PRACTITIONER NOTES

SUPPLY-SIDE / MANUFACTURING OUTSOURCING—STRATEGIES AND NEGOTIATIONS

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"As for the Future, your task is not to foresee it, but to enable it."
—Antoine de Saint-Exupéry[1]

Supply-side, or manufacturing, outsourcing has increased dramatically over the past two decades, evolving from a cost saving solution for labor intensive, generic manufacturing parts to a solution used for production of high-end, finished components of electronics, microchips, pharmaceuticals, and even biologics. Customers have benefited from high quality and on-time delivery by outsourcing to vendors and were able to reduce costs and increase margins, access skilled labor, reduce time to market, penetrate new markets, and manage overflow work.[2] Sophisticated customers, moreover, realize that supply-side outsourcing entails an organizational transformation more akin to a divestiture of a company's core function rather than constituting a service arrangement and, therefore, increasingly use outsourcing as a business restructuring tool.

The objective of this Essay is to elucidate the business, contractual, and legal issues which figure most prominently in supply-side outsourcing arrangements between U.S. customers and foreign vendors. I hope to alert the reader to the issues through the prism of five enumerated categories of risks, analyze the customers' and vendors' respective positions, and propose commercially reasonable compromises. Any discussion of outsourcing, moreover, must be set in the context of the emerging global economy even while reflecting the limits of "globalism" in cross-border business transactions and legal practice.

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1. ANTOINE DE SAINT-EXUPÉRY, THE WISDOM OF THE SANDS 155 (Harcourt, Brace & Co., Inc., 1950) (1948).

2. ASS'N FOR COMPUTING MACHINERY, GLOBALIZATION AND OFFSHORING OF SOFTWARE: A REPORT OF THE ACM JOB MIGRATION TASK FORCE 57-60 (William Aspray, Frank Mayadas, & Moshe Y. Vardi eds., 2006) [hereinafter ACM REPORT], *available at* http://www.acm.org/globalizationreport/pdf/fullfinal.pdf.

I. THE BASICS

"Outsourcing" simply means engaging a vendor to do what the customer used to do itself. All business processes, from the most basic to the most complex manufacturing and supply functions, are now subject to outsourcing. "Offshoring" is outsourcing to a vendor in another country.

Primarily, high wage countries with advanced service industries send work offshore.[3] The United States leads the world in offshoring, followed by United Kingdom, Germany, France, and other western European countries.[4] Japan has so far resisted the offshoring trend, probably due to social policy reasons.[5] Traditionally, the four countries with the most established vendors for high-tech offshoring service work have been Ireland, India, Canada, and Israel.[6] The most desirable locations for offshore work now are: India, followed by China, Malaysia, the Czech Republic, and Singapore.[7] Taiwan and Korea continue to be key offshoring venues for electronics and microchips. There are also regional favorites. According to one survey, "Brazil is the leading offshore source in South America; South Africa in Africa; Hungary, Poland, and Romania in Europe; Canada, New Zealand and Israel among developed nations; and Ireland, Portugal, Spain, and the United Kingdom in Western Europe."[8] Some industry-observers estimate that over 4000 outsourcing suppliers exist, 3200 of which are located in India.[9]

Outsourcing and offshoring activity is poised for a dramatic increase due to both projected renewals of existing relationships and new transactions.[10] Outsourcing deals up for renewal during 2006-2008 are valued around $90 billion.[11] However, segmentation is beginning to

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3. *Id.* at 52.

4. *Id.* at 52.

5. *Cf.* Steven Brull, *No-Layoff Ideal Costs Japan Dearly*, INT'L HERALD TRIB., Nov. 26, 1992, *available at* http://www.iht.com/articles/1992/11/26/labo.php (discussing the effect of a lifetime-employment tradition on Japanese businesses).

6. ACM REPORT, *supra* note 2, at 52.

7. *See id.* at 53.

8. *Id.* at 53.

9. *See* Peter Bendor-Samuel, *How Changes in the Outsourcing World Will Affect Outsourcing in 2007*, http://www.outsourcing-requests.com/center/jsp/requests/print/story.jsp?id=5216 (last visited Apr. 30, 2007).

10. *See id.*

11. Kathleen Goolsby, *Seven Trends in Offshore Outsourcing for 2007 and Why They Matter*, http://www.outsourcing-requests.com/center/jsp/requests/print/story.jsp?id=5211 (last visited Apr. 30, 2007).

occur as new vendors provide niche services, companies seek to better manage resources, and customers seek more personal attention.[12]

The ability to properly protect and exploit intellectual property (IP) has been an increasingly prominent challenge. This is because the key countries where the most significant outsourcing services are provided also tend to pose the greatest problems in intellectual property protection and enforcement. China, India and major Latin American countries have brought their legal systems, especially in intellectual property up to or near expected international standards. China joined the WTO on December 11, 2001 and accepted TRIPS and the Patent Cooperation Treaty.[13] According to the U.S. Trade Representative "overall the legal changes made in China through 2003 were major improvements that moved the Chinese generally in line with international norms in most key areas,"[14] but enforcement remains a "serious problem."[15]

There are important differences between China and India in offshoring. In this Author's experience, U.S. customers of Chinese vendors generally applaud the Chinese vendors' high-quality work product and timely delivery, but have encountered difficulties in language, business culture, IP protection and contractual enforcement. China continues to be heavily regionalized, and substantial differences exist between the various cities and cantons, with Shanghai and others being more accommodating of foreign companies and others less so.[16] India, by contrast, offers a more settled environment, including a modernized common law system which attempts to safeguard IP. Enforcement, however, is spotty and difficult, and Indian companies are increasingly demanding IP ownership and process controls.[17]

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12. *Id.*

13. OFFICE OF THE U.S TRADE REPRESENTATIVE, BACKGROUND INFORMATION ON CHINA'S ACCESSION TO THE WORLD TRADE ORGANIZATION (Dec. 11, 2001), *available at* http://www.ustr.gov/Document_Library/Fact_Sheets/2001/Background_Information_on_China's_Accession_to_the_World_Trade_Organization_printer.html; HENRY BECK & XICHUN (CATHERINE) PAN, LICENSING AND TECHNOLOGY TRANSFER TO CHINA: A ROADMAP 6-7 (Robert Goldscheider & Alan H. Gordon eds., 2006).

14. U.S. TRADE REPRESENTATIVE, 2004 REPORT TO CONGRESS ON CHINA'S WTO COMPLIANCE 61 (Dec. 11, 2004).

15. *Id.* at 62.

16. *See, e.g.,* BECK & PAN, *supra* note 13, at 15.

17. *E.g.*, James T. Holder & David E. Grimes, Essay, *Government Regulated Data Privacy: The Challenge for Global Outsourcers*, 38 GEO. J. INT'L L. 695 (2007).

II. THE WORLD IS FLAT BUT WITH NOOKS AND CRANNIES—THE LIMITS OF GLOBALISM

For many, Tom Friedman's proclamation of the "flatness" of the world, represents the final triumph of the age of globalism over internationalism.[18] International business transactions, and with them international legal practice, certainly have "flattened," evolving from stressing the differences between states to focusing on their commonalities. Traditional international legal practice was primarily concerned with comparative law and the management of legal inconsistencies.[19] In global practice, the focus is on harmonization, common threads and unifying elements which have increasingly asserted themselves over preexisting differences. Nowhere is this more true than in the context of outsourcing.

Businessmen and lawyers in Bangalore, Shanghai, Taipei, Seoul, Sao Paolo, and Prague are as comfortable negotiating fully-developed agreements based on American contracts as their counterparts in Silicon Valley, New York, London, or Frankfurt. The English language and the key terminologies in these documents have become lingua-franca. The issues that might arise in such negotiations are analyzed and frequently resolved along globally-accepted norms and with reference to ubiquitously understood, "generally accepted" commercial and technical practices.

But one should resist embarking on a love-fest of global unity and uniformity. It would be simplistic and professionally irresponsible to conclude that the cultural, legal, and business differences between jurisdictions have been erased or no longer matter. The contrary is true. The illusion that the world is completely "flat" is hazardous precisely because globalism has generated appreciable uniformity in business and legal practice. As the discussion below elucidates, the differences—sometimes subtle, sometimes blunt—among jurisdictions in IP enforcement and practice, treatment of confidential information, ability to resolve disputes and manage liability are as important in the age of globalism as they were in the age of internationalism. It is now more important than ever to identify and manage the remaining nooks and crannies which distort and frequently upset the "flat" world.

18. *See generally* THOMAS FRIEDMAN, THE WORLD IS FLAT 40-47 (2005).

19. This is the Author's perspective on the subject.

III. Five Dimensions of Risk Management

The proliferation of outsourcing at all levels, including mission critical services and supplies, has significantly revised the risk/reward profile of these transactions. These risks have been further magnified by corporate governance concerns. Due to the requirements of the Sarbanes-Oxley act, companies require more control of what they are outsourcing, and senior management is more closely and directly involved.[20] Directors must ensure that companies conform to expected standards of care and good practices, many of which have been codified in industry or regulatory papers.[21] Companies now insist on having the right people on the job and on performing background checks; they are concerned both about losing their proprietary information, especially if they need to bring the process back in-house in the future,[22] and about minimizing the potential for fraudulent activity for which they might be liable. As an example of the latter concern, in September of 2005 Intel terminated 250 workers in India after they allegedly falsified their expense claims.[23]

It is useful to analyze the frequently contentious and usually surmountable issues in supply-side offshoring in the following five categories of risk:

1. *Performance risk.* This refers to both the risk the customer perceives in the vendor's ability to deliver quality, specification-conforming deliverables on time and in accordance with the agreement, and the risk the vendor perceives in the customer's willingness and ability to order and pay for deliverables and perform its obligations under the agreement.
2. *Intellectual property risk.* This captures each party's risk in exposing its own IP and in securing any necessary rights in the other party's IP, relevant third party IP, or any IP jointly developed by the parties.
3. *Liability risk.* This encompasses each party's liability to the other party, or to third parties, and each party's exposure to legal

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20. *E.g.*, Goolsby, *supra* note 11.

21. *See, e.g.*, Fed. Fin. Insts. Examination Council, Outsourcing Technology Services IT Examination Handbook 3 (2004), *available at* http://www.ffiec.gov/ffiecinfobase/booklets/outsourcing/Outsourcing_Booklet.pdf; Fed. Fin. Insts. Examination Council, Development and Acquisition IT Examination Handbook 5 (2004), *available at* http://www.ffiec.gov/ffiecinfobase/booklets/d_a/d_and_a.pdf.

22. Goolsby, *supra* note 11.

23. Tony Smith, *Intel India Fires 250 Alleged Fraudsters*, Register (UK), Sept. 22, 2005, *available at* http://www.theregister.co.uk/2005/09/22/intel_india_sackings/.

claims, including from governmental agencies, for failure to comply with applicable law, defective deliverables, IP infringement and other matters relating to the transaction and deliverables.

4. *Enforcement risk.* This refers to each party's ability to properly resolve disputes and enforce its rights under the agreement.
5. *Business continuity risk.* This is primarily, but not exclusively, a risk strongly perceived by the Customer arising from its need to retain all rights and resources necessary to ensure ongoing operations and supply availability after the termination of the outsourcing arrangement.

As will be shown below, all major, contentious, and heavily negotiated aspects of a manufacturing outsourcing can be traced back to each party's compelling need to leverage and manage those risks.

IV. Negotiating the Issues

Manufacturing outsourcing requires complex and heavily-negotiated contracts that call for depth and expertise in all the business, technical and legal aspects salient to the transaction. It is imperative for the successful negotiation and implementation of a manufacturing outsourcing transaction that a competent team be proactively formed, well ahead of the negotiation, to define the objective of the transaction and negotiations strategy. The team should then negotiate and implement the relationship on behalf of each party. The team must include senior business, technical and legal officers, usually supported by outside counsel and outside technical consultants. The team must operate seamlessly, and each member of the team should have the ongoing responsibility to review and bless each contract draft. It is essential to designate a decision maker for each team so that any internal dissonance between team members, which would undermine the party's negotiating posture, does not get communicated to the other side.

After the negotiating team has been created, the team must use available tools to shield its client from all the risk. Options available to the team for addressing and controlling for these risks are addressed below.

A. *Ensuring Performance*

1. The Statement of Work

It should go without saying (yet it is frequently said, but infrequently

done) that the key operative portion of any good manufacturing outsourcing agreement is the Statement of Work ("SOW").[24] The SOW should set forth clearly and precisely what the milestone deliverables are, their specifications, a procedure for acceptance (including acceptable criteria and testing of prototypes and commercially ready products), a process for the vendor's cure of deficiencies and resubmission of conforming prototypes and commercial units for further acceptance testing by the customer, precise time tables for each the foregoing, and pricing.

The SOW is first and foremost a technical and financial document, but it must be written in contractually binding language. A good SOW will have consumed the close attention of the key technical and financial personnel of each party, and result in a detailed document containing clear and precise contractual language, rather than aspirational sales puff or general descriptions. For example, the words "should," "would," and "could" ought to be eschewed in any SOW, as they are contractually suspect.

Vendors increasingly see manufacturing outsourcing as an iterative and interdependent process where both parties "grow together in experience" and one party's performance is very much dependent on the other. Accordingly, vendors will always seek to insert warm and fuzzy language in the SOW, language designed to underscore that the vendor's obligations are really contingent upon the customer's performance. Some language to that effect may be reasonable under certain circumstances, such as when a customer is required to submit certain technology or specifications without which the vendor cannot perform. However, a customer should not accept vague standards of cooperation, the effect of which is to legally exculpate the vendor from its performance obligations.

Time tables and the requirement for timely delivery are always the subject of stimulating discussion. It is essential for customers to set forth a time table for the vendor's performance milestones, but it is not always necessary to insist on a "time is of the essences" clause. Customer, however, should reject the vendor's expected position to only "attempt" or "endeavor" timely delivery of conforming product. Customers should also insist on the right to terminate the agreement if the specification-conforming prototype or commercial deliverable is not delivered by the vendor after the completion of a reasonable number

24. An SOW is an elaborate technical and financial appendix to an agreement drafted by both parties.

of cure cycles.

2. Warranties

The SOW should be buttressed by performance warranties. At a minimum, the vendor should warrant that the prototypes and commercial deliverables will: (i) conform (or at least "substantially" conform) to the specifications and other requirements of the SOW and applicable technical standards of relevant national or international standard bodies;[25] (ii) be delivered in accordance with the time table set forth in the SOW; and (iii) be manufactured in accordance with all applicable laws and regulations and without violating any third party IP or other rights. If the deliverables are to be integrated or used with other technology, the customer should insist on the vendor warranting the interoperability of the deliverables. The vendor should also warrant that the deliverables will be free from defect in workmanship and materials for a specified warranty period. The warranty period should generally be consistent with market requirements, but must at least comply with applicable law. For example, in the European Union a two year warranty is now virtually standard for electronics.[26]

The customer should expect substantial negotiation over each of these warranties, but it is reasonable to put the onus on the vendor if the pricing appropriately reflects the vendor's cost and risk of compliance with the foregoing warranties. Significantly, moreover, both parties should realize that the stringency of the performance warranties is inversely related to the rigor of the acceptance criteria, acceptance testing and cure cycles. The more detailed acceptance criteria and testing are, the better the vendor can fairly argue that the warranties after acceptance should be less onerous, because in complying with the acceptance and testing criteria, which have been jointly developed by the parties, the burden should shift to customer.

3. Latent Defects/Epidemic Failures

Even with strict specifications, acceptance criteria and acceptance testing, it is reasonable to require the vendor to provide protections against latent defects and, particularly, epidemic failures. Epidemic

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25. Examples of such bodies that issue technical standards are International Standard Organization (ISO), IEEE (Institute of Electrical and Electronics Engineers, Inc.), International Electrotechnical Commission (IEC), and the Information Technology Council (ITC).

26. Council Directive 1999/44, On Certain Aspects of the Sale of Consumer Goods and Associated Guarantees art. 5, 1999 O.J. (L 171) 12 (EC).

failures are substantial material defects in deliverables that recur in a specified percentage of deliverables (usually 1% – 3%) and call for a general corrective plan by the vendor. The vendor should be required to submit the corrective plan for approval to the customer and to implement it immediately at the vendor's sole expense. If the vendor does not provide an acceptable corrective plan for an epidemic failure, the customer should be entitled to terminate the agreement.

4. Purchase Requirements/Orders

The more severe the acceptance criteria and performance warranties, the more the vendor will insist on binding customer purchase obligations. The vendor will also seek binding customer purchase forecasts and limited cancellation and delay periods for orders. The customer, however, will wish to stay away from binding forecasts and minimum purchase requirements and will seek liberal order cancellation and delay rights. The parties will invariably compromise somewhere in between, depending on the economics of the transaction.

Detailed order procedures for commercial products are important because they help both parties manage performance risks and operate as administrative controls for the implementation of the transaction. The contract should specify how the orders are submitted and what each order form will contain (at least quantity, product type and delivery date). It is in the interest of both parties that the vendor accept each order in writing. Significantly, however, if there are no minimum purchase requirements, vendors will likely resist the requirement to automatically accept each order and will seek the right to reject orders, which is problematic for customers.

5. Change Orders

Two categories of change orders should be in the agreement. The first are "*elective change orders*" by mutual agreement, which may be initiated by either party, such as if a party perceives a way to improve the manufacturing process or wishes to modify specifications. Under these circumstances, a change order request should be submitted to the other party, and both parties would need to agree on the implementation of the change order and any corresponding adjustments in pricing and schedule. In addition, certain customers may find it imperative to reserve the right to unilaterally impose "*mandatory change orders.*" If, for example, a customer operates in a highly-regulated industry, such as financial services, health care, nuclear energy, etc., where mandatory regulatory changes are frequent, the customer must reserve the rights

to impose a change order to ensure compliance of the deliverables with those requirements. Vendors tend to accept mandatory change orders necessary to comply with changing laws and regulations, but are predictably less understanding of mandatory change orders emanating from economic dynamics or pure business rationales designed to benefit the customer.

6. Pricing

Pricing is inextricably interwoven with managing performance risks and the ability of each party to maximize the benefit of the bargain. Vendors will generally prefer fixed unit pricing and may be amenable to passing reasonable supply chain cost savings to customers. Customers will push for cost transparency and predetermined costs savings over time, and may impose cost reductions or require vendors to use their best efforts to minimize their production costs. Customers may also wish to impose ceilings on cost increases and to secure audit rights to verify a vendor's manufacturing costs. Frequently, moreover, customers will insist on obtaining the most favorable pricing status from their vendors.

Customers should resist any attempts by vendors to engage in "time and materials pricing," except for certain extraordinary non-recurring engineering costs. A mutually agreed-upon "cost plus" basis, combined with industry benchmarking and references to general pricing indexes, is frequently the preferred way to proceed. It may also be advisable to provide pricing incentives to vendors for early delivery. Performance bonds are increasingly rare in agreements. Frequently, the contracting party of the outsourcing vendor will be a U.S. subsidiary of the Indian or other foreign vendor parent company. These subsidiaries may be thinly capitalized shell corporations. If that is the case, a U.S. customer should insist on performance guarantees by the parent company to ensure that the customer has recourse against the asset-rich parent.

B. *Safeguarding Rights in Intellectual Property*

Gone are the days when a U.S. company could develop specifications and have them turned into products overseas on a simple "work for hire" basis without any further ado. Virtually all major offshoring vendors now see and conduct themselves as IP companies, intent on constantly expanding their IP portfolios and buckets of license rights in technologies and processes that are relevant to their business. This poses particular challenges and causes predictable friction in negotiations over the allocation of IP rights in manufacturing outsourcing

agreements. Each party, therefore, should protect its own technology, and secure its rights to use the other party's technology, through harmoniously interacting and mutually reinforcing IP, confidentiality and non-competition provisions. The intellectual property category is particularly central to the outsoucing agreement. Parties should consider all of the IP itself, confidentiality issues, and non-competition concerns in the event a relationship sours.

1. Intellectual Property

There are several key "baskets" of technology in an outsourcing, each of which must be well understood and managed. First, there is "Background Technology." This is the technology that each party owned before entering into the manufacturing outsourcing or that it developed during the term of the outsourcing but is unrelated to the outsourcing. "Foreground Technology" is technology that is developed in the course of the outsourcing either separately by each party ("Separate Foreground Technology") or jointly by both parties ("Joint Foreground Technology").

It is uncontroversial that each party will continue to own its Background Technology. The parties will likely negotiate cross-licenses for the use of each other's Background Technology to enable each party to perform the agreement and ensure customer's use of deliverables, to the extent deliverables are derived from or contain any vendor Background Technology. It is likewise generally accepted that Separate Foreground Technology will continue to be owned by its originating party, and liberal cross-licenses will be granted to the other party to enable it to implement the agreement and to use the deliverables. More heavily subject to negotiations is what type of technology actually will be deemed to fit into the basket of Separate Foreground Technology.

The key challenge is allocating rights in Joint Foreground Technology. Inevitably, there will be IP that results from the contributions and efforts of both parties. Here, the parties may be tempted to follow the siren call of joint IP ownership. The idea of joint IP ownership holds appeal because it sounds like a fair and reasonable solution to the problem. After all, each party has contributed to the IP which has arisen in the course of a collaborative relationship. Why then shouldn't each party be able to exploit the Joint Foreground Technology equally? The answer is that this solution creates more problems than it solves.

Under U.S. law, each co-inventor of a patented invention must have

contributed significantly to the conception of the invention.[27] Each co-owner then has an indivisible interest in the entire patent[28] and no duty to account to the other co-owner.[29] It follows that each co-owner has absolute discretion to exploit, use or license the entire patented technology.[30] In the U.S., no consent of a co-owner is required for the other co-owner to license patented technology to third parties.[31] However, in England and Canada, each co-owner must consent to third party licenses.[32] Moreover, in the U.S., each co-owner must join in a suit to enforce the patent.[33] Thus, in the U.S., a co-owner has no control over exploitation, but each co-owner is a hostage of the other co-owner for enforcement purposes. As noted in Ethicon, "patent co-owners are 'at the mercy of each other.'"[34]

Copyright law is especially key for software and mask-works in micro devices because copyright protection attaches upon creation of the work. Under U.S. law, each co-owner has the right to exploit the entire work without the other co-owner's approval,[35] but must account to the other co-owner,[36] thereby resulting in "economic hip-joining." In England, however, each copyright co-owner must consent to the exploitation of the copyrighted work by the other co-owner.[37] The rules for joint ownership of trade secrets and know-how seem nebulous, although it is generally assumed that each co-owner may use all jointly owned trade secrets in its own business. The cases interpreting joint ownership of trade secrets do not require a co-owner to account to the other co-owner, but each co-owner must protect the trade secrets from disclosure.[38] The available cases predate the Uniform Trade Secret Act,

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27. *See* 35 U.S.C. § 116 (2002); Fina Oil and Chemical Co. v. Ewen, 123 F.3d 1466, 1473 (Fed. Cir. 1997).

28. Ethicon, Inc. v. U.S. Surgical Corp., 135 F.3d 1456, 1465 (Fed. Cir. 1998).

29. 35 U.S.C. § 262 (1999); Schering Corp. v. Zeneca Inc., 104 F.3d 341, 344 (Fed. Cir. 1997).

30. *Schering Corp.*, 104 F.3d at 344.

31. *Id.*

32. The Patents Act, 1977, §36(3) (Eng.), *available at* http://www.patent.gov.uk/practice-sec-036.pdf; *e.g.*, Forget v. Specialty of Canada, Inc., [1995] 62 C.P.R. (3d) 537 (CA); s*ee also* Anita Nador, *Co-Ownership of Patent Rights in the United States and Canada*, INTELL. PROP. (July 2002), *available at* http://www.bereskinparr.com/English/publications/pdf/Patent-Co-Own-Nador.pdf.

33. *Ethicon Inc.*, 135 F.3d at 1468.

34. *Id.* at 1468.

35. *E.g.* Oddo v. Ries, 743 F.2d 630, 633 (9th Cir. 1984); Edward B. Marks Music Corp. v. Jerry Vogel Music Co., 140 F.2d 266, 268 (2d Cir. 1944).

36. Goodman v. Lee, 78 F.3d 1007, 1012 (5th Cir. 1996); *Oddo*, 743 F.2d at 633.

37. David Marchese, *Joint Ownership of Intellectual Property*, EUR. INTELL. PROP. REV. 21(7) 364, 367 (1999).

38. *See, e.g.*, Baldwin v. Von Micheroux, 25 N.Y.S 857, 859-60 (N.Y. Sup. Ct. 1893).

which is silent on the implications of co-ownership and co-owners obligations.[39]

Clearly, IP laws on co-ownership continue to be "international" and not globally flat. There are, as stated above, inconsistent rules for copyrights and patents in the United States, and further inconsistent rules for how jointly owned patents and copyrights are treated in different countries. Compounding the complexity is that today's technologies invariably are hybrid technologies. Electronics, medical devices, microchips and software implicate all of patents, copyrights, trade secrets and know-how. Joint IP ownership in an offshoring transaction assures both parties of unpredictable results and invites the application of frequently conflicting rules in each IP category. The clear and guiding principle, therefore, should be to avoid joint IP ownership. Indeed, once the parties are made aware of those conflicting rules, and the certainty that joint IP ownership in the global context will further compound unpredictable results, they invariably agree that joint ownership is in nobody's interest.

A sensible way to manage Joint Foreground Technology is to allocate ownership of all or parts of it to one party and provide liberal, unrestricted, perpetual, fully paid-up and royalty-free licenses to the other party to use the Joint Foreground Technology for all purposes. The outsourcing agreement should provide for a committee with an equal number of representatives from each party, whose role is to analyze the Joint Foreground Technology and allocate ownership based on mutually acceptable criteria, such as which party's employees have been most involved in the development of the Joint Foreground Technology, which party's funding and resources have been implicated, whether the subject matter is more closely related to one party's core expertise, and whether the origin of the Joint Foreground Technology is more closely related to either party's Background Technology. Experience shows that these committees work well, and if each party is assured of sufficiently broad license rights, there should be no insurmountable bones of contention.

If the parties continue to insist on joint IP ownership of Joint Foreground Technology, the following last resort techniques should be used. First, the agreement should incorporate the narrowest possible definition of Joint Foreground Technology. The objective here is to render the Joint Foreground Technology bucket as narrow and shallow as possible. Second, the parties should determine how revenues arising

39. *Cf.*, DTM Research, LLC v. AT&T Corp., 245 F.3d 327, 331-32 (4th Cir. 2001).

out of the Joint Foreground Technology will be shared. Third, the parties should allocate the cost of IP prosecution and enforcement. Finally, each party must agree to join in any lawsuit to enforce the Joint Foreground IP.

2. Confidentiality

Of critical importance in any manufacturing outsourcing arrangement is the confidentiality section. While there has clearly been a discernable movement by reputable vendors towards global uniformity in the treatment of confidential information, there remain distinct differences in the treatment of confidential information between jurisdictions, not the least due to the substantial differences in the laws of each jurisdiction relating to confidential information. The confidentiality section of the manufacturing outsourcing agreement should be detailed, well thought through, and tailored to the particular parties and the legal environments in which they operate. It is grossly insufficient to simply provide that the vendor should protect the customer's confidential information to the same extent that the vendor protects its own information, because the vendor's treatment of its own information may be inadequate. All technology, sensitive data, business and financial information, as well as client lists and client information of the customer, should be treated as strictly confidential by the vendor. Moreover, as is the case in the financial and health-care sectors, certain data may be extremely sensitive and subject to extensive regulatory constraints.[40] Consequently, it is essential for customers to understand the legal and regulatory requirements applicable to the information they provide to their vendors and to ensure that information's protection to the maximum extent required by applicable law. It is important for regulatory counsel of the customer to be involved in the drafting of these sections to ensure both the customer's and the vendor's compliance.

The vendor should only be allowed to use the confidential information to implement the agreement and for no other purpose. The confidentiality provision should also require the vendor to restrict, monitor and record access to the vendor's confidential information and to allow such access only on a need-to-know basis to authorized vendor employees who are subject to confidentiality agreements that

40. For examples of such regulatory regimes, see, e.g., the Health Insurance Portability and Accountability Act, Pub. L. 104-191, 110 Stat. 1936 (Aug. 21, 1996) and the Gramm-Leach-Bliley Act, Pub. L. 106-102, 113 Stat. 1338 (Nov. 12, 1999).

are legally binding in the vendor's jurisdiction. Many countries, such as India, require separate agreements, and sometimes consideration, between vendor employees and the customer to protect the customer's confidential information and to effectuate the assignment of the IP rights of the vendor's employees to the customer.[41] Thus, the agreement should require the vendor to take all steps legally necessary under applicable law to ensure the enforceability of the confidentiality and IP provisions. This is particularly important because many jurisdictions in Asia and Latin America do not recognize the concept of third party beneficiary. As such, customers cannot simply rely on being a third party beneficiary of agreements between vendors and their employees or contractors and may instead have to enter into a direct agreement with those employees or contractors to safeguard their IP. The vendor should also be required to assume express liability for breach of the confidentiality and IP section by its employees.

It is standard practice to have confidentiality provisions survive termination of the agreement. However, some jurisdictions limit enforceability of confidentially provisions after termination of the agreement. For example, in India, post-termination confidentiality obligations are enforceable only if they do not amount to a restriction on a person's ability to engage in a trade, business or profession.[42]

Vendors will justifiably also insist on confidentiality protection. Since customers will be gaining access to important vendor technologies, methodologies and trade secrets, customers should agree to appropriate reciprocal confidentiality obligations.

3. Non-Competition

Non-compete provisions can be particularly effective in closing any loops which inadvertently (or deliberately) may have been left open by confidentiality and IP provisions. Non-compete provisions during the term of the agreement are typical, but are subject to negotiation. The scope of the vendor's non-compete provisions during the course of the relationship will depend to a great extent on the incentives provided by the customer and especially on the size of the deal. If the customer insists on termination at will and does not agree to minimum purchase requirements, it is unlikely and indeed unreasonable to expect vendors to agree not to provide competing services to other customers. How-

41. Sonia Baldia, *Intellectual Property in Global Sourcing: The Art of the Transfer*, 38 GEO. J. INT'L L. 499 (2007).

42. *See id.* at 514.

ever, if the customer represents a large vendor account and the customer does agree to significant minimum purchase requirements over an extended period of time, listing customer's competitors to which vendor should not be providing manufacturing services during the term of the outsourcing is generally acceptable.

Non-compete provisions after termination of the agreement are rare and, even if agreed upon, may not be enforceable under the laws of numerous countries.[43] Therefore, the confidentiality and IP provision should be used to ensure post-termination protection.

C. *Allocation of Liability*

A party's liability will be determined, and may be limited, through the use of three provisions in the manufacturing outsourcing agreement: liability limitations and exclusions, liability cap, and indemnification. It is a common mistake to treat each of these three aspects in isolation. The better approach is to look at all three in tandem, and in particular, to understand that the liability cap is in many ways the preeminent risk allocation provision in manufacturing outsourcing arrangements.

1. Indemnification

Indemnification provisions tend to be lengthy, complex and heavily negotiated. The customer will typically require the vendor to defend the customer from any third party suits asserted against the customer, and to indemnify and pay any damages and liabilities assessed against the customer in connection with the deliverables or the vendor's performance of, or failure to perform, the agreement, as well as any third party IP infringement claims or breaches of applicable law by the vendor. The vendor's opening position will be to agree to indemnify the customer only against certain specific third party IP infringement claims in the vendor's own jurisdiction. The vendor will resist indemnifications arising out of general breaches of the agreement. Invariably, the parties will compromise on an indemnification whereby the vendor indemnifies the customer for (i) breaches of certain material provisions, such as the vendor's breach of key warranties, (ii) the vendor's breach of any third party IP rights and applicable law, and (iii) product liability claims caused by the vendor. These three are reasonable

43. For an example of how such provisions are worded, see e.g., CAL. BUS. & PROF. CODE §16600 (Deering 2007).

indemnification risks that properly should be borne by the vendor. More heavily negotiated and controversial is whether the vendor should also indemnify the customer for specific performance warranty breaches and for other provisions in the agreement.

Naturally, the vendor will insist on reciprocal indemnities from the customer. The customer should certainly agree to indemnify the vendor for the customer's breach of applicable law or the customer's violation of third party IP rights.

2. Liability Exclusions

The agreement will typically include boilerplate language equally shielding each party from indirect, consequential and punitive damages or damages caused by loss of business or profits, etc. These tend not to be controversial and are widely accepted in the industry. It is, of course, questionable to what extent these limitations are in fact enforceable under applicable law of many jurisdictions, as many jurisdictions have consumer protection laws and other public policy laws which would invalidate certain liability exclusions.

3. Liability Cap

Precisely because the exclusion of consequential and indirect damages is so standard, it is essential to pay close attention to the liability cap, and, in particular, to determine whether and which indemnification obligations will be excepted from the liability cap. Clearly, the customer should make every effort to ensure that at least the key indemnities are excepted from the liability cap, because otherwise the indemnification obligation will be substantially undermined if not altogether vitiated. The vendor, of course, will insist on a maximum liability cap that is set at the lowest amount possible, say equal to the amount of money paid to the vendor by the customer prior to the event giving rise to liability, and the vendor will seek to subject all obligations, including the indemnification obligation, to the liability cap.

The parties should compromise along the following reasonable lines. Both parties' liability should be capped at an agreed-upon amount, which could be a multiple of the monies previously paid by the customer to the vendor or of the total contract value, and certain key indemnities, most notably IP infringement, product liability and violation of applicable law, should be excepted from the liability cap, thereby properly subjecting each party to unlimited liability for these risks.

It is important that all decisions relating to indemnification, liability

limitation, liability cap and exclusion from liability cap, be made in consultation with the most senior executives of each party, as the potential exposure could be dramatic and even catastrophic for certain customers or vendors.

D. *Enforcement*

A party's ability to enforce its rights under the agreement and to compel performance by the other party requires the harmonious interaction of applicable law and dispute resolution mechanisms. In addition, the triggers for termination and termination rights of each party have important implications for each party's ability to force compliance of the other party, as the express or implied threat of termination and resulting business loss are important compliance incentives.

1. Applicable Law

In selecting applicable law, the parties should consider how well-developed the selected body of law is, the predictability of outcome under that applicable law, and the cost and ease of access to experts on such laws. Significantly, even with inclusion of a perfectly effective choice of law clause, there are critical limitations on the parties' abilities to circumscribe the universe of applicable law.

There will be a range of superseding public policy laws which trump the parties' selected law and which result in the application of a different body of law notwithstanding the parties' express choice. For example, most aspects of consumer protection laws, product liability laws, laws relating to antitrust and competition (including post-termination restrictions), labor laws, and the validity of IP rights will be governed by the laws of the applicable jurisdiction.[44] In addition, there are "extra-contractual" laws, including fraud in the inducement, lex loci deliciti and other principles whose resolution will be determined by the laws where the event giving rise to the dispute occurs. There are also supplementary provisions. For example, many civil code jurisdictions liberally supply provisions and substantive terms when a contract is silent.[45] Silence, therefore, is rarely golden in outsourcing agreements. Significantly, moreover, these extra-contractual public policy

44. RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW OF THE UNITED STATES §421 (1987).

45. *Cf.*, C. CIV. art. 4 (Fr.) *available at* http://www.legifrance.gouv.fr/html/codes_traduits/code_civil_textA.htm (French Civil Code provision illustrating the broad application civil code jurisdictions require when the law is silent).

and supplementary provisions are clearly not flat across the globe, but rather diverge quite dramatically from jurisdiction to jurisdiction. Finally, there are always "supra-national" laws, i.e., rules and regulations emanating from either multi-national regimes, such as the U.N. Convention for the International Sale of Goods, or regional regimes such as the EU, which will come into play notwithstanding the parties' choice of law.[46]

2. Dispute Resolution

The merits and demerits of arbitration, as compared to litigation, have been exhaustively discussed in the literature and are beyond the scope of this paper. But experience does indicate that arbitration is preferable to litigation in manufacturing outsourcing, because manufacturing outsourcing tends to involve highly complex technical and commercial matters which are susceptible to resolution by arbitration. The parties will also find that if the chosen law has no nexus to the parties or the performance of the contract, arbitration is the best alternative and provides more certainty of outcome when the body of law is selected. The arbitration should be conducted in a neutral place by a respectable arbitration body and by at least three arbitrators.

However, before resorting to arbitration, the parties should attempt dispute resolution via management escalation. Each agreement should contain a provision whereby any dispute is first submitted to informal resolution by the key senior team leaders responsible for the outsourcing of each party. If within a certain specified period of time they cannot resolve the dispute, it should be escalated to the senior management of each party for resolution. The parties' team leaders will have every incentive to resolve the dispute and prevent it from escalating to senior management. The outsourcing leaders will not want to admit failure or be seen as incapable of resolving disputes. If the dispute is of such a nature that management escalation is required, each party will continue to have every reason to resolve the dispute cheaply and quickly at a senior internal level without resorting to formal dispute resolution.

In any event, each party must reserve the right to seek equitable, injunctive or declaratory relief in any court of competent jurisdiction, to preserve and enforce its rights in its confidential information and IP. Indeed, reserving the right to seek injunctive relief is essential to safeguard IP rights and confidential information because it is difficult

46. Unless the parties expressly exclude the Convention, it applies.

to obtain meaningful damages for infringement in most key outsourcing jurisdictions.[47]

3. Termination

Termination, and particularly termination triggers, are of pivotal importance in any manufacturing outsourcing and provide important leverage to each party to ensure contract compliance by the other party. First and foremost, the customer should make every effort to secure, and the vendor will in all likelihood resist, the customer's ability to terminate the agreement for convenience. Experience has shown that the termination for convenience right is so important that customers should negotiate this provision, even if it requires payment of substantial termination fees to vendors. One simply cannot predict the evolution of the relationship or the impact of extraneous market forces and legal developments on the relationship, and it may be imperative for customers to get out of the agreement. Second, each party should be able to terminate the agreement for breach by the other party if the breach has not been cured, say within thirty days. It is important to except from the cure provision certain material breaches, such as breaches of confidentiality, applicable law or IP rights, which in all likelihood cannot be cured and would subject the other party to immediate risk.

In extreme cases, the customer may have to require that the vendor continue performing irrespective of certain customer breaches, except for the customer's breach of its payment obligations. The outsourcing may involve such mission critical aspects of the customer's business that, irrespective of the customer's breach, the vendor must continue performing, even if it means that the customer may have to pay penalties.

E. *Ensuring Continuity*

What happens after termination of the relationship should be at least as important for the customer as what happens during the relationship. Customers, at their own considerable peril, frequently ignore the termination/post-termination phase or cover it only superficially in agreements. Depending on the particular circumstance, the following should be considered part and parcel of each post-termination phase of the manufacturing outsourcing.

47. Holder & Grimes, *supra* note 17.

1. Extension and/or Transition Period

Customers should seek the right to unilaterally extend the agreement, subject to appropriate payment to the vendor, for a specified time period, say six months. In the event of a relationship's termination, the parties should provide for a transition period during which the vendor transitions its services and relevant technology to the customer's designee. The post-termination transition period must be a substantial one, anywhere from 6 to 18 months, to allow for a thorough and organized transition of all these matters.

2. Transfer of People, Knowledge, Licenses and Equipment

The vendor should be required to provide post-termination and transition services involving IP and knowledge transfer, people and equipment. If certain key personnel are dedicated and mission critical to the manufacturing outsourcing, the vendor should agree not to interfere with the hiring of such key personnel by the customer and should agree to assist the customer in its hiring efforts to the maximum extent allowed by applicable law. Obviously, a vendor cannot be required, and has no legal right to compel, any individuals to work for a customer, but a vendor can certainly waive any contractual limitations, non-solicitation or other inhibitors preventing particular personnel from working for a customer, either on a full-time or part-time basis. If the parties cannot agree on the potential transfer of certain key personnel to become customer employees, the vendor should agree to make them available as consultants for a certain period of time.

The vendor must agree to transfer necessary knowledge and technology licenses to use IP either owned by the vendor or obtained from third parties as reasonably necessary for the customer to continue manufacturing the deliverables. This means, first and foremost, that the vendor must disclose and make available all relevant technology and IP, must actively assist the customer in using such technology and IP, and must provide appropriate licenses at fair market prices or as predetermined in the agreement. The customer should also critically examine whether it needs access to certain equipment to continue to manufacture deliverables and, if so, there should be a transfer of rights to use certain technology, equipment, and hardware for an agreed-upon price or market prices.

3. Work in Progress/Duty to Cooperate

Further, all work in progress should be transferred to the customer

and there should be a general "duty to cooperate" requiring the vendor to cooperate in all material respects as reasonably requested by the customer in the post-termination period. Of course, the vendor justifiably should expect payment on a time and material basis for all such services.

V. CONCLUSION

The proliferation of manufacturing and supply-side outsourcing, as well as the increasing importance of these arrangements to the core business functions of customers, has profoundly affected business realities for customers and vendors worldwide. Manufacturing outsourcing arrangements underscore and epitomize the possibilities and limits of the new globalism in international business and legal practice. The global lawyer has to be cognizant of the performance, intellectual property, liability, enforcement, and business continuity risks presented by manufacturing outsourcings. Several creative techniques are available to manage those risks and assure the consummation of the transaction. The global lawyer must understand and use these appropriate techniques to ensure that the many important remnants of internationalism do not trap the parties in a set of unintended consequences, vitiating the opportunities presented by the new global economy and legal practice.