, the defendant-seller breached a contract due to internal problems with Y2K. In this instance, the defendant-seller will almost undoubtedly be held liable because it failed to do all that was reasonable to prevent the breach.

In the second hypothetical, the defendant-seller was Y2K-compliant but suffered problems because of "upstream" Y2K failures caused by the non-compliance of its sellers. This defendant-seller fared similarly to the first defendant save the one exception of a contract involving an agreed source. In such a case, the defense of commercial impracticability may succeed, but only if: (1) the defendant-seller did all it could to assure that its suppliers would not fail because of Y2K problems, and (2) it tendered its rights against its failing supplier to the plaintiff-buyer.

In the event that a contract with an agreed source is not practical, it seems prudent to review existing contracts to try to sensibly allocate Y2K risks among buyers and sellers in a supply chain. By doing so, hopefully, burdensome litigation and impossible demands will be averted, and Y2K litigation costs will be kept to a minimum.¹¹²

The next section deals with an international supply chain in which one party is not domestic. In this case, courts will apply international legal principles. However, as will be seen, the outcomes of these cases may be quite similar to outcomes under U.C.C. Section 2-615.

IV. INTERNATIONAL PRINCIPLES OF CONTRACT

A. *The United Nations Convention on the International Sale of Goods*

The United Nations Convention on the International Sale of Goods (CISG)¹¹³ is a convention that was formed by the United Nations Commission on International Trade Law (UNCITRAL),¹¹⁴

112. See Cohn & Williams, *supra* note 109, at 37.

113. For the history of the CISG, see B. Blair Crawford et al., *New Rules for Contracting in the Global Marketplace: The United Nations Convention on Contracts for the International Sale of Goods*, C396 ALI -ABA 115, 117 (Mar. 9, 1989).

114. See Joseph M. Perillo, *UNIDROIT Principles of International Commercial Contracts: The Black Letter Text and a Review*, 63 FORDHAM L. REV. 281, 282 (1994). UNCITRAL is composed of "an international group of lawyers and scholars . . ." *Id.*

and signed by participating countries in 1980.¹¹⁵ The U.S. Senate ratified the Convention in 1986, and the CISG became United States law on January 1, 1988.¹¹⁶ The CISG applies to any sale of goods between parties "whose places of business are in different States [countries] and either both of those States are Contracting States or the rules of private international law lead to the law of a Contracting State."¹¹⁷

The analog to U.C.C. Section 2-615 is Article 79. It states in part that:

(1) A party is not liable for a failure to perform any of his obligations if he proves that the failure was due to an impediment beyond his control and that he could not reasonably be expected to have taken the impediment into account at the time of the conclusion of the contract or to have avoided or overcome it or its consequences.

(2) If the party's failure is due to the failure by a third person whom he has engaged to perform the whole or a part of the contract, that party is exempt from liability only if:

(a) he is exempt under the preceding paragraph; and

the person whom he has so engaged would be so exempt if the provisions of that paragraph were applied to him.¹¹⁸

Article 79 differs from the U.C.C. in a few key aspects. First, Article 79, unlike U.C.C. Section 2-615, applies to either party to the contract.¹¹⁹ The language of Section 2-615 indicates that its defense only applies to sellers.¹²⁰ Second, the instances in which a party may claim the defense differ. The U.C.C. allows the defense only upon "delay in delivery [and] non-delivery,"¹²¹ while the Convention applies to any aspect of contractual

115. See Crawford et al., *supra* note 113, at 117. The present signatories to the Convention are: Argentina, Australia, Austria, Belarus, Belgium, Bosnia-Herzegovina, Bulgaria, Burundi, Canada, Chile, China, Croatia, Cuba, Czech Republic, Denmark, Ecuador, Egypt, Estonia, Finland, France, Georgia, Germany, Greece, Guinea, Hungary, Iraq, Italy, Latvia, Lesotho, Lithuania, Luxembourg, Mexico, Moldova, Mongolia, Netherlands, New Zealand, Norway, Poland, Romania, Russian Federation, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, Syria, Uganda, Ukraine, United States, Uruguay, Uzbekistan, Yugoslavia, and Zambia. See *CISG: List of Contracting States* (last modified Sept. 16, 1998) <<http://joe.law.pace.edu/dirnotab.html>>.

116. See Crawford et al., *supra* note 113, at 119; see also *supra* note 15.

117. Henry D. Gabriel, *A Primer on the United Nations Convention on the International Sale of Goods: From the Perspective of the Uniform Commercial Code*, 7 *IND. INT'L & COMP. L. REV.* 279 (1997). There are additional restrictions to the applicability of the CISG. See generally *id.*

118. CISG art. 79.

119. See *id.*

120. See *supra* note 47.

121. U.C.C. § 2-615 (1995).

performance.¹²² Third, the types of unexpected contingencies at issue in Article 79 are those “impediment[s] beyond [the party’s] control,”¹²³ as opposed to those contingencies “the non-occurrence of which was a basic assumption on which the contract was made” that are covered by Section 2-615.¹²⁴ Practically speaking this difference between Section 2-615 and Article 79 may or may not affect the outcome of cases for two reasons. First, as noted below, Article 79 applies only when performance is impossible, as opposed to impossible and/or impracticable.¹²⁵ The U.C.C. adopts a measure of commercial impracticability, but whether courts actually set a defendant’s burden at the standard depends on how broadly the court is willing to interpret impracticability. For example, if a court defines impracticability as a situation where absolutely no one could be able to perform the contract, the defense will be much more difficult for a defendant to sustain. However, if the court, like the one in *Opera Co.*, asks only whether the non-occurrence of the contingency was a basic assumption of the contract, defendants will be more successful in the defense.¹²⁶

On the other hand, even the most meticulous semantic analysis cannot predict how courts will react when presented with CISG. Todd Weitzmann, in analyzing an Italian case that addressed Article 79, noted the difficulty courts have when relying solely on the CISG as opposed to amalgamating CISG and domestic law.¹²⁷ Domestic law may inevitably creep into decisions involving CISG without regard to the underlying desire of the CISG drafters to promote uniformity in international private law.¹²⁸

122. See CISG art. 79.

123. CISG art. 79(1).

124. U.C.C. § 2-615 (1995).

125. See *supra* notes 59-69 and accompanying text.

126. See *supra* note 63 and accompanying text.

127. In *Nuova Fucinati S.P.A. v. Fondmetall International A.B.*, plaintiff-seller sued defendant-buyer claiming that plaintiff could not fulfill an injunctive order mandating it deliver “1000 tons of ironchrome ‘Lumpy’ as ordered in [the parties] contract.” See *Nuova Fucinati S.P.A. v. Fondmetall Int’l A.B.*, 15 J.L. & COM. 153 (Alessandra Micheli, trans.) (Fall 1995). Plaintiff argued it could not deliver the goods because the defendant was late in accepting a separate shipment of ironchrome “Fine” from plaintiff. Additionally, plaintiff argued that fulfilling the contract would prove “excessive[ly] onerous” since the price of ironchrome “Lumpy” had greatly risen in the world market. See *id.* at 154; see also Todd Weitzmann, *Validity and Excuse in the U.N. Sales Convention*, 16 J.L. & COM. 265, 282, 288 (1997).

128. See *id.* Many of the same international scholars and lawyers comprising the UNCITRAL group comprise a second intergovernmental group seeking harmonization of international private law: the International Institute for the Unification of Private Law (UNIDROIT). See *International Institute for the*

Unification of Private Law: Presentation (visited Nov. 23, 1998) <<http://www.unidroit.org/english/presentation/pres.htm>>. The UNIDROIT group produced the *Principles of International Commercial Contracts (Principles)* in 1994. See Perillo, *supra* note 114, at 282.

The *Principles* is not a United Nations Convention ratified by participating countries as is the CISG, but instead functions as a restatement of international contract law of sorts. See *id.* at 284. The *Principles* have been used in a variety of contexts. For example, one article applauds the use of the *Principles* “[as a] [m]odel for national and international legislation . . . , [as a] [g]uide in contract negotiations . . . , [as] [l]aw chosen by the parties to govern their contract . . . , [as] [r]ules of law referred to in judicial [and arbitral] proceedings” to interpret domestic and international law and the law governing the contract. Michael Joachim Bonell, *The UNIDROIT Principles in Practice—The Experience of the First Two Years* (visited Nov. 23, 1998) <<http://www.unidroit.org/english/principles/pr-exper.htm>>. The latter use of the *Principles* has been referred to as “gap filling” in cases where the CISG or domestic law does not adequately address a particular dispute. For an analysis of the possibility of the *Principles* as a “gap filler,” see Alejandro M. Garro, *The Gap-Filling Role of the UNIDROIT Principles in International Sales Law: Some Comments on the Interplay Between the Principles and the CISG*, 69 TUL. L. REV. 1149, 1152 (1995). Most important for this Article, however, is that, although the UNIDROIT group referenced the CISG when developing the *Principles*, there are several differences between the two documents. As Joseph Perillo writes:

First, [*Principles*] is far broader in scope [than the CISG]. CISG is limited to contracts for the sale of goods and furthermore eschews many issues relevant to sales contracts A second departure from CISG is that, to the extent that the two documents cover the same ground, *Principles* is a better, more mature product The third departure is that *Principles* is not intended for adoption as a treaty or as a uniform law; rather, the document is in the nature of a restatement of the commercial contract law of the world.

See Perillo, *supra* note 114, at 283. Thus, when conducting international transactions, and anticipating which law will apply, participants in an international supply chain should first consider the CISG, then the *Principles*.

The *Principles* contains two articles dealing with what American law describes as impossibility. The first is Article 7.1.7, entitled *Force Majeure*. See UNIDROIT *Principles* art. 7.1.7. The language of this article closely resembles that of Article 79 of CISG. The second group of articles dealing with impossibility is Chapter 6, Section 2, entitled *Hardship*. See UNIDROIT *Principles* arts. 6.2.1-6.2.3. Commentators have analyzed the difference between these two sections and arrived at the conclusion that Article 7.1.7 and CISG Article 79 are harsher provisions requiring total impossibility of performance, while the *Hardship* provisions embrace a greater variety of contractual difficulties. See Perillo, *supra* note 79, at 15.

UNIDROIT presently is drafting a second edition of the *Principles* to address topics “such as agency, assignment of contract rights and duties, limitation of actions, contracts for the benefit of a third party, set-off and waiver.” *Id.* One should also note that there exists the *Principles of European Contract Law*, another restatement of law drafted in 1997 and devised to be applicable to intra-European contracts. See *European Principles of Contract Law*, KLUWER LAW INTERNATIONAL (visited Oct. 26, 1998) <http://www.ljx.com/practice/internat/euro_k.html>; see also INT’L TRADE L. MONITOR (visited Nov. 17, 1998) <http://itl.irv.uit.no/trade_law/>.

In any event, under the test of the CISG, a party must prove that: (1) an external impediment to performance occurred; (2) the impediment was not foreseeable; and (3) the impediment and its results were unavoidable.¹²⁹ Each of these terms is taken into account below.

The use of the word "impediment" is deliberate.¹³⁰ Impediment connotes a barrier to contractual performance—as opposed to a less restrictive term, such as "circumstances," which might provide for excuse when performance is impracticable.¹³¹ Additionally, whether there was in fact an impediment is to be measured objectively.¹³² Keeping in mind that courts may find domestic law too irresistible to completely eliminate it from decisions involving the CISG and the *Principles of International Commercial Contracts*, a high standard is likely to be applied to a party claiming excuse: objectively, the impediment must make performance impossible, this being a standard reminiscent of the common law doctrine of impossibility.¹³³

The impediment making performance impossible must also have been unforeseeable at the time of contracting. This is measured objectively as well.¹³⁴ When determining whether the impediment was unforeseeable, a court should consider the contract's terms, the contract as a whole, and prevailing trade practices.¹³⁵

Finally, the impediment must have been unavoidable. This excuse is not available for parties whose culpability brought about the impediment.¹³⁶ This implicates those parties that failed to address Y2K problems when there remained time to do so.

129. See Jenkins, *supra* note 35, at 2024-25; Weitzmann, *supra* note 127, at 283.

130. See Weitzmann, *supra* note 127, at 283.

When UNCITRAL revisited [the impediment] issue at the Vienna drafting conferences for the Sales Convention, the provision was changed to replace 'circumstances' with 'impediment' a term that implies a barrier to performance. Thus, under the Convention, excuse should apply only to 'impediments' that prevent performance—not to the more wide-ranging 'circumstances' that might make performance merely difficult or unprofitable.

Id. at 284.

131. Article 79 and Article 7.1.7 are not intended to cover instances where performance is defective. See Jenkins, *supra* note 35, at 2024.

132. See Weitzmann, *supra* note 127, at 284.

133. See *id.* at 282, 288; Jenkins, *supra* note 35, at 2025.

134. See Weitzmann, *supra* note 127, at 286.

135. See *id.* at 285. Unfortunately, these considerations seem too amorphous to satisfactorily indicate to a contracting party whether an impediment is foreseeable.

136. See *id.* at 284.

The Article now returns to our hypothetical defendant-sellers.¹³⁷ Instead of conducting business in America, however, this section assumes that the defendants are part of an international supply chain and that all parties involved have their places of business in different contracting states.

1. Non Y2K-Compliant Defendant

The non-compliant defendant will fare about as well under CISG Article 79 as under U.C.C. Section 2-615. First, the impediment of Y2K failure may certainly make performance impossible. However, the Y2K "impediment," as argued above, is foreseeable. Arguably, a foreign defendant may reside in a country that is not as Y2K savvy as the United States. Nonetheless, it appears that Y2K problems are being substantially addressed throughout the world.¹³⁸ Whether Y2K problems will actually be remedied before January 1, 2000, is another question, but that does not alter the conclusion that Y2K is a known risk that parties to an international supply chain need to address.

That Y2K problems may not have been foreseeable at the time of contracting is an additional wrinkle also previously addressed. A non-compliant defendant may argue that, at the time the contract was concluded, Y2K problems were not foreseeable. However, the CISG requires that the impediment not be due to a party's action, or in this case, the lack thereof.¹³⁹ A non-compliant defendant who argues unforeseeability at the time of contracting is necessarily admitting that Y2K problems, at some point, became foreseeable. By failing to adequately address these problems, the non-compliant defendant forecloses the availability of excuse because the CISG mandates that the "impediment" not be a result of the party claiming excuse.¹⁴⁰ In this case, the non-compliant defendant essentially caused the non-performance by virtue of its taking a "wait and see" approach to the Millennium Bug. Thus, in this instance, the defense of excused performance cannot succeed.

137. The subjects of the hypothetical will remain defendant-sellers. However, buyers may claim excuse under both the CISG and *The Principles*. As noted above, the U.C.C. does not allow buyers to claim the § 2-615 defense. See *supra* note 47.

138. See *supra* notes 2-5 and accompanying text.

139. See Weitzmann, *supra* note 127, at 284.

140. See *id.*

2. Y2K-Compliant Defendant

A defendant in a CISG environment that has readied itself for Y2K faces similar challenges as those presented by the U.C.C. In our hypothetical, the compliant defendant fails to perform its contracted-for duties because of upstream collapses in the international supply chain. The text of CISG directly addresses this situation. The CISG states:

(2) If the party's failure is due to the failure by a third person whom he has engaged to perform the whole or a part of the contract, that party is exempt from liability only if:

(a) he is exempt under the preceding paragraph; and

(b) the person whom he has so engaged would be so exempt if the provisions of that paragraph were applied to him.¹⁴¹

This provision differs from the U.C.C. in that it does not require that the third party be an agreed source in the contract.¹⁴² It does, however, require that the faulty third party be in a "delegated contractual relationship" with the party claiming excuse.¹⁴³ Moreover, failure of an upstream general supplier will not satisfy the conditions of the article.¹⁴⁴ For example, two arbitration proceedings applying CISG Article 79 have found that excuse is not available to suppliers when their manufacturers fail to perform.¹⁴⁵ Therefore, the ordinary participants in a supply chain will find little relief under the CISG because any upstream failure most typically will stem from general suppliers.

In the event that the failing upstream supplier is in a "delegated contractual relationship" with our compliant defendant, Article 79 states that the party to the contract *and* the third party supplier must meet the standards of Article 79(1): (i) that there was an impediment; (ii) that the impediment was not foreseeable; and (iii) that the impediment have been unavoidable.¹⁴⁶ In this manner, Article 79 burdens the compliant defendant with the risk that its suppliers will not perform. Even if the compliant defendant can meet the test set forth, the

141. CISG art. 79(2).

142. CISG art. 79(2); Jenkins, *supra* note 35, at 2026.

143. CISG art. 79(2).

144. See Jenkins, *supra* note 35, at 2026.

145. See Russia 16 March 1995 Arbitration proceeding 155/1994 (visited Nov. 16, 1998) <<http://cisgw3.law.pace.edu/cases/950316r1.html>> (Russian arbitration proceeding holding that, under CISG Article 79, the seller is not excused when manufacturer fails to deliver); German 21 March 1996 Hamburg Arbitration Proceeding (visited Nov. 16, 1998) <<http://cisgw3.law.pace.edu/cases/960321g1.html>> (German arbitration proceeding holding that, under CISG Article 79, the seller is not excused when the manufacturer fails to perform).

146. CISG art. 79.

upstream, non-compliant third party must meet the test as well. As concluded above, Y2K problems will not allow a non-compliant party to claim excuse. This results in essentially a layered analysis in which the compliant defendant pays the sins of the non-compliant parties in the international supply chain. Therefore, under the CISG, excuse is not available to even a compliant defendant.¹⁴⁷

147. This analysis assumes that the failing supplier itself was non-compliant; however situations could arise where the failing supplier was compliant. For example, utilities could fail, forcing industrial shut-downs. In that event, it appears that the compliant supplier and the compliant defendant may meet both prongs of the test.

The Principles does not incorporate a section that corresponds to the CISG Article 79(2). It can be surmised that Article 7.1.7 is intentionally draconian and that as a result, even a compliant defendant will be hard-pressed to find relief based on that section. Jenkins, *supra* note 35, at 2029. However, *The Principles* contains a section entitled *Hardship* that should be considered. See UNIDROIT Principles arts. 6.2.1-6.2.3.

There is hardship where the occurrence of events fundamentally alters the equilibrium of the contract either because the cost of a party's performance has increased or because the value of the performance a party receives has diminished, and

- (a) the events occur or become known to the disadvantaged party after the conclusion of the contract;
- (b) the events could not reasonably have been taken into account by the disadvantaged party at the time of the conclusion of the contract;
- (c) the events are beyond the control of the disadvantaged party; and
- (d) the risk of the events was not assumed by the disadvantaged party.

UNIDROIT Principles art. 6.2.2.

If a party can establish hardship, the contracting parties are bound to renegotiate the contract and, if that fails, may request that a court address the hardship by altering the terms of or terminating the contract. See UNIDROIT Principles art. 6.2.3. Hardship does not, however, excuse performance: "[w]here the performance of a contract becomes more onerous for one of the parties, that party is nevertheless bound to perform its obligations subject to the following provisions on hardship." UNIDROIT Principles, art. 6.2.1; see also Perillo, *supra* note 79, at 21. To meet the requirements of the hardship provisions, a party must prove (i) hardship; (ii) that the hardship was not foreseeable; (iii) that the risk was not assumed; and (iv) that the hardship was beyond the party's control. Each element is considered below.

Hardship is a less stringent standard than that of impossibility or impracticability and can arise in one of two situations. See Perillo, *supra* note 79, at 22. First, an exorbitant increase in the cost of performing contractual duties can constitute hardship. See UNIDROIT Principles art. 6.2.2 cmt. 2. Second, the value of performance can devalue dramatically for one of the two parties. See *id.* Such a change is sufficiently fundamental to constitute hardship where there is a fifty percent change in the contract's value or value. "If . . . the performances are capable of precise measurement in monetary terms, an alteration amounting to 50% or more of the cost or the value of the performance is likely to amount to a 'fundamental' alteration." UNIDROIT Principles art. 6.2.2 cmt. 2; see also Perillo,

B. Conclusion

This section analyzed the CISG and applied its test of impossibility to two hypothetical defendants: Y2K-compliant and non Y2K-compliant. The non-compliant defendant is foreclosed from using the defense because it did not attempt to achieve compliance. Therefore, the non-compliant defendant did not perform in good faith and must pay damages.

The compliant defendant will most likely be found liable as well for two reasons. First, Y2K and its results are foreseeable. Second, in a supply chain situation, the compliant defendant must prove that it and its upstream suppliers meet the test for impossibility set out in the CISG. Because the compliant party failed due to the non-compliance of its upstream suppliers, the defense will necessarily fail. Such a result seems inefficient as it punishes those compliant parties despite their diligent efforts to prevent Y2K failure. The next section proposes a different standard for Y2K cases involving compliant defendants.

V. ADDRESSING THE Y2K QUANDARY

The rules of impossibility and impracticability focus on a single transaction between individual contracting parties. This focus

supra note 79, at 22 (citing UNIDROIT Principles art. 6.2.3 cmt. 2). In the case of Y2K, widespread problems in supply chains may raise prices so severely that the equilibrium of various contracts involved is "fundamentally alter[ed]." See UNIDROIT Principles art. 6.2.3. Thus, a failure in a supply chain may result in hardship for our hypothetical defendants. See UNIDROIT Principles art. 6.2.3. However, the analysis does not stop with this realization.

A party cannot have assumed the risk of the events causing the hardship. Under the *Principles*, a term not explicitly accounted for does not result in the conclusion that the promisor assumed the risk. See Perillo, *supra* note 79, at 24. For example, "the mere fact that the contract contains a fixed price does not allocate that risk." *Id.* at 24. This more lenient standard supports the *Principle's* remedy that parties renegotiate when the equilibrium of the contract has been destabilized.

Additionally, the events causing the hardship cannot have been under the control of the party claiming hardship. See *supra* note 22. This obviously precludes the use of these provisions by our hypothetical non-compliant defendant due to its culpability in failing to address the Millennium Bug. However, this element does not foreclose use of the *Hardship* provisions by the compliant defendant.

Finally, a party claiming hardship must also prove that the events causing the hardship were not foreseeable. The standard for foreseeability appears to be "whether the event was so outside the bounds of probability that reasonable parties would not provide for it." Perillo, *supra* note 79, at 23.

appears sufficient with respect to Y2K non-compliant parties who failed to address potential Y2K problems. In such a case, the U.C.C. and CISG appear to foreclose use of excuse due to impracticability or force majeure. This result is uncontroversial. A contracting party that does not attempt to perform in good faith should not be allowed the benefits of various defenses to breach of contract.¹⁴⁸

On the other hand, the compliant defendant in good faith is one who addressed Year 2000 problems but who fails to perform because of upstream non-compliance. Under the U.C.C. and CISG, this upstream failure is a foreseeable risk borne by the promisor, regardless of the reasons for the upstream failure.¹⁴⁹ Because the risk is foreseeable, the compliant defendant bears the risk and must endure the loss unless the contract specifies otherwise.¹⁵⁰

The foundations for such a rule originate from traditional contract theory, which favors private ordering as opposed to judicial intervention upon breach. Andrew Kull, in an article supporting a "windfall theory" of contract excuse, argues that allowing parties to form their own contracts without anticipation of judicial intervention creates incentive for parties to contract efficiently while avoiding the dead weight loss of ex post-litigation.¹⁵¹ Additionally, for those risks assumed by neither

148. See U.C.C. § 1-203 (1995); CISG art. 7(1); see also Richard A. Posner & Andrew M. Rosenfield, *Impossibility and Related Doctrines in Contract Law: An Economic Analysis*, 6 J. LEGAL STUD. 83, 98 (1977).

149. See *supra* notes 80-111, 145 and accompanying text.

150. See *supra* notes 80-111 and accompanying text.

151. Kull bases his theory on the idea that, because of the inherent unforeseeability of the future, every contract is in some part frustrated. "One who seeks relief from contractual obligation on the ground of mistake or frustration is complaining that he suffers the disadvantage of an exceptional disparity (called a 'windfall' by Kull), the risk of which was not allocated by the parties." Andrew Kull, *Mistake, Frustration, and the Windfall Principle of Contract Remedies*, 43 HASTINGS L. J. 1, 4 (1991). If a risk is not allocated in a contract, it should not matter on which contracting party the resulting burden falls:

As a matter of social utility, excluding for the moment considerations of fairness, it will ordinarily be a matter of indifference whether the windfall cost or benefit, once realized, falls to A or to B. Reallocation after the event thus involves significant administrative costs while achieving no compelling social advantage.

Id. at 6.

Any judicial reallocation of windfall losses (and gains) results in social deadweight loss. Therefore, parties should bear these losses without judicial intervention. Additionally, these windfalls are a result of dickering by the contracting parties: "The windfall distribution of frustration losses is not something as to which the parties 'had no will at all'; it is a function of their agreement and (under a windfall regime) will be the object of more or less conscious bargaining." *Id.* at 40 n.145. For a contrasting view, see generally CHARLES FRIED, *CONTRACT AS PROMISE* (1981).

contracting party, the windfall principle lets losses fall where they may once those risks become realities because social utility does not prefer that one party bear the loss more than the other.¹⁵² A choice made by contracting parties not to allocate a particular risk is a decision unto itself that should be respected without intervention by the judiciary.¹⁵³

Richard Posner and Andrew Rosenfield note that failure to allocate risk is indeed a decision made by contracting parties.¹⁵⁴ The decision derives from parties' desire to avoid transaction costs. When contract law provides gap-fillers that prove efficient to a particular contract, parties will opt to let the law control; when the law proves inefficient, however, parties contract to reach a more efficient result.¹⁵⁵ This conclusion accords with Kull's hypothesis that parties determine the instances in which contract law should control, as opposed to tailored contractual terms. The theories diverge once an unexpected contingency occurs of which neither party has assumed the risk.

The windfall theory proposes that losses fall where they may.¹⁵⁶ Posner and Rosenfield present a "superior risk bearer" analysis in which a court should determine which party is the superior risk bearer.¹⁵⁷ The loss is therefore allocated to the party that is in a better position to (1) prevent the risk from emerging and (2) ensure, either by procuring insurance or by self-insuring against the risk by spreading costs of the risk through prices it charges consumers.¹⁵⁸ Allocating loss to the superior risk bearer thus reaches the most efficient outcome among the parties and, presumably, in society as well.

Kull observes that the tension between these theories "is ultimately a moral and political one, between rules that require people to provide for themselves and rules that permit judges to intervene when people do not provide for themselves"—a

152. See Kull, *supra* note 151, at 6.

153. The residual allocation of frustration losses produced by these devices in the context of a windfall rule is neither artificial nor arbitrary. It is a result chosen by the parties, not in the tautological sense that it is demonstrably a function of a privately chosen term but in a broader sense that allows us to describe its consequences as consciously self-imposed.

Id. at 51.

154. See Posner & Rosenfield, *supra* note 148, at 89.

155. See *id.*

156. See Kull, *supra* note 151, at 6-7, 41.

157. See Posner & Rosenfield, *supra* note 148, at 90.

158. See *id.* at 90-91; see also Barnaby J. Feder, *Federal Court Asked to Rule on Year 2000 Insurance Dispute*, N.Y. TIMES (visited Jan. 11, 1999) <<http://www.nytimes.com/library/tech/98/12/biztech/articles/14bug.html>> (insurance company arguing that software company's normal business liability insurance does not cover Y2K glitches in distributed software).

theoretical struggle between a system based on "individual autonomy" and a system supporting more societally-oriented goals, for example the efficiency analysis of the superior risk bearer.¹⁵⁹ Posner and Rosenfield also remark upon contract law's focus on the individual in the context of strict liability and contract:

This discussion raises the broader question why in general notions of strict liability seem much more important in contract than in tort law. The concept of breach of contract is one of strict liability rather than of negligence. The difference in this regard between tort and contract law appears to be related to the fact that tort cases typically involve interactive activities and contract cases typically do not . . . [I]n the typical contract case the only relevant actors are performer and payor and the productive activity under the contract is controlled and conducted entirely by the former.¹⁶⁰

Posner and Rosenfield contrast elements inherent in contract and tort law. They conclude that standards such as negligence suit tort law because "tort cases typically involve interactive activities."¹⁶¹ Conversely, contract cases involve disputes between discrete parties in activities that are not interactive: "the only relevant actors are performer and payor . . ."¹⁶² The characteristic presumptions of the respective bodies of law therefore differ:

An automobile accident, for example, is produced by a collision between two automobiles or between an automobile and a pedestrian, and there is no presumption that the injurer could have avoided the accident more cheaply than the victim. But in the typical contract case . . . [t]here is a strong presumption . . . that [the promisor] is better able than the payor to prevent a mishap that will render performance uneconomical.¹⁶³

Generally, such analysis adequately delineates the boundaries of contract and tort law. However, Y2K and its consequent results will potentially affect parties and transactions not only in an individual fashion but globally as well. This flows from the fact that contracting parties necessarily rely not solely on the other party to perform but also on third parties. Some examples of such third parties are governmental agencies and electric and telecommunication companies. The web that interlinks humanity in even the most mundane transactions, such as driving to a grocery store, involves multiple parties with whom contracting to ensure certainty of a successful transaction would prove impossible. The trip to the grocery store requires

159. See Kull, *supra* note 151, at 54.

160. Posner & Rosenfield, *supra* note 148, at 111.

161. *Id.*

162. *Id.*

163. *Id.*

that traffic signals work, and that gasoline is available for the car. It further requires that at the grocery store, running water keeps vegetables fresh, and electricity provides light and powers cash registers.¹⁶⁴ Such is also the case with a supply chain.

In the typical impossibility case, one of the parties to this web will fail. However, these instances remain solitary, and most likely will serve as mere inconveniences. Electrical outages generally do not affect enormous geographical areas, and gas stations abound as do grocery stores. These instances do not represent global risks but individual ones where substituted performance is easily attained.

Y2K problems could prove to be more global, with more dramatic inconveniences. The issues emerge in every aspect of society. Concerns about health care, transportation, communications, utilities, and embedded systems universally used in elevators, pacemakers, and security systems proliferate. The vast and interdependent web that American and global societies have woven may fail. For example, the electric supply for an entire state could fail,¹⁶⁵ as could telecommunications and running water.¹⁶⁶ Interruptions would result, not just in that particular jurisdiction, but in other jurisdictions as well because of modern commercial and economic interdependency.

Thus, the risk of Y2K problems presents an individualized risk assumed by parties demanding that they reasonably address internal Y2K issues. Y2K also presents societal risks, which could result in losses society as a whole will bear. The losses may range from minor frustration to pandemic catastrophe. Nonetheless, micro-analyzing the results of Y2K complications on the level of individual contracts loses sight of the forest for the trees. Contract law's focus on the micro—the individual parties involved—cannot account for problems occurring in the macro sense of Y2K. The problems that reasonable, Y2K-compliant parties will experience are not autonomous, but instead the result of interactive activities. Accidents arising out of interactive activities are judged in tort, not contract. Thus, the Y2K-

164. [A]ll of modern U.S. society is computer-dependent. [Computers] keep track of what's on store shelves and how much money is in your bank account. They control security at nuclear power plants, regulate the flow of oil through pipelines and distribute electricity across a complex national grid. They run our trains, traffic signals, telephones, cell phones and maintain all of our vital records.

M.J. Zuckerman, *Y2K: Minor Glitch or Major Disaster?*, USA TODAY (last modified Jan. 7, 1999) <<http://www.usatoday.com/life/cyber/tech/cte068.htm>>.

165. See *supra* note 27 and accompanying text.

166. See *supra* note 26 and accompanying text.

compliant party that fails to perform because of external Y2K complications should be judged from such a standard.

This Article proposes that reasonable victims of Y2K failures be judged by a negligence standard. Such a standard supports the outcome of impossibility cases while allowing for flexibility to address the unique creature of Y2K. In such a setting, a duty is imposed on contracting parties to exercise due care in preparation for the Year 2000. A party that breaches the duty would be liable for resulting economic damages provided that causation exists.

In our hypothetical cases, the non-compliant Y2K supplier that ignores the admonishments regarding the Millennium Bug would be judged to have breached this duty of care. Promisees to that contract could recover economic damages because causation in this instance is relatively self-supporting. The Y2K-compliant supplier, on the other hand, would be discharged of liability provided that reasonable steps were taken internally prior to the Year 2000.

Admittedly, the negligence standard presents two difficulties. First, it ignores the individual autonomy heralded by Professor Kull and other traditionalists. However, the interactive nature of American and global society, and the potentially boundless effects of the Millennium Bug justify a societally-oriented outlook as opposed to an individually-oriented one. Second, a negligence standard may encourage litigation. This Article contends, however, that a negligence standard will not encourage litigation, but merely shift the parameters from contract cases founded on Y2K failure to the parameters of tort law. The plaintiff's burden would be to prove a breach of the duty of care as opposed to breach of contract.

Conversely, a negligence standard would encourage commercial parties to internally address Y2K issues while ensuring them that efforts to comply will not prove futile once litigation ensues. Because Y2K compliance will be encouraged under this standard, costs of compliance will be socialized. Prices may rise slightly while companies internally inventory issues necessary to address before January 1, 2000, but the costs would be distributed throughout society. This creates a more efficient outcome than pure reliance on contract law because a negligence standard encourages proactive, preventative effort while a contract standard leaves little flexibility for a Y2K-compliant party that breaches due to outside, third party mishaps.

VI. CONCLUSION

Y2K problems at this point in time are reasonably foreseeable due to the amount of attention given the subject.¹⁶⁷ Contracting parties should examine potential Y2K problems arising internally and address them before January 1, 2000. Yet the extent of Y2K problems, be they widespread or solitary occurrences, remains unforeseeable and unpredictable.¹⁶⁸ Even those parties having adequately addressed internal Y2K problems can experience difficulties due to external parties having failed to become Y2K-compliant. This "second tier" of unforeseeability supports the use of excused performance, but the "first tier" foreseeability that Y2K problems potentially exist prevent viable use of the defense. In this sense, this Article suggests that Y2K problems are both foreseeable and unforeseeable and that a defense more suitable than contractual excuse be available to those parties acting to prevent Y2K difficulties.

167. See *supra* Part II.

168. *USA Today* summarizes Y2K commentators' uncertainties:

The most common scenarios envision the USA facing pockets of short-lived serious hardship and a scattering of annoyances over the next 36 months — death of a thousand cuts by the worst descriptions About 10% of Y2K experts responding to a survey this past spring by the Washington, D.C., Year 2000 Group, a nonprofit, public-private advisory panel, said they anticipate major economic disruptions, social upheaval and martial law. About 1% predict famine and collapse of the U.S. government. These are the people talking about retreating to rural compounds with huge stockpiles of survival goods. About 15% of those surveyed fell short of predicting political crises, breakdown in regional supply lines and social disruption. In the middle of the survey, experts say they anticipate at least a 20% drop in stock values (18%), a likelihood economic slowdown (10%), recession (22%), or perhaps a strong recession and some social disruption (9%). Only 4% expect no more than insignificant, local impact. Edward Yardeni, respected chief economist with Deutsche Bank Securities, predicts a recession on par with the oil crisis of the 1970s and a 30% dip in the value of the high-flying American stock markets. All agree that the USA is far better prepared than any other nation to face the challenge. But remember rule No. 1: No one really knows what's going to happen Several of the Y2K experts plan to take some personal precautions, such as setting aside a couple thousand dollars in cash, and many plan to stockpile several days of essentials. 'My personal hunch is that there is going to be a fair amount of inconvenience but not a crisis, that's my personal hunch,' says John Hamre, deputy secretary of defense, where \$2 billion is being spent to tackle the Y2K problem. But, he admits in a final touch of uncertainty, 'I don't know if that's my hope or that's my actual conviction.'

Zuckerman, *supra* note 164. For varying views of Y2K commentators, see the news clippings at (last visited Feb. 11, 1999) <<http://www.year2000.com/y2karticles.html>>.

In the same vein, this Article recognizes the plight of those parties that have acted in a timely and prudent manner to avert Y2K difficulties. Due to the interactive and interdependent nature of the domestic and global economy, such parties remain at the mercy of numerous third parties. This vulnerability is a necessary element of intranational and international relations, but it may prove imminently debilitating should contract performance depend on those numerous third parties. Because such a web of interrelationships has developed over the centuries, and because the interrelationships prove vital to performance of many contracts, the focus of Y2K issues should be societal, not individual. Contract law's foundation is on "autonomous individual[s]" while tort law acknowledges those situations where accidents result from interactive activities. Y2K complications may disrupt numerous facets of commercial and societal intercourse, many of which are utterly outside the realm of a contracting party's control. This realization demands that Y2K losses be considered in light of tort law as opposed to contract law.

Judging contracting parties by the strict liability standard of contract law creates an unsettling uncertainty of performance—an uncertainty outside of a party's control because no matter how effectively the party prepares for Y2K, a third party's failure upon which the contracting party is dependent will result in strict liability. Liability hinges on a third party's preparation, a third party over which contracting parties cannot exercise control. This uncertainty frustrates the seminal reason supporting contract theory: certainty in future dealings. Thus, Y2K's unique attributes undermine the applicability of contract law.

A negligence standard, however, does provide some certainty to those parties prepared for Y2K. Judging contracting parties on a negligence standard, as opposed to the strict liability standard of contract law, will encourage cost-effective, proactive measures to remedy Y2K problems before they arise. In other words, by acting in a timely and reasonable manner, a compliant party can rest assured that future liability will not negate such efforts. In so doing, the whole of the planet may be spared from exacerbation of what may prove to be one of its greatest challenges to date.