

## In the Matter of Oil Spill by the AMOCO CADIZ off the Coast of France on March 16, 1978

### United States Court of Appeals for the Seventh Circuit.

Nos. 90-2832 to 90-2841, 90-2857 and 90-2946 to 90-2954.

Argued June 12, 1991.

Decided Jan. 24, 1992.

Frank Cicero, Jr., Richard C. Godfrey, Roger L. Taylor, Kirkland & Ellis, Chicago, Ill., for Amoco parties.

T. Barry Kingham, Curtis, Mallet-Prevost, Colt & Mosle, New York City, for Cotes-du-Nord parties.

Hill, Betts & Nash, Christopher B. Kende, Holtzmann, Wise & Shepard, New York City, for Republic of France.

Warren J. Marwedel, Keck, Mahin & Cate, Chicago, Ill., for Republic of France and Cotes-du-Nord parties.

Jeffrey D. Colman, Jenner & Block, Chicago, Ill., Joseph C. Smith, Burlingham, Underwood & Lord, New York City, for Petroleum Ins., Ltd. (Shell).

Michael J. Murphy, Lord, Day & Lord, Barrett Smith, New York City, Gerald G. Saltarelli, Butler, Rubin, Newcomer, Saltarelli & Boyd, Chicago, Ill., for American Bureau of Shipping.

Joseph Keig, Jr., James E. Betke, McDermott, Will & Emery, Chicago, Ill., for Astilleros Espanoles, S.A.

Elizabeth W. Walker, Christopher Heckman, Sterns, Smith & Walker, San Francisco, Cal., Paul McCambridge, Keck, Mahin & Cate, Chicago, Ill., for S.A. Les Grand Viviers de Porsguen: Yves-Marie Gac (d/b/a Sport Mer).

Charles Krause, Speiser, Krause & Madole, San Antonio, Tex., Susan P. Malone, John J. Kennelly, Chicago, Ill., for Hotel claimants.

Michael A. Snyder, Michael A. Snyder & Assoc., Chicago, Ill., for Bugsier Reederei und Bergungs, A.G.

Frank J. McGarr, Special Master, Phelan, Pope & John, Ltd., Chicago, Ill.

Before BAUER, Chief Judge, EASTERBROOK, Circuit Judge, and FAIRCHILD, Senior Circuit Judge.

PER CURIAM.

On the morning of March 16, 1978, the supertanker AMOCO CADIZ broke apart in a severe storm, spewing most of its load of 220,000 tons of Iranian crude into the seas off Brittany. The wreck resulted in one of the largest oil spills in history, damaging approximately 180 miles of coastline in one of the most important tourist and fishing regions in France. The clean up took more than six months and involved equipment and resources from all over the country. The disaster has had lasting effects on the environment, the economy, and the people of Brittany, and has resulted in numerous lawsuits. Thirteen years later, the matter is before us. In this consolidated appeal, we are asked to resolve a myriad of issues involving jurisdiction, liability, and damages. Before we begin, a brief history of the litigation and its cast of characters is in order.

## I.

### A.

The origins of the AMOCO CADIZ are not difficult to trace. The vessel was born of discussions that began in Madrid, Spain in May 1970 between Astilleros Espanoles, S.A., the shipbuilder who constructed the fleet in which Columbus voyaged to the New World, and Standard Oil Company of Indiana ("Standard") (now called Amoco), an Indiana corporation having its principal office and place of business in Chicago, Illinois. The latter was represented by Robert S. Haddow, vice president in charge of marine operations at Amoco International Oil Company ("AIOC") and chairman of Amoco Tankers and Amoco Transport. (For simplicity's sake, we generally will refer to Amoco and its various subsidiaries--Amoco Tankers, Amoco Transport, and AIOC--as "the Amoco parties" or "Amoco.") Astilleros previously had contracted to build two megatankers for Amoco; Haddow wanted two more. The Madrid meeting covered all the essentials: technical specifications, delivery date, and price. Further negotiations took place in New York and Chicago. On May 30, Astilleros confirmed the content of the negotiations and submitted a bid to build two ships, the AMOCO CADIZ and the AMOCO EUROPA. Amoco accepted the bid by letter on June 18, and the parties signed off on the final contract and ship specifications in Chicago on July 31, 1970.

The contract required that the ship be built according to the American Bureau of Shipping's ("ABS") Rules for Building and Classing Steel Vessels. The ABS is a not-for-profit maritime classification society headquartered in New York that promulgates rules and sets standards for shipbuilding, design, and seaworthiness. The ABS's technical staff in London reviewed Astilleros's proposed plan for the AMOCO CADIZ to ensure that it complied with the ABS's Rules. The ABS examined the "general arrangement" plans--plans featuring the layout and list of components used in the various parts of the ship--as well as drawings related to the detailed design of the ship. (By "detailed design," we mean items as small as nuts and bolts.) The ABS stamped the plans and drawings with its Maltese cross emblem to signify its approval. The Amoco- Astilleros contract incorporated the general arrangement plans and required Astilleros to submit them to Amoco for acceptance prior to construction. Astilleros did so, but did not pass along to Amoco its detailed design drawings, calculations, or fabrication drawings showing the mechanical details of the steering mechanism's component parts. Amoco reviewed the design of the steering gear system and approved it on October 19, 1971. Amoco later made two modifications to the system: it designed a low fluid level alarm for the replenishment gravity tank and increased the size of the rudder. It chose not to include an optional hand charging pump. Astilleros's representatives came to Chicago for a two-day meeting in June 1972 to firm up technical details.

Pursuant to the contract, Astilleros built the behemoth at its shipyards in Cadiz, Spain. It took four years to complete the job. Throughout the construction process, both Amoco and the ABS had representatives on the scene at the shipyard. The Amoco representatives were concerned with deadlines and whether construction conformed to the contract specifications and general arrangement drawings. They also were present to witness tests of equipment and gear and to catch any problems that might have been missed in the plan approval process. The ABS representatives monitored the progress of the ship to ensure that construction was in conformity with the ABS's Rules. The Amoco representatives deferred to the ABS representatives' technical and engineering expertise in evaluating whether construction was proceeding as it should.

At long last, the vessel was finished. It measured 1095 feet long and 167 feet wide--the size of three football fields--and weighed 230,000 deadweight tons. It was powered by a 30,000 horsepower diesel engine driving a single screw and was equipped with a single rudder driven by a hydraulic steering engine. It had a hydraulic steering gear with movement of the rudder controlled by two pairs of rams contained in four cylinders that were filled with hydraulic fluid. The four rams were made of rolled steel and their heads were cast steel. Ram isolation valves controlled the flow of oil through the passages in the distribution block. These valves were a critical safety component. They could capture the remaining hydraulic fluid in the rams in the event of a rupture in the piping. The valves also could be closed to isolate the various lines from the rest of the system or to block the passage of oil to or from the cylinder.

The AMOCO CADIZ's steering system was supposed to work in the following manner. When the helmsman turned the steering wheel or when the ship operated on autopilot, an electronic signal was generated. In response to the signal, hydraulic fluid was moved by a series of pumps, which in turn moved the rams and, eventually, the rudder. The hydraulic fluid in the cylinders kept the rudder restrained and in the desired position by exerting pressure against the rams. There was no device aboard that could be used to steer the ship if the primary system failed. The ship was not equipped with twin screws, twin rudders, or bow thrusters that could be used to steer in an emergency. The anchor was underdesigned and could not be used as a stopping device in a crisis situation.

The ABS certified the ship--and its steering gear--as being in compliance with the ABS's Rules. Even after delivery, the ABS periodically conducted inspections of the AMOCO CADIZ to determine if it still was in seaworthy condition. Three times--June 1975, April 1976, and May 1977--the ABS inspected the steering gear and pronounced it in working order.

## **B.**

Amoco Tankers ("Tankers"), a Liberian corporation all of whose stock was owned by Standard through a chain of wholly owned subsidiaries, took delivery of the AMOCO CADIZ on May 11, 1974. Two weeks later, Tankers sold the vessel to Amoco Transport ("Transport"), a Liberian corporation with its principal place of business in Bermuda. Transport was a subsidiary of AIOC. In June 1974, Transport entered into a consulting agreement with AIOC. The agreement provided that AIOC was responsible for the operation of the AMOCO CADIZ, including maintenance, repair, and training of its crew. Transport remained the owner of the vessel. Long after delivery, in August 1975, representatives from Astilleros met with Amoco in Chicago to discuss contract guarantee terms. Similar discussions were held in New York in 1976. Just like a home appliance, the AMOCO CADIZ came with a one-year guarantee. Astilleros agreed to repair or replace any defects in the ship or its equipment during its first year of operation, 1974-75. Consequently, during that first year, the ship always had on board an engineer from Astilleros who was attuned to any problem that arose. After the one-year guarantee period had expired, AIOC took care of maintenance problems.

In June 1974, the AMOCO CADIZ was chartered to Shell International Petroleum. "Charter hire" is the expense charterers pay owners of vessels per long ton per day. During off-hire periods, such as when the vessel is in for repairs, charter hire payments stop. It thus is in the pecuniary interest of a chartered ship's owner to keep the vessel running. The Amoco-Shell time charter required annual drydocking of the tanker for maintenance, but for reasons of economy, Amoco unilaterally lengthened the interval between drydockings to eighteen months and made plans to extend the interval to two years. (A two-year interval would save the company \$1,250,000 in shipyard costs and \$200,000 per year in off-hire losses.) The ABS rules required two-year intervals between drydockings unless the owner received special permission from the ABS. By January 1976, Amoco decided that time-chartered vessels would be drydocked every two and one-half years.

## **C.**

In February 1978, the fully-staffed AMOCO CADIZ took on a load of crude oil at Kharg Island, Iran, and Ras Tanura, Saudi Arabia, destined for Rotterdam around the Cape of Good Hope. The Italian crew was experienced and the officers all were properly licensed. With regard to training, Captain Pasquale Bardari and his officers and crew participated in on-shore classes and on-board safety exercises. The latter were conducted by representatives of Marine Safety Services, a British organization. In addition, the ship's library contained a collection of films, videos, and technical information pertaining to ship operations.

As the tanker approached western Europe, it sailed into a storm. Retired Royal Navy officer Leslie Maynard, an on-board representative of Marine Safety Services, later testified that he had seen worse weather only once, during a typhoon. The AMOCO CADIZ had the capacity to weather severe storm conditions and heavy seas if she was in seaworthy condition. Buffeted by the rough seas and high winds,

the ship rolled heavily on March 15 and through the night of March 16. Despite the bad weather, the helmsman reported no difficulty with the steering mechanism. During their normal inspection rounds, the crew members reported no abnormalities in the steering room.

In the morning, while the AMOCO CADIZ was approximately nine miles off the French island of Ushant, its steering gear completely failed. The helmsman informed Captain Bardari, who broadcast a message to nearby ships giving the AMOCO CADIZ's position and a caution to stay clear. The crew raised "not-under-command" flags as an additional warning. Almost immediately, the ship's engineers examined the steering gear only to find that the "De" flange, which had held a pipe that carried oil from the port steering gear pump to the hydraulic oil distribution block, had come off. Oil was spurting everywhere.

The crew members discovered that five of the six steel studs holding the De flange and pipe to the distribution block had broken; no other studs had failed in the system. The failure of the studs allowed the rapid escape of hydraulic fluid out of the steering system and the immediate entry of air. One of the engineers futilely tried to stop the flow of oil by closing the port steering gear pump and the isolation valves on the distribution block. The chief engineer tried to replenish the system by adding hydraulic fluid to the steering gear gravity replacement tank, but the fluid level in the gravity tank did not drop as it should have if the steering mechanism had been functioning normally.

Because of the lack of hydraulic pressure, the rudder was unrestrained. Some of the crew unsuccessfully tried to control the swinging rudder with a block and tackle, while others tried to repair the flange connection and purge the air from the system. As the crew worked, a relief valve pipe blew off, and oil hit the ceiling of the steering compartment. With the relief valve blown, the rudder's unchecked movement became more violent until it crashed into its stops, breaking apart the steering gear and hurling metal parts in every direction. The chief engineer ordered an evacuation of the compartment after one of the crewmen was struck in the head with a piece of metal. The chief engineer then reported to Captain Bardari that the steering gear could not be repaired.

About two hours after the steering failure, Captain Bardari called for salvage tugboats. In response, the PACIFIC, a salvage tug in the fleet of Bugsier Reederei und Bergungs, A.G., a corporation organized under the laws of the then Federal Republic of Germany, arrived on the scene. Bugsier undertook salvage jobs only under a "Lloyd's Open Form" ("LOF") "No-Cure-No Pay" salvage contract. The tug did not begin operations immediately because Bardari had to call Chicago to find out if he could enter into such a deal. While the AMOCO CADIZ foundered, Amoco and the tug's captain, Hartmut Weinert, haggled over the LOF. Finally, Amoco and Captain Weinert came to terms. By then, the island of Ushant was less than six miles dead ahead, the shallow Chenal du Four on the port bow, and the rocky Finistere coast on the port beam. The wind was fierce, the seas high, and the AMOCO CADIZ pitched so wildly that her bow repeatedly plunged beneath the surface.

The PACIFIC approached and secured a fairlead on the bow of the AMOCO CADIZ intending to turn the ship to her starboard, head her out to sea, and then tow her in to shore. In hindsight, this strategy proved unfortunate. The PACIFIC was incapable of turning a ship the size of the AMOCO CADIZ into the wind and the towing chain broke. The PACIFIC made a second tow attempt by connecting to the stern of the tanker. By then, tidal currents and heavy winds had carried the AMOCO CADIZ dangerously close to the rocky and irregular Finistere coastline. The tanker continued to roll on the rocks and sink into the shoals. As the PACIFIC continued its futile maneuvers, its captain received the following message from Marine Safety Services representative Leslie Maynard, "Sir, we are grounded." The AMOCO CADIZ began tearing in two and the PACIFIC lost contact altogether. Soon, the telltale odor of oil filled the air. Fifteen million gallons spilled into the sea during the first night alone.

**D.**

The resulting oil slick was eighteen miles wide and eighty miles long, one-fourth of the Breton coast. Over the weeks following the grounding of the AMOCO CADIZ 4,400 men and 50 vessels (which included ships and personnel from the British Royal Navy) were dispatched to aid in the clean up operations at sea. France sought more than 30 million francs for the cost of the clean up at sea (see infra section V.). The clean up on land took over six months and involved the participation of the French army. Heavy machinery and volunteers were recruited from all over France. Approximately 220,000 tons of oily waste the color and consistency of chocolate mousse were recovered from the beaches along the Cotes du Nord. The infusion of oil upset the delicate ecosystem along the coastline, destroying algae and ruining oyster and lobster beds. Especially hard hit was the Breton economy. Brittany is France's second most important tourist region after the Riviera. The claimed overall cost to France was an estimated \$100,000,000 at the 1978 rate of exchange.

## II.

In the aftermath of the environmental disaster, various parties brought lawsuits. The Republic of France ("France") sued Amoco to recover for pollution damages and clean up costs. Similar actions were brought by the French administrative departments of Cotes du Nord and Finistere ("the Cotes du Nord parties"), numerous municipalities called "communes," and various French individuals, businesses, and associations, including hoteliers and fisherman who lost business as a result of the oil spill ("the French claimants"). The Cotes du Nord parties and the French claimants charged Astilleros with negligence in designing and constructing the tanker. The lawsuits were filed in Illinois and New York. Astilleros appeared and moved to dismiss the claims against it for lack of personal and subject matter jurisdiction and for forum non conveniens. Both the Cotes du Nord parties and Amoco sued Bugsier, the owner of the tug PACIFIC, claiming that it was negligent in attempting to tow the AMOCO CADIZ. The Bugsier suits were stayed pending arbitration in London. Bugsier filed a limitation action in the lawsuits which the Cotes du Nord parties were claimants.

Amoco brought several actions in federal district court in Chicago. It filed a complaint for exoneration from or limitation of liability pursuant to the United States Limitation of Liability Act of 1851, 46 U.S.C.App. § § 181-196 ("Act"). In addition, the Amoco parties filed a third-party claim and cross-claims against Astilleros. Amoco filed for contribution from the ABS to the extent that the grounding was caused by ABS's negligence and breach of contract in approving the vessel design, inspecting it, and certifying its seaworthiness. The Cotes du Nord parties and French claimants also sued the ABS. The ABS settled these claims and sued the Amoco parties in New York, seeking reimbursement for expenses in connection with the settlement. Amoco removed the matter to federal court and counterclaimed. Petroleum Insurance Limited ("PIL"), Royal Dutch Shell's subrogee, sought to recover from Amoco for loss of the oil cargo, claiming loss occurred through Amoco's lack of due diligence in making the vessel seaworthy and through Amoco's breach of the charter contract.

The various federal actions were bifurcated and brought before Judge Frank J. McGarr of the Northern District of Illinois. After consolidating the liability issues, Judge McGarr opened the bench trial on May 4, 1982. The liability phase would not end until late November of the same year. In an April 18, 1984 opinion, the court held Amoco Corporation, Astilleros (who neither participated in discovery nor in the trial), and Amoco Production Company jointly and severally liable to France, the Cotes du Nord parties, the French claimants, and to PIL. The court denied Amoco's petition for limitation of liability. Bugsier was exonerated on the claims brought against it by the Cotes du Nord parties. (Amoco's claims against Bugsier eventually were resolved in the London arbitration.) Because of its settlement with France and the Cotes du Nord parties, the ABS did not participate in the liability trial. It still is part of a pending "tag-along" action in federal district court in Chicago in which Amoco is seeking contribution from the ABS.

The court subsequently held a second bench trial on the consolidated damages issues. That trial lasted from April 1986 to June 1987. On October 5, 1987, the court awarded PIL 11,212,349.50 pounds sterling for the loss of Shell's oil cargo. The court also awarded PIL prejudgment interest, but denied its request for compounded interest. Subsequently, the court amended its opinion by awarding PIL statutory costs and by setting the annual prejudgment interest rate at 7.22 percent. The final award to PIL was 21,215,054.68

pounds sterling. With regard to the other plaintiffs' damages, on January 11, 1988, the district court applied French law and ordered an award to cover costs of clean up and restoration incurred by France, the Cotes du Nord parties, and the French claimants. The court awarded statutory costs as well as compound prejudgment interest at an annual rate of 7.22 percent for a total of nearly 600 million French francs.

When Judge McGarr retired in late January 1988, the case was reassigned to Judge Charles R. Norgle, Sr., who appointed Judge McGarr as a Special Master to resolve any remaining issues. Special Master McGarr issued his Final Report and Recommendations on October 31, 1989. Pursuant to Rule 53 of the Federal Rules of Civil Procedure, the Amoco Parties, France, the Cotes du Nord parties, Astilleros, and PIL filed objections. In March 1990, a hearing was held on those objections. Following the hearing, the district court adopted all of the Special Master's Recommendations relating to liability and damages and, on July 24, 1990, issued four separate final judgments awarding claimants damages in French francs and pounds sterling against the Amoco parties and Astilleros, jointly and severally. These consolidated appeals followed.

### III.

Astilleros was named as a defendant or third-party defendant by Amoco, the Republic of France, the Cotes du Nord parties, and the French claimants in cases filed in both Illinois and New York. The Illinois and New York cases were consolidated in the Northern District of Illinois by the Judicial Panel on Multidistrict litigation. Three of the judgments now on appeal were entered in Illinois cases (Nos. 78 C 3693, 79 C 3548, and 79 C 3761) and one in a New York case (No. 79 C 2774). Astilleros contends that neither Illinois nor New York courts had personal jurisdiction over it.

Astilleros moved to dismiss each case against it for lack of personal jurisdiction. The court initially denied the motion in No. 78 C 3693, 491 F.Supp. 170 (N.D.Ill.1979) (Order 4), and later denied the motions in the other cases (Orders 5, 6, 10, 26). After the motions were denied, Astilleros did not significantly participate in any further proceedings in the district court. Default judgments finding Astilleros liable but leaving the calculation of damages for later determination were entered in the three Illinois cases in 1982. (Orders 16, 20) Astilleros appealed from these judgments under 28 U.S.C. § 1292(a)(3), which allows appeals from certain interlocutory orders in admiralty cases. This court affirmed the judgment of the district court. In re Oil Spill by the AMOCO CADIZ off the Coast of France on March 16, 1978, 699 F.2d 909 (7th Cir.1983) (Astilleros I), cert. denied, 464 U.S. 864, 104 S.Ct. 196, 78 L.Ed.2d 172 (1983). Although Astilleros sought dismissal in No. 79 C 2774, the New York case, in 1980, and its motion was denied in 1982, no default judgment was then entered, and the present appeal is the first to arise from that case.

After the district court resolved the liability of other parties and made damages calculations, Astilleros objected to the damages again claiming that it was not subject to the jurisdiction of the court. The court rejected the attempt to relitigate this issue. After final judgments, Astilleros appealed claiming that neither the New York nor the Illinois district court had personal jurisdiction over it.

Because a panel of this court has already determined that Astilleros was subject to the jurisdiction of the district court in Illinois, the doctrine of law of the case applies to this issue. "Ordinarily, matters decided on a prior appeal become the law of the case to be followed on a later appeal." *Parts and Electric Motors, Inc. v. Sterling Electric, Inc.*, 866 F.2d 228, 231 (7th Cir.1988), cert. denied, 493 U.S. 847, 110 S.Ct. 141, 107 L.Ed.2d 100 (1989). Astilleros's arguments that the prior panel's decision is not law of the case because it was an affirmation of an interlocutory decision of the district court and because the prior panel must have found only that there was a prima facie case of jurisdiction are not correct.

It is well established that a decision of an interlocutory appeal may be the law of the case. See, e.g., *Illinois ex rel. Burriss v. Panhandle Eastern Pipe Line Co.*, 935 F.2d 1469, 1478-79 (7th Cir.1991); *Citronelle-Mobile Gathering, Inc. v. Herrington*, 826 F.2d 16, 23 (Em.App.1987), cert. denied, 484 U.S. 943, 108 S.Ct. 327, 98 L.Ed.2d 355 (1987); *Erkins v. Bryan*, 785 F.2d 1538, 1542 (11th Cir.1986), cert. denied, 479 U.S. 960 & 961, 107 S.Ct. 455, 93 L.Ed.2d 402 (1986); *Appleton Electric Co. v. Graves Truck Line, Inc.*, 635

F.2d 603, 607 (7th Cir.1980), cert. denied, 451 U.S. 976, 101 S.Ct. 2058, 68 L.Ed.2d 357 (1981); *United States v. Turtle Mountain Band of Chippewa Indians*, 612 F.2d 517, 520-21, 222 Ct.Cl. 1 (1979). Also, the Fifth Circuit has held that decision of an interlocutory appeal in an admiralty case is law of the case. *Todd Shipyards Corp. v. Auto Transportation, S.A.*, 763 F.2d 745, 750-51 (5th Cir.1985). There is no reason to refrain from treating a decision of an interlocutory appeal as law of the case when, as is very clear in this case, the issue necessarily addressed in the earlier decision is the same as the one we are asked to consider anew, and there was no clear error in the decision. The Supreme Court recently said, " 'when a court decides upon a rule of law, that decision should continue to govern the same issues in subsequent stages in the same case.' " *Christianson v. Colt Industries Operating Corp.*, 486 U.S. 800, 816, 108 S.Ct. 2166, 2177, 100 L.Ed.2d 811 (1988) (quoting *Arizona v. California*, 460 U.S. 605, 618, 103 S.Ct. 1382, 1391, 75 L.Ed.2d 318 (1983) (dictum )).

Astilleros cites three cases which say that law of the case applies only to final judgments, but we do not find those cases controlling. *United States v. United States Smelting Refining & Mining Co.*, 339 U.S. 186, 198-99, 70 S.Ct. 537, 544, 94 L.Ed. 750 (1950), involved a proceeding before the Interstate Commerce Commission to determine the beginning and end of line-haul service at appellee smelters' plants. On review a three-judge district court decided that a finding was not supported by evidence, and remanded the matter. There was no appeal from this judgment. The Commission took no more evidence and simply restated the ground for its action. The district court again held the orders unlawful. The Supreme Court reversed. In rejecting the argument that the first district court decision became law of the case which bound the Supreme Court, the Court reasoned that "when the case was first remanded, nothing was finally decided." *Id.* at 198, 70 S.Ct. at 544. This language is not relevant to this case where the issue is whether law of the case applies in a court that has already decided the issue and not whether an unappealed decision which might have been law of the case in the lower court binds the appellate court. Similarly, we think the Supreme Court's further statement that law of the case, like *res judicata*, requires "a final judgment," *id.* at 199, 70 S.Ct. at 544, was meant to apply only when a party is arguing that law of the case precludes a court that has not yet considered the issue from reaching the merits of the issue on appeal. Furthermore, this court's decision on the earlier appeal in this case was an unequivocal appellate decision on the record before it, and was "final" in that context. See *Turtle Mountain*, 612 F.2d at 520 n. 2 (interpreting *Smelting* ). Cases generally have not relied on *Smelting* to limit law of the case to a decision on appeal from a final judgment, as the cases previously cited demonstrate.

In *Hunter v. Atchison, Topeka and Santa Fe Railway Co.*, 188 F.2d 294, 299 (7th Cir.), cert. denied, 342 U.S. 819, 72 S.Ct. 36, 96 L.Ed. 619 (1951), this court declined to treat its earlier decision on appeal from a preliminary injunction as law of the case. The court relied on the fact that a preliminary injunction is not a decision on the merits and its object usually is to preserve the status quo. *Id.* at 298. The same considerations do not apply to appeals from other interlocutory orders where the issue addressed on the earlier appeal is identical to the issue which a party wishes to have reexamined on the later one.

In *Gage v. General Motors Corp.*, 796 F.2d 345 (10th Cir.1986), the plaintiff had first filed in state court, and the state court dismissed his complaint for failure to state a claim. He then filed in federal district court, and that court dismissed his complaint saying in part that the state court decision was law of the case. The Court of Appeals held the law of the case rule was properly applied. It cited, but does not appear to have relied on, the statement in *Smelting* requiring a final decision. *Id.* at 349.

Astilleros's claim that *Astilleros I* established only that there was a *prima facie* case for jurisdiction is similarly unavailing. Astilleros argues that the procedural posture of the case has changed since the first appeal because the first appeal concerned a motion to dismiss and this appeal concerns a final judgment against Astilleros. Astilleros relies on several cases which say that a motion to dismiss is based on a *prima facie* case supporting personal jurisdiction and before judgment can be entered a court must hold an evidentiary hearing and find the facts upon which jurisdiction is based by a preponderance of the evidence. *Hoffritz for Cutlery, Inc. v. Amajac, Ltd.*, 763 F.2d 55, 57 (2d Cir.1985); *CutCo Industries, Inc. v. Naughton*, 806 F.2d 361, 363 (2d Cir.1986); *Travelers Indemnity Co. v. Calvert Fire Ins. Co.*, 798 F.2d 826, 831 (5th Cir.1986), as modified, 836 F.2d 850 (5th Cir.1988). The first appeal, however, was not from the denial of the motion to dismiss. The appeal was from a default judgment as to liability against Astilleros. In granting

the default judgment, the district court specifically found that it had jurisdiction over Astilleros. If Astilleros believed the default judgment rested upon improper procedure, it should have so argued on appeal. On appeal, this court affirmed the district court's finding of personal jurisdiction and in doing so implicitly held that the proper procedure and standard were used to find jurisdiction. Because implicit holdings constitute law of the case, *Christianson v. Colt Industries Operating Corp.*, 486 U.S. 800, 817, 108 S.Ct. 2166, 2178, 100 L.Ed.2d 811 (1988); *Parts and Electric Motors, Inc. v. Sterling Electric, Inc.*, 866 F.2d 228, 231-32 (7th Cir.1988); *Conway v. Chemical Leaman Tank Lines, Inc.*, 644 F.2d 1059, 1062 (5th Cir. Unit A 1981), this issue is governed by *Astilleros I*.

*Astilleros* next argues that even if *Astilleros I* is the law of the case, this panel is not bound by that decision because (1) substantial new evidence was introduced after the first appeal, (2) subsequent decisions of the Supreme Court are contrary to the prior decision, and (3) the decision of the first court was clearly erroneous. *Parts and Electric Motors*, 866 F.2d at 231.

In its brief, *Astilleros* presents only one fact which it claims to be substantial new evidence: the oil spill was found to have been partially caused by Amoco's negligence. *Astilleros* argues that this fact is significant because in *Astilleros I* this court said, "If, as the cross-claim alleges, the oil spill was due not to any fault on Amoco's part but to *Astilleros*' negligence in designing or constructing the ship, this implies that *Astilleros* could have avoided a disastrous accident, for which both parties may be liable, more easily than Amoco could have." *Astilleros I*, 699 F.2d at 915 (emphasis added by *Astilleros*). *Astilleros* claims that this sentence shows that the prior panel's holding was not intended to apply were it found that the oil spill was partially caused by Amoco's negligence. The rest of the opinion, however, shows that the court held that *Astilleros* was subject to the jurisdiction of the court regardless of whether Amoco was partially negligent. The quoted sentence was part of the court's discussion of Amoco's claim for indemnity, which "can be said to 'arise from' the negotiation and signing of the shipbuilding contract." *Id.* The court went on to discuss Amoco's claim for contribution, which necessarily presupposes that Amoco would be found at fault, and to hold it sufficiently related to the contract claim to be within reach of the Illinois long-arm statute. *Id.* The court also held that there was jurisdiction in the cases brought by the French plaintiffs against *Astilleros* because "the negotiation and signing of the contract were critical steps in the chain of events that led to the oil spill," and this reason does not depend on whether Amoco was liable. *Id.* at 917. The court's conclusion contains no suggestion that the holding is conditional: "Since the district court has jurisdiction over both the complaint and cross-claim against *Astilleros*, the default judgments are AFFIRMED." *Id.* at 917. The facts which the court considered in finding personal jurisdiction are that *Astilleros*'s representatives spent two weeks in Chicago intensively negotiating with Amoco, signed the contract for the construction of the AMOCO CADIZ in Chicago, and later returned to Chicago for other meetings related to the contract and to the contracts for other ships; no new evidence contradicts these facts.

*Astilleros* argues that subsequent decisions also require that we reconsider this court's prior judgment because these decisions "reflect an increasingly firm and specific admonition, particularly by the U.S. Supreme Court and the Illinois Supreme Court that, for domestic U.S. purposes, and particularly in the international context, courts should exercise care and restraint in using long-arm statutes to assert in personam jurisdiction over defendants, and especially over defendants residing outside the U.S." *Astilleros* brief at 60. *Astilleros* emphasizes that in *Asahi Metal Industry Co. v. Superior Court*, 480 U.S. 102, 115, 107 S.Ct. 1026, 1033, 94 L.Ed.2d 92 (1987), the Court said, the Federal Government's interest in its foreign relations policies, will be best served by a careful inquiry into the reasonableness of the assertion of jurisdiction in the particular case, and an unwillingness to find the serious burdens on an alien defendant outweighed by minimal interests on the part of the plaintiff or the forum State. See also *Wiles v. Morita Iron Works Co.*, 125 Ill.2d 144, 125 Ill.Dec. 812, 816, 530 N.E.2d 1382, 1386 (1988) (burden of defending in foreign jurisdiction should be primary concern when international defendant is involved).

The subsequent decisions cited by *Astilleros*, including the Illinois Supreme Court decision, address the constitutional due process prong of the jurisdictional question. *Astilleros* has cited no subsequent decision interpreting the Illinois long arm statute, thus calling this court's earlier analysis of that statute into question.

With respect to the due process prong of the jurisdictional question, we do not view the language from *Asahi* quoted above as a new rule in the light of which this court's earlier due process analysis has become clearly erroneous. In *Asahi*, this language referred to one of several factors which the Court relied upon, and the weight which this factor deserves is not apparent. Also, even if foreign relations were a crucial factor in *Asahi*, it is not clear that it would deserve the same weight in this case because of the difference in facts. In *Asahi*, the foreign defendant's only knowledge that its product would be in the forum state came from its knowledge that the product was travelling in the stream of commerce, but Astilleros purposefully and voluntarily entered the forum state in order to conduct business.

It is not clear that the only relevant contacts are Astilleros' contacts with Illinois. This is a suit under the federal admiralty laws. The requirement of minimum contacts is intended to ensure that the sovereign possesses a legitimate claim to assert power over the defendant. *Lisak v. Mercantile Bancorp, Inc.*, 834 F.2d 668, 671 (7th Cir.1987). When the national sovereign is applying national law, the relevant contacts are the contacts between the defendant and the sovereign's nation. "[T]he due process clause requires only that the defendant possess sufficient contacts with the United States." *United Rope Distributors v. Seatrion Marine*, 930 F.2d 532, 534 (7th Cir.1991). Thus, in constitutional terms, the district court could assert jurisdiction over Astilleros based upon the combination of the New York and Illinois contacts. Not only do subsequent due process decisions not make this court's earlier decision clearly erroneous, but they may lend additional support to the decision that the district court could assert jurisdiction.

Finally, Astilleros argues that *Astilleros I* is clearly erroneous because the court "sua sponte, without briefing and without a factual record, pierced the corporate veils of the various Amoco parties (and of six other Amoco subsidiaries who are not parties) in order to find that Astilleros entered into a contract with Standard Oil, an Illinois entity." Astilleros brief at 58 n. 31. This argument is not persuasive because in its opinion finding Amoco partially liable for the oil spill, the district court pierced the corporate veils of the Amoco parties, and there was substantial evidence to support this decision. *In re Oil Spill by the AMOCO CADIZ Off the Coast of France on March 16, 1978*, 1984 American Maritime Cases [hereinafter A.M.C.] 2123, 2173-88, 2194 (N.D.Ill.1984). Furthermore, Astilleros does not argue that the final result of this court's decision was clearly erroneous, and it is not possible to make such a showing. There is no clear precedent applicable to this case which the prior panel ignored or clearly misapplied, and no courts have subsequently criticized or called into doubt the holding. In fact, in *Heil v. Morrison Knudsen Corp.*, 863 F.2d 546, 549 (7th Cir.1988), a case on which Astilleros relies heavily in its discussion of jurisdiction, this court cited the prior panel's decision with approval. The instant case rests on whether the actions against Astilleros can be said to be "arising from" its negotiation of the contract to build the AMOCO CADIZ, and we are not persuaded that it was clearly wrong to hold that the causes of action arose from the discussions between Amoco and Astilleros in Chicago about building the ship.

Although the doctrine of law of the case protects the default judgments in the Illinois cases from review, the New York case has not previously been reviewed by an appellate court. The district court denied Astilleros's motion to dismiss the New York case for lack of personal jurisdiction because Astilleros's representatives engaged in negotiations in New York concerning designs, plans, and specifications which were used for the AMOCO CADIZ. *In re Oil Spill by the AMOCO CADIZ*, 1983 A.M.C. 925, 932-35 (N.D.Ill.1982). Although this panel's prior opinion is not law of the case in the New York action, it has strong precedential value. New York's and Illinois's long-arm statutes are very similar, compare Ill.Rev.Stat. ch. 110, para. 2-209 with N.Y.Civ.Prac.L. & R. § 302(a)(1), and the factual differences between the New York and Illinois cases as to contacts with the forum are relatively small. Although Astilleros disagrees with the district court's finding that there were significant negotiations in New York, there were at least negotiations between Amoco and Astilleros concerning the sisterships of the AMOCO CADIZ, and the plans and designs for those ships which were developed in New York were used for the AMOCO CADIZ. Moreover, vacation of the judgment in the New York case (Order 49) would not benefit Astilleros. Judgment in one of the Illinois cases (Order 50) awarded all the recoveries included in Order 49.

Amoco moved for sanctions against Astilleros for pursuing this appeal after the jurisdictional issue has already been resolved by this court. Sanctions, however, are not appropriate in this case because although Astilleros's claims are "long shots, we do not believe they are the kind of 'objectively groundless legal

arguments' we found sanctionable under Rule 38 in *Hill v. Norfolk and Western Ry. Co.*, 814 F.2d 1192, 1200-03 (7th Cir.1987); nor are they 'entirely groundless' claims that 'the plaintiff knew or should have known [were frivolous] long before trial,' as in *Bugg v. International Union of Allied Indus. Workers of America*, 674 F.2d 595, 600-01 (7th Cir.1982). Further, [Astilleros's] brief does not contain 'blatant misrepresentations' of the facts or the law, as in *Thomas v. Digital Equipment Corp.*, 880 F.2d 1486, 1490-91 (1st Cir.1989); and *Thornton v. Wahl*, 787 F.2d 1151, 1154 (7th Cir.1986)." *Meredith v. Navistar International Transportation Corp.*, 935 F.2d 124, 129 (7th Cir.1991).

#### IV.

Having found that Astilleros is subject to the jurisdiction of American courts, we turn to the question of liability. What caused the steering system to fail and whose fault was it? As one can well imagine, in answering these questions, Judge McGarr braved a task akin to the seven labors of Hercules. Faced with a mountain of evidence, much of it highly technical, the district court did a remarkable job of factfinding. To summarize, it found that the failure of the steering gear system of the AMOCO CADIZ was proximately caused by a number of factors, including Amoco's (specifically, AIOC's) negligence in failing reasonably to perform its obligations to repair and maintain the steering gear, properly train its crew, provide the vessel with a redundant steering system or other means to steer the vessel in the event of a complete failure of the hydraulic system, and fulfill its duty as the party who supervised and approved the design to ensure that the design and construction properly were carried out. *Amoco Cadiz*, 1984 A.M.C. at 2154-61. Contesting jurisdiction, Astilleros chose not to defend itself against the various lawsuits filed by the Amoco parties, the Cotes du Nord parties, and the French claimants. The district court entered default judgments against the shipbuilder. The district court found that Astilleros improperly designed and built the steering gear and pressure relief valves and that the stud and flange assembly did not conform to specification or code requirements. *Id.* at 2162. In particular, the court found that the flange assemblies installed by Astilleros did not meet code requirements for high pressure systems.

Our standard of review is highly deferential. We are bound by the district court's findings of fact unless they are clearly erroneous. See *Anderson v. City of Bessemer City*, 470 U.S. 564, 573-76, 105 S.Ct. 1504, 1511-12, 84 L.Ed.2d 518 (1985); *Insurance Corp. of Ireland, Ltd. v. Board of Trustees of Southern Illinois University and Richard Moy, M.D.*, 937 F.2d 331 (7th Cir.1991); *Riviera v. Benefit Trust Life Ins. Co.*, 921 F.2d 692, 696 (7th Cir.1991); *Fed.R.Civ.P.* 52(a). A finding is "clearly erroneous" when, "although there is evidence to support it, the reviewing court on the entire evidence is left with a definite and firm conviction that a mistake has been made." *United States v. United States Gypsum Co.*, 333 U.S. 364, 395, 68 S.Ct. 525, 542, 92 L.Ed. 746 (1948); see also *E.E.O.C. v. Sears Roebuck & Co.*, 839 F.2d 302, 309 (7th Cir.1988). The clearly erroneous rule applies "even when the district court's findings do not rest on credibility determinations, but are based instead on physical or documentary evidence or inferences from other facts." *Anderson*, 470 U.S. at 574, 105 S.Ct. at 1511- 12; see also *Mucha v. King*, 792 F.2d 602, 605 (7th Cir.1986). In order for us to determine whether the district court's findings of fact are clearly erroneous, we must spend some time examining the arcane workings of the steering systems of "VLCCs"--very large crude carriers.

#### A.

From the beginning, there were mechanical problems with the hydraulic steering system rams and bushings on the AMOCO CADIZ and her sister ships. The rams are pistons; the bushings are the metal linings that protect the rams. The bushings on the four Amoco supertankers were constructed of cast iron, which was much harder than the rams themselves. When dirt particles are present, metal rams become scored, meaning they are marred or scratched because of close contact with something having a "plowing" effect. Ram scoring and defective bushings are especially serious because they contribute to the loss of pump efficiency and impair the reliability of the steering system. Scoring forms projections on the ram's surface, tearing the packing around the "gland," the ram casing. When the packing is torn, its sealing effect is destroyed and oil seeps through. It is good practice to change the packing every two years during drydocking or when a problem arises.

Amoco accepted the AMOCO CADIZ with the cast iron bushings and acknowledged the defect upon delivery. During the AMOCO CADIZ's sea trials in May 1974, an Amoco representative reported to AIOC vice-president Robert Haddow that there were problems with the hydraulic steering gear rams and bushings. Three of the ship's four rams were scored. Subsequent inspections of the tanker revealed that the scoring problem had worsened. Astilleros prepared a list of "Exceptions and Extras Not Completed for the AMOCO CADIZ." One of the items on the list stated, "Present rams are scored and cause rapid packing wear and leak oil excessively, resulting in excessive cleaning and expenditure for replacement oil. Repair satisfactorily or replace." Id. at 2168-69. Astilleros offered to repair or replace the scored rams and even supplied bronze replacement bushings. At the time of the wreck, a spare set of uninstalled bronze bushings was on board. Amoco had taken a cash credit from Astilleros in lieu of repair.

After visiting the ship in Genoa in March 1975, Transport marine engineer Giuseppe Ciaramaglia reported, "The rams were carefully inspected and found worse conditions since last inspection. Namely the four rams are heavily scored in the bottom side and near the bush. Particularly the ram in the position port-fore is in really bad condition and some dressing should be carried out next drydocking." Claimants' Exhibit 424. Although Amoco immediately changed the bushings on two of the AMOCO CADIZ's similarly constructed sister ships, the AMOCO MILFORD HAVEN and the AMOCO EUROPA, it took no action with regard to the AMOCO CADIZ's bushings. Unlike the AMOCO CADIZ, the repaired vessels were not on a time charter.

Robert J. Zimmerman, an AIOC ship superintendent, visited the ship in late January 1976 and inspected the steering gear rams. Zimmerman acknowledged the scoring problem, but recommended a polishing measure in lieu of more permanent repair, which would have required two weeks in drydock. Zimmerman wrote to company officials, "Rams are deeply scored and will continue to cut packing but oil loss cost minimal against extended time required to carry out the replacement of bushings...." Id. at 2169.

The specifications for the 1976 drydocking of the ship in Lisnave, Portugal included changing the ram packing material. Amoco later canceled this item to save time during the overhaul period. No work was performed during the 1976 drydock to polish out the scoring on the existing rams, change the bushings, or repack the glands. Over the next few months up until the grounding, the AMOCO CADIZ suffered leakage from the steering gear rams, the main hydraulic system of the steering gear, the small packing gland at the lower part of the level gauge indicator, and the mechanical seal of the main shaft of both main steering gear pumps at a rate far in excess of that which normally would occur with a properly maintained system. The AMOCO CADIZ was losing seven to twelve liters of hydraulic fluid per day in leakage. The acceptable quantity of leakage should have been no more than a few drops per day.

There were problems with the rudder, too. During trials in Lisbon on May 14, 1974, the rudder stuck in hard starboard position. On June 15, 1974, during maneuvering at Mina al Ahmadi, the rudder again stuck in the hard starboard position. In both cases, it was necessary to stop one of the two running pumps in order to return the rudder to normal position. There were other difficulties with the rudder as well. In port, the AMOCO CADIZ and her sister ships experienced as much as 15 degrees rudder movement when the system was shut down. To prevent the unwanted movement, Amoco ordered that one steering gear pump always be kept running. Amoco hired an independent marine hydraulics expert to investigate the problem, and he recommended that, as a first step in the investigation of the source of the problem, the company should check all valves in the distribution block, including relief valves and their springs. Amoco wrote a specification for the disassembly of the distribution block relief valves and associated repairs for the AMOCO CADIZ and her sister ships. Although the work called for in the specification was performed on the AMOCO MILFORD HAVEN and the AMOCO EUROPA in 1977, the work was not performed on either the AMOCO CADIZ or the AMOCO SINGAPORE, both of which were on time charter to Shell.

Another problem was that the ship's steering gear gravity tank, which held hydraulic fluid used to replenish fluid losses in the system, often would overflow when the starboard gear pump was activated. The overflow prevented the hydraulic steering gear pumps from being changed over every twenty-four hours, as required by the hydraulic system manufacturer in its steering gear manual (the "Manises Steering Gear Manual") and Amoco's own instructions. The system would have had to be shut down in order to locate

the problem. In fall 1977, an Amoco inspector recommended that repairs concerning the overflow be deferred until the next drydocking. The repairs never were done. Also, Amoco failed to renew the leather belts used to drive the evacuation and replenishing pumps of the steering gear after they slipped on two occasions. Such slippage contributes to an imbalance in the system and has been associated with gravity tank overflow.

## **B.**

In addition to--and perhaps contributing to--these mechanical shortcomings, Amoco failed to adhere to manufacturer recommendations regarding proper maintenance of the ship's components. The instructions required that the isolation valves--the operation of which could have stabilized or immobilized the AMOCO CADIZ's rudder on the night of March 16, 1978--be opened, closed, and lubricated periodically to prevent their sticking as a result of being stationary for a long time or from being covered with foreign material. When the cylinder isolation valves were recovered after the wreck, they were found to have paint on the stem threads: they had been painted over with the valves in the open position. Tests performed on the valves showed that they could not be closed completely because of the paint. Had the isolation valves been totally closed when the steering gear failed, the hydraulic fluid in the cylinders could have acted as a "brake" on the rudder.

The manufacturer also recommended that the hydraulic fluid be kept free of contamination for proper operation of the hydraulic system. The Manises Steering Gear Manual stated: "The slightest impurity can bring about great damage on account of the narrowness of the channels in the Nanauer Pittler pumps.... The exact fulfillment of this operating instruction is the condition for a good performance of the pumps." Contamination creates an imbalance between the rate oil is removed from the main system and the rate of replenishment. Further, impurities in the oil cause wear on the internal parts of the main pumps, clogging of the filters, failure of seals, and scoring of the rams. Particulate matter in hydraulic systems acts like a grinding compound between points with close running tolerances. The manufacturer recommended that the shipowner avoid contamination of the hydraulic fluid by using clean oil filters and by filtering the oil through muslin as it is put into the system. The function of the oil filters is to strain the oil entering the system via the replenishing pump. The oil filters must be checked periodically and changed often to make sure they are clean. Checking the filters requires shutting down the system. The Manises Steering Gear Manual suggested a complete oil change after each 1,000 hours of operation for the first three oil changes and after every 3,000 hours thereafter, and periodic cleaning of filters. On each oil change, the tank must be drained in order to be kept free of sludge.

Amoco failed to follow these recommendations. It neither periodically replaced the oil in the hydraulic system of the steering gear with new oil, nor removed, strained, purified, or treated the oil prior to the wreck. The hydraulic fluid in the steering system was not filtered or changed between September 1977 and March 1978, and no steps ever were taken to check for contaminants. The drums containing hydraulic fluid were stored on the open deck. They were not covered over with tarpaulins. When the drums expanded and contracted because of temperature changes, the rainwater, dirt, soot, and sea spray that collected in the recessed drum heads was sucked in around the head of the drum.

In addition, Amoco utilized improper procedures in refilling the gravity replenishment tank, which it had to do more frequently than normal because of the leakage problem. On the AMOCO CADIZ, the gravity tank was not filled with a hand pump-storage tank. Instead, refilling was done in a rudimentary way. Crewmen would climb a ladder and pour a plastic bucket of hydraulic fluid into the tank without filtering. The bucket used to replenish the hydraulic fluid was kept uncovered in the steering gear room, which was dirty and moist. The various steam pipes that ran through the room all leaked. Transport marine engineer Ciaramaglia wrote several memoranda decrying conditions in the steering gear room. In a report describing his visit to the ship in October 1974, he stated that inspection of the rudder carrier bearing was impossible because the steering gear room was full of sea water.

The bucket method of pouring fluid into the gravity tank produced agitation that would cause air bubbles to enter the system. The steering system never was purged to remove entrapped air, a standard "good

housekeeping" measure. Also, the fluid's exposure to air, which naturally contains moisture and contaminants, allowed foreign matter to enter the system. Water contamination decreases the lubricity of hydraulic fluid, which exacerbates the wear on closely moving parts and accelerates the growth of harmful bacteria. What's worse, the gravity tank on board the AMOCO CADIZ never was cleaned.

When the one of the valves of the AMOCO CADIZ--the # 9 valve located in the P loop--was recovered from the wreck and tested by the French National Testing Laboratory, it was found to be partially blocked. A properly functioning # 9 valve would have allowed the fluid level in the gravity tank to drop after rupture of the flange. The hydrocarbons removed from the valve were the sort that might be expected if significant quantities of oil or rubber oxidation residue had existed, clear physical evidence of contamination in the hydraulic fluid.

### C.

The ram scoring, leakage, unwanted rudder movement, and contaminated hydraulic fluid were clear signs of trouble that foreshadowed the breakdown of the steering gear. Apart from these mechanical and maintenance problems, a significant cause of the grounding of the AMOCO CADIZ was that its crew was trained improperly with respect to the maintenance, operation, inspection, and repair of the steering gear system. This lapse in training contributed to the failure of the steering gear system and the inability of the crew to reestablish steering control after the rupture of the De flange studs. The crew was not instructed as to the acceptable level of hydraulic fluid consumption of the steering gear. Amoco never directed the crew to clean the filters or change the hydraulic fluid in the steering gear, as required by the manufacturer's manual. Although it was critical to keep the hydraulic fluid uncontaminated, Amoco never told the crew to take samples of steering gear hydraulic fluid to test for purity. The crew was not instructed to clean out the bottom casing of the steering gear pumps or the sediment in the bottom of the gravity tank. Amoco never advised the AMOCO CADIZ crew of emergency procedures to be followed in the event of a steering gear breakdown, a critical lapse given that such drills could have familiarized the crew with emergency procedures so that they would have acted more decisively in the face of a crisis. Emergency drills also would have provided the perfect opportunity to "dry-run" emergency equipment. The crew did not practice blocking the rudder using the cylinder isolation valve as described in the steering gear manual, or using a two-ram mode of operation.

### V.

Why did these deficiencies occur? The record is replete with references to the fact that it was Amoco's deliberate policy to defer drydocking and repairs in order to minimize the loss of charter hire that would be incurred by taking the ship out of service during the charter period. Item 3 on a January 2, 1976 list of specifications for repairs of outstanding guarantee items contained an order for replacement of existing bushings for steering gear rams. Someone had written on the list the following note: "Take credit and do after charter expires." Following his January 1976 visit to the AMOCO CADIZ, AIOC ship superintendent Robert J. Zimmerman wrote his superiors that Amoco should turn down Astilleros's offer of replacement parts, take a cash credit, and defer repair until after the time charter expired.

In a March 10, 1976, memorandum from Chester J. Bysarovich, head of marine engineering for AIOC and a director of Tankers, to Tankers director Claude D. Phillips, Bysarovich emphasized the importance of keeping the AMOCO CADIZ out of drydock for "obvious reasons": Realizing the importance of minimizing off-hire time, ... we have arranged to meet with Lisnavé personnel at this vessel's discharge port at Genoa to go over the entire specification item by item, for the purpose of properly scheduling and organizing each item of work; and to cancel or accomplish by riding crews these items that are not absolutely necessary so that we can keep the ship's off-hire time down to 8 calendar running days.

Amoco later decided that eight running days would be the limit. Bysarovich telexed the drydocking site: "Amoco is extremely concerned over the possibility that this vessel will be delayed from sailing as scheduled and agreed. This vessel is committed to a charter and any delays could result in a severe

penalty to Amoco." During the 1976 drydocking, Amoco canceled the renewal of bushings and packings because the job would have taken more than fourteen working days of two shifts per day.

In May 1977, Bysarovich wrote Phillips: "The AMOCO SINGAPORE and AMOCO CADIZ are planned for maximum allowable time without drydocking because these two vessels are on time charter." In an August 23, 1977, memorandum, Bysarovich informed Phillips of their 1978 goal: The primary goal for 1978 is to keep the AMOCO CADIZ and the AMOCO SINGAPORE operating without any downtime that would put these two chartered-out vessels offhire. These two vessels will not be scheduled for their drydockings and biennial repair period until the expiration of the charters. This will mean doing various surveys during cargo operations. The charter hire of \$28,000 per day vessel multiplied by the estimated time in the shipyard of 30 days per vessel is equal to \$1,680,000 of incoming money that otherwise would not be realized.

Phillips responded in a handwritten note: "Very good! Hope we can reach this goal."

Amoco tries to confuse matters by arguing that, in finding that AIOC's negligence rendered the AMOCO CADIZ unseaworthy and caused its grounding, the district court improperly applied the admiralty doctrine of unseaworthiness, which imposes strict liability in favor of crew and cargo owners. Amoco points out that the category of individuals protected by this doctrine does not include the plaintiffs in this case. Amoco mischaracterizes the court's holding. Specifically, the court held that "AIOC negligently performed its duty to ensure that the AMOCO CADIZ in general and its steering gear in particular were seaworthy, adequately maintained and in proper repair." Amoco Cadiz, 1984 A.M.C. at 2191. Although the district court did indeed use the word "seaworthy," it was not applying the admiralty doctrine of unseaworthiness. "[L]iability based upon unseaworthiness is wholly distinct from liability based on negligence." *Usner v. Luckenbach Overseas Corp.*, 400 U.S. 494, 498, 91 S.Ct. 514, 517, 27 L.Ed.2d 562 (1971). The unmistakable basis for the district court's decision that AIOC was liable was that its negligence caused the unseaworthy condition of the AMOCO CADIZ. The court stated, "The negligence of AIOC in failing reasonably to perform its obligations of maintenance and repair of the steering gear system was a proximate cause of the breakdown of the system on March 16, 1978, the grounding of the vessel and the resulting pollution damage." *Id.* 1984 A.M.C. at 2192 (emphasis added). The ship's "unseaworthy" condition, then, was the direct result of the failure to exercise reasonable care in the maintenance and operation of the vessel.

Amoco next assails the district court's concept of negligence; specifically, the court's use of the word "ensure." The court stated, "AIOC negligently performed its duty to ensure that the AMOCO CADIZ in general and its steering gear in particular were seaworthy, adequately maintained and in proper repair." *Id.* at 2191. Contrary to Amoco's contention, the district court's use of the word "ensure" did not create a new legal standard beyond the due diligence required of shipowners to take normal and reasonable precautions to make the ship seaworthy, something that Amoco failed to do before the AMOCO CADIZ's last voyage. Cf. *Hercules Carriers, Inc. v. Claimant State of Fla.*, 768 F.2d 1558, 1577 (11th Cir.1985) ("Taken in context, it is obvious that the court was not using the word insure in the sense of requiring [the shipowner] to be an absolute insurer of all acts by its crew, but in the context of 'to make sure' that [its] responsibilities as owner were fulfilled, that is; exercising due diligence to furnish a competent, trained crew, provided with necessary information.").

Amoco also protests that the district court improperly expanded the due diligence requirement to include safeguarding against unknown, latent defects. Amoco contends that, in so doing, the district court overlooked a number of critical factors, such as the fact that Amoco chose a highly reputable shipbuilder and enlisted the expert services of the ABS. According to Amoco, the court also ignored the supertanker's past track record for safe trips and the unforeseeable nature of the steering gear failure. It is apparent to us (though not to Amoco) that the district court both considered and rejected these factors. Astilleros may have been a reputable shipbuilder, but the fact remains that it built the AMOCO CADIZ with certain defects. Fully aware of these deficiencies, Amoco failed to correct them purely for economic advantage. The fact that the ABS repeatedly vouched for the AMOCO CADIZ's seaworthiness does not relieve Amoco of liability either. When a shipowner has prior knowledge of its vessel's defects, certification by a classification society does not establish the seaworthiness of a ship or the lack of negligence on the part of a shipowner. See *Complaint of Ta Chi Navigation (Panama) Corp. S.A.*, 574 F.Supp. 418, 428 (S.D.N.Y.1983);

Navegacion Castro Riva v. The M.S. Nordholm, 178 F.Supp. 736, 741 (E.D.La.1959) ("It has been this Court's experience that classification societies often continue vessels in class long after their highest and best use would be as scrap."), aff'd, 287 F.2d 398 (5th Cir.1961). Amoco's argument that the AMOCO CADIZ performed well during its four-year history with no suggestion of any malfunction that could have led to the steering gear failure on March 16, 1978, completely ignores the scored rams, excessive oil leaks, and unexplained rudder movements--of which Amoco was well aware--that hinted of future trouble.

Faced with the overwhelming amount of evidence establishing its negligence, Amoco tries to get off the hook by spending a great deal of time and energy in this appeal challenging the district court's use of the "Free- Stroke/Torque Reversal" causation theory as an explanation for the failure of the steering mechanism. Amoco contends that the theory is but a highly imaginative by-product of inference piled upon inference as to what might have happened. Parenthetically, the district court rejected as "speculative" and not supported by the evidence Amoco's theory that the disaster was caused by improperly designed relief valves oscillating under pressure, thus producing repeated loads of pressure on the system and subjecting the studs to low cycle fatigue. Amoco Cadiz, 1984 A.M.C. at 2164-65. Cf. The West Arrow, 80 F.2d 853, 856 (2d Cir.1936) ("Neglecting precautions, which might have been taken if the instructions of the manufacturer had been carried out, makes the ship responsible for the resulting damage without clearer proof than was presented here that the accident was caused by a failure of performance which sprang from a latent defect.").

The basic idea of the "Free-Stroke/Torque Reversal" causation theory is that, as a result of Amoco's shoddy maintenance practices, void spaces were present in the steering gear hydraulic system. The presence of these voids effectively impaired the two-sided restraint of the movable parts of the steering gear. A high pressure surge originated with unintended rudder movement induced by wave action and sea forces acting upon the unrestrained rudder. Sea forces caused the movable parts to develop momentum, thereby creating an intense surge of high pressure transmitted through the hydraulic system that generated a force sufficient to break the studs of the De flange. Adopting this theory, the district court concluded that "a wave generated a pressure peak of whatever magnitude sufficient to rupture an underdesigned, below-specification, badly maintained hydraulic steering system." Id. 1984 A.M.C. at 2165.

A significant weakness in the "Free-Stroke/Torque Reversal" theory is that the expert who proposed it believed that it could account for about 330 to 450 bars of pressure on the studs, while metallurgists testified that 800 bars (Munse) and 1,200 bars (Silkiss) would have been required to rupture them.

Assuming, however, that the evidence does not support the conclusion that Amoco negligence caused the rupture, there was adequate evidence that Amoco negligence caused the grounding and ultimate spill by making the crew unable to get the rudder back under control after the rupture occurred. Consider: the studs failed because Astilleros built them improperly--as the district court found. Amoco's part lay in its failure to correct the ensuing leak. Two principal problems led to the inability to get the rudder back under control, to the point where the AMOCO CADIZ could use its engine to assist the PACIFIC. First, there was an inability to close the pressure isolation valve because its threads were painted. Second, there was the crud in the hydraulic oil, which a court could properly determine contributed to the failure of the # 9 valve to supply essential oil to replenish the system so that after isolation the rudder would have been stable. Even this is an iffy sequence. Stabilizing the rudder would have let the tanker assist the tug, but maybe this would not have been enough. Nonetheless, given deferential review, this sequence is adequate to support the district court's judgment. Thus, even without a "Free- Stroke/Torque Reversal" theory to explain the cause of the wreck, the district court's ultimate conclusion that the grounding of the AMOCO CADIZ was caused by the negligence of the Amoco parties and Astilleros was not clearly erroneous.

The evidence establishes that the grounding of the AMOCO CADIZ was a disaster waiting to happen. Amoco was aware of the ship's various problems-- any one of which could have led to the failure of the steering system--yet chose to do nothing. The ship's high pressure hydraulic system needed to be kept fully-charged, free of contamination, and properly maintained. Amoco ignored manufacturers' instructions and failed to maintain the system in a reasonable manner, thus creating a foreseeable risk that the disaster would occur. If that were not enough, the oil giant allowed the AMOCO CADIZ to sail without a backup

means of controlling the rudder in the event of a complete failure of the steering system. Apart from the initial failure of the steering gear system, the failure to train and instruct the crew in emergency procedures and to keep the isolation valves in working order are sufficient to hold Amoco liable for the damages caused by the oil spill. Cf. *Cerro Sales Corp. v. Atlantic Marine Enterprises Inc.*, 403 F.Supp. 562, 567 (S.D.N.Y.1975) (Although equipment functioned properly, ship unseaworthy because crew inadequately trained to handle an emergency.)

## VI.

Moving beyond causation issues, we next address the district court's denial of the Amoco parties' petition asserting a right to limited liability in the event that they were found to be legally responsible for the grounding of the AMOCO CADIZ. The Limitation of Liability Act of 1851 ("the Act") was enacted to protect the American maritime industry by severely limiting shipowners' personal liability. It provides: The liability of the owner of any vessel, whether American or foreign, for any ... loss ... done, occasioned, or incurred, without the privity or knowledge of such owner or owners, shall not ... exceed the amount of value of the interest of such owner in such vessel, and her freight then pending.

46 U.S.C.App. § 183(a). The district court dismissed the petition to limit liability as to AIOC and Standard on the ground that they were not "owners" of the AMOCO CADIZ pursuant to the Act. See *In re Oil Spill by the Amoco Cadiz off the Coast of France on March 16, 1978*, 1979 A.M.C. 1018, 1024 (N.D.Ill.1979). (If the petition had been granted, Amoco's liability would have been limited to \$700,000, the value of the AMOCO CADIZ after sinking.) Amoco argues that the district court incorrectly assumed that only the registered owner of the AMOCO CADIZ, Amoco Transport, could claim ownership status under the Act. Amoco claims that the term "owner" should be interpreted more liberally. Amoco has misstated the basis of the district court's dismissal. The court interpreted the term "owner" under the Limitation of Liability Act to mean "persons whose degree of possessory, managerial, and operational control, and relationship to the titleholder of the vessel justifies the inference of their being 'owners.'" *Amoco Cadiz*, 1979 A.M.C. 1017, 1021 (N.D.Ill.1979). The court found that AIOC and Standard failed to plead sufficient facts to show that they had "the requisite possessory, managerial, and operational control of the AMOCO CADIZ to justify even a preliminary finding that they were 'owners.'" *Id.* at 1024. Instead, they sought to establish ownership status based upon the allegations of the complaints filed in the civil action in which they are defendants. The court rejected this strategy for the reason that, although the complaints "contain language which avers some degree of their ownership of and control over the vessel ... [s]uch allegations are not incontrovertible admissions of indisputable fact." *Id.* at 1023.

What the actual facts reveal is that, pursuant to the Consulting and Chartering Agreements between Amoco Transport and AIOC, the latter was brought in to assist and advise Transport with regard to the maintenance and operation of the ship. Ultimate authority for maintenance and operation of the AMOCO CADIZ, however, remained with Transport alone. In addition, the Consulting Agreement expressly designated AIOC to be an agent of Transport, and not the owner itself. Only Transport had the requisite degree of "possessory, managerial, and operational control" of the AMOCO CADIZ. Thus, dismissal of the petition to limit liability with regard to Standard and AIOC was appropriate.

Despite Amoco's protests to the contrary, it was not contradictory for the district court to deny Standard and AIOC the right to rely upon the Limitation Act on the theory that they were corporate entities legally separate from Amoco Transport and later, in the damages phase of the proceedings, refuse to recognize separateness between Standard and its subsidiaries. In dismissing the limitation petition, the district court held only that there existed "no set of facts which, if proved, would establish the right of [AIOC and Standard] to limit their liability." *Amoco Cadiz*, 1979 A.M.C. at 1021. Liability for damages is another matter completely. The district court determined liability from facts showing that AIOC--the party in charge of the operation, maintenance, and repair of the AMOCO CADIZ and the selection of its crew--shared liability for the negligently designed, maintained, and operated steering gear. Standard--the entity that exercised control over AIOC and Transport and that initially was responsible for the design, construction, operation and management of the AMOCO CADIZ--was liable for its own negligence as well as that of AIOC with respect to the design, operation, maintenance, repair, and crew training of the AMOCO CADIZ.

These two liability determinations do not conflict with the court's decision to deny these parties the benefits of the Act on the ground that they were not "owners." Even if AIOC and Standard were "owners," they cannot prove their freedom from privity or knowledge of the negligence that caused the grounding. The structure of Standard was so highly integrated, each of its subdivisions was a mere instrumentality of the parent corporation.

Unlike Standard or AIOC, Amoco Transport, the registered owner of the AMOCO CADIZ, was found to be an "owner" within the meaning of the Limitation Act. Nevertheless, the district court held that Transport was not entitled to limit its liability because it had "privity" and "knowledge", 46 U.S.C.App. § 183(a), of the negligence that caused the casualty. In limitations proceedings, the ultimate burden of proving lack of privity or knowledge is on the shipowner. See *Coryell v. Phipps*, 317 U.S. 406, 409, 63 S.Ct. 291, 292, 87 L.Ed. 363 (1942) (burden of establishing lack of privity and knowledge is on those who seek the benefit of the Act). Amoco attempts to shift focus away from Transport by arguing that a shipowner has privity or knowledge "only when it actually knows of or participates in creating causal negligence or unseaworthiness or where, in the use of ordinary care, it should have known of such conditions." Consolidated Opening Brief of Amoco Parties at 91 (citations omitted).

Not so. Privity or knowledge is not tantamount to actual knowledge or direct causation. All that is needed to deny limitation is that the shipowner, "by prior action or inaction set[s] into motion a chain of circumstances which may be a contributing cause even though not the immediate or proximate cause of a casualty..." *Tug Ocean Prince, Inc. v. United States*, 584 F.2d 1151, 1158 (2d Cir.1978), cert. denied, 440 U.S. 959, 99 S.Ct. 1499, 59 L.Ed.2d 772 (1979). The recent judicial trend has been to enlarge the scope of activities within the "privity or knowledge" of the shipowner, including imputing to corporations knowledge or privity of lower-level employees, see *Silver Line, Ltd. v. United States (The Silver Palm)*, 94 F.2d 776, 780 (9th Cir.1937); *Complaint of Delphinus Maritima, S.A. Etc.*, 523 F.Supp. 583, 594(S.D.N.Y.1981); requiring shipowners to exercise an ever-increasing degree of supervision and inspection, see *Spencer Kellogg & Sons v. Hicks*, 285 U.S. 502, 511, 52 S.Ct. 450, 452, 76 L.Ed. 903 (1932); imposing a heavy burden on shipowners to prove their lack of privity or knowledge, see *Coryell*, 317 U.S. 406, 63 S.Ct. 291; rendering the shipowner's duty to ensure the seaworthiness of the ship nondelegable, see *Federazione Italiana die Corsorzi Agrari v. Mandask Compania de Vapores, S.A. (The Perama)*, 388 F.2d 434, 439 ("The corporate owner's duty to make the vessel seaworthy, at least to the point of providing it with sufficient integrity to meet the ordinary perils of the sea, is not delegable to anyone."), cert. denied, 393 U.S. 828, 89 S.Ct. 92, 21 L.Ed.2d 99 (1968); and narrowing the group of potential defendants eligible for exoneration under the Act, see *Waterman S.S. Corp. v. Gay Cottons*, 414 F.2d 724, 733-35 (9th Cir.1969). See generally, Van Hanswyk, *The 1984 Protocols to the International Convention on Civil Liability for Oil Pollution Damages and the International Fund for Compensation for Oil Pollution Damages: An Option for Needed Reform in United States Law*, 22 *Int'l Lawyer* 319, 332 (1988).

Transport was not entitled to limit its liability pursuant to the Act because it did not meet its burden of proving its lack of privity or knowledge of the negligence that led to the ship's grounding. Although AIOC's employees might have been directly responsible for the negligent maintenance of the AMOCO CADIZ and the failure to train the crew properly, their knowledge of the defects in maintenance and training was attributable to Transport, which had a non-delegable duty to ensure a seaworthy vessel and a duty to control and supervise AIOC, its agent. See *Federazione Italiana dei Cors*, 388 F.2d at 439; *Cerro Sales Corp.*, 403 F.Supp. 562 at 567 (owner cannot escape liability by delegating managerial duties).

Two of the AMOCO CADIZ's inspectors were Transport employees, thus Transport was well aware of the problems with ram scoring, leakage, hydraulic fuel contamination, unwanted rudder movement, and negligent maintenance. Transport's own ship inspectors included descriptions of the AMOCO CADIZ's problems in written reports sent to company offices in Bermuda. Instead of seeing to it that essential repairs were made, Transport employees charged with that responsibility kept the vessel out of drydock in order to squeeze more profit out of the time charter. "Neglect to take adequate precautions after a faulty condition has been revealed by a misadventure, or made known by a warning, has been held to amount to privity, if indeed it does not amount to knowledge." *Benedict on Admiralty* § 5.19 (1990).

## VII.

The trial on damages lasted longer than the trial on the merits. More than a year of trial time was spread over about three years--some before Judge McGarr left the bench, some after. Two principal damages opinions span 575 pages, and there were many supplemental opinions and orders. About a dozen issues remain in dispute. Here are the principal rulings still in contention:

- Amoco and Astilleros are jointly and severally liable for all compensable losses, without reduction for the fault attributed to other parties such as Bugsier and the ABS.
- Damages compensate for all proven physical loss but not for diversion of business to other resorts.
- Governmental bodies recover not only for the marginal costs of cleaning up the oil but also for salaries of persons who would have been employed in any event, but they do not recover the costs of operating ships and planes to the extent these costs would have been incurred in the absence of the spill.
- Private businesses recover through trade associations. Prejudgment interest is awarded at the postjudgment rate.
- The shippers recover the value of the oil in pounds sterling, after allowance for shrinkage, and without compound prejudgment interest.

We begin with Amoco's principal argument: that extensive use of hearsay entitles it to a new trial.

### A.

During the damages trial the district court admitted a great deal of evidence it characterized as hearsay. It did so because it thought that if the rule were to be applied the trial would be too cumbersome. Yet the hearsay rule applies in all trials-- jury and bench, big and small. Fed.R.Evid. 101, 1101; *Walton v. United Consumers Club, Inc.*, 786 F.2d 303, 313 (7th Cir.1986). A defendant faced with a single \$200 million claim is no less entitled to the protection of the rule than is a person defending against 200 claims for \$1 million each, or 2,000 claims for \$100,000. See, e.g., *UNR Industries, Inc. v. Continental Casualty Co.*, 942 F.2d 1101, 1107 (7th Cir.1991) (enforcing the rules of evidence in a multi-million dollar case with approximately 100,000 claimants).

The district court recognized that some of the hearsay was unreliable. It compensated by reducing many claims substantially, an average of 35% for the French State and more for the communes. Rough and ready adjustments may be too little to protect the defendants or too great, undercompensating the plaintiffs. (None of the plaintiffs has challenged the reductions on appeal, however.) The Federal Rules of Evidence are statutes, and district judges may not disregard statutes no matter how inconvenient or cumbersome they believe the rules to be. Unless the Rules of Evidence are unconstitutional (which no one suggests), they are to be followed.

Judge McGarr stated that he admitted hearsay because "plaintiffs had no other feasible way to present a case for damages". Extensive hearsay may be the only way to prove damages if the court must tote up claims, one meter of beach and one commune at a time. Amoco resisted every bill to the last sou, as was its right. An alternative way to proceed would have been to sample the claims of loss, to prove them with admissible evidence and extrapolate from the sample to the Brittany coast as a whole. Apparently the parties never suggested sampling, even though the Manual for Complex Litigation § 21.484 (2d ed. 1985), recommends it, and many opinions, including our own *UNR Industries*, 942 F.2d at 1107, and *Evans v. Evanston*, 941 F.2d 473, 476-77 (7th Cir.1991), approve the procedure. In a case bristling with expert witnesses, it could not have been too difficult to add a few statisticians. Indeed, as experts may rely on hearsay, Fed.R.Evid. 703, the use of sampling techniques could have compressed the trial and eliminated much of the evidentiary problem at the same time. Alternatively the court could have inquired how much it would have cost to clean up and restore the coastline using prudent methods and awarded that sum as damages, without regard to the actual cost. If the plaintiffs used inefficient methods, they would have

borne the loss; if they were thrifty, they could have kept the surplus. This, too, would have shortened the trial and avoided the hearsay problem. Alas, the parties suggested none of these approaches. This condemned the judge to a morass of detail, including the documents that Amoco contends are hearsay.

Amoco's briefs identify 1,236 exhibits to which timely hearsay objections were raised and overruled. There may be more, but we address only these. Our review of the record supports Amoco's position that many of these documents were hearsay. Amoco contends, without contradiction from the plaintiffs, that the hearsay exhibits underlie approximately 300 million francs of the damages award. Here is the number of documents by the party offering the exhibit:

Party offering exhibit	Number	Percent of total
Cotes du Nord Parties	998	80.744
Communes' records	843	68.204
Docs. used by experts	87	7.039
Departments' records	34	2.751
Maps, postcards, photos	32	2.589
Doc. used in cross-x	1	0.081
Unknown	1	0.081
France	192	15.534
Private Businesses	36	2.913
Amoco	10	0.809

As this table shows, the communes' records are the lion's share of those objected to. France does not maintain the distinction among national, state, and local governments that a federal republic such as Germany or the United States recognizes. The Cotes du Nord, a departement of France and part of the national government, administers governmental functions in a territory equivalent to a state; communes are local subdivisions of the departement. We follow the practice of the parties in treating the communes, the Cotes du Nord, and the Republic of France as if they were distinct entities after the American fashion.

Each commune presented a patterned set of documents: an introduction to the commune (to which Amoco did not object), followed by expense forms dealing with the costs of communal employees, requisitioned staff, food, and other costs entailed in the cleanup. Most of the expense records appear on official forms (Bordereau de Mandat, or memorandum of authority to spend) bearing the communal seal and are accompanied by time sheets, bills, receipts, or similar documentation.

We picked the commune of Plougrescant for close examination because its award, approximately 2 million francs before interest, is substantial--more than most but less than seven others (Perros-Guirec, at 3.94 million francs, received the largest award among the communes). A sampling of documents from other communes shows that Plougrescant is representative. The following table reports the Cotes du Nord exhibit numbers, the nature of the claim, the amount requested, and the amount awarded. Plougrescant is an agricultural area with 14 kilometers of coastline (20 km including adjacent islands). After the coast was cleared of oil, it had to be reconstructed to prevent erosion; moreover, the narrow roads in the area were unsuited to the huge equipment that used them to reach the coast and take away oil-bearing rocks and sand, requiring renovation. The costs of coastline reconstruction and road repair are the largest items of expense.

Exhibit No.	Nature of documents	Claim	Allowed
8286	Introduction to commune: Maps, before-and-after pictures of coast	-	-

8287	Overtime pay for local employees: Bordereau de Mandat plus explanation (see also CdN 8291)	104,908	-
8288	Payments to requisitioned staff: Mandat plus vouchers and explanation	12,441	10,396
8289	Statement of time spent by volunteers	-	-
8290	Food served to army and volunteers: Mandat plus explanation by supplier and day	33,757	33,757
8291	Services performed by local employees: official statement plus explanation (no specific monetary claim; award includes overtime from CdN 8287)	-	65,000
8292	Services performed by Mayor and deputies: official statement plus explanation	160,000	160,000
8293	Distances traveled to perform services, by employee: Three official forms, plus separate sheets bearing official seal (no specific monetary claim; summary at CdN 11024-A implies listed figure)	5,031	-
8294	Vehicle repairs: Mandat plus bills	23,177	23,177
8295	Equipment purchased: Mandat plus bill	6,050	6,050
8296	Depreciation on communal equipment attributable to saltwater corrosion: Paper with official seal showing number of days' exposure (no specific monetary claim)		
8297	Rental value of local buildings taken over for use in cleanup: Certificates dated 1985 of 94 days' occupancy in 1978, bearing local seal (no specific monetary claim)		
8298	Building repairs: Mandat plus bill	2,933	2,933
8299	Road maps	-	-
8300-04	Road repairs: Mandats, bills, estimates of work still to be done as of 1984		
8306-10	Coastline restoration: Mandats, official statements with seal, printouts showing vendors, and bills		
8312	Lost revenue from reduction in license fees		
8313	Payments to victims: Mandats authorizing municipal payments between Fr. 200 and Fr. 1,000 to identified recipients	17,200	0
8314	Miscellaneous expenses: Mandats showing telephone, travel, and other charges	16,999	12,000
Misc.	Economic losses, moral damages, and related matters (supported by expert testimony discussed later)	5,438,-	0
Total		***	***

These documents fit the definition of hearsay (out of court statements offered for the truth of the matter stated). But Amoco was not without resource when it came to questioning their accuracy and meaning: Marcel Lavanant, a deputy mayor of Plougrescant at the time of the spill, testified to the nature and meaning of these claims and was effectively cross-examined. The district court dramatically cut down the claims for road repairs and coastline restoration after concluding that several things other than the spill from the AMOCO CADIZ contributed to the need to make these expenses. The pattern for Plougrescant was repeated many times: one witness presented a raft of documents, and Amoco made good use of the opportunity to show that the charges were exaggerated or misattributed.

Although these documents were offered for their truth, whether they were inadmissible as hearsay depends on the many exceptions to the hearsay rule. In particular, Fed.R.Evid. 803(8) permits a court to receive "Records, reports, statements, or data compilations, in any form, of public offices or agencies, setting forth

(A) the activities of the office or agency, or (B) matters observed pursuant to duty imposed by law as to which matters there was a duty to report...." Most of the documents submitted by Plougrescant fit Rule 803(8)(A) or (B); some come within both. The mandates are official expense records that the commune maintained independently of the litigation. Although some supplementary documents (e.g., CdN 8293, 8297) were prepared especially for use in this litigation, they remain reports of public activities. The public-document exception to the hearsay rule does not contain the requirement of the business records exception (Rule 803(6)) that the documents be kept in the course of a regularly conducted activity. Because these documents come within both letter and spirit of Rule 803(8) (founded as it is on a belief that public employees are generally reliable), we conclude that they were admissible.

Some of the documents offered by communes other than Plougrescant are not admissible under Rule 803(8). For example, CdN 8034, offered by Le Roche Derrien, is a handwritten list of numbers. None of these inadmissible documents appears to be responsible for any substantial part of the award; all are swamped by the cuts the district court made in the claims supported by admissible evidence.

We recognize that some courts treat Rule 803(8) as avoiding only the first-level hearsay problem--that is, as excusing the presence of the documents' authors. If the statements would be hearsay even were the author present in court, then Rule 803(8) does not apply, on this view. See *United States v. Chu Kong Yin*, 935 F.2d 990, 999 (9th Cir.1991). Contra, *Moss v. Ole South Real Estate, Inc.*, 933 F.2d 1300, 1309-10 (5th Cir.1991). Nothing in either the text or the history of Rule 803(8) supports an approach that would make the rule essentially useless--for the bureaucrat who fills out a governmental form usually incorporates information furnished by others. Rule 803(8) has a long common law history behind it, including cases such as *Chesapeake & Delaware Canal Co. v. United States*, 250 U.S. 123, 39 S.Ct. 407, 63 L.Ed. 889 (1919), that allow the introduction of governmental receipt and disbursement records of the sort the communes (and other governmental parties) presented. The Advisory Committee's notes endorse cases of this kind, and this subsection of Rule 803 was enacted without change or comment by Congress. Courts that treat Rule 803(8) as limited to the first-level hearsay problem rely on a negative implication of Rule 805, which says that "[h]earsay included within hearsay is not excluded ... if each part of the combined statements conforms with an exception to the hearsay rule provided in these rules." Rule 805 does not say (or even imply) that none of the other exceptions deals with more than a single level. Rule 803(8) is a multi-level exception, in the footsteps of its common law precursors.

This conclusion implies that the 34 documents offered as records of the Cotes du Nord itself were properly admitted. The 32 maps, postcards, and photographs were inadmissible on this theory (and the plaintiffs offer no other for them), but Amoco does not attribute any injury to their presence. So too with the one document used in cross-examination and the one with an unknown use. Of the other documents offered by the Cotes du Nord parties, only the 87 used by expert witnesses remain for discussion. These are not independently admissible--but then experts' opinions need not depend on the admissibility of the evidence they use. Fed.R.Evid. 703. The question is whether the data are "of a type reasonably relied upon by experts in the particular field". Amoco's brief does not explain why these documents fall outside Rule 703. We have examined a sample of them and find that they are the sort of documents reasonably used by these experts.

Although France itself introduced fewer documents than did the Cotes du Nord parties, many of its exhibits are summaries of hundreds, even thousands, of claims, and the award to France is more than four times the award to all of the Cotes du Nord parties combined. France offered two principal categories of documents. (1) France established a program for reimbursing persons (such as oyster farmers) injured by the oil. It furnished these persons with forms to complete. One exhibit summarizes these forms; the head of the governmental body that supervised the oyster destruction program testified about the scope of the program and the way in which these forms were completed and compiled; two oyster farmers also testified at trial to facilitate understanding of the claims. (2) France collected documents showing the number of hours its own employees devoted to cleaning up the mess and presented these through summary exhibits. Public officials testified to the manner in which these documents were created and the significance they had. There are other kinds of documents among France's exhibits (some, for example, reflect negotiations

between France and the United Kingdom concerning reimbursement for British help in the cleanup, and some are intra-government memos), but none of these poses significant independent problems.

So far as we can tell, all of the French exhibits are--or, what is the same thing, summarize, see *AMPAT/Midwest, Inc. v. Illinois Tool Works Inc.*, 896 F.2d 1035, 1045 (7th Cir.1990)--documents generated or collected by the national government in the course of its public functions. They are admissible under Rule 803(8). Admissibility need not imply utility, and Amoco insists that the trial was unfair even if the documents were technically admissible. France established by these documents that it incurred particular obligations or paid specified claims. Whether the charges reflected in these documents are attributable to the spill from the AMOCO CADIZ is a distinct question. France addressed that subject with live testimony from public officials (admirals, ministers, and the like), who Amoco was free to cross-examine. Amoco had, moreover, many other ways to test the connection between the exhibits and the spill. Amoco had representatives on the scene monitoring the cleanup from the start; its insurer took part in many of the early decisions concerning the nature and scope of operations. For years after the spill, Amoco sent personnel to Brittany to assess the measures being taken and the residual harm. The assistance of these persons, coupled with Amoco's ability to cross-examine the plaintiffs' many witnesses, allowed Amoco to investigate causal questions on which the documents were not illuminating. The district court's procedure, taken as a whole, was calculated to protect Amoco's interests--indeed, the extensive percentage reductions may have done so at the expense of the legitimate interests of the plaintiffs.

Other sources also helped the district court assess the significance of the documents. France provided most of the documents underlying its exhibits to Amoco before trial. Touche Ross & Co. reviewed the documents on behalf of Amoco. It concluded that 72% of France's claims were actually and reasonably incurred in response to the spill and were adequately supported. Touche Ross found that France proved expenses of some 316 million francs, about 40 million francs more than the district court awarded to France in damages.

We arrive at the documents concerning the private parties' claims. Rule 803(8) does not support the admission of these documents, and neither does Rule 803(6), the business records exception to the hearsay rule. Few of these documents were prepared or maintained in the regular course of business. See *United States v. Ramsey*, 785 F.2d 184, 192-93 (7th Cir.1986). Yet this is of no concern if the authors of the documents appeared as witnesses, providing the same information orally. The Beganton Parties, comprising many of the private claimants, filed a brief asserting that all of the private claimants in question appeared personally. Amoco's reply brief does not mention this, and we treat the subject as waived. The upshot is that the use of documentary evidence does not invalidate any portion of the damages awarded in this case.

## **B.**

After the AMOCO CADIZ ran aground, the French Navy served Amoco with a *mise en demeure*--official demand to remove the oil or accept responsibility for it. An *arrete* to similar effect was served by the Maritime Prefect for the Cotes du Nord. Amoco answered through its insurance representative that it could not undertake the cleanup: "The owner will not be able to provide the personnel or equipment to clean up a spill of this size. Thus on behalf of the owner I ask the French Government to commence the clean up.... [R]easonable costs for reasonable actions agreed by owners and Government will be accepted by owners." The French State invoked PLAN POLMAR, its contingency plan for an accident of this kind. The Navy, the Army, local officials, and private parties set to work. Amoco lent no aid but did consult with the persons in charge.

Needless to say, the parties have not agreed on what "reasonable costs" for the work are. France subscribes to the International Convention on Civil Liability for Oil Pollution Damage, signed in Brussels in November 1969 and implemented by French domestic law in 1975. This Civil Liability Convention establishes a form of absolute liability but also sets a cap on recovery. At the time the AMOCO CADIZ sank, the cap was 77 million francs (approximately \$16 million at the rate of exchange in 1978). The message from Amoco's representative volunteering to pay reasonable costs also referred to the maximum

set by the Civil Liability Convention. In April 1978 Amoco paid 77 million francs to create a fund under the terms of that Convention, transferring control to the Commercial Court of Brest. This fund remains unclaimed. France and the other plaintiffs disdained their remedies under the Civil Liability Convention in favor of these suits in the United States, invoking Article 1382 of the French Civil Code, which provides: "Every act of a man which causes injury to another obliges the one by whose fault it occurred to give redress." (The parties agree on the accuracy of this and other translations from the French.)

Amoco denies that it was at "fault," a subject we covered in Part V. It also invokes the principle of *gratuite des services publics*, known in the United States as the "free public services doctrine." In both nations, courts decline to require tortfeasors to compensate the government for the cost of services (such as police protection or firefighting) that a public body supplies. See *Chausson v. Prefect of Valice* (Cour de Cassation Jan. 9, 1866); *X v. Bouches-du-Rhone Firefighting Service*, No. 87-10.359 (Cour de Cassation Jan. 10, 1990); *District of Columbia v. Air Florida, Inc.*, 750 F.2d 1077, 1079-80 (D.C.Cir.1984); *Flagstaff v. Atchison, Topeka & Santa Fe Ry.*, 719 F.2d 322 (9th Cir.1983). There is at least one dissenting voice in France; recently the Tribunal de Grande Instance de Cherbourg ordered the owner of a vessel that ran aground in 1987 to compensate the French State for the costs of cleaning up oil under PLAN POLMAR. Case No. 511/88 (Sept. 3, 1990). This order may depend on a statute enacted in 1983. At all events, this judgment has not yet been reviewed, and it is prudent to assume that the principle of *gratuite des services publics* remains the law of France. The district judge asserted that French courts would not apply this principle in big cases, but we do not believe that the law of France varies with the stakes of the case or the wealth of the litigants. Here, as in every other instance, we reject categorically the proposition that rules of law do not govern cases in which injuries are large or pockets deep.

The plaintiffs offer two principal responses to the principle of *gratuite des services publics*. One is that the French State may recover damages for injury to its proprietary interests. The oil spilled in its territorial waters and fouled the coast, which is national property up to the line of the extreme highest tide. The bulk of the expenses were incurred in protecting and restoring public property. Amoco concedes that France is entitled to compensation for such costs but protests that the plaintiffs failed adequately to separate the costs of protecting proprietary interests from other expenses, and that at all events this rationale does not support an award to the Cotes du Nord parties, which do not own the water and coast. The first point is true but may not matter; the latter point is dubious. The Cotes du Nord parties spent to protect their own property inland of the high water mark. (Recall that the award to Plougrescant, discussed in Part VII.A, was principally justified by the need to reconstruct the coastline to prevent erosion and to rebuild public roads damaged in the process.) Moreover, departements such as the Cotes du Nord and Finistere are part of a unitary government in France; it may not be useful to separate property of the French State from property of the Cotes du Nord parties for this purpose.

Let us suppose that the sovereign's entitlement to compensation for the costs of protecting and restoring public property is insufficient to support the entire award. This takes us to the plaintiffs' second main response to the principle of *gratuite des services publics*. This principle governs only when the legislature has been silent. The United States has reversed the rule in oil pollution cases by § 311 of the Federal Water Pollution Control Act of 1972, 33 U.S.C. § 1321(f)(1). Cf. *Independent Petrochemical Corp. v. Aetna Casualty & Surety Co.*, 944 F.2d 940 (D.C.Cir.1991) (discussing damages for public cleanups under other statutes). The plaintiffs submit that France has done likewise by Article 16 of the Law of July 7, 1976. This national statute provides: In the event of a failure or accident at sea occurring to any ship, aircraft, rig or platform transporting or having on board harmful, dangerous substances or oil, and capable of causing serious and imminent danger likely to impair the coastline or allied interests as defined in article II-4 of the Brussels Convention of 29 November 1969 on intervention on the high seas in the event of an accident leading to or capable of leading to oil pollution, the owner of the said ship, aircraft, rig or platform may be served notice to take any and all measures necessary to bring an end to such dangers. In the event this notice has no effect or does not produce the effect expected within the deadline set forth or automatically in the event of an emergency, the State may order the necessary measures to be carried out at the expense of the owner or may collect an amount equal to the cost thereof from the said owner.

The parties disagree profoundly about the meaning of this statute. The plaintiffs maintain that if an "accident at sea"--the malfunction of the AMOCO CADIZ's steering gear and the grounding occurred "at sea"--releases oil, then the French State may undertake (and charge for) any "necessary measures" on both land and sea. Amoco insists that the statute authorizes only measures that themselves occur "at sea", that the statute authorizes only actions within the scope of "article II-4 of the Brussels Convention of 29 November 1969 on intervention on the high seas", and that at all events the statute authorizes collection only from "the owner", Amoco Transport.

Amoco's submission that France should have sued Amoco Transport raises a subject we considered in Part VI. For purposes of this case, Amoco Corporation and its marine subsidiaries are a single entity. Amoco's other points merge into the contention that Art. 16 of the Law of July 7, 1976, does nothing more than implement a second convention signed in Brussels in November 1969. The Civil Liability Convention, Amoco submits, covers injury caused by oil that reaches shore. The other convention, the International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, permits nations to act outside their territorial waters when they fear that oil released in international waters poses a danger to territorial waters. If Article 16 is, as Amoco contends, nothing more than domestic implementation of this second Brussels convention of November 1969, it does not authorize awards for oil that drifts ashore.

Both sides invoke the "plain meaning" of Article 16. Whatever meaning the Article has is not "plain". Meaning depends on what the phrase "as defined in article II-4 of the Brussels Convention of 29 November 1969 on intervention on the high seas in the event of an accident leading to or capable of leading to oil pollution" is doing in this statute. Amoco believes that this phrase links the scope of the statute to the Intervention on the High Seas Convention. It proffers legislative history showing, among other things, that Report No. 2374 in the French National Assembly on the pending bill (projet de loi) confirms that this language refers to the "Brussels Convention, of November 29, 1969 on the intervention on the high seas in the event of an accident leading to or possibly leading to oil pollution, and not to the other Brussels Convention of the same date, which deals with private law, on the civil liability of the shipowners." Plaintiffs concede that the reference in the statute to the Brussels Convention is to the Intervention on the High Seas Convention but respond that this reference is included only to define the term "allied interests". On this reading, the first paragraph of Article 16 would be punctuated: "In the event of a failure or accident at sea occurring to any ship ... transporting or having on board ... oil, and capable of causing serious and imminent danger likely to impair the coastline or allied interests (as defined in article II-4 of the Brussels Convention of 29 November 1969 on intervention on the high seas in the event of an accident leading to or capable of leading to oil pollution), the owner of the said ship ... may be served notice to take any and all measures necessary to bring an end to such dangers."

Each side presented an expert of the highest skill and repute supporting its interpretation. Two considerations lead us to believe that the interpretation favored by the French State is plausible. First, Article 16 refers to Article II-4 of the Intervention on the High Seas Convention, not to the entire convention, and Article II-4 defines the term "related interests". Second, France acceded to the Intervention on the High Seas Convention by Law No. 71-1002 of December 16, 1971. *Journal Officiel de la Republique Francaise* 12323 (Dec. 17, 1971). The Law of July 7, 1976, is redundant if designed to serve only the function Amoco attributes to it.

If all of the litigants were private parties, we would need to decide whether this understanding of the law is correct. But the Republic of France appears in this court and assures us that Article 16 applies to oil that reaches shore. The French State has taken this position since the moment it served the *mise en demeure* in 1978, and it has reiterated the view in domestic disputes. The French State sought and obtained recovery under Art. 16 (as amended in 1983) in Case No. 511/88 (Tribunal de Grande Instance de Cherbourg, Sept. 3, 1990), in which the ship that released oil was flying the French flag. A court of the United States owes substantial deference to the construction France places on its domestic law. Courts of this nation routinely accept plausible constructions of laws by the agencies charged with administering them. *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837, 104 S.Ct. 2778, 81 L.Ed.2d 694 (1984). See also Scalia, *Judicial Deference to Administrative Interpretations of Law*, 1989 *Duke L.J.* 511. That the interpretation may occur in (or in anticipation of) litigation does not authorize the

court to disregard the agency's conclusions. See *Japan Whaling Ass'n v. American Cetacean Society*, 478 U.S. 221, 233, 241, 106 S.Ct. 2860, 2867, 2871, 92 L.Ed.2d 166 (1986) (deferring to an executive construction that had been adopted during the litigation and was first proffered by affidavit); cf. *Frisby v. Schultz*, 487 U.S. 474, 483, 108 S.Ct. 2495, 2501, 101 L.Ed.2d 420 (1988) (accepting the construction of local law advanced by the city's lawyer rather than the reading adopted by this court). Giving the conclusions of a sovereign nation less respect than those of an administrative agency is unacceptable. Cf. *Eakin v. Continental Illinois National Bank*, 875F.2d 114, 117 (7th Cir.1989); *Huggins v. Isenbarger*, 798 F.2d 203, 207-10 (7th Cir.1986) (concurring opinion). We conclude that Article 16 suffices to plug any gaps in the plaintiffs' claims as proprietors of the waters and coastline, and thus to authorize an award for the costs public agencies incurred in responding to the spill.

### C.

The French military took charge of the cleanup under PLAN POLMAR. More than 40 vessels, with 4,100 sailors, devoted some 600 sea days to the task; naval aircraft spent 520 hours in the air; 40,000 men from the Army led the effort ashore. Employees of the communes and the Cotes du Nord itself devoted many days to the task. The French State and the Cotes du Nord parties requested compensation for the salaries of these personnel and the costs of operating their equipment.

The district court seems to have handled these requests inconsistently. It awarded the plaintiffs the salaries of all employees devoted to the cleanup, despite Amoco's protest that the plaintiffs would have incurred the same costs had there been no spill. The court awarded the French State only the incremental cost of operating vessels and planes; it declined to award the expenses France would have borne had the equipment been operated in a normal way. The plaintiffs received approximately 30.5 million francs for personnel and operation of equipment; the district court excluded 3.5 million francs as the operational cost that would have been borne had there been no accident. Each side appeals from the adverse portion of this decision.

Our question is one of French law, once more under Article 1382 of the Civil Code. Does that law allow the victim of a wrong to recover as damages costs of salaries for employees devoted to the cure and other expenses that the victim would have borne in any event ("committed costs")? There can be no doubt that if France had hired the British Navy to clean up the coast, it could recover from Amoco the payments to the United Kingdom--even though the United Kingdom would have maintained its ships and paid its sailors anyway. So too Britain could recover if in the future it should hire the French Navy to aid in spills on the British side of the English Channel. Any victim of a tort must decide whether to deal with the injury by hiring assistance in the market or by devoting its own resources (including the time of its employees) to the subject. The problem is no different in principle from IBM's decision to make its own memory chips rather than to buy them from Texas Instruments. Internal production is costly--the cost is the opportunity given up (such as the option to sell the chips in the market, or to release the time of its employees for other tasks).

Two cases interpret the Civil Code to allow instrumentalities of the French State to recover the costs of salaries paid to employees who repair injuries done by a negligent person. In one case the Cour de Cassation allowed the French Electricity Board to recover the wages of employees who repaired electrical lines that had been damaged by a negligent pilot. *Electricite de France v. Malfray*, No. 75-10.519 (Cour de Cassation, June 23, 1976). In another the Court of Appeal awarded the French Telecommunications Administration the salaries and equipment costs incurred in monitoring the telephone lines of a person who fraudulently obtained service. *France Telecom v. Demange*, No. 1815/88 (Cour d'Appel de Montpellier, Dec. 5, 1988). Amoco seeks to distinguish these decisions on the ground that they involve commercial operations of the government, but it is not easy to see why this should matter. Underlying Amoco's submission is the principle, well established in French law, that a victim of a tort may not make a profit on the transaction. Compensation for committed costs, on Amoco's view, is a forbidden profit, a position that does not distinguish commercial operations of the government from other operations.

One could say--Amoco's economic expert witness did say--that there is a difference between proprietary and strictly governmental operations because the proprietary arms of the government have other things to

do. If the workers of the Electricity Board were not repairing the lines damaged by the plane, they could be constructing new lines; if the staff of the phone company were not tracing a freeloader's calls, they could be hooking up new phones. But if the sailors of the French Navy were not skimming oil, what would they be doing? Invading some neighbor? On this view governmental operations are different because the opportunity costs of their employees and equipment are zero. If they were not being used in the cleanup, they would have no productive use at all.

Some of the military personnel--for example, civil engineers--had clear alternative uses. Employees of the communes presumably were delivering local services, which were interrupted to free up staff for the cleanup. Military personnel deter misconduct (terrorism as well as aggression) during peacetime, and their ability to do this is diminished if their time is consumed by other pursuits. Too, we must reckon with the possibility that the risk of oil spills induced the French State to maintain larger forces than it needed for strictly military purposes. A navy has many uses: not only offense and defense but also clearing channels for civilian vessels, the rescue of vessels in storms, and removing oil from the waters. When deciding whether to have 60 ships or only 55, France may take into account these non-military uses. In the short run--given that the AMOCO CADIZ is spilling oil--the costs of the ships and sailors are committed. Costs fixed in the short run may be variable in the longer run, and this longer run is the one that matters.

Consider the parallel to Bugsier, which operated the PACIFIC and a fleet of other tugs around the world.

Once the AMOCO CADIZ's steering failed, the PACIFIC could attempt rescue at close to zero marginal cost. It would not follow that, had the rescue succeeded, Bugsier would be entitled to no more than the cost of oil burned in running the tug's engines harder. Assets such as the PACIFIC must be purchased and maintained on station at substantial "committed" cost, and compensation in the event they prevent a wreck must cover the entire committed cost--not only the salaries and other expenses during the rescue, but also the costs of keeping the tug on station during times of calm. France and the communes requested and received only the expense of salaries and equipment during the cleanup; they did not seek the costs of holding men and materiel at the ready. Under French law, they are entitled to this much. On the French State's appeal, we instruct the district court to add 3.5 million francs to the award. (This addition is as of 1978, with interest to be computed according to our subsequent discussion.)

#### D.

The American Bureau of Shipping (ABS) certified that the AMOCO CADIZ was properly designed and constructed. Every year the ABS re-certified the AMOCO CADIZ as seaworthy. Amoco believes that the ABS accordingly bears some of the responsibility for the loss; so do the Cotes du Nord parties, which sued the ABS and settled their claims against it. After settling with the Cotes du Nord parties, the ABS paid the French State for a release in advance of litigation. The district court deducted from the judgment against Amoco the amounts the plaintiffs have received from the ABS.

Amoco is dissatisfied with this approach and wants either contribution from the ABS or a reduction in the plaintiffs' claims by the amount of the ABS's responsibility. It cannot have the former in this action, for the ABS is not a party. Amoco's suit seeking contribution from the ABS remains on the district court's docket. (We express no opinion on the question whether Amoco ultimately will be entitled to contribution.) Far better, from Amoco's perspective, would be a decision that it is not liable at all for that portion of the loss reflecting the ABS's share of the fault. A reduction in the allowable claims would eliminate Amoco's risk that it will lose the litigation against the ABS (or be unable to collect any judgment it receives); it also would reduce the headaches Amoco will confront as it tries to enforce its judgment for indemnity from Astilleros. Such a reduction is appropriate, Amoco submits, because the plaintiffs settled their claims against the ABS on terms satisfactory to themselves. Amoco asks: if the ABS bears 20% of the fault and the plaintiffs settled for 10 centimes on the franc for that share of the damages, why should they be able to collect the other 90 from Amoco? According to Amoco, maritime law enforces a general comparative fault approach under which each party is responsible only for its own share. It relies on *Leger v. Drilling Well Control, Inc.*, 592 F.2d 1246 (5th Cir.1979).

All parties cast the question as one of American maritime law without explaining why. Contribution and comparative fault usually go with the substantive law. When deciding diversity cases under state law,

federal courts use the rules of contribution prescribed by the state. E.g., *Consolidated Rail Corp. v. Allied Corp.*, 882 F.2d 254, 258 (7th Cir.1989); *Greyhound Lines, Inc. v. Cobb County*, 681 F.2d 1327, 1332-33 (11th Cir.1982). When deciding questions under federal law, courts look to federal statutes--so that there is a right of contribution under the securities laws, which create it, e.g., 15 U.S.C. § 77k(f), and not under the antitrust and civil rights laws, which are silent on the subject. See *Texas Industries, Inc. v. Radcliff Materials, Inc.*, 451 U.S. 630, 101 S.Ct. 2061, 68 L.Ed.2d 500 (1981); *Northwest Airlines, Inc. v. Transport Workers*, 451 U.S. 77, 101 S.Ct. 1571, 67 L.Ed.2d 750 (1981). Although the Supreme Court created a nonstatutory right of contribution in admiralty cases, see *Cooper Stevedoring Co. v. Fritz Kopke, Inc.*, 417 U.S. 106, 94 S.Ct. 2174, 40 L.Ed.2d 694 (1974), it has explained that this was justified only by its power to devise both substantive and damages rules for admiralty cases. *Northwest Airlines*, 451 U.S. at 96-97, 101 S.Ct. at 1583. We lack any comparable power to shape the rules governing this case, largely supplied by the law of France. Nonetheless, because none of the parties has argued that French law applies, and no one has furnished us with the tools to decide the question under French law, we shall fashion some federal admiralty law--while making it explicit that all questions of choice of law are open for decision when the question is properly argued. See *Kamen v. Kemper Financial Services, Inc.*, 500 U.S. 90, 111 S.Ct. 1711, 1718 n. 5, 114 L.Ed.2d 152 (1991).

There are four potential rules:

No contribution: All defendants are jointly and severally liable for the full damages. A plaintiff may decide to collect any part of an award from any of the defendants. No one may obtain contribution from another person. Contribution: All defendants are jointly and severally liable for the full damages. The prevailing plaintiff may decide to collect any part of the award from any of the defendants. A party called on to pay more of the award than its share of fault implies may obtain contribution from a party called on to pay less than its share. Contribution plus settlement bar: The same as the contribution rule, except that one party may obtain contribution only from another that proceeds to judgment. By settling, a party escapes any liability for contribution. (Variant: By settling in good faith, that is, for a bona fide estimate of liability at trial, a party escapes any liability for contribution.) Claim reduction: Defendants are jointly and severally liable, unless one or more settles. By accepting a settlement from any party, the plaintiff forgoes the ability to collect from the remaining defendants any damages attributable to the settling party's share of fault. The remaining defendants are not entitled to contribution from the settling party--because after claim reduction there is no "excess" payment for which contribution would be appropriate. This is sometimes called the "comparative fault" rule.

*Northwest Airlines* observes, 451 U.S. at 86-87 & n. 16, 101 S.Ct. at 1578 & n. 16, that no contribution is the common law rule in federal cases and remains the norm unless a statute calls for different treatment. *Northwest Airlines* applied the no-contribution rule to claims under the Equal Pay Act and Title VII of the Civil Rights Act of 1964. *Texas Industries* applied the no-contribution rule to claims under the antitrust laws.

*Cooper Stevedoring* adopted a contribution rule for admiralty cases. When contribution is authorized, the norm is ability to collect from any other party, including those who have settled. Contracts affect only the rights of the parties, yet a settlement-bar rule allows the plaintiff and one defendant to extinguish the rights of another defendant by a settlement contract to which that defendant is a stranger. *Byrnes v. Phoenix Assurance Co.*, 303 F.2d 649, 652-53 (7th Cir.1962); see *Prosser and Keeton on The Law of Torts* 340 (5th ed. 1984). Many states have adopted the settlement-bar rule by statute. *Uniform Contribution Among Tortfeasors Act* § 4(b) (1955 rev.).

*Amoco* asks us to adopt the fourth approach, claim reduction. No case in the Supreme Court has done so for any subject. For that matter, the Court has never used a settlement-bar rule. *Texas Industries* considered and rejected both options. Courts of appeals have been more venturesome. In *Leger* the fifth circuit adopted a claim reduction rule for maritime cases. We remarked in *Donovan v. Robbins*, 752 F.2d 1170, 1180 (7th Cir.1985), that this approach has been "gaining ground". *Associated Electric Cooperative, Inc. v. Mid-America Transportation Co.*, 931 F.2d 1266, 1269-71 (8th Cir.1991), aligns the eighth circuit with the fifth--if *Leger* still represents the fifth circuit's view, a subject thrown into doubt by *Myers v. Griffin-Alexander Drilling Co.*, 910 F.2d 1252, 1256 (5th Cir.1990).

Claim reduction has not caught on outside the eighth (and, perhaps, fifth) circuits. Two courts of appeals, see *Self v. Great Lakes Dredge & Dock Co.*, 832 F.2d 1540, 1545-48 (11th Cir.1987) (adopting the settlement-bar rule), and *Joia v. Jo-Ja Service Corp.*, 817 F.2d 908, 916-17 (1st Cir.1987) (adopting the contribution rule), have expressly rejected Leger. The ninth circuit tentatively adopted the settlement-bar approach in *Miller v. Christopher*, 887 F.2d 902, 904-07 (1989), but pointed out that no one had argued for claim reduction.

What has caused the approach of Leger to lose the ground it once held? The answer is *Edmonds v. Compagnie Generale Transatlantique*, 443 U.S. 256, 99 S.Ct. 2753, 61 L.Ed.2d 521 (1979). (Texas Industries and Northwest Airlines did not help the cause of claim reduction either, but none of the opinions rejecting Leger cites either of these cases.) *Edmonds*, a longshoreman injured in an accident aboard a vessel, sued the shipowner. A jury determined that the stevedore contractor (*Edmonds'* employer) was 70% at fault, that the vessel was 20% at fault, and that *Edmonds* bore the remaining 10% of the responsibility. The Supreme Court held that the shipowner must pay 90% of the damages--all save the portion attributable to the plaintiff. This looks like a simple application of joint and several liability for an indivisible injury until you recognize that the reason *Edmonds* had not sued his employer was the existence of a workers' compensation system that not only forbids suits by longshoremen against their employers but also bars shipowners from collecting from stevedores. This law induced the court of appeals to analogize the stevedore to a settling defendant and adopt a system of comparative fault, reducing the longshoreman's claim against the vessel to the portion of the loss attributable to the vessel's fault. The Supreme Court reversed this decision and reiterated the rule of joint and several liability.

Although *Edmonds* is based in part on an interpretation of the Longshore and Harbor Workers' Compensation Act and does not involve a formal settlement with a responsible party--enabling Associated Electric Cooperative to distinguish it--the Court also exercised some of its common law power in admiralty cases and considered whether claim reduction would be wise. It concluded that claim reduction is unwise, for two reasons: it complicates litigation, and it reduces injured persons' recoveries. 443 U.S. at 268-73, 99 S.Ct. at 2760-63. The Court acknowledged the inequity of requiring a person 20% at fault to pay 90% of the damages but observed that such disproportion has been tolerated since the creation of the rule of joint and several liability. Attempts to redress this inequity create problems of their own, including failure to compensate the victim if one of the responsible parties cannot (or, as in *Edmonds*, need not) pay. "Contribution remedies the unjust enrichment of the concurrent tortfeasor [not called on to pay] ... and while it may sometimes limit the ultimate loss of the tortfeasor chosen by the plaintiff, it does not justify allocating more of the loss to the innocent employee, who was not unjustly enriched." 443 U.S. at 272 n. 30, 99 S.Ct. at 2762 n. 30. *Texas Industries and Northwest Airlines* followed two years later by declining to apply claim reduction to either antitrust or civil rights cases.

Perhaps a court should struggle against the implications of *Edmonds*, *Texas Industries*, and *Northwest Airlines*, as the eighth circuit did, if claim reduction were strongly preferable for reasons of efficiency or economy. Neither *Texas Industries* nor *Northwest Airlines* thought the case clear in 1981, and the intervening decade has not made the arguments lopsided. Contribution and associated issues have been the subject of extended academic inquiry in the last decade. See, e.g., Landes & Posner, *The Economic Structure of Tort Law* 201-15 (1987); Shavell, *Economic Analysis of Accident Law* 164-67 (1987); Easterbrook, Landes & Posner, *Contribution Among Antitrust Defendants: A Legal and Economic Analysis*, 23 *J.L. & Econ.* 331 (1980); Kornhauser & Revesz, *Sharing Damages Among Multiple Tortfeasors*, 98 *Yale L.J.* 831 (1989); Polinsky & Shavell, *Contribution and Claim Reduction Among Antitrust Defendants: An Economic Analysis*, 33 *Stan.L.Rev.* 447 (1981). These assessments are in concord on the following conclusions about the different rules in any system where liability is based on fault (we disregard the complications introduced by strict liability): No contribution: This approach promotes settlements, not only because by settling a party buys peace but also because, by concentrating full liability on those who hold out through trial and judgment, it creates a distinct possibility that those who settle first will pay a lower share of the total damages. This effect magnifies the plaintiff's total recoveries, for every dollar from a settling defendant is recovered with certainty even if the plaintiff would have failed at trial, and if the plaintiff succeeds at trial it always obtains full compensation. The magnification effect ensures adequate

deterrence as well as full compensation; indeed it may over-compensate and thus over-deter. No contribution is also the cheapest for the courts, as there is no collateral litigation. Contribution: Instead of the rush to settle under the no-contribution rule there is competition not to settle--for a settling defendant pays cash with certainty but does not buy peace, and may be called on to pay a full share if the plaintiff wins at trial, while a party going to trial may be able to obtain contribution from another defendant. Plaintiffs receive the actuarially correct amount of damages (the magnification effect discussed above disappears). Costs of administering the legal system rise, for courts must apportion damages. The costs of doing this may be steep, if the parties cannot agree on who should be responsible. Contribution plus settlement bar: This removes the disincentive to settlement (now the settling defendant buys peace) but is otherwise similar to contribution. Administrative costs are higher than under no contribution, for even though it will not generally be necessary to decide on degrees of fault, it may be essential to inquire into the bona fides of a settlement, which extinguishes other defendants' right of contribution. Determining bona fides may require a mini-trial of the merits, to see whether the settling party indeed made a payment reasonably related to the strength of the plaintiff's claim. Claim reduction: The effect on settlement is uncertain--defendants would love to settle (for they can buy peace, just as under no contribution), but settlement is costly for the plaintiffs, who get cash but relinquish not only their claim against the settling party but also a share of the claims against other parties. Bargaining should lead to actuarially fair settlements (if all defendants are solvent, an important qualification), and thus claim reduction has no ex ante effect on total compensation and deterrence--hence the attraction noted in Donovan. Claim reduction may require substantial ancillary litigation to fix the amount of the carve-out. Further complications arise if the plaintiff settled with one party because of doubts about solvency, perhaps for the limit of insurance. Would claims against other defendants be reduced by the settling party's fault or only by the extent the settling party could have chipped into the pot after trial?

It should be clear from this recitation that none of the four approaches is without its problems, and that claim reduction in particular is no panacea. It creates a substantial possibility of extended collateral litigation. Take this case as an example. Thirteen years have passed since the grounding, almost two of them spent in trials on liability and damages. The record still does not permit a confident assessment of the ABS's proportionate fault (if any). A trial between the plaintiffs and Amoco over ABS's fault would be a curious adventure. ABS itself, the party with the best knowledge of its activities, would be on the sidelines (for it has settled); Amoco would try to magnify the ABS's contributions (to reduce its own liability) and the plaintiffs to belittle the ABS's role. Such a contest would make more sense if the ABS were brought back in, but as its own liability is fixed it would have no incentive to litigate (and such post-settlement litigation would remove the principal incentive to settle--the prospect of saving the costs of litigation). And the ABS is not necessarily the end. Amoco might point a finger at Bugsier, the owner of the tug PACIFIC. (Note that the French State never sued the ABS; it was brought into the picture only by the Cotes du Nord parties.) We are confident that the case would at last come to an end, but maybe not in this century. At all events, why should the judicial system invest so heavily in adjusting accounts among wrongdoers? Neither justification for the tortsystem--compensation of victims and the creation of incentives to take care--would be served by this collateral litigation. Conducting such cases would detract from the time courts have available to handle new claims by deserving persons.

"Whittling away at a case is more attractive if its core principle is wrong than if it is right, for why strain to curtail the application of sound rules?" *Travis v. Gary Community Mental Health Center, Inc.*, 921 F.2d 108, 109 (7th Cir.1990). Amoco does not persuade us that the core principle of *Edmonds* is wrong, given the difficulties with each of the alternatives. We therefore disagree with *Associated Electric Cooperative and Leger*, and we decline to adopt a carve-out rule. Whether to follow *Joia* by allowing Amoco contribution from the ABS, or *Self* by adopting the settlement-bar rule, is a question for another day. Only the claim reduction alternative would have required the district court to determine in this proceeding the degree of fault, if any, attributable to the ABS, and we approve the district court's decision not to adopt that alternative.

## E.

We take up four additional disputes between Amoco and the French parties.

1.

Some private claimants appeared as plaintiffs in their own names, and others as members of trade associations or syndicates. Claims presented through two trade associations and two syndicates have precipitated a dispute about standing.

Amoco submits that the associations and syndicates lack standing because, under American law, associations may represent their members only with respect to common interests. Whenever there are individual questions of damages, Amoco contends, the affected persons must represent themselves. This is an accurate statement of associational standing cases such as *Pennell v. San Jose*, 485 U.S. 1, 7 n. 3, 108 S.Ct. 849, 855 n. 3, 99 L.Ed.2d 1 (1988), and *Hunt v. Washington State Apple Advertising Commission*, 432 U.S. 333, 342-43, 97 S.Ct. 2434, 2440-41, 53 L.Ed.2d 383 (1977), but these are a peculiar run of cases dealing with challenges to governmental actions by associations with no particular entitlement to stand in the shoes of their members. Despite Amoco's protests, representative damages litigation is common--from class actions under Fed.R.Civ.P. 23(b)(3) to suits by trustees representing hundreds of creditors in bankruptcy to *parens patriae* actions by state governments to litigation by and against executors of decedents' estates.

There have been representative actions since the beginning of the nation. For example, courts created the creditors' bill in bankruptcy. One creditor filed suit as a representative of all others of the same class; proceeds were divided among those who later appeared. E.g., *Handley v. Stutz*, 137 U.S. 366, 11 S.Ct. 117, 34 L.Ed. 706 (1890); *Richmond v. Irons*, 121 U.S. 27, 44, 66, 7 S.Ct. 788, 795, 806, 30 L.Ed. 864 (1887); *Johnson v. Waters*, 111 U.S. 640, 673-74, 4 S.Ct. 619, 637, 28 L.Ed. 547 (1884). See also Yeazell, *From Medieval Group Litigation to the Modern Class Action* (1987). The question in each case is who is the real party in interest. Fed.R.Civ.P. 17(a). That often depends on the law of the place creating the claim. Federal courts look to state law to determine whether a state may proceed as representative of its citizens, *In re Edmond*, 934 F.2d 1304, 1309-11 (4th Cir.1991); *Pennsylvania v. Mid-Atlantic Toyota Distributors, Inc.*, 704 F.2d 125, 128-32 (4th Cir.1983), or whether someone is the executor of an estate. A state or foreign nation may allow persons to transfer claims among each other. If it does so, then the purchaser or assignee is the right party to pursue the suit. The district court therefore properly turned to the law of France to discover whether the trade associations and syndicates are authorized to represent the interests of their members.

The French trade associations appearing as plaintiffs in this case were organized under the Law of 1901. Such an association may represent its members' collective interests in litigation. It may represent its members' individual interests only if the association's charter expressly gives it that right. Legal experts appearing for both sides of the case agreed on this statement of French law. They dispute its application. The two trade associations whose representative capacity has been challenged--L'Union des Commerçants et Artisans de Tregastel (Association of Tradesmen of Tregastel) and L'Union Pleumeroise Pour la Defense des Interets des Commerçants et Artisans (Pleumeur-Bodou Tradesmen's Association)--operate under charters with identical grants of representative power: To advise or assist legally any active or honorary member of the Association of Tradespeople and Craftsmen and in the given case act on their behalf....

This grants a representative power, but it does not distinguish collective from individual representation, or equitable from monetary relief. Nothing "expressly" allows the association to obtain damages in consequence of members' losses. It follows that neither of these associations is authorized to collect damages on behalf of its members. Accordingly, we reverse the judgments in favor of L'Union des Commerçants et Artisans de Tregastel and L'Union Pleumeroise Pour la Defense des Interets des Commerçants et Artisans.

French law of professional syndicates differs from its law of trade associations. Article L.411-1 of the French Labor Code provides (emphasis added): Trade syndicates have as their sole purpose the study and

defense of the rights and material and moral interests, both collective and individual, of the persons concerned by their charter.

The two syndicates whose representative capacity has been challenged--La Chambre Syndicale des Agents

Immobiliers des Cotes du Nord (Real Estate Agents' Syndicate of the Cotes du Nord) and Le Syndicat Ostreicole de la Region de Morlaix (Oystermen's Syndicate of Morlaix)--maintain that this statute allows them to pursue any damages claims of any nature on behalf of their members. Amoco responds by citing a decision of the Conseil d'Etat, which it says confines representation in damages matters to labor relations. Saerens, No. 15.116 (Nov. 9, 1983). The syndicates, with support from a distinguished avocat, reply that this decision concerns only the status of grievances by employees and does not affect syndicates' ability to represent the commercial interests of their members. We can appreciate the concern that a broad reading of Article L.411-1 would authorize a syndicate to represent its members on any subject--including divorce and eviction. Today's disputes concern only subjects within the scope of the syndicates' business, and we therefore conclude that La Chambre Syndicale des Agents Immobiliers des Cotes du Nord and Le Syndicat Ostreicole de la Region de Morlaix are authorized to represent their members.

## 2.

The district court awarded 2.25 million francs to private parties who presented their claims through the testimony of Jean-Luc Calvez, an accountant who gathered data and performed a simple linear regression. Calvez was qualified as an expert witness, and he properly used hearsay documents in his calculations. See Fed.R.Evid. 703. Amoco objected to the hearsay on which the computations depended and also insisted that the entire exercise was speculative--for how could we know, Amoco asked, that the reduction in these parties' business is attributable to the oil spill? William Wecker, a statistician on the faculty of Stanford University, re-analyzed the data on Amoco's behalf using a much simpler approach: he averaged the performance for 38 plaintiffs from 1977 and 1979, inferring that any shortfall in 1978 was attributable to the spill. Wecker concluded that the data are insufficient to permit even this simple operation for 23 of the claimants.

Causation is problematic in both principle and theory, but doubts on this score do not vitiate statistical presentations. Regression models are used to get a better grip on the relation between dependent and independent variables. If done right, regression analysis permits an inference of causation, and of the size of the effect. Perhaps there are problems in the variables Calvez chose to analyze, or the specification of the model. The district court did not identify any such problems, however, and neither do Amoco's briefs in this court. Nonetheless, without explaining his reasons, Judge McGarr deemed Calvez's approach "speculative" and opted for Wecker's simplistic analysis, which implied that but for the oil spill these claimants' 1977 profits would have increased an average of 6.8% in 1978. The court awarded the 38 claimants for which Wecker conceded he had sufficient data damages sufficient to bring their 1978 profits to this level, and nothing for any subsequent period. Then the court extrapolated to 22 of the remaining 23 claimants (those for which profit data were lacking for 1977 or 1979), reconstructing for each a measure of 1977 profits plus 6.8%. It denied the claims of the final plaintiff.

Amoco protests the entire exercise. Having rejected Calvez's calculations, Amoco contends, the court should have entered judgment against the plaintiffs. It is inappropriate, in Amoco's view, to award damages on the basis of the defendant's calculations. And the extrapolation to the 22 claimants with insufficient data is faulty on any theory, Amoco concludes.

Our difficulty starts with the rejection of the Calvez calculations. What is wrong with them? Neither Amoco nor the district court has pinpointed their failing. Amoco appears to misunderstand the nature and function of linear regressions. Had the private parties pursued this matter on appeal, we would have been inclined to instruct the district court to base its award on the Calvez computations. They use a conservative approach--Calvez did not, for example, claim that the diminution in business in 1978 cut the base from which future growth would proceed. Contrast the silly exponentially increasing projections we condemned in *Boxhorn's Big Muskego Gun Club, Inc. v. Electrical Workers*, 798 F.2d 1016, 1021-23 (7th Cir.1986), and

Olympia Equipment Leasing Co. v. Western Union Telegraph Co., 797 F.2d 370, 382-83 (7th Cir.1986). But the plaintiffs, content with the results of the Wecker computation, have not appealed.

Amoco is mistaken in believing that the award rests on "its" evidence. The judgment rests on the evidence of record submitted by the plaintiffs. Two expert witnesses have analyzed that evidence, offering disparate evaluations of its significance. But plaintiffs' evidence is the basis of the award; plaintiffs did not fail to prove their claims. Imprecision is inevitable in relating business reverses to one factor such as an oil spill; any given business might have collapsed (or taken off) for unrelated reasons, and the interaction among causes is hard to assess. Both Calvez and Wecker offered reasoned approaches to this problem, and the resulting decision stands.

### 3.

Several of the communes in the Cotes du Nord are resorts. Businesses there have recovered for any proven losses; the communes themselves seek 37 million francs for injury to their reputations. This is an example of moral damages common in European legal systems derived (now quite remotely) from Roman law, a rule with an echo in the general damages our legal system uses in defamation cases. See *Brown & Williamson Tobacco Corp. v. Jacobson*, 827 F.2d 1119, 1138 (7th Cir.1987); *Prosser and Keeton on Torts* at 843. In the United States an expert witness dealing with a slump in tourism would attempt to deduce the present value of potential losses in future business; in France the court is more apt to award damages for past loss (here, essentially the loss in the 1978 tourist season) and add discretionary balm for the future.

The parties lock horns on the meaning of French law and the propriety of reputational damages without proof of loss. They agree, however, that the judge possesses discretion over the award (and amount) of moral damages--and the judge exercised that discretion adversely to the communes. Judge McGarr gave three reasons: that the injury "must be ascertainable in some way sufficient to assess damages in a specific amount", that the computations offered in support of this claim are "speculative", and that as the hotels and other businesses have recovered for their proven loss "additional damages for this reason would be duplicative."

Lewis Perl attempted to quantify the reputational damages the communes suffered. He presented a regression model by which he attempted to infer the lost consumer surplus--that is, the reduction in enjoyment consumers obtained when they took their vacations in resorts other than their preferred destinations in Brittany. Perl used increase in travel time as a proxy for reduction in consumer surplus. A rough proxy this must be, for vacationers often travel longer distances to reach superior destinations and count the trade a gain. Still, this is no worse than many other estimates and approximations any expert witness must make--and substantially less "speculative" than the seat-of-the-pants attributions of causation so common in litigation. Efforts to quantify losses should not be sneezed at because of their inevitable imprecision; as Hume observed, it is "speculative" whether the sun will rise tomorrow. George Stigler, the Nobel Prize winner who analyzed Perl's calculations on behalf of Amoco, concluded that the work was professionally competent. Although the conclusions of any regression are subject to interpretive debate, this does not disqualify them.

Nonetheless, there are three reasons why Perl's estimates are insufficient to require an award of damages. First, although a reduction in consumers' surplus is a real social loss, consumers rather than units of government are the right persons to recover for the injury. Perl did not produce an estimate of loss to the communes themselves. Second, to the extent diversion of travel is an estimate of loss to communes in the Cotes du Nord, there is an offsetting gain to the new destinations. Courts usually do not award damages for acts that simply move commerce from one vendor to another. E.g., *Grip-Pak, Inc. v. Illinois Tool Works, Inc.*, 694 F.2d 466, 473-74 (7th Cir.1982); *Rickards v. Sun Oil Co.*, 23 N.J.Misc. 89, 41 A.2d 267 (1945); see *Landes & Posner, Economic Structure of Tort Law* at 251-55. (There is a potentially important qualification: limitations in capacity of the new suppliers may drive them up their marginal cost curves, producing real social losses, economic rents, and higher prices for consumers. No one suggests that diversions from Brittany would produce such an effect at other resorts. At all events, this possibility just emphasizes that the consumers are the ones who suffer the real loss.) Third, the estimate of travel time as

a proxy for consumers' loss (for which there is no offsetting gain in the new destinations) assumes that pleasure-seekers who do not visit Brittany will take another trip. Nothing in economics implies this; many persons will turn to books or music or wine as substitutes; perhaps they will postpone their trip for a year, or take a longer trip elsewhere at no increase in travel costs.

The issue thus becomes: does French law require an award of damages to a governmental body even when the effort to prove specific loss fails? The communes say that it does, citing decisions of two trial courts: *La Prud'Homme des Pecheurs de Bastia v. Montedison* (Tribunal de Grande Instance de Bastia, July 4, 1985), and an order of the Tribunal de Grande Instance d'Angouleme, No. 62/89 (Mar. 8, 1989). As is common in civil law nations, the courts did not explain the scope and rationale of their rulings. This is usually the province of glossateurs--and on this subject there seem to be no published commentaries. (At least the parties have not cited any.) Amoco responds with one decision of the Cour de Cassation, No. 78-92.697 (Nov. 13, 1979), and one from the Cour d'Appel, *Capitaine du World Mead v. Villes du Pouliguen* (Nov. 3, 1965). The decision of the Cour de Cassation (France's highest court for private litigation) may be distinguished on the ground that it involved intervention in a criminal case, for which France sets high standards of proof; *World Mead* is not so easily disposed of, and this decision of a court superior to the courts of first instance on which the communes rely undercuts their claims. The communes reply: Amoco also attempts to make much of the fact that its two cases come from appellate courts. Because France does not apply *stare decisis*, however, a case's source is irrelevant.

This rejoinder confuses precedent with authority. As a code country, France denies that judicial opinions establish law. See Merryman & Clark, *Comparative Law: Western European and Latin American Legal Systems* 551-87 (1978). Judicial opinions (and scholarly commentators) illuminate the meaning of the code, but only the code is law. France nonetheless maintains a hierarchical system of courts. (Rather, it maintains two: the civil tribunals with the Cour de Cassation at the apex, and administrative tribunals with the Conseil d'Etat as the highest body. Each is supreme within its jurisdiction.) Inferior tribunals are expected to accept the rulings of their superiors. Whatever the formal doctrine may be, they must do so to avoid wasting everyone's time; what the Cour de Cassation and the intermediate appellate courts have done in the past is good evidence of what they will do tomorrow. Nothing in the nature of a civil law system repeals Holmes's maxim that what the courts do in fact is the law. The French plaintiffs rely on judicial decisions at every turn; the communes rely especially on the Bastia and Angouleme decisions. They cannot readily turn around and deny that decisions of French courts are salient.

We understand *World Mead* as recognizing the principle that a commune must show loss to itself as a condition to an award of reputational damages. We understand the district court as having concluded that the communes' efforts to establish such loss failed. Although the district court did not state reasons, good reasons were available, so the decision is not clearly erroneous. Professor Ibrahim Fadlallah, the communes' principal legal expert on this subject, testified that under French law "the moral damage is to be evaluated by the judge.... [T]here are no instruments to measure moral damage. It's up to the judge to have his own conviction on the matter." The conviction of the judge in this case was that moral damages are inappropriate, and in coming to this conclusion the judge did not abuse his discretion.

#### 4.

Amoco contends that the district court erred by almost 4 million francs in translating its rulings into a judgment. The French navy submitted claims for approximately 18.8 million francs as the costs of operating its ships and planes during the cleanup. The district court lopped off 25% to eliminate some charges it deemed improper, and it subtracted 3.5 million francs as its estimate of the ordinary costs of operating these vessels and planes. (We reversed this subtraction in Part VII.C above.) Along the way, Judge McGarr wrote that he would slice off an additional 30% because the navy was inept in applying dispersants to the oil. Amoco observes that this 30% does not appear in the final computation and asks us to deduct some 3.6 million francs to restore it.

If the problem is one of computation, Amoco should have asked the district court to re-do the math. (It submitted a motion for reconsideration in the district court listing computation errors other than this one,

which was never called to the attention of Judge McGarr or Judge Norgle.) Now that Amoco is in our court, the question is whether it is legally entitled to a 30% reduction. We are less enamored of percentage reductions than Judge McGarr was. Victims of torts are entitled to compensation for their losses, not to 70% of them (actually to less than 56%, by the time the district court had applied the 25% and 3.5 million franc reductions, and to less than 50% had the court tacked on another 30% reduction).

Amoco does not tell us why errors in the application of dispersants call for a reduction in the award to the navy. Perhaps failure of the plaintiffs to mitigate their losses by applying dispersants properly should produce a reduction in the claims for the cost of removing the oil from the beaches (for better application of dispersants would have prevented some oil from reaching land). Amoco has not asked us to make such a reduction. The expenses for vessels and aircraft would not have been reduced by better application of dispersants; these costs might even have been increased by that activity. As the district court's plan to impose a 30% reduction is unjustified, failure to implement that plan is not reversible error.

## F.

Shell International Petroleum Company, Ltd. (SIPCO), a United Kingdom corporation (and, like all of the other firms involved with the cargo and insurance, a subsidiary of Royal Dutch Petroleum Co., a Netherlands corporation), was the time charterer of the AMOCO CADIZ. SIPCO bought oil and transportation services on behalf of other subsidiaries of the corporate group. In addition to hiring the AMOCO CADIZ, SIPCO bought 121,157 long tons of Iranian Light crude oil and 98,460.32 long tons of Arabian Light crude. The price of the Arabian Light was \$12.6966 per barrel F.O.B. the Persian Gulf, and of the Iranian Light \$12.7510 per barrel F.O.B. the Gulf. Ownership of the oil was transferred on board the AMOCO CADIZ to Shell Nederland Raffinaderij B.V. (Shell Netherlands) and Shell U.K. Limited (Shell U.K.) under C.I.F. bills of lading. Shell U.K. bought 89,000 long tons of Arabian Light and Shell Netherlands the remainder of the cargo. SIPCO established the C.I.F. price (for cost, insurance, and freight; see UCC § 2-320).

After the cargo was lost, Petroleum Insurance Limited (PIL) paid Shell U.K. and Shell Netherlands the full C.I.F. price in U.S. dollars (\$22,879,732) and was subrogated to their claims against Amoco. Before PIL could take up cudgels, Amoco Transport waged a preemptive strike: it filed an action in Chicago under the Limitation of Liability Act. PIL responded with a counterclaim. Amoco lost its limitation claims (a decision we have affirmed), leaving PIL to its contract claim. The charter party between Amoco Transport and SIPCO specifies that all disputes will be resolved under English law and specifies that all bills of lading must contain an identical choice-of-law provision. The bills of lading issued to Shell U.K. and Shell Netherlands did so. No one questions the validity of these clauses. Cf. *The Bremen v. Zapata Off-Shore Co.*, 407 U.S. 1, 92 S.Ct. 1907, 32 L.Ed.2d 513 (1972).

The district court applied English law, computing damages as follows. It started with the dollar price F.O.B. the Persian Gulf. It added the contractual insurance rate (0.113%) but refused to add the contractual rate of carriage, some \$1.95 million. Instead it added the spot market price for transportation, which it determined to be \$820,233.14. Next it deducted 0.5% from the entire price to reflect expected evaporation and other loss during normal delivery. Finally it converted the dollar award into pounds sterling, having found that sterling is the currency in which the buyers "felt the loss". It chose a conversion rate of \$1.93 per pound, which prevailed at the time PIL paid Shell U.K. and Shell Netherlands. The resulting judgment was <<PoundsSterling>>11,212,349.50. The court added prejudgment interest at 7.22% per annum without compounding. We deal with interest in Part VII.G.3 below and take up the other issues here.

### 1.

PIL contends that by filing a limitations action Amoco Transport waived any benefits of the choice-of-law provisions in the charter party and bills of lading. PIL believes that it is inconsistent of Amoco to insist that its liability is the lesser of the amount provided by contract and the amount provided by statute, thus waiving one branch or the other. There is no inconsistency in the position thus stated, but if there were, what of it?

Parties in federal court may take inconsistent positions, see Fed.R.Civ. P. 8(e)(2), provided that each position satisfies the requirements of Rule 11. Amoco did not lead PIL down the primrose path until PIL had forfeited some essential element of its claim. Although a party that asserts and prevails on some legal or factual assertion may be barred from changing positions later, see *Astor Chauffeured Limousine Co. v. Runnfeldt Investment Corp.*, 910 F.2d 1540, 1547-49 (7th Cir.1990), Amoco did not prevail under the Limitation Act. Unless federal law forces Amoco to elect between its (potential) entitlements under the statute and those under the contract, it is entitled to assert both theories.

On the authority of *The Titanic*, 233 U.S. 718, 731-33, 34 S.Ct. 754, 755-56, 58 L.Ed. 1171 (1914), PIL asserts that maritime law indeed puts a shipowner to an election. Justice Holmes, writing for the Court in *The Titanic*, said no such thing. After the TITANIC, a British vessel, went down on its inaugural voyage to the United States, some passengers sued the owner in the United States. The owner invoked the Limitation Act, and the Court held that the limitation is available to a foreign vessel in courts of this nation. "It clearly limits the remedy ... in cases where it has nothing to say about the rights." *Id.* at 733, 34 S.Ct. at 756. "[N]othing to say about the rights" because all agreed that English law governed that question. How anyone could find a principle of election in *The Titanic* is a mystery. There was nothing to elect. Substantive law came from the United Kingdom, and the Supreme Court held that an American court could not award a remedy greater than Congress had specified. No one suggested that had the Court decided the limitations question the other way, the substantive basis of liability would have switched to American law. None of PIL's cases supports such a conclusion, and *Black Diamond S.S. Co. v. Robert Stewart & Sons, Ltd.*, 336 U.S. 386, 69 S.Ct. 622, 93 L.Ed. 754 (1948), cuts against it.

*Black Diamond* holds that an injured person who sues in the United States receives the lesser of the sums allowed by the Limitation Act and any foreign statute applicable to the same sinking. The shipowner in *Black Diamond* brought a limitation action in the United States--an act that, to PIL's mind, forfeits any entitlements under foreign law. Yet the Court held that the owner could obtain the benefit of a Belgian limitations rule as well as the American law. 336 U.S. at 395-96, 69 S.Ct. at 627. There is no principled ground on which to distinguish a foreign statute (*Black Diamond*) from foreign common law to which a choice-of-law clause points (this case). Accordingly, we hold that by bringing an action for limitation of liability a shipowner does not surrender arguments based on foreign law. Accord, *In re Bethlehem Steel Corp.*, 631 F.2d 441, 446 (6th Cir.1980). To the extent *Morse Electro Products Corp. v. S.S. Great Peace*, 437 F.Supp. 474, 487 (D.N.J.1977), holds the contrary, it is unpersuasive.

## 2.

English law entitles the shippers (and thus PIL) to damages measured by the value of the cargo at the intended destination--that is, the cost of replacing the lost goods. Amoco and PIL agreed that there is no active market in Europe for 200-ton quantities of crude oil; that market exists only at or near the wellheads. When there is no active market at the destination, English courts reconstruct the price by using the cost at the place of origin, plus insurance and freight. In principle this comes to the same thing. A market at destination could not have a lower price (at least not for long, since supplies would dry up), and competition from inflowing supplies would prevent a higher price from enduring. The price of the oil F.O.B. the Persian Gulf was stipulated, and Amoco conceded that the contractual price for insurance--taken directly from the competitive rate prevailing at London insurance exchanges--was appropriate. Unfortunately, the parties were not equally agreeable when the subject came to freight.

Cost of transportation is about the last question that one would think should separate these parties. Transportation is what Amoco Transport sold to SIPCO under the charter party. Yet neither side suggests that the actual cost of hiring and operating the AMOCO CADIZ matters. PIL asked the court to award it \$1.95 million, the sum specified in the transactions between SIPCO and the buyers. Amoco insisted that the right measure is the price for which SIPCO could have hired transportation in the spot market in March 1978. The district court sided with Amoco and computed the spot market price as \$820,233.14. PIL does not contest that determination but renews its argument that the price in the SIPCO-buyer contracts is the

only appropriate measure. Neither side suggests that English decisions are enlightening on the subject; both submit the question to us as a matter of first principles.

The freight charge of almost \$2 million that SIPCO added to the bill was not based on a current market or the cost of operating the AMOCO CADIZ itself. It was what an economist calls a transfer price--the bookkeeping entry made between two parts of a joint enterprise. Conglomerates often set transfer prices to mimic the market, knowing that a price divorced from market considerations may lead middle managers to make bad decisions. If transportation is set too high, Shell's buyers may turn to the spot market in Europe for oil rather than obtain it in bulk from SIPCO, or SIPCO may try to increase its accounting profits by "selling" excessive transportation to other affiliated companies when oil landed in Europe could be had at lower out-of-pocket costs. See Robert G. Eccles, *Transfer Pricing as a Problem of Agency*, in *Principals and Agents: The Structure of Business* 151 (Pratt & Zeckhauser eds. 1985). Yet families of firms exist in part to substitute hierarchy for market, and conglomerates often set transfer prices with an eye to stability--not only in accounting but also in patterns of interaction among the fraternal businesses. Although the market for international ocean transportation varies dramatically, the affiliated Shell enterprises set quite stable transfer prices. The sum fixed by SIPCO reflected a rolling average cost. SIPCO computed the total costs of running Shell's fleet--more than 300 ships, about two-thirds owned and the other third chartered--and divided by the number of tons moved, to arrive at the cost per ton charged to Shell U.K. and Shell Netherlands.

SIPCO doubtless set the transfer price that it thought accomplished the best combination of incentives and stability. Its choices in this respect do not bind outsiders. The court had to find the (at least, a ) market price. Although, as PIL observes, the Shell enterprises did not hire a new cargo at the market in March 1978--Shell accepted a drop in inventory and rebuilt through the flow of oil from its remaining fleet--it does not follow that the price of transportation it can charge to Amoco is the price for Shell's average movement.

Recall that the reason for using the C.I.F. method is to approximate the market price at the place of delivery. Suppose Shell has built a fleet that is very expensive to operate, and has chartered additional vessels (such as the AMOCO CADIZ) at more than the current market. These expenses are sunk costs. If the bottom has dropped out of the tanker market, the price of oil in Europe will be set by firms that are able to bring in oil at the lower cost of transportation then available. Shell cannot sell for more than its competitors; their costs of transportation, not Shell's, determine the value of oil in Europe. Shell's affiliated firms will have to absorb the expense of higher transportation costs.

So the reconstructed market price must be the price of oil F.O.B. the Persian Gulf, plus the market price of insurance, plus the market price of transportation that Shell's rivals pay. Only Amoco offered an estimate of the price competitors pay. The spot market price may not be a good estimate. At any given moment there may be a tanker or three willing to move oil on the cheap (its only alternative being idleness); the European price of oil will be set by what it costs to move enough oil to satisfy marginal demand. Large-quantity movements will drive the shipping industry up its marginal cost curve, raising the price. So it may be that in the end SIPCO's average cost is a better estimate than the spot market price, given the purpose for making the estimate. But PIL, which did not pay attention to the reason why the cost of freight matters, did not offer the court any estimate of the cost that rivals would bear to move large quantities of oil in March 1978. The district court was entitled to accept the only estimate of a market price tendered to it.

### 3.

No cargo of a bulk commodity arrives without loss. Some grain will be spilled or spoiled, some oil will evaporate (or will loiter in the sump, resisting pumping). English courts treat a carrier's delivery of 99.5% of a bulk cargo as compliance with the bill of lading. *Gatoil International Inc. v. Tradax Petroleum Ltd.*, [1985] 1 Lloyd's Rep. 350 (Q.B.); *Shell International Petroleum Co. v. Seabridge Shipping Ltd.*, [1977] 2 Lloyd's Rep. 436 (Q.B.); but see *Amoco Oil Co. v. Parpada Shipping Co.*, [1987] 2 Lloyd's Rep. 69 (Q.B.) (0.2% is

maximum allowance unless contract specifies more). Law in the United States is similar. See *Spencer Kellogg v. S.S. Mormacsea*, 703 F.2d 44, 45 n. 2 (2d Cir.1983) (0.5% shrinkage is "normal trade allowance"). Amoco invited the district judge to conclude that in the United Kingdom a court would require the carrier to compensate the shipper for only 99.5% of the value of a lost cargo. The district court agreed and deducted 0.5% from the award in PIL's favor.

Once more, it is necessary to recall what the C.I.F. price is doing in this case. It is a proxy for the market price of bulk oil at a geographic location that does not have an active market in the commodity. The price in Europe is the objective, the basis of damages. Evaporation and other shrinkage influences how much oil from a given shipment arrives, but it also influences the price. Consider a simple example. Suppose half of every shipment vanishes en route by evaporation, or perhaps because the tanker burns the oil as a source of fuel. (Nothing turns on whether the shrinkage is 0.5% or 50%; we use the larger figure for ease of exposition.) Suppose further that oil costs \$12 per barrel in the Persian Gulf. How much, then, would crude oil cost in Europe? At least \$24 per barrel. Unless a merchant could obtain \$24 per barrel, it would be a losing proposition to buy and transport the stuff. (We assume for purposes of this example that the Persian Gulf is Europe's marginal source of oil, so that the price of oil from the Gulf is the price of all oil in Europe.)

How should a court treat shrinkage when the prices at origin and destination differ? The answer depends on which price the court uses in the computation. Return to the example. One hundred barrels of oil, at \$12 apiece, leave the Persian Gulf; 50 barrels of oil, which can be sold for \$24 per barrel, arrive in Rotterdam. The shipment is worth \$1,200 in both places:  $100 \times 12 = 50 \times 24 = 1200$ . Damages for total loss of the shipment at either end, or anywhere in between, must be \$1,200. That can be achieved in two ways: multiply the price at destination by the delivered quantity, or the price at origin by the loaded quantity. Cases that allow a deduction for shrinkage use the price at destination. When you know the price at origin, and are trying to infer the price at destination, the right approach is to use the cost as loaded and not deduct for shrinkage en route. What the district judge did, however, was to multiply the price at origin by the delivered quantity. The law of the United Kingdom does not permit this mixture of approaches. We reverse the district court's application of the 1/2 % reduction.

#### 4.

After computing PIL's damages in dollars, the district judge converted the award to pounds sterling and entered judgment in that currency. Conversion at a price of \$1.93 per pound is costly to PIL, for the pound dropped against the dollar between the breakup of the AMOCO CADIZ and the conversion. At the time the district court converted the damages to pounds, the rate of exchange was \$1.82. It is now about \$1.77. (Amoco first asked the district judge to enter judgment in pounds in February 1985, when sterling was \$1.0865.) The district judge changed currency because English law requires the court to use the money in which "the loss is felt", *The Despina R*, [1979] A.C. 685, 701; *The Kefalonia Wind*, [1986] 1 Lloyd's Rep. 273, 291, which, the court held, is sterling. See also *Miliangos v. George Frank (Textiles) Ltd.*, [1976] A.C. 443 (H.L. (E.)) (expressly overruling older cases that limited British judgments to sterling).

We understand PIL's concern about the rate at which the exchange occurred. Surprisingly, however, PIL opens with the argument that a court of the United States must enter judgment in dollars. What's wrong with sterling? PIL is an English corporation; sterling is its native currency. PIL expresses concern that Amoco will refuse to pay; how do you execute a pound-denominated judgment against assets in the United States? Or what would happen, PIL wonders, if Amoco timed its satisfaction of the judgment to take account of movements in the currency markets? Courts all over the world enter judgment in currencies other than their own. PIL, which operates world 'round, does not inform us that it has experienced in other nations any difficulties attributable to the use of "hard" (that is, freely convertible) currencies other than those of the forum. Collection is simple once you recognize that dollars may be turned into any other currency, so that a judgment nominally in marks or yen may be satisfied in dollars. "A judgment denominated in a foreign currency may be satisfied either in that currency or by payment of an equivalent amount in dollars measured by the rate of exchange in effect on the date of payment." Restatement (3d) of the Foreign Relations Law of the United States § 823 comment b (1986). Delay in payment also creates no

special problem. As soon as the court announces the award, the parties may eliminate exchange risk by using the currency futures markets. For example, if PIL wants to hedge against the risk that the pound will fall against the dollar, it can buy a dollar futures contract, promising to pay in sterling. When Amoco satisfies the judgment with sterling, PIL can close its futures position and receive the dollar value of the award.

Foreign currency awards are rare in federal courts of the United States--this may be the first--because § 20 of the Coinage Act of 1792, 31 U.S.C. § 371 (1976), provided that "[t]he money of account of the United States shall be expressed in dollars ... and all proceedings in the courts shall be kept and had in conformity to this regulation." Congress repealed this section of the Coinage Act in 1982. Section 5101 of Pub.L. 97-258, 96 Stat. 980. See 31 U.S.C. § 5101. There is now no bar to judgment in the appropriate currency. Restatement (3d) of Foreign Relations § 823(1); see also Uniform Foreign-Money Claims Act § 7(b) (1989); UCC § 3-107(2).

Judgment in a foreign currency is especially attractive when the commercial activity took place in that currency. Parties that conduct their dealings in francs, rubles, pesos, yuan, bolivars, or australs either accept the risk of changes in the value of that currency or have made provisions to hedge against that risk. Computing an award in cruzeiros and then converting to dollars creates a risk that the parties did not accept--the risk that the judge will select an inapt date or use a currency no one had included in hedging plans. Fights over conversion dates are inevitable whenever judges enter dollar awards to redress injuries denominated in other currencies. Compare *Agfa-Gevaert, A.G. v. A.B. Dick Co.*, 879 F.2d 1518, 1524-25 (7th Cir.1989), with *Ingersoll Milling Machine Co. v. Granger*, 833 F.2d 680, 692 (7th Cir.1987). Thus the English rule should be used in the United States too--not because the choice-of-law provision in this contract requires it, but because it is the right rule for commerce. The court should enter the judgment in the currency the parties themselves selected for their dealings, the currency in which the loss is felt. All problems about conversion dates vanish, and the parties' hedging strategies (or lack thereof) proceed unimpeded.

At some length, the parties have disputed how a British court would determine the currency in which Shell Netherlands and Shell U.K. "felt the loss". The district judge determined that they felt the loss in sterling because (a) that is the currency in which they kept their accounts (the entire Shell group keeps its consolidated accounts in sterling, with parallel entries in dollars), and (b) that is the currency the buyers would receive when they resold the cargo. Reason (b) is both irrelevant and incorrect--irrelevant because the loss of a dollar-denominated product is a dollar loss (it must be replaced with dollars) even if you plan to refine the product and sell for rupees or zlotys, and incorrect because Shell Netherlands receives florins for its products. If the currency of resale were pertinent, then damages always would be awarded in the currency of the prevailing party's nation. That bears only an accidental relation to the parties' allocation of exchange risk in the transaction--which calls for judgment in the currency in which the parties conducted their trading. *The Despina R*, [1979] A.C. at 698.

Despite the fact that accounting conventions, like the currencies of projected resales, bear no evident relation to the currency risk in the transactions, a British court would give some weight to accounting. See *Attorney General of Ghana v. Texaco Overseas Tankships Ltd.*, No. 1988/2606 (Q.B. July 30, 1991). The Ghanaian cedi is not a convertible currency. Anyone in Ghana wanting to buy oil must apply to the central bank, which alone is authorized to expend hard currency. Thus a trading company in Ghana accounts for transactions in cedis and bears the risk of fluctuation in its value. A cargo of oil was lost heading for Ghana, and the court had to determine the currency of the judgment. Two things are of interest. First, the court thought that the utter dependence of Ghana's internal operations and accounting on the cedi meant "that the [buyer] felt the loss in cedis, that cedis is the currency which most truly expresses its loss". Slip op. 47. Second, the court nonetheless made the award in dollars, and for two reasons: (a) the devaluation of the cedi against the dollar during the case would prevent *restitutio in integrum* if the award were given in cedis, *ibid.*, and (b) the denomination of the award in dollars could not prejudice the defendants, because all international transactions in oil occur in dollars. *Ghana v. Texaco Tankships* reveals that the dominant principle of currency selection in British law is adequate compensation of the victim, and every case we could find in the end looks through form (such as accounting conventions) to make the award in the

currency the parties selected for their own dealings. The central bank of Ghana bought the oil in dollars; the court entered judgment in dollars.

Such an approach yields a simple answer in this case. Crude oil is a dollar commodity everywhere in the world. SIPCO bought the crude oil in dollars, using a dollar account it maintains in New York; it sold the oil to Shell U.K. and Shell Netherlands in dollars, under bills of lading denominated in dollars; PIL paid Shell U.K. and Shell Netherlands in dollars. During the first quarter of 1978 SIPCO paid more than \$800 million for oil from its New York account. All balances are maintained in dollars. Only at the end of the quarter--and then only for accounting purposes--do the Shell companies state and set off their accounts in sterling. All of the currency risk is in dollars, because that is the currency of transactions and the currency in which balances are held. The district court therefore computed the loss in dollars. Having computed the loss in dollars, it should have entered judgment in dollars. "In the case of a contract for sale of goods, damages should ordinarily be assessed in the currency in which the price is expressed, except where the injured party was obliged to incur expenses (including mitigation of damages) in some other currency."

Restatement (3d) of Foreign Relations § 823 reporters' note 3.

A conversion problem arises only when the underlying transactions occur in a foreign currency--as for example the French plaintiffs incurred franc-denominated costs to clean up the coast. When all of the transactions occur in dollars, the judgment should be in dollars. Always. When they occur in some other currency, the award should be in that currency. Always. Certainty in this practice will enable the parties to hedge against currency risks. *Agfa-Gevaert*, 879 F.2d at 1524. Unpredictable currency choices or conversion dates create needless risk. A simple, uniform rule that the currency of the judgment matches the currency of the transactions will permit the parties to handle the risks themselves. There will still be need for choice when multiple currencies are used in the same transaction (as in *Ghana v. Texaco Tankships*), but it is possible to eliminate the problem for one-currency cases.

In saying this we are aware that a British court would not follow so inflexible an approach (although we are confident that a British court would choose dollars in this case). In the end, however, we think the choice of currency is one of forum law. We have looked to the United Kingdom for wisdom, not for authority; that nation is 15 years ahead of us in experience with judgments in foreign currency. Decisions that affect the measure of compensation are substantive, but as we have emphasized any predictable rule of currency selection is neutral. Although the value of the judgment may fluctuate, the parties' hedging can undo the effect. The highest objective is predictability. There can be little doubt that currency choices are for the forum. Until 1982 the United States prescribed the dollar as the currency of judgments; no court bypassed the Coinage Act on the theory that currency is a substantive question governed by foreign law. The Restatement (2d) of Conflict of Laws § 144 (1969) also prescribed the use of forum law for conversions: The court "will convert the currency in which recovery would have been granted in the other state into local currency as of the date of the award." So, too, the Restatement (3d) of Foreign Relations § 823(2) treats the question as one of forum law. It also announces that in this nation conversion "is to be made at such rate as to make the creditor whole and to avoid rewarding a debtor who has delayed in carrying out the obligation." Domestic law plays no lesser role in selecting the currency than in selecting a date for conversion between currencies; these are, indeed, two sides of the same coin.

So long as the court makes discretionary decisions in choosing a conversion date, the criteria influencing the exercise of that discretion properly come from the law of the jurisdiction creating the claim. See *In re Good Hope Chemical Corp.*, 747 F.2d 806, 811 (1st Cir.1984); *Competex, S.A. v. Labow*, 783 F.2d 333 (2d Cir.1986). Such discretion can have large effects on the value of the award. By converting to a more mechanical currency-selection rule we remove the effect of currency on the value of the judgment and so justify the conclusion of the Restatements that the rule is procedural.

The district court's approach--converting from dollars to pounds in 1989 but using the rate of exchange that prevailed in 1978--does not achieve any of the objectives. It does not produce certainty. It does not facilitate hedging. It does not honor the parties' choice of currencies in which to transact business and bear risks. And it does not adhere to the domestic norm of making the judgment creditor whole. We reverse the district court's decision and instruct it to enter a judgment in PIL's favor denominated in dollars.

## G.

The district court awarded the French plaintiffs a principal amount of roughly 340 million francs, or about \$61 million at the current rate of exchange, and the owners of the cargo approximately <<PoundsSterling>>11.2 million, or \$19.8 million at the current exchange rate. Because the accident occurred so long ago, the largest issue in the case is prejudgment interest. This could be anywhere from nothing (Amoco's preferred position) to compound interest at the U.S. prime rate (the plaintiffs' preferred position), which implies a multiplier of more than 3.3.

The district court first rejected Amoco's argument that "inequitable" conduct by the plaintiffs should lead to a denial of all interest. Next it briefly stated that an award of compound interest was appropriate under the law of the forum. Finally it explained the choice of a rate: This court notes recent legislation on the subject of post-judgment interest applicable in federal courts, and has utilized the same rule both for pre-judgment interest and post-judgment interest. The federal statute on the subject of post-judgment interest, that is, 28 U.S.C., Section 1961, provides that interest shall be calculated from the date of the entry of the judgment at a rate equal to the coupon issue yield equivalent as determined by the Secretary of the Treasury of the average accepted auction price for the last auction of 52 week United States Treasury bills settled immediately prior to the date of the judgment. The Director of the Administrative Office of the United States Courts is charged with distributing notice of that rate and any changes in it to all federal judges. That notice has been distributed and the current interest rate is 7.22 percent. While this amount is not binding on the federal courts in the area of pre-judgment interest, it does serve as a guide or benchmark suitable to the circumstances of this case and is adopted by the court as the pre-judgment interest rate.

When making recommendations on the motions for reconsideration, Special Master McGarr rejected a claim that inflation (in France or the United States) justified a higher rate. We reproduce his discussion of this question: France argues also that inflation in France has been great since the date of the oil spill and that the court should give consideration to the decline in the value of the franc. It is the function of the court to hear claims, in this case stated in francs, to adjudicate their validity and to fix judgment amounts based on the evidence. The external circumstances affecting the value of a currency are not relevant to the judgment amount. Had France experienced deflation and increased value of the franc, plaintiffs would have benefitted. Either way, it is a circumstance outside the control of the court and the parties, and outside the pale of relevance to the court's determinations. Another aspect of this issue is whether inflation, although not recognized to vary the amount of the judgment, should be recognized to affect the court's judgment as to the pre-judgment interest rate. France argues that high interest rates are a result of inflation and that inflation therefore justified a higher interest rate than the 7.22 percent the court allowed. The court, having rejected the argument that inflation is a factor to be considered by the court, must reject this argument also, based as it is on an effect of inflation.

With respect to PIL's request for interest, the court said the following--and again we reproduce the full discussion:

35. PIL is entitled to prejudgment interest.

36. English courts do not award compound interest except in cases of fraud and other exceptional circumstances which are of no relevance to this action. Applying English law, as contemplated by the Charter Party and bills of lading, PIL would have no reasonable expectation of recovering compound interest on any judgment that would be entered.

The court ultimately applied the same 7.22% rate, but without compounding, to PIL's award. It allowed the 7.22% rate to stand with respect to all plaintiffs even though by the time of judgment the postjudgment rate exceeded 8%.

We start with a discussion of principles. Part VII.G.2 addresses arguments peculiar to the French parties, and Part VII.G.3 all arguments concerning PIL.

"Prejudgment interest is an element of complete compensation". *West Virginia v. United States*, 479 U.S. 305, 310, 107 S.Ct. 702, 706, 93 L.Ed.2d 639 (1987). See also, e.g., *General Motors Corp. v. Devex Corp.*, 461 U.S. 648, 655-56, 103 S.Ct. 2058, 2062-63, 76 L.Ed.2d 211 (1983); *Gorenstein Enterprises, Inc. v. Quality Care-USA, Inc.*, 874 F.2d 431, 436-37 (7th Cir.1989); *Williamson v. Handy Button Machine Co.*, 817 F.2d 1290, 1297-98 (7th Cir.1987). Money today is not a full substitute for the same sum that should have been paid years ago. Prejudgment interest therefore is an ordinary part of any award under federal law.

By committing a tort, the wrongdoer creates an involuntary creditor. It may take time for the victim to obtain an enforceable judgment, but once there is a judgment the obligation is dated as of the time of the injury. In voluntary credit transactions, the borrower must pay the market rate for money. (The market rate is the minimum appropriate rate for prejudgment interest, because the involuntary creditor might have charged more to make a loan.) Prejudgment interest at the market rate puts both parties in the position they would have occupied had compensation been paid promptly.

To see this, consider what would have happened if the French parties had borrowed \$60 million to finance the cleanup in April 1978, and Amoco had put that sum in trust to fund an award of damages (just as Amoco actually put 77 million francs in trust in France). The victims would have had to pay the market rate of interest, which at times during this case has exceeded 20% per annum. If they arranged to repay the debt in a single balloon payment at the end (when they recouped from Amoco), and if the rate of interest averaged 12%, then by April 1991 the victims would owe their creditors \$262 million. Meanwhile the trust fund, lending out its assets at the market rate of 12%, would have grown to \$262 million. Scores would be fully settled if Amoco tendered its interest in the fund: it would thus "pay" \$60 million as of 1978, and the victims would receive \$60 million as of 1978; the lenders who financed the cleanup would receive full payment for the use of their money. (We use these dates and rate only as illustrations; the periods and rates actually used in this case differ. We also disregard taxes.)

Victims who finance their own cleanup lend to themselves; forced to devote money to a project not of their own choosing (money they otherwise could have lent out at the market rate of interest), they are entitled to compensation for the "hire" of this capital. See *Fishman v. Wirtz*, 807 F.2d 520, 555-60 (7th Cir.1986); *id.* at 580-82 (separate opinion). Tortfeasors who choose to reinvest their money in their business (as Amoco has done) rather than create a trust fund must believe that the returns in their enterprise exceed the market rate. Having earned this higher rate of return for the duration of the litigation, they are in no position to complain when called on to pay prejudgment interest. An injurer allowed to keep the return on this money has profited by the wrong. So we reiterate the holding of *Gorenstein*--one almost compelled by *Devex* and *West Virginia*--that compound prejudgment interest is the norm in federal litigation.

Interest at what rate? Surely the market rate. That is what the victim must pay--either explicitly if it borrows money or implicitly if it finances things out of cash on hand--and the rate the wrongdoer has available to it. To return to the trust fund example, if the market rate were 12% it would be unthinkable to set a prejudgment rate of interest at 7.5%, order Amoco to turn over \$154 million to the victims (the value of \$60 million invested at 7.5% compound interest for 13 years), and authorize Amoco to retain the other \$108 million. The victims would owe their creditors \$108 million, and the tortfeasor would be the wealthier. Yet that would be the upshot of computing prejudgment interest at less than the market rate--an effect that does not depend on the existence of an express trust but is as powerful if the victims and the tortfeasor both use internal financing. All of this is just the flip side of discounting to present value in a tort case for future loss. See *Jones & Laughlin Steel Corp. v. Pfeifer*, 462 U.S. 523, 533-53, 103 S.Ct. 2541, 2548-58, 76 L.Ed.2d 768 (1983); *O'Shea v. Riverway Towing Co.*, 677 F.2d 1194, 1199-1201 (7th Cir.1982). As prepaid damages must be reduced at a market rate that takes account of inflation, so postpaid damages must be increased.

What, then, is the market rate? Some of the district judge's discussion, coupled with his use of the rate on Treasury securities as of the date of his opinion, implies that the court thought that the market rate is the rate for safe securities at the end of the case. Yet as we pointed out in *Gorenstein*, when expressly disapproving use of the postjudgment rate for prejudgment interest, 874 F.2d at 436-37, an involuntary tort creditor is not safe. The defendant may go out of business (or encounter less serious reverses), or hide assets, during the litigation. Any market interest rate reflects three things: the social return on investment (that is, the amount necessary to bid money away from other productive uses), the expected change in the value of money during the term of the loan (i.e., anticipated inflation), and the risk of nonpayment. The best estimate of these three variables is the amount the defendant must pay for money, which reflects variables specific to that entity. Amoco has publicly traded notes and debentures; a court could draw an interest rate directly from them. As we suggested in *Gorenstein*, 874 F.2d at 437, unless it engages in such refined rate-setting, a court should use the "prime rate"--that is, the rate banks charge for short-term unsecured loans to creditworthy customers. This rate may miss the mark for any particular party, but it is a market-based estimate.

Although *Gorenstein* did not elaborate on this, it should be plain that the market rate in question is the one during the litigation--when the defendant had the use of money that the court has decided belongs to the plaintiff--not the going rate at the end of the case. See *Ohio River Co. v. Peavey Co.*, 731 F.2d 547, 549-50 (8th Cir.1984); *SCNO Barge Lines, Inc. v. Sun Transportation Co.*, 775 F.2d 221, 226 (8th Cir.1985). It is 13 1/2 years since the AMOCO CADIZ ran aground. Market rates have been above 20% and below 10% for different portions of the period. As it would be inappropriate to award prejudgment interest at a 20% rate if that happened to prevail in the last week of a case (and the rate had been 5% for the preceding decade), so it is inappropriate to use a low rate such as 7% for which money may be rented at the conclusion, when higher rates persisted during the bulk of the case. The district court's remark (when denying the French parties' motion for reconsideration) that inflation is irrelevant to the choice of a rate of interest reflects a misunderstanding of the relation between inflation and interest rates. The market rate includes a prediction of inflation--which is why it is necessary to use the rates in force during the case and not whatever rate prevails at the end.

## 2.

The district court resolved the French plaintiffs' claims under the law of France. Prejudgment interest is an element of damages--it is used to make the victim whole. Rules for prejudgment interest therefore usually come from the law defining the elements of damages. In diversity cases governed by Erie, federal courts look to state law to determine the availability of (and rules for computing) prejudgment interest. E.g., *Residential Marketing Group, Inc. v. Granite Investment Group*, 933 F.2d 546, 549-50 (7th Cir.1991); *Art Press, Ltd. v. Western Printing Machinery Co.*, 852 F.2d 276, 278-80 (7th Cir.1988). In cases governed by federal law, courts look first to the statutes, devising federal common law only if they have been authorized to do so. One would think, therefore, that prejudgment interest on the French plaintiffs' claims depends on French law--just as the district judge held that prejudgment interest on PIL's claims depends on British law. Nonetheless, the district court applied American law to the French plaintiffs' request for prejudgment interest. Amoco has not challenged that decision, and the French plaintiffs say (without contradiction) that Amoco agreed in the district court to the use of American law on this subject. On appeal Amoco says only that French law is an "equitable" consideration affecting the district court's choice of a rate of interest. We decide the case on the parties' assumption that our law applies--while reserving for decision in another case whether this assumption is accurate.

Amoco does not try to defend Judge McGarr's conclusion that the statutory postjudgment rate should be used as the prejudgment rate. It maintains, instead, that the French plaintiffs should count themselves lucky. Because the district court could (and in Amoco's view should) have declined to award any prejudgment interest, Amoco insists that the French plaintiffs are not entitled to an increase. Although the French parties reply that Amoco has not preserved this argument because it did not take a cross-appeal on this question, Amoco is free to defend its judgment by invoking arguments that failed to persuade the district court. *Massachusetts Mutual Life Insurance Co. v. Ludwig*, 426 U.S. 479, 96 S.Ct. 2158, 48 L.Ed.2d 784 (1976); *Jordan v. Duff & Phelps, Inc.*, 815 F.2d 429, 439 (7th Cir.1987). It cannot obtain a favorable

alteration in the judgment without a cross-appeal, *United States v. American Railway Express Co.*, 265 U.S. 425, 435, 44 S.Ct. 560, 563-64, 68 L.Ed. 1087 (1924), but it may urge in defense of the judgment any argument preserved below--even an argument the logical implications of which would call for a different judgment. *United States v. New York Telephone Co.*, 434 U.S. 159, 166 n. 8, 98 S.Ct. 364, 369 n. 8, 54 L.Ed.2d 376 (1977); Robert L. Stern, *When to Cross-Appeal or Cross-Petition--Certainty or Confusion?*, 87 *Harv.L.Rev.* 763 (1974).

According to Amoco, three equitable considerations support a denial of all interest--and perforce a limitation of interest to 7.22%. First, this has been a lengthy case, so that interest has mounted dramatically. Much of that delay is attributable to the French plaintiffs, Amoco submits. Second, the French plaintiffs (especially the Cotes du Nord parties) submitted inflated, even fraudulent, claims. Third, French courts do not award compound pre-judgment interest.

Although Amoco submits that Judge McGarr took these things into account when setting the 7.22% rate and did not mechanically follow the statutory postjudgment rate, we have a different view. The district court referred to the statutory rate--and not at all to these equitable considerations--when selecting the rate. Moreover, the district court used the same statutory postjudgment rate for PIL, to which none of these three considerations applies. Thus to the extent Amoco is arguing for a favorable exercise of discretion, it has had its day and lost. Whatever discretion the district judge possesses to act on these equitable grounds has not been exercised in Amoco's favor.

Many cases say that district courts have discretion to adjust the rate of interest or deny interest altogether. E.g., *Heiar v. Crawford County*, 746 F.2d 1190, 1201 (7th Cir.1984). Discretion is not unbridled; it is exercised under law. "[D]iscretionary choices are not left to a court's 'inclination, but to its judgment; and its judgment is to be guided by sound legal principles.'" *Albemarle Paper Co. v. Moody*, 422 U.S. 405, 416, 95 S.Ct. 2362, 2371, 45 L.Ed.2d 280 (1975), quoting from *United States v. Burr*, 25 F.Cas. 30, 35 (No. 14,692d) (CC Va.1807) (Marshall, C.J.). What reasons would justify an exercise of discretion against the prevailing plaintiff? We remarked in *Williamson* that "[s]ubstantial, unexplained delay in filing suit might be such a reason, because delay shifts the investment risk to the defendant, allowing the plaintiff to recover interest without bearing the corresponding risk." 817 F.2d at 1298. The Supreme Court reinforced this in *West Virginia* by stating that laches could justify a denial of interest. 479 U.S. at 311 n. 3, 107 S.Ct. at 706 n. 3. A court also may deny interest when it is too difficult to determine which parts of an award are eligible. *Daniels v. Pipefitters' Ass'n Local 597*, 945 F.2d 906, 925 (7th Cir.1991). Beyond these hints, courts have done little to sketch the limits of acceptable discretion. Limits there must be--for what is the point of computing the principal amount of damages in intricate detail if the judge may turn around and increase (or reduce) the value of that award by a factor of three on the basis of vague equitable concerns? "We must not invite the exercise of judicial impressionism. Discretion there may be, but 'methodized by analogy, disciplined by system.'" Cardozo, *The Nature of the Judicial Process*, 139, 141 (1921). Discretion without a criterion for its exercise is authorization of arbitrariness." *Brown v. Allen*, 344 U.S. 443, 496, 73 S.Ct. 397, 441, 97 L.Ed. 469 (1953) (Frankfurter, J.).

None of the three considerations Amoco offers could support a denial of interest even had the district court been inclined to exercise its discretion in Amoco's favor. Start with the passage of time: this is a reason to award interest, not to deny it. Amoco does not contend that the plaintiffs delayed in filing suit, and although 13 years is a regrettably long time to reach final decision, it is not uncommon for a case of this magnitude. As for exaggerated and fraudulent claims: these may be a basis of sanctions under Fed.R.Civ.P. 11 and 37, but sanctions must be proportioned to the wrong. No one would suppose that the appropriate sanction for filing even a bushel basket full of bogus claims is a \$100 million fine. Yet that is Amoco's position. Return to the trust fund example: Amoco ponies up \$60 million in April 1978, and by April 1991 the fund contains \$262 million. The district court must apportion this fund between the parties. Could a court even think of saying: "Complete redress of the plaintiffs' injuries calls for an award of the entire \$262 million, but because many of the claims during the course of the litigation were inflated, I shall award the plaintiffs \$149 million and return the other \$113 million to the defendant."? Not a chance. This is, however, the consequence of interest at the rate of

7.22% rather than 12%--and Amoco's preferred position (no interest) implies a penalty of \$202 million for exaggeration.

We explained in *Frantz v. United States Powerlifting Federation*, 836 F.2d 1063 (7th Cir.1987), that in choosing a sanction for misconduct a judge should not simply toss out a legitimate claim by the offending party. "[T]he method of getting to a sanction should be characterized by intellectual discipline". *Id.* at 1066. See also *In re Central Ice Cream Co.*, 836 F.2d 1068 (7th Cir.1987). If the French plaintiffs have offended at all, even \$5 million would be an excessive sanction; yet Amoco demands a sanction in the hundreds of millions. Indeed, we doubt that any adjustment of interest rates on this account could be sustained after *West Virginia*. The district court in that case declined to award interest on "equitable" grounds, including excessive delay (Amoco's first point) and the difference between federal and state law (a cousin to Amoco's third). The Supreme Court's treatment was curt: "The District Court held that whether interest had to be paid depended on a balancing of equities between the parties; the Court of Appeals rejected such an approach, as do we." 479 U.S. at 311 n. 3, 107 S.Ct. at 706 n. 3.

The right way to deal with exaggerated claims is to cut down on those claims, not to deny interest on proven entitlements. One has only to return to the discussion of *Plougrescant* in Part VII.A of this opinion to see how severely the district court cut back many of the claims. Fiddling with the rate of interest would be double counting after these exclusions. The right way to deal with fraudulent claims is to impose explicit, reasoned, and measured sanctions on those who present such claims. (On the view we take of the case, it is not necessary to decide whether any of the claims was "fraudulent"; we note, however, that the French plaintiffs provide at least superficially plausible explanations for the claims to which Amoco attaches that label.) The right way to deal with French law on prejudgment interest is to decide whether it governs. If it does, apply it; if it does not, then apply American law (as the district judge did) rather than attempt some compromise between the bodies of law. (The parties strenuously dispute what French law provides by way of prejudgment interest; our approach allows us to be agnostic on the subject.)

We hold that the French plaintiffs are entitled to prejudgment interest at the market rates that prevailed during the 1980s. The district court started the interest period at the end of 1979; the French have not contested this delay on appeal. The French parties say that the average prime rate during the 1980s was 11.9%. Amoco does not contest this and does not suggest that it paid a lower rate on its own debt. Because Amoco has not challenged the proposed rate of 11.9%, we adopt it. Because Amoco has not challenged the computation that leads the French plaintiffs to conclude that the interest factor through the date of judgment creates a multiplier of 3.3162, we adopt that figure also. On remand the district court shall apply this multiplier to the judgment recomputed according to the decisions made elsewhere in this opinion.

Amoco has little reason to shed crocodile tears. Exxon reportedly spent \$2 billion to clean up the oil the EXXON VALDEZ spilled off Alaska; it has agreed to pay another \$1 billion as damages and to pay a criminal fine of \$125 million. Amoco will be called on to pay only \$61 million plus interest to redress a spill that not only was larger but also occurred in a more densely populated area. Calling the \$61 million the result of inflated or fraudulent claims taxes credulity.

### 3.

The district court awarded PIL the same 7.22% rate of interest as it had the French plaintiffs but without compounding. It held that British law does not allow compounding; the court did not explain the choice of 7.22% as the rate.

Amoco does not contend that the United Kingdom prescribes any rate of interest other than the market rate. For reasons we have already given, 7.22% is not the market rate and is not justifiable on any other ground. Even the "equitable" arguments Amoco asserts against the French plaintiffs are unavailable against PIL. We therefore hold that PIL is entitled to prejudgment interest at the prime rate. PIL contends that the average rate between the catastrophe and judgment is 12.31% per annum. (This exceeds the rate the

French plaintiffs have calculated, because it includes the high-interest period between March 1978 and the end of 1979, which was excluded from the French plaintiffs' claim.) Again Amoco does not contest this calculation. On remand the district court shall increase the rate of prejudgment interest in PIL's case to 12.31%.

The parties agree that courts of the United Kingdom award simple rather than compound prejudgment interest. The *La Pintada*, [1984] 2 Lloyd's Rep. 9, 17. Relying on *Miliangos v. George Frank (Textiles) Ltd.*, [1977] 1 Q.B. 489, 497, PIL insists that England treats interest as a procedural rather than substantive matter, so that the law of the forum governs. What is the law of the forum? Now looms the spectre of *renvoi*, for American courts treat prejudgment interest as a substantive question, which by the charter party and bills of lading is to be decided under British law. There are several ways to escape from this predicament--an infinite loop being excluded by the terror of having a case under advisement forever, and other sufficient reasons. See *University of Chicago v. Dater*, 277 Mich. 658, 270 N.W. 175 (1936); Restatement (2d) of Conflict of Laws § 8. The easiest trap door, and the one appropriate here, is to deny that the foreign jurisdiction refers back to the forum's law.

*Miliangos* is an ambiguous case. Justice Bristow says that British courts treat prejudgment interest as a question of forum law. But he also says that a British court should use the discretion it possesses under its domestic law to produce an award that tracks the one the court supplying the substantive rule would think appropriate. Switzerland supplied the substantive rule in *Miliangos*, and the court applied simple interest at the Swiss rate. There are two ways to understand this outcome. One, which Amoco favors, is that *Miliangos* does not "really" treat interest as a question of forum law but instead flexibly matches the award to the substantive rule--an approach that, Amoco insists, means simple interest. The other understanding, which PIL favors, is that the United Kingdom has no rule at all: although it believes that simple interest provides adequate compensation, it will go with the flow, and if some other jurisdiction has a different view, that is fine with Her Majesty's courts. In modern American argot, the argument is that the United Kingdom has no "interest" in the method of computing interest. England does not point to forum law (inviting the forum to point back); it simply does not care, and then the forum naturally applies its own law.

Of only one thing can we be sure: had this case been filed in the United Kingdom, it would have been decided under British substantive law, and PIL would have received simple prejudgment interest. Is there any reason why the location of the forum should call for a different result? Perhaps it would be Amoco's comeuppance if the filing in the United States (to take advantage of the Limitation of Liability Act) should ricochet and generate compound interest. The only argument we can see for changing the rule of law with the forum--given our strong preference for enforcing the rules the parties chose-- would be that litigation in the United States takes longer than litigation in the United Kingdom. Could it be that the English approach reflects the fact that when cases end quickly, there is not much difference between simple and compound interest? Would an English court switch to compounding when the case drags on for more than 13 years? Britain's dominant principle of damages is *restitutio in integrum*--that is, restoration of the injured party to the position it occupied before the wrong. Although England believes that simple interest accomplishes this end, it might have a different view in long-running litigation. Compound prejudgment interest will give PIL 100% of the value of the cargo; simple interest, after 13 years, produces only 57.5%.

Although it is tempting to follow this reasoning to the conclusion that PIL is entitled to compound interest, no data available to us suggest that large-stakes commercial litigation in the United Kingdom comes to judgment faster than in the United States. Too, PIL has not cited any case suggesting that in the United Kingdom compounding would be allowed in drawn-out contests. That leaves us with two dominant considerations: If the suit had gone to judgment in England, PIL would have had simple interest; and courts of the United States treat prejudgment interest as a question of substantive law, pointing us to the English rule. Both potential forums thus can produce the same result, without violence to the law of either. Parties may provide for compound interest by contract; by incorporating the law of the United Kingdom without a separate provision on this question, the parties assented to simple interest. Commerce depends on honoring contracts rather than finding creative ways to get 'round them after the fact, and we honor the parties' bargain by affirming the district court's conclusion that PIL's prejudgment interest should not be compounded.

## VIII.

To sum up: all decisions on jurisdiction and liability are affirmed. The computation of damages is affirmed with the following exceptions:

1. France is entitled to an additional 3.5 million francs (before interest) for the expense of the cleanup.
2. L'Union des Commerçants et Artisans de Tregastel and L'Union Pleumeuroise Pour la Defense des Interets des Commerçants et Artisans lack standing, and the awards in their favor are vacated.
3. The award in favor of PIL shall be made in dollars, and the 0.5% deduction for shrinkage shall be eliminated.
4. The French plaintiffs are entitled to compound prejudgment interest at a rate of 11.9% per annum from January 1, 1980, implying a multiplier of 3.3162.
5. PIL is entitled to simple prejudgment interest at the rate of 12.31% per annum from March 16, 1978.

The case is remanded for the entry of judgment in accordance with this opinion.