ADVENT SYSTEMS LTD
v.
UNISYS CORP.

925 F.2d 670 (3rd Cir. 1991)

WEIS, Circuit Judge

In this diversity case we conclude that computer software is a good within the Uniform Commercial Code; in the circumstances here a non-exclusive requirements contract complies with the statute of frauds; and expert testimony on future lost profits based on prior projections is suspect when actual market performance data are available. Because the district court ruled that the Code did not apply, we will grant a new trial on a breach of contract claim. We also decide that a parent corporation is privileged in disrupting prospective contractual negotiations of its subsidiary with another party and therefore will affirm a judgment in favor of the defendant on a tortious interference count.

Plaintiff, Advent Systems Limited, is engaged primarily in the production of software for computers. As a result of its research and development efforts, by 1986 the company had developed an electronic document management system (EDMS), a process for transforming engineering drawings and similar documents into a computer data base.

Unisys Corporation manufactures a variety of computers. As a result of information gained by its wholly-owned United Kingdom subsidiary during 1986, Unisys decided to market the document management system in the United States. In June 1987 Advent and Unisys signed two documents, one labeled "Heads of Agreement" (in British parlance "an outline of agreement") and, the other "Distribution Agreement."

In these documents, Advent agreed to provide the software and hardware making up the document systems to be sold by Unisys in the United States. Advent was obligated to provide sales and marketing material and manpower as well as technical personnel to work with Unisys employees in building and installing the document systems. The agreement was to continue for two years, subject to automatic renewal or termination on notice.

During the summer of 1987, Unisys attempted to sell the document system to Arco, a large oil company, but was unsuccessful. Nevertheless, progress on the sales and training programs in the United States was satisfactory, and negotiations for a contract between Unisys (UK) and Advent were underway.

The relationship, however, soon came to an end. Unisys, in the throes of restructuring,

decided it would be better served by developing its own document system and in December 1987 told Advent their arrangement had ended. Unisys also advised its UK subsidiary of those developments and, as a result, negotiations there were terminated.

Advent filed a complaint in the district court alleging, *inter alia*, breach of contract, fraud, and tortious interference with contractual relations. The district court ruled at pretrial that the Uniform Commercial Code did not apply because although goods were to be sold, the services aspect of the contract predominated.

A jury found for Unisys on the fraud count, but awarded damages to Advent in the sum of $ 4,550,000 on the breach of contract claim, and $ 4,350,000 on the count for wrongful interference with Unisys U.K. The district court granted judgment n.o.v. to defendant on the interference claim but did not disturb the verdict awarding damages for breach of contract.

On appeal Advent argues that the Distribution Agreement prohibited Unisys from pressuring its UK subsidiary to terminate negotiations on a corollary contract. Unisys contends that the relationship between it and Advent was one for the sale of goods and hence subject to the terms of statute of frauds in the Uniform Commercial Code. Because the agreements lacked an express provision on quantity, Unisys insists that the statute of frauds bans enforcement. In addition, Unisys contends that the evidence did not support the damage verdict.

I.

THE TORTIOUS INTERFERENCE COUNT

In granting judgment n.o.v. on the tortious interference claim, the district judge reasoned that Advent was required to prove that absent interference it would have achieved an advantageous contract and that Unisys' action was not privileged. Because the parent corporation had a financial interest in the U.K. subsidiary, the court concluded that Unisys had the right to protect its own long-range interests by discouraging its subsidiary from entering into a development contract with Advent for a competing system.

To prevail on a claim of intentional interference with prospective contractual relations under Pennsylvania law[1], plaintiff must show the following: (1) a prospective contractual relationship; (2) a purpose or intent to harm plaintiff by preventing the relationship from occurring; (3) the absence of privilege or justification on the part of the defendant; and (4) occurrence of actual damage. *Silver v. Mendel*, 894 F.2d 598, 601-02 (3d Cir.), (citing *Thompson Coal Co. v. Pike Coal Co.*, 488 Pa. 198, 412 A.2d 466, 471 (1979)), *cert. denied*, 496 U.S. 926, 110 S. Ct. 2620, 110 L. Ed. 2d 641 (1990).

When discussing interference with prospective contractual relations, the Pennsylvania Supreme Court has not adopted the language of the *Restatement (Second) of Torts* § 766B (1977) that favors an analysis of "proper" conduct rather than "privileged." *See Glenn v. Point Park College*, 441 Pa. 474, 272 A.2d 895 (1971). Thus, privilege is still a matter for

consideration in cases of prospective contractual relations. *Silver*, 894 F.2d at 601.

Privilege is closely related to intent, *id.* at 603 n. 7, and admits of no precise definition. When a defendant acts at least in part to protect some legitimate concern that conflicts with an interest of the plaintiff, a line must be drawn and the interests evaluated. *Glenn*, 441 Pa. 474, 272 A.2d at 899. The central inquiry in the evaluation is whether the interference is "sanctioned" by the "'rules of the game' which society has adopted [defining] socially acceptable conduct which the law regards was privileged." *Id.*

Green v. Interstate United Management Services Corp., 748 F.2d 827 (3d Cir. 1984), is an existing, rather than a prospective, contractual interference case but illustrates Pennsylvania law on the propriety of conduct by a parent corporation. There, defendant instructed its subsidiary not to sign a lease tendered by the plaintiff real estate broker after an appraiser had determined that the contract was a bad bargain. Basing our ruling on section 767 of the *Restatement (Second) of Torts*, which applied in that situation, we held the interference was proper because the defendant's motive was to prevent dissipation of its subsidiary's resources. "The social interests in protecting the freedom" of the defendant outweighed the plaintiff's "contractual interests." *Id.* at 831.

Here, although plaintiff claims interference with a prospective contractual relationship, we think a similar approach applies. We agree with the district court's reasoning that Unisys' interest in the financial stability of its subsidiary and the need to avoid a situation where the two would be working at cross-purposes justified the disruption of negotiations with Advent.

Nothing in the agreement between Advent and Unisys changed its relationships with its U.K. subsidiary, or purported to regulate that company's negotiations with Advent. That arrangements between Advent and Unisys U.K. were to be distinct from those with the parent in the United States is obvious in the fact that separate discussions were conducted in the United Kingdom.

Accordingly, the judgment n.o.v. in favor of the defendant on the tortious interference count will be affirmed.

II.

SOFTWARE AND THE UNIFORM COMMERCIAL CODE

The district court ruled that as a matter of law the arrangement between the two parties was not within the Uniform Commercial Code and, consequently, the statute of frauds was not applicable. As the district court appraised the transaction, provisions for services outweighed those for products and, consequently, the arrangement was not predominantly one for the sale of goods.

In the "Heads of Agreement" Advent and Unisys purported to enter into a "joint business collaboration." Advent was to modify its software and hardware interfaces to run initially

on equipment not manufactured by Unisys but eventually on Unisys hardware. It was Advent's responsibility to purchase the necessary hardware. "In so far as Advent has successfully completed [some of the processing] of software and hardware interfaces," Unisys promised to reimburse Advent to the extent of $ 150,000 derived from a "surcharge" on products purchased.

Advent agreed to provide twelve man-weeks of marketing manpower, but with Unisys bearing certain expenses. Advent also undertook to furnish an experienced systems builder to work with Unisys personnel at Advent's prevailing rates, and to provide sales and support training for Unisys staff as well as its customers.

The Distribution Agreement begins with the statement, "Unisys desires to purchase, and Advent desires to sell, on a non-exclusive basis, certain of Advent hardware products and software licenses for resale worldwide." Following a heading "Subject Matter of Sales," appears this sentence, "(a) Advent agrees to sell hardware and license software to Unisys, and Unisys agrees to buy from Advent the products listed in Schedule A." Schedule A lists twenty products, such as computer cards, plotters, imagers, scanners and designer systems.

Advent was to invoice Unisys for each product purchased upon shipment, but to issue separate invoices for maintenance fees. The cost of the "support services" was set at 3% "per annum of the prevailing Advent user list price of each software module for which Unisys is receiving revenue from a customer." Services included field technical bulletins, enhancement and maintenance releases, telephone consultation, and software patches, among others. At no charge to Unisys, Advent was to provide publications such as installation manuals, servicing and adjustment manuals, diagnostic operation and test procedures, sales materials, product brochures and similar items. In turn, Unisys was to "employ resources in performing marketing efforts" and develop "the technical ability to be thoroughly familiar" with the products.

In support of the district court's ruling that the U.C.C. did not apply, Advent contends that the agreement's requirement of furnishing services did not come within the Code. Moreover, the argument continues, the "software" referred to in the agreement as a "product" was not a "good" but intellectual property outside the ambit of the Uniform Commercial Code.

Because software was a major portion of the "products" described in the agreement, this matter requires some discussion. Computer systems consist of "hardware" and "software." Hardware is the computer machinery, its electronic circuitry and peripheral items such as keyboards, readers, scanners and printers. Software is a more elusive concept. Generally speaking, "software" refers to the medium that stores input and output data as well as computer programs. The medium includes hard disks, floppy disks, and magnetic tapes.

In simplistic terms, programs are codes prepared by a programmer that instruct the computer to perform certain functions. When the program is transposed onto a medium

compatible with the computer's needs, it becomes software. The process of preparing a program is discussed in some detail in *Whelan Associates, Inc. v. Jaslow Dental Laboratory, Inc.*, 797 F.2d 1222, 1229 (3d Cir. 1986), *cert. denied*, 479 U.S. 1031, 107 S. Ct. 877, 93 L. Ed. 2d 831 (1987) and *Apple Computer, Inc. v. Franklin Computer Corp.*, 714 F.2d 1240 (3d Cir. 1983), *cert. dismissed*, 464 U.S. 1033, 104 S. Ct. 690, 79 L. Ed. 2d 158 (1984). *See also* **Rodau, *Computer Software: Does Article 2 of the Uniform Commercial Code Apply*?, 35 Emory L.J. 853, 864-74 (1986).**

The increasing frequency of computer products as subjects of commercial litigation has led to controversy over whether software is a "good" or intellectual property. The Code does not specifically mention software.

In the absence of express legislative guidance, courts interpret the Code in light of commercial and technological developments. The Code is designed "to simplify, clarify and modernize the law governing commercial transactions" and "to permit the continued expansion of commercial practices." 13 Pa. Cons. Stat. Ann. § 1102 (Purdon 1984). As the Official Commentary makes clear:

"This Act is drawn to provide flexibility so that, since it is intended to be a semi-permanent piece of legislation, it will provide its own machinery for expansion of commercial practices. It is intended to make it possible for the law embodied in this Act to be developed by the courts in the light of unforeseen and new circumstances and practices."
Id. comment 1.

The Code "applies to transactions in goods." 13 Pa. Cons. Stat. Ann. § 2102 (Purdon 1984). Goods are defined as "all things (including specially manufactured goods) which are moveable at the time of the identification for sale." *Id.* at § 2105. The Pennsylvania courts have recognized that "'goods' has a very extensive meaning" under the U.C.C. *Duffee v. Judson*, 251 Pa. Super. 406, 380 A.2d 843, 846 (1977); *see also Lobianco v. Property Protection, Inc.*, 292 Pa. Super. 346, 437 A.2d 417 (1981) ("goods" under U.C.C. embraces every species of property other than real estate, choses in action, or investment securities.).

Our Court has addressed computer package sales in other cases, but has not been required to consider whether the U.C.C. applied to software per se. *See Chatlos Systems, Inc. v. National Cash Register Corp.*, 635 F.2d 1081 (3d Cir. 1980) (parties conceded that furnishing the plaintiff with hardware, software and associated services was governed by the U.C.C.); *see also Carl Beasley Ford, Inc. v. Burroughs Corporation*, 361 F. Supp. 325 (E.D. Pa. 1973) (U.C.C. applied without discussion), *aff'd* 493 F.2d 1400 (3d Cir. 1974). Other Courts of Appeals have also discussed transactions of this nature. *RRX Industries, Inc. v. Lab-Con, Inc.*, 772 F.2d 543 (9th Cir. 1985) (goods aspects of transaction predominated in a sale of a software system); *Triangle Underwriters, Inc. v. Honeywell, Inc.*, 604 F.2d 737, 742-43 (2d Cir. 1979) (in sale of computer hardware, software, and customized software goods aspects predominated; services were incidental).

Computer programs are the product of an intellectual process, but once implanted in a medium are widely distributed to computer owners. An analogy can be drawn to a compact disc recording of an orchestral rendition. The music is produced by the artistry of musicians and in itself is not a "good," but when transferred to a laser-readable disc becomes a readily merchantable commodity. Similarly, when a professor delivers a lecture, it is not a good, but, when transcribed as a book, it becomes a good.

That a computer program may be copyrightable as intellectual property does not alter the fact that once in the form of a floppy disc or other medium, the program is tangible, moveable and available in the marketplace. The fact that some programs may be tailored for specific purposes need not alter their status as "goods" because the Code definition includes "specially manufactured goods."

The topic has stimulated academic commentary[2] with the majority espousing the view that software fits within the definition of a "good" in the U.C.C.

Applying the U.C.C. to computer software transactions offers substantial benefits to litigants and the courts. The Code offers a uniform body of law on a wide range of questions likely to arise in computer software disputes: implied warranties, consequential damages, disclaimers of liability, the statute of limitations, to name a few.

The importance of software to the commercial world and the advantages to be gained by the uniformity inherent in the U.C.C. are strong policy arguments favoring inclusion. The contrary arguments are not persuasive, and we hold that software is a "good" within the definition in the Code.

The relationship at issue here is a typical mixed goods and services arrangement. The services are not substantially different from those generally accompanying package sales of computer systems consisting of hardware and software. *See Chatlos Systems, Inc. v. National Cash Register Corp.*, 479 F. Supp. 738, 741 (D.N.J. 1979); *Beasley Ford*, 361 F. Supp. at 328.

Although determining the applicability of the U.C.C. to a contract by examining the predominance of goods or services has been criticized, we see no reason to depart from that practice here. As we pointed out in *De Filippo v. Ford Motor Co.*, 516 F.2d 1313, 1323 (3d Cir.), *cert. denied*, 423 U.S. 912, 96 S. Ct. 216, 46 L. Ed. 2d 141 (1975), segregating goods from non-goods and insisting "that the Statute of Frauds apply only to a portion of the contract, would be to make the contract divisible and impossible of performance within the intention of the parties."

We consider the purpose or essence of the contract. Comparing the relative costs of the materials supplied with the costs of the labor may be helpful in this analysis, but not dispositive. *Compare RRX*, 772 F.2d at 546 ("essence" of the agreement) *with Triangle*, 604 F.2d at 743 ("compensation" structure of the contract).

In this case the contract's main objective was to transfer "products." The specific provisions for training of Unisys personnel by Advent were but a small part of the parties' contemplated relationship.

The compensation structure of the agreement also focuses on "goods." The projected sales figures introduced during the trial demonstrate that in the contemplation of the parties the sale of goods clearly predominated. The payment provision of $ 150,000 for developmental work which Advent had previously completed, was to be made through individual purchases of software and hardware rather than through the fees for services and is further evidence that the intellectual work was to be subsumed into tangible items for sale.

We are persuaded that the transaction at issue here was within the scope of the Uniform Commercial Code and, therefore, the judgment in favor of the plaintiff must be reversed.

III.

THE STATUTE OF FRAUDS

This brings us to the Unisys contention that the U.C.C. statute of frauds bars enforcement of the agreement because the writings do not contain a quantity term.

Section 2-201(a) provides that a contract for the sale of goods of $ 500 or more is not enforceable unless in writing. "[A] contract . . . is not enforceable . . . unless there is some writing sufficient to indicate that a contract for sale has been made. . . . A writing is not insufficient because it omits . . . a term agreed upon but the contract is not enforceable . . . beyond the quantity of goods shown in such writing." 13 Pa. Cons. Stat. Ann. § 2201(a) (Purdon 1984). The comment to this section states that although the "required writing need not contain all the material terms" there are "three definite and invariable requirements as to the memorandum," one of which is that "it must specify a quantity." *Id.* comment 1.

The statute of frauds has been frequently criticized as a means for creating rather than preventing fraud, *Harry Rubin & Sons, Inc. v. Consolidated Pipe Co.*, 396 Pa. 506, 153 A.2d 472, 476 (1959), and there have been calls for its total repeal. *See* J. Murray, *Murray On Contracts* § 68, at 302 (3d ed. 1990). Serious considerations therefore counsel courts to be careful in construing its provisions so that undesirable rigidity does not result in injustice.

The limited scope of section 2-201 should not be overlooked. "It is also clear that a sufficient writing merely satisfies the statute of frauds under the Code, i.e., it does not, in itself, prove the terms of the contract." J. Murray, *Murray on Contracts* § 74, at 337 (3d ed. 1990). *See Conaway v. 20th Century Corp.*, 491 Pa. 189, 420 A.2d 405, 411-12 (1980); *Rubin*, 396 Pa. 506, 153 A.2d at 476 (1959) ("All that is required is that the writing afford a basis for believing that the offered oral evidence rests on a real transaction."); 13 Pa. Cons. Stat. Ann. § 2201 comment 1 (Purdon 1984).

Moreover, compliance with the statute of frauds must be distinguished from enforcement of a remedy. At this point we focus on the statute of frauds, reserving for discussion enforcement under § 2-204. *See* Part IV *infra*.

Courts have generally found that a quantity term must be stated for compliance with the Code, and commentators have agreed. *See* 2 R. Anderson, *Uniform Commercial Code* § 2-201:110, at 68 (3d ed. 1982) (1970) ("the requirement that the writing state a quantity is mandatory, and a writing which fails to do so does not satisfy the statute"); J. Calamari & J. Perillo, *The Law of Contracts* § 19-34, at 826 (3d ed. 1987) (memorandum "must specify a quantity"); 2 E. Farnsworth, *Farnsworth on Contracts* § 6.7, at 141 (2d ed. 1990) (UCC "significantly relaxes the requirement that the memorandum state all the essential terms by insisting only that it state the quantity of goods").

A contrary view, however, has been advanced. In her article *The Weed and the Web: Section 2-201's Corruption of The U.C.C.'s Substantive Provisions -- The Quantity Problem*, 1983 U. Ill. L. Rev. 811, Professor Bruckel argues that the quantity section of the statute of frauds should be construed so that the contract is not enforceable beyond the quantity shown in the writing -- if a quantity is specified. If no quantity is mentioned, the omission should not be fatal.

Respected scholars concede some force to this argument. As White and Summers state, "All commentators say the memo must state a quantity term. However, a close reading of section 2-201 indicates that all commentators may be wrong. An alternative explanation is that only if the writing states a quantity term is that term determinative." 1 J. White & R. Summers, *Uniform Commercial Code* § 2-4, at 81-82 n.12 (3d ed. 1988). *See also* J. Calamari & J. Perillo, *The Law of Contracts* § 19-34, at 827 (3d ed. 1987) ("It would be unfortunate if a rigid application of the quantity requirement of the Statute of Frauds were to subvert the substance of the Code."); T. Le & E. Murphy, *Sales and Credit Transactions Handbook* § 2.32, at 65 (1985) ("According to the Uniform Commercial Code (Code) comments, the writing must specify a quantity, and this view has been adopted by the courts. But it is difficult to see how this view can be derived from the statute itself, for a writing surely might 'indicate' that a contract for sale has been made even if there is no stipulation of quantity. Actually, the Code nowhere states that quantity must be specified in the writing.").

This liberal approach found an interested audience in *Riegel Fiber Corp. v. Anderson Gin Co.*, 512 F.2d 784 (5th Cir. 1975), where the Court described that reasoning as "plausible," noting that the quantity term offers little aid in the primary purpose of the statute of frauds. Once a party alleges that the agreement took place and proves a signed writing, "surely he is no more likely to lie about the agreed quantity term than about price, time of performance, or any other material term." *Id.* at 789 n.11. A Pennsylvania court also struck a sympathetic chord in discussing the effect of a memorandum that refers to an oral agreement. *See Rubin*, 396 Pa. 506, 153 A.2d 472, 476 (1959). (The objective of the Code's revised statute of frauds "is the elimination of certain formalistic requirements adherence to which often resulted in injustice, rather than the prevention of

fraud.").

The circumstances here do not require us to adopt an open-ended reading of the statute but permit us to apply a narrower holding. Nothing in the Code commands us to ignore the practicality of commercial arrangements in construing the statute of frauds. Indeed, the Code's rule of construction states that the language "shall be liberally construed and applied to promote its underlying purposes and policies." 13 Pa. Cons. Stat. Ann. § 1102(a). As noted earlier, Comment 1 to that section observes that the Code promotes flexibility in providing "machinery for expansion of commercial practices." Following this guidance, we look to the realities of the arrangement between the parties.

In the distribution agreement, Unisys agreed to engage in the business of selling identified document systems during the two-year term of the contract and to buy from Advent on stated terms the specified products necessary to engage in that venture. The detailed nature of the document, including as it does, such provisions as those for notice of breach, opportunity for cure, and termination leaves no doubt that the parties intended to create a contract.

The parties were obviously aware that they were entering a new, speculative market and some uncertainty was inevitable in the amount of sales Unisys could make and the orders it would place with Advent. Consequently, quantity was not stated in absolute terms. In effect, the parties arrived at a non-exclusive requirements contract, a commercially useful device. We do not consider that in the circumstances here the arrangement raises the statute of frauds bar.

The Code recognizes exclusive requirements contracts in section 2-306, and imposes on the parties to such agreements a duty of good faith. For present purposes, the salient factor is that exclusive requirements contracts satisfy the quantity requirements of the statute of frauds, albeit no specific amount is stated. *Zayre Corp. v. S.M. & R. Co.*, 882 F.2d 1145, 1154 (7th Cir. 1989); *Gestetner Corp. v. Case Equipment Co.*, 815 F.2d 806, 811 (1st Cir. 1987); *O.N. Jonas Co. v. Badische Corp.*, 706 F.2d 1161, 1165 (11th Cir. 1983); *American Original Corp. v. Legend, Inc.*, 652 F. Supp. 962, 967-68 (D. Del. 1986); 1 J. White & R. Summers, *Uniform Commercial Code* § 3-8, at 164 (3d ed. 1988).

The reasons for excepting exclusive requirements contracts from the strictures of the statute of frauds are strong. The purchasing party, perhaps unable to anticipate its precise needs, nevertheless wishes to have assurances of supply and fixed price. The seller, on the other hand, finds an advantage in having a steady customer. Such arrangements have commercial value. To deny enforceability through a rigid reading of the quantity term in the statute of frauds would run contrary to the basic thrust of the Code -- to conform the law to business reality and practices.

By holding that exclusive requirements contracts comply with the statute of frauds, courts have decided that indefiniteness in the quantity term is acceptable. If the agreement here does not satisfy the statute of frauds because of indefiniteness of a quantity term, then neither does an exclusive requirements contract. We find no reason in logic or policy to

differentiate in the statute of frauds construction between the contract here and an exclusive requirements arrangement.

The same reasons that led courts to dispense with a specific and certain quantity term in the exclusive requirements context apply equally when a continuing relationship is non-exclusive. The same regulating factor -- good faith performance by the parties -- applies and prevents the contracts from being illusory. The writings here demonstrate that the parties did not articulate a series of distinct, unrelated, simple buy and sell arrangements, *e.g., Mid-South Packers, Inc. v. Shoney's, Inc.*, 761 F.2d 1117 (5th Cir. 1985), but contemplated what resembles in some respects a joint venture or a distributorship.

A construction of the statute of frauds which does not recognize the quite substantial difference between a simple buy and sell agreement and what occurred here is unduly restrictive. Section 2-306 in recognizing exclusive requirements and output contracts does not purport to treat them as the only permissible types of open quantity agreements. We do not read section 2-306 as an exclusionary measure, but rather as one capable of enlargement so as to serve the purposes of the Code. *See* Bruckel, *Consideration in Exclusive and Nonexclusive Open Quantity Contracts Under the U.C.C.: a Proposal for a New System of Validation*, 68 Minn. L. Rev. 117 (1983).

We emphasize once again that our focus has been on a technical requirement of the statute of frauds whose *raison d'etre* is dubious. We have not yet considered the importance of evidence to support a remedy, an issue we consider to be addressed by section 2-204 rather than being comprehensively covered by the statute of frauds. *See Riegel*, 512 F.2d at 789.

The separation of the concepts advanced by the statute of frauds and section 2-204 has a very practical significance. If the statute of frauds was not satisfied, this case would be dismissed on the complaint, but by surmounting that threshold, the litigation proceeds to a point where the terms of the contract and its enforcement may be determined. This disposition comports with the goals of the Code and gives due recognition to legitimate business practices.

In sum, we hold that the writings here satisfy the statute of frauds.

IV.

ENFORCEABILITY

Having concluded that the statute of frauds is not a bar, we now confront the issue of enforceability.

Section 2-204 provides that a contract does not fail for indefiniteness even though one or more terms have been left open if the parties intended to make a contract and there is a reasonably certain basis for giving an appropriate remedy. 13 Pa. Cons. Stat. Ann. § 2204(c) (Purdon 1984). As Professor Murray has explained:

"Rather than focusing upon what parties failed to say, the Code and RESTATEMENT 2d focus upon the overriding question of whether the parties manifestly intended to make a binding arrangement. If that manifestation is present, the only remaining concern is whether the terms are definite enough to permit courts to afford an appropriate remedy. The second requirement assists courts to determine the degree of permissible indefiniteness."
J. Murray, *Murray On Contracts* § 38, at 85 (3d ed. 1990).

Unlike the statute of frauds issue discussed earlier, the definiteness required to provide a remedy rests on a very solid foundation of practicality. A remedy may not be based on speculation and an award cannot be made if there is no basis for determining if a breach has occurred.

Unisys argues that, since there are specific non-exclusive stipulations in the agreement, they negate the implication found in most exclusive requirements contracts that a "best efforts clause" is included. That may be so, but that does not nullify the obligation of the parties to deal in good faith.

Section 1-203 of the Code provides that contracts require a "good faith performance." This requires the parties to observe "reasonable commercial standards of fair dealing in the trade."

The Pennsylvania Superior Court has concluded that in the absence of any express language, the law will imply an agreement by the parties to do those things that "according to reason and justice they should do in order to carry out the purposes for which the contract was made and to refrain from doing anything that would destroy or injure the other party's right to receive the fruits of the contract." *Slater v. Pearle Vision Center, Inc.*, 376 Pa. Super. 580, 546 A.2d 676, 679 (1988). *See Restatement (Second) of Contracts* § 205 (1979). One commentator opines that when the contract does not have a "best efforts" clause, "the law will usually imply . . . that the dealer must act in good faith and use 'reasonable efforts' to sell. This implied obligation requires the distributor to do more than the bare minimum to comply with a contract; the distributor must really make some attempt to sell." Banks, *Distribution Law* 226-27 (1990).

The terms of the agreement between Unisys and Advent lend themselves to imply a good faith obligation on the parties of at least some minimal effort: "A fundamental assumption of both parties is that throughout the term of this agreement, Unisys will employ resources in performing marketing efforts involving Advent Products and will develop the technical capability to be thoroughly familiar with these products."

On remand, Advent may be able to show that it was inconsistent with good faith for a party that has committed itself to engage in particular business for a specified period of time to cease devoting any resources to that venture prior to the end of the stated period. *See O'Boyle v. Jiffy Lube Int'l., Inc.*, 866 F.2d 88 (3d Cir. 1989). We leave open the possibility that the performance of the parties following signing of the documents and

perhaps pre-contractual expectations will provide evidence to satisfy the requirements of section 2-204. *See* §§ 2-208, 1-205 (course of performance, usage of trade).

On the other hand, it may be that the reason Unisys decided to devote no resources to the project of selling document systems is relevant to whether the standard of fair dealing in the trade was breached. Simply because no resources were devoted, does not mean in and of itself that there was a breach of the covenant of good faith. *See, e.g., Angelica Uniform Group, Inc. v. Ponderosa Systems, Inc.*, 636 F.2d 232, 232 (8th Cir. 1980); *R.A. Weaver & Assoc., Inc. v. Asphalt Construction, Inc.*, 190 U.S. App. D.C. 418, 587 F.2d 1315, 1321-22 (D.C. Cir. 1978); *Southwest Natural Gas Co. v. Oklahoma Portland Cement Co*, 102 F.2d 630, 632-33 (10th Cir. 1939); 1 J. White & R. Summers, *Uniform Commercial Code* § 3-8, at 169 (3d ed. 1988).

Whether Advent can establish the definiteness required to sustain a remedy is a serious question. The record before us consists of evidence submitted on the basis of the pretrial ruling denying application of the U.C.C. Our contrary holding will require the parties to reassess the proofs necessary to meet the Code. We are in no position to anticipate the evidence that may appear in further proceedings and, thus, at this juncture cannot rule whether the agreement between Unisys and Advent is enforceable.

V.

DAMAGES

To some lesser extent the same caveat applies to proof of damages. The fundamentals of the damage claims are unlikely to change substantially by shifting the theory of liability, and we think it might be of some help to the parties on retrial if we discuss this phase of the case.

Under Pennsylvania law, loss of profits may be recovered in a contract action if there is (1) evidence to establish the damages with reasonable certainty; (2) they were the proximate consequence of the wrong; (3) they were reasonably foreseeable. *Delahanty v. First Pennsylvania Bank, N.A.*, 318 Pa. Super. 90, 464 A.2d 1243, 1258 (1983). Proof of damages need not be mathematically precise, but the evidence must establish the fact "with a fair degree of probability." *Exton Drive-In, Inc. v. Home Indemnity Co.*, 436 Pa. 480, 261 A.2d 319, 324 (1969), *cert. denied*, 400 U.S. 819, 91 S. Ct. 36, 27 L. Ed. 2d 46 (1970).

The Pennsylvania Supreme Court has been skeptical of claims for loss of profits by a "new and untried business." *Exton* 261 A.2d at 324. *See also Delahanty*, 318 Pa. Super. 90, 464 A.2d at 1260 (1983); *Pollock v. Morelli*, 245 Pa. Super. 388, 369 A.2d 458, 463 (1976). An award, however, may be made "where such a loss was reasonably foreseeable to the parties at the time that the contract was entered and where those damages are capable of proof of reasonable certainty." *General Dynafab, Inc. v. Chelsea Industries, Inc.*, 301 Pa. Super. 261, 447 A.2d 958, 960 (1982). In that case, although arguably a newcomer to the business, plaintiff was able to show that "there was significant interest

in [its] product before the contract breach occurred," as manifested by commitments for orders from four sources.[3] *Id.*

In addressing proof of damages in *National Controls Corp. v. National Semiconductor Corp.*, 833 F.2d 491, 496 (3d Cir. 1987), we pointed out that it is necessary to consider the fact that the "damages sought must be a proximate consequence of the breach, not merely remote or possible. . . . The element of causation defines the range of socially and economically desirable recovery and requires not only 'but-for' causation in fact but also that the conduct be a substantial factor in bringing about the harm."

In that case the Court vacated an award for loss of profits based on the theory that one of plaintiff's customers would have purchased certain products from plaintiff. "An award of lost profits required speculation by the jury on the likelihood that, absent [defendant's] breaches, [a third-party] would have proceeded with the project and on the likelihood that [the third-party] would have chosen [plaintiff] as a supplier." *Id.* at 498.

National Controls emphasizes the need for evidence sufficiently concrete to provide a reasonable degree of certainty that the verdict is more than the result of a lottery or emotional reaction. Predicting the results of business dealings that might have, but never did, occur is of course a difficult matter of proof.

When a business has become established, the Pennsylvania Supreme Court has mentioned several methods of proof to establish prospective loss profits: (1) evidence of past profits; (2) profits made by others or by similar contract where the facts were not greatly different; (3) testimony of experts if based on anything more than individual opinions or conjecture. *Massachusetts Bonding & Ins. Co. v. Johnston & Harder, Inc.*, 343 Pa. 270, 22 A.2d 709, 714 (1941).

Advent's profits depended on Unisys' efforts and ability to resell the document systems. These were comparatively new products in a market in which Unisys had high hopes, but little, if any, share. Significantly, Arco, one of the companies both Unisys and Advent had hoped to capture as a customer, decided instead to look to IBM, although that company had not yet developed a comparable product. Other businesses such as Southwestern Bell, originally thought to be a prospective customer of Unisys, eventually bought Advent systems marketed through another company and, thus, cannot be the basis for any claim of loss here.

Advent's case on loss of profits rested primarily on the testimony of its expert, Dr. Alfred Kuehn. He relied heavily on industry projections prepared by Frost & Sullivan in 1986 and a market analysis published by the Yankee Group in 1987. These studies both predicted dramatic increases in sales of document systems.

When the trial took place in August 1989, the two year period for which the court ruled that damages could be awarded had already expired. At the time the expert testified, actual results in the marketplace during the pertinent two years, 1987-89, did not support the rosy predictions made earlier. Nevertheless he based his opinion on those outdated

projections. For example, he forecast total industry sales in the United States in 1987 of $ 77 million dollars. But according to defendant's expert, actual sales that year were $ 12 million dollars. In 1988 plaintiff's forecast was $ 255 million, but the actual figure was approximately $ 10 million dollars.

When questioned whether he thought data of what actually occurred was more valuable than past projections, Dr. Kuehn said, "Both were important along with other things that are equally important." He did not elaborate further, but apparently his reasoning was that because Unisys had not entered the market, the actual total sales figure in the United States were lower than they would have been otherwise. On this record that explanation is unconvincing at best.

"An opinion based on false assumptions is unhelpful in aiding the jury in its search for the truth, and is likely to mislead and confuse." *Wilkinson v. Rosenthal & Co.*, 712 F. Supp. 474, 479 (E.D. Pa. 1989). It is also true that a verdict may not be based on speculation, whether the testimony comes from the mouth of a lay witness or an expert. *See Pennsylvania Dental Ass'n. v. Medical Service Ass'n.*, 745 F.2d 248, 262 (3d Cir. 1984), *cert. denied*, 471 U.S. 1016, 105 S. Ct. 2021, 85 L. Ed. 2d 303 (1985).

Federal Rule of Evidence 703 liberalizes the reception of expert testimony in the federal courts. It does, however, contain limitations. Although facts not otherwise admissible in evidence may form the basis for assumptions by an expert witness, the court must make a factual inquiry and finding as to what data experts in the field find reliable. *In re Japanese Electronic Products Antitrust Litigation*, 723 F.2d 238, 277 (3d Cir. 1983), *rev'd on other grounds*, 475 U.S. 574, 106 S. Ct. 1348, 89 L. Ed. 2d 538 (1986). Neither party to this case requested the court to conduct such an inquiry.

In *Olympia Equipment Leasing Co. v. Western Union Telegraph Co.*, 797 F.2d 370, 382 (7th Cir. 1986), *cert. denied*, 480 U.S. 934, 107 S. Ct. 1574, 94 L. Ed. 2d 765 (1987), the Court referred to the "old problem of expert witnesses" and criticized testimony on prospective lost profits. The Court observed that, "the expert in this case dazzled the jury with 'an array of figures conveying a delusive impression of exactness' -- delusive because the figures had no relation to reality." We too have serious reservations about the validity of expert testimony based on prior predictions of sales for a given period when actual performance data for that same time span are available.

The jury's verdict must also have been based to some extent on the defendant's own contemporaneous sales projections described by the trial judge as "wildly optimistic." The same difficulty about the validity of those projections exists because apparently to some extent they too were based on the same studies cited by Dr. Kuehn.

We have serious doubts that the evidence in this record is adequate to support the award for lost profits. That is not to say that all evidence of damages was lacking. The defendant concedes that "a reasonable jury could have awarded Advent the $ 150,000." Unisys Brief at 35. We, of course, cannot anticipate what proof on damages will be produced on remand.

The judgment in favor of the defendant on the tortious interference claim will be affirmed. The judgment in favor of the plaintiff on the breach of contract claim will be reversed and the case will be remanded for further proceedings

FOOTNOTES

1. The Distribution Agreement provided that Pennsylvania law would govern.

2. Among the articles and notes that have reviewed extant caselaw are: Boss & Woodward, *Scope of the Uniform Commercial Code; Survey of Computer Contracting Cases*, 43 Bus. Law. 1513 (1988); Owen, *The Application of Article 2 of the Uniform Commercial Code To Computer Contracts*, 14 N. Kentucky L. Rev. 277 (1987); **Rodau, *Computer Software: Does Article 2 of the Uniform Commercial Code Apply*, 35 Emory L.J. 853 (1986);** Holmes, *Application of Article Two of the Uniform Commercial Code to Computer System Acquisitions*, 9 Rutgers Computer & Technology L.J. 1 (1982); Note, *Computer Software As A Good Under the Uniform Commercial Code: Taking a Byte Out of the Intangibility Myth*, 65 B. U.L. Rev. 129 (1985); Note, *Computer Programs as Goods Under the U.C.C.*, 77 Mich. L. Rev. 1149 (1979).

3. This Court's decision, *In re Merritt Logan, Inc.*, 901 F.2d 349 (3d Cir. 1990), does not change the law on prospective loss of profits. There, we predicted that New Jersey would no longer follow a *per se* rule precluding all new businesses from recovering lost profits. Under the new rule, we decided that plaintiff could recover upon establishing the loss with "reasonable certainty."