

# References

- Anupindi, R., and Y. Bassok. 1999a. Supply contracts with quantity commitments and stochastic demand. In *Quantitative models for supply chain management*, Handbooks in Operations Research and Management Science, ed. S. Tayur, R. Ganeshan, and M. Magazine, chapter 7. Boston/Dordrecht/London: Kluwer Academic.
- Anupindi, R., and Y. Bassok. 1999b. Centralization of stocks: Retailers vs. manufacturer. *Management Science* 45(2): 178–191.
- Altintas, N., F. Erhun, and S. Tayur. 2008. Quantity discounts under demand uncertainty. *Management Science* 54(4): 777–792.
- Agrawal, V., and S. Seshadri. 2000a. Impact of uncertainty and risk aversion on price and order quantity in the newsvendor problem. *Manufacturing & Service Operations Management* 2(4): 410–423.
- Agrawal, V., and S. Seshadri. 2000b. Risk intermediation in supply chains. *IIE Transactions* 32: 819–831.
- Ai, X., J. Chen, and J. Ma. 2012. Contracting with demand uncertainty under supply chain competition. *Annals of Operations Research* 201(1): 17–38.
- Alvarez, E., M. Van der Heijden, and W. Zijm. 2013. Service differentiation in spare parts supply through dedicated stocks. *Annals of Operations Research*. doi:10.1007/s10479-013-1362-z.
- Baines, T., H. Lightfoot, E. Steve, A. Neely, R. Greenough, J. Peppard, R. Roy, E. Shehab, A. Braganza, A. Tiwari, J. Alcock, J. Angus, M. Bastl, A. Cousens, P. Irving, M. Johnson, J. Kingston, H. Lockett, V. Martinez, P. Michele, D. Tranfield, I. Walton, and H. Wilson. 2007. State-of-the-art in product service-systems. *Journal of Engineering Manufacture* 221(10): 1543–1552.
- Barnes-Schuster, D., Y. Bassok, and R. Anupindi. 2002. Coordination and flexibility in supply contracts with options. *Manufacturing & Service Operations Management* 4(3): 171–207.
- Becker-Peth, M., E. Katok, and U. Thonemann. 2013. Designing buyback contracts for irrational but predictable newsvendors. *Management Science* 59(8): 1800–1816.
- Bernstein, F., and A. Federgruen. 2003. Pricing and replenishment strategies in a distribution system with competing retailers. *Operations Research* 51(3): 409–426.
- Bernstein, F., and A. Federgruen. 2005. Decentralized supply chains with competing retailers under demand uncertainty. *Management Science* 51(1): 18–29.
- Bernstein, F., F. Chen, and A. Federgruen. 2006. Coordinating supply chains with simple pricing schemes: The role of vendor-managed inventories. *Management Science* 52(10): 1483–1492.
- Bernheim, B., and M. Whinston. 1985. Common marketing agency as a device for facilitating collusion. *The RAND Journal of Economics* 16(2): 269–281.

- Bernheim, B., and M. Whinston. 1986. Common agency. *Econometrica* 54(4): 923–942.
- Bernheim, B., and M. Whinston. 1998. Exclusive dealing. *Journal of Political Economy* 106(1): 64–103.
- Billington, C. 2002. HP cuts risk with portfolio approach. *Purchasing.com*, 21 Feb 2002.
- Black, F., and M. Scholes. 1973. The pricing of options and corporate liabilities. *Journal of Political Economy* 81(3): 637–654.
- Bolton, P., and M. Dewatripont. 2005. *Contract theory*. Cambridge, MA: MIT.
- Brax, S. 2005. A manufacturer becoming service provider—challenges and a paradox. *Managing Service Quality* 15(2): 142–155.
- Bresnahan, T., and P. Reiss. 1985. Dealer and manufacturer margins. *The RAND Journal of Economics* 16(2): 253–268.
- Brown, A., and H. Lee. 1998a. Optimal “pay-to-delay” capacity reservation with application to the semi-conductor industry. Working paper, Vanderbilt University, Nashville.
- Brown, A., and H. Lee. 1998b. The win-win nature of options based capacity reservation arrangements. Working paper, Vanderbilt University, Nashville.
- Brown, A., and H. Lee. 2003. The impact of demand signal quality on optimal decisions in supply contracts. In *Stochastic modeling and optimization of manufacturing systems and supply Chains*, ed. J. Shanthikumar, D. Yao, and W. Zijim, 299–328. Boston: Kluwer.
- Burnetas, A., and P. Ritchken. 2005. Option pricing with downward-sloping demand curves: The case of supply chain options. *Management Science* 51(4): 566–580.
- Buzacott, J., H. Yan, and H. Zhang. 2011. Risk analysis of commitment-option contracts with forecast updates. *IIE Transactions* 43(6): 415–431.
- Cachon, G. 1999. Competitive supply chain inventory management. In *Quantitative models for supply chain management*, Handbooks in Operations Research and Management Science, ed. S. Tayur, R. Ganeshan, and M. Magazine, chapter 5. Boston/Dordrecht/London: Kluwer Academic.
- Cachon, G. 2001. Stock wars: Inventory competition in two-echelon supply chain with multiple retailers. *Operations Research* 49(5): 658–674.
- Cachon, G. 2003. Supply chain coordination with contracts. In *Supply chain management*, Handbooks in Operations Research and Management Science, ed. S. Graves and T. Kok, chapter 6. Amsterdam: North Holland.
- Cachon, G., and M. Fisher. 2000. Supply chain inventory management and the value of shared information. *Management Science* 46(8): 1032–1048.
- Cachon, G., and A. Kok. 2010. Competing manufacturers in a retail supply chain: On contractual form and coordination. *Management Science* 56(3): 571–589.
- Cachon, G., and M. Lariviere. 2001. Contracting to assure supply: How to share demand forecasts in a supply chain. *Management Science* 47(5): 629–646.
- Cachon, G., and M. Lariviere. 2005. Supply chain coordination with revenue-sharing contracts: Strengths and limitations. *Management Science* 51(1): 30–44.
- Cachon, G., and R. Swinney. 2011. The value of fast fashion: Quick response, enhanced design, and strategic consumer behavior. *Management Science* 57(4): 778–795.
- Carbone, J. 2001. HP buyers get hands on design. *Purchasing.com*, 19 July 2001.
- Chen, F. 1998. Echelon reorder points, installation reorder points, and the value of centralized demand information. *Management Science* 44(12-part-2), S221–S234.
- Chen, F. 2003. Information sharing and supply chain coordination. In *Supply chain management: Design, coordination and operation*, Handbooks in Operations Research and Management Science, ed. A. de Kok and S. Graves, 341–421. Elsevier Science Publishers, North-Holland, Amsterdam, The Netherlands.
- Chen, F. 2005. Salesforce incentives, market information, and production/inventory planning. *Management Science* 51(1): 60–75.
- Chen, F., and A. Federgruen. 2000. Mean-variance analysis of basic inventory models. Technical report, Graduate School of Business, Columbia University, New York.
- Chen, F., and M. Parlar. 2007. Value of a put option to the risk-averse newsvendor. *IIE Transactions* 39(5): 481–500.

- Chen, F., A. Federgruen, and Y. Zheng. 2001. Coordination mechanisms for a distribution System with one supplier and multiple retailers. *Management Science* 47(5): 693–708.
- Cheng, T.C.E., and Y. Wu. 2005. The impact of information sharing in a two-level supply chain with multiple retailers. *Journal of the Operational Research Society* 56(10): 1159–1165.
- Cheng, F., M. Ettl, G. Lin, M. Schwarz, and D. Yao. 2003. Flexible supply contracts via options. Working paper, IBM T. J. Watson Research Center, Yorktown Heights.
- Chiu, C., and T.M. Choi. 2013. Supply chain risk analysis with mean-variance models: A technical review. *Annals of Operations Research*. doi:10.1007/s10479-013-1386-4.
- Choi, S. 1991. Price competition in a channel structure with a common retailer. *Marketing Science* 10(4): 271–296.
- Choi, T.M. 2013a. *Fast fashion systems: Theories and applications*. Boca Raton: CRC.
- Choi, T.M. 2013b. Multi-period risk minimization purchasing models for fashion products with interest rate, budget, and profit target considerations. *Annals of Operations Research*. doi:10.1007/s10479-013-1453-x.
- Choi, T.M., D. Li, and H. Yan. 2008a. Mean-variance analysis of a single supplier and retailer supply chain under a returns policy. *European Journal of Operational Research* 184(1): 356–376.
- Choi, T.M., D. Li, H. Yan, and C. Chiu. 2008b. Channel coordination in supply chains with agents having mean-variance objectives. *Omega* 36: 565–576.
- Cohen, M., and N. Agrawal. 1999. An analytical comparison of long and short term contracts. *IIE Transactions* 31: 783–796.
- Corbett, C. 2001. Stochastic inventory systems in a supply chain with asymmetric information: Cycle stocks, safety stocks, and consignment stock. *Operation Research* 49(4): 487–500.
- Corbett, C., and X. Groote. 2000. A supplier's optimal quantity discount policy under asymmetric information. *Management Science* 46(3): 444–450.
- Corbett, C., and C. Tang. 1999. Designing supply contracts: Contract type and information asymmetry. In: *Quantitative models for supply chain management*, Handbooks in operations research and management science, ed. S. Tayur, R. Ganeshan, and M. Magazine, chapter 9. Boston/Dordrecht/London: Kluwer Academic.
- Corbett, C., D. Zhou, and C. Tang. 2004. Designing supply contracts: Contract type and information asymmetry. *Management Science* 50: 550–559.
- Cox, J., and S. Ross. 1976. A survey of some new results in financial option pricing theory. *Journal of Finance* 31(2): 383–402.
- Cox, J., S. Ross, and M. Rubinstein. 1979. Option pricing: A simplified approach. *Journal of Financial Economics* 7: 229–263.
- Dana, J., and K. Spier. 2001. Revenue sharing and vertical control in the video rental industry. *Journal of Industrial Economics* 59(3): 223–245.
- Dada, M., and K. Srikanth. 1987. Pricing policies for quantity discounts. *Management Science* 33(10): 1247–1252.
- Deneckere, R., H. Marvel, and J. Peck. 1996. Demand uncertainty, inventories, and resale price maintenance. *Quarterly Journal of Economics* 111: 885–913.
- Deneckere, R., H. Marvel, and J. Peck. 1997. Demand uncertainty and price maintenance: Markdowns as destructive competition. *American Economic Review* 87(4): 619–641.
- Desiraju, R., and S. Moorthy. 1997. Managing a distribution channel under asymmetric information with performance requirement. *Management Science* 43(12): 1628–1644.
- Donohue, K. 2000. Efficient supply contracts for fashion goods with forecast updating and two production modes. *Management Science* 46(11): 1397–1411.
- Dong, L., and H. Liu. 2007. Equilibrium forward contracts on nonstorable commodities in the presence of market power. *Operations Research* 55(1): 128–145.
- Dong, L., and K. Zhu. 2007. Two-wholesale-price contracts: Push, pull, and advance-purchase discount contracts. *Manufacturing & Service Operations Management* 9(3), 291–311.
- Edlin, A., and B. Hermalin. 2000. Contract renegotiation and options in agency problems. *Journal of Law, Economics, & Organization* 16(2): 395–423.

- Eliashberg, J. 1986. Arbitrating a dispute: A decision analytic approach. *Management Science* 32: 963–974.
- Emmons, H., and S. Gilbert. 1998. Note: The role of returns policies in pricing and inventory decisions for catalogue goods. *Management Science* 44(2): 276–283.
- Eppen, G., and A. Iyer. 1997. Backup agreements in fashion buying—the value of upstream flexibility. *Management Science* 43(11): 1469–1487.
- Erkoc, M., and S. Wu. 2005. Managing high-tech capacity expansion via reservation contracts. *Production and Operations Management* 14(2): 232–251.
- Fishburn, P. 1970. *Utility theory for decision making*. New York: Wiley.
- Fu, Q., C. Lee, and C. Teo. 2010. Procurement management using option contracts: Random spot price and the portfolio effect. *IIE Transactions* 42(11): 793–811.
- Gan, X., S. Sethi, and H. Yan. 2004. Coordination of supply chains with risk-averse agents. *Production and Operations Management* 13(2): 135–149.
- Gan, X., S. Sethi, and H. Yan. 2005. Channel coordination with a risk-neutral supplier and a downside-risk-averse retailer. *Production and Operations Management* 14(1): 80–89.
- Gans, N. 2002. Customer loyalty and supplier quality competition. *Management Science* 48(2): 207–221.
- Gavriñeni, S., R. Kapuscinski, and S. Tayur. 1999. Value of information in capacitated supply chains. *Management Science* 45(1): 16–24.
- Gerchak, Y., and Y. Wang. 1994. Periodic-review inventory models with inventory-level dependent demand. *Naval Research Logistics* 41: 99–116.
- Gomez-Padilla, A., and T. Mishina. 2009. Supply contract with options. *International Journal of Production Economics* 122: 312–318.
- Goyal, S. 1976. An integrated inventory model for a single supplier-single customer problem. *International Journal of Production Research* 15(1): 107–111.
- Granot, D., and S. Yin. 2005. On the effectiveness of returns policies in the price-dependent newsvendor models. *Naval Research Logistics* 52(8): 765–779.
- Gupta, D. 2008. Flexible carrier-forwarder contracts for air cargo business. *Journal of Pricing Review Management* 7: 341–356.
- Ha, A. 2001. Supplier-buyer contracting: Asymmetric cost information and cutoff level policy for buyer participation. *Naval Research Logistics* 48(1): 41–64.
- Ha, A., and S. Tong. 2008. Contracting and information sharing under supply chain competition. *Management Science* 54(4): 701–715.
- Hareh, G., and X. Yi. 2006. Reslax price maintenance contracts with retailer sales effort: Effect of flexibility and competition. *Naval Research Logistics* 53(5): 448–463.
- Hazra, J., and B. Mahadevan. 2009. A procurement model using capacity reservation. *European Journal of Operational Research* 193(1): 303–316.
- Hazra, J., B. Mahadevan, and S. Seshadri. 2002. Modeling capacity reservation contracts. In: *Sixth National Conference of the Society of Operations Management*, 20–22 Dec 2002, Kozhikode, India.
- Heredia, F., M. Rider, and C. Corchero. 2012. A stochastic programming model for the optimal electricity market bid problem with bilateral contracts for thermal and combined cycle units. *Annals of Operations Research* 193(1): 107–127.
- Ho, T., X. Su, and Y. Wu. 2014. Distributional and peer-induced fairness in supply chain contract design. *Production and Operations Management* 23(2): 161–175.
- Huang, Z., and S. Li. 2001. Co-op advertising models in manufacturer-retailer supply chains: A game theory approach. *European Journal of Operational Research* 135: 81–98.
- Huang, Z., S. Li, and V. Mahajan. 2002. An analysis of manufacturer-retailer supply chain coordination in cooperative advertising. *Decision Sciences* 33(3): 469–494.
- Huang, S., S. Zeng, Y. Fan, and G. Huang. 2011. Optimal service selection and composition for service-oriented manufacturing network. *International Journal of Computer Integrated Manufacturing* 24(5): 416–430.
- Inderfurth, K., and P. Kelle. 2011. Capacity reservation under spot market price uncertainty. *International Journal of Production Economics* 133(1): 272–279.

- Jiang, P., and S. Fukuda. 2001. TeleRP – An internet web-based solution for remote rapid prototyping service and maintenance. *International Journal of Computer Integrated Manufacturing* 14(1): 83–94.
- Jiang, P., G. Zhou, G. Zhao, Y. Zhang, and H. Sun. 2007. E2-MES: An e-service-driven networked manufacturing platform for extended enterprises. *International Journal of Computer Integrated Manufacturing* 20(2-3): 127–142.
- Jin, M., and S. Wu. 2007. Capacity reservation contracts for high-tech industry. *European Journal of Operational Research* 176(3): 1659–1677.
- Jueland, A., and S. Shugan. 1983. Managing channel profits. *Marketing Science* 2(3): 239–272.
- Kali, R. 1998. Minimum advertised price. *Journal of Economics & Management Strategy* 7(4): 647–668.
- Kalkanci, B., K. Chen, and F. Erhun. 2011. Contract complexity and performance under asymmetric demand information: An experimental evaluation. *Management Science* 57(4): 689–704.
- Kalkanci, B., K. Chen, and F. Erhun. 2014. Complexity as a contract design factor: A human-to-human experimental study. *Production and Operations Management* 23(2): 269–284.
- Kameshwaran, S., S. Mehta, V. Pandit, G. Parija, S. Singh, and N. Viswanadham. 2009. Analyses for service interaction networks with applications to service delivery. *Proceedings of SIAM International Conference on Data Mining*.
- Kandel, E. 1996. The right to return. *Journal of Law and Economics* 39: 329–356.
- Kaplan, S., and M. Sawhney. 2000. *E-hubs: The new B2B marketplaces*, 97–103. Boston: Harvard Business Review.
- Karmakar, U. 2004. Will you survive the services revolution. *Harvard Business Review* 82(6): 100–107.
- Katok, E., and D. Wu. 2009. Contracting in supply chains: A laboratory investigation. *Management Science* 55(12): 1953–1968.
- Katok, E., T. Olsen, and V. Pavlov. 2014. Wholesale pricing under mild and privately known concerns for fairness. *Production and Operations Management* 23(2): 285–302.
- Keeney, R., and H. Raiffa. 1976. *Decision with multiple objectives: Preferences and value tradeoffs*. New York: Wiley.
- Kim, B. 2000. Coordinating an innovation in supply chain management. *European Journal of Operation Research* 123(3): 564–584.
- Kremer, M., and L. Van Wassenhove. 2014. Willingness to pay for shifting inventory risk: The role of contractual form. *Production and Operations Management* 23(2): 239–252.
- Krishnan, H., R. Kapuscinski, and D. Butz. 2004. Coordinating contracts for decentralized supply chains with retailer promotional effort. *Management Science* 50(1): 48–63.
- Kohli, R., and H. Park. 1989. A cooperative game theory model of quantity discounts. *Management Science* 35(6), 693–707.
- Kouvelis, P., and M. Lariviere. 2000. Decentralizing cross-functional decisions: Coordination through internal markets. *Management Science* 46(8): 1049–1058.
- Kurata, H., and S. Nam. 2010. After-sales service competition in a supply chain: Optimization of customer satisfaction level or profit or both. *International Journal of Production Economics* 127(1): 136–146.
- Lal, R. 1990. Improving channel coordination through franchising. *Marketing Science* 9(4): 299–318.
- Landeros, R., and D. Lyth. 1989. Economic-lot-size models for cooperative inter-organizational relationships. *Journal of Business Logistics* 10(2): 146–158.
- Lariviere, M. 1999. Supply chain contracting and coordination with stochastic demand. In: *Quantitative models for supply chain management*, Handbooks in operations research and management science, ed. S. Tayur, R. Ganeshan, and M. Magazine, chapter 8. Boston/Dordrecht/London: Kluwer Academic.
- Lariviere, M. 2006. A note on probability distributions with increasing generalized failure rates. *Operations Research* 54(3): 602–604.
- Lariviere, M., and E. Porteus. 2001. Selling to the newsvendor: An analysis of price-only contracts. *Manufacturing & Service Operations Management* 3(4): 293–305.

- Lau, H. 1980. The newsboy problem under alternative optimization objectives. *Journal of the Operational Research Society* 31: 525–535.
- Lau, H., and A. Lau. 1999. Manufacturer's pricing strategy and return policy for a single-period commodity. *European Journal of Operational Research* 116: 291–304.
- Lee, H., and M. Rosenblatt. 1986. A generalized quantity discount pricing model to increase supplier's profits. *Management Science* 32(9): 1177–1185.
- Lee, E., and R. Staelin. 1997. Vertical strategic interaction: Implications for channel pricing strategy. *Marketing Science* 16(3): 185–207.
- Lee, H., and S. Whang. 2002. The impact of the secondary market on the supply chain. *Management Science* 48(6): 719–731.
- Lee, H., V. Padmanabhan, and S. Whang. 1997. Information distortion in a supply chain: The bullwhip effect. *Management Science* 43(4): 546–558.
- Lee, H., K. So, and C. Tang. 2000. The value of information sharing in a two-level supply chain. *Management Science* 46(5): 626–643.
- Lester, R. 1998. *The productive edge: How U.S. industries are pointing the way to a new era of economic growth*. New York: Norton.
- Li, Z. 2007. Service-oriented manufacturing: The new tool of enterprise competition. *Chinese Mechanics industry* 12: 16–17.
- Li, C., and P. Kouvelis. 1999. Flexible and risk-sharing supply contracts under price uncertainty. *Management Science* 45(10): 1378–1398.
- Li, L., and H. Zhang. 2008. Confidentiality and information sharing in supply chain coordination. *Management Science* 54(8): 1467–1481.
- Li, G., H. Yan, S. Wang, and Y. Xia. 2005a. Comparative analysis on value of information sharing in supply chains. *Supply Chain Management-An International Journal* 10(1): 34–46.
- Li, G., S. Wang, H. Yan, and G. Yu. 2005b. Information transformation in a supply chain: A simulation study. *Computers & Operations Research* 32(3): 707–725.
- Li, J., T.M. Choi, and T.C.E. Cheng. 2014. Mean variance analysis of fast fashion supply chains with returns policy. *IEEE Transactions on Systems, Man, and Cybernetics: Systems* 44(4): 422–434.
- Lifset, R. 2000. Moving from products to services. *Journal of Industrial Ecology* 4(1): 1–2.
- Lin, Z., C. Cai, and B. Xu. 2010. Supply chain coordination with insurance contract. *European Journal of Operational Research* 205(2): 339–345.
- Lippman, S., and K. McCardle. 1997. The competitive newsboy. *Operations Research* 45(1): 54–65.
- Marceau, J., and C. Martinez. 2002. Selling solutions: Product-service packages as links between new and old economies. Paper to be presented at the *DRUID summer conference on industrial dynamics of the new and old economy—who is embracing whom*, Copenhagen/Elsinore.
- Markowitz, H. 1959. *Portfolio selection: Efficient diversification of investment*. New York: Wiley.
- Martinez-de-Albeniz, V., and D. Simchi-Levi. 2005. A portfolio approach to procurement contracts. *Production and Operations Management* 14(1): 90–114.
- Martinez-de-Albeniz, V., and D. Simchi-Levi. 2006. Mean-variance trade-offs in supply contracts. *Naval Research Logistics* 53: 603–616.
- Marvel, H. 1985. The welfare effects of resale price maintenance. *Journal of Law and Economics* 28(2): 363–379.
- Marvel, H., and J. Peck. 1995. Demand uncertainty and returns policies. *International Economics Reviews* 36(3): 691–714.
- Mathewson, G., and R. Winter. 1987. The competitive effects of vertical agreements: Comment. *American Economic Review* 77: 1057–1062.
- Mendelson, H., and T. Tunca. 2007. Strategic spot trading in supply chains. *Management Science* 53(5): 742–759.
- Merton, R. 1973. Corporation theory of rational option pricing. *Bell Journal of Economics and Management Science* 4(1): 141–183.
- Merton, R. 1976. Option pricing when underlying stock returns are discontinuous. *Journal of Financial Economics* 3(1-2): 125–144.

- Milner, J., and M. Rosenblatt. 2002. Flexible supply contracts for short life-cycle goods: The buyer's perspective. *Naval Research Logistics* 49: 25–45.
- Moinzadeh, K., and S. Nahmias. 2000. Adjustment strategies for a fixed delivery contract. *Operations Research* 48(3): 408–423.
- Mont, O. 2002. Clarifying the concept of product-service system. *Journal of Cleaner Production* 10(3): 237–245.
- Nagarajan, M., and G. Sošić. 2008. Game-theoretic analysis of cooperation among supply chain agents: Review and extensions. *European Journal of Operational Research* 187: 719–745.
- Nahmias, S., and S. Smith. 1994. Optimizing inventory levels in a two-echelon retailer system with partial lost sales. *Management Science* 40(5): 582–596.
- Norden, L., and S. Velde. 2005. Multi-product lot-sizing with a transportation capacity reservation contract. *European Journal of Operational Research* 165(1): 127–138.
- O'Brien, D., and G. Shaffer. 1993. On the dampening-of-competition effect of exclusive dealing. *The Journal of Industrial Economics* 41(2): 215–221.
- O'Brien, D., and G. Shaffer. 1997. Nonlinear supply contracts, exclusive dealing, and equilibrium market foreclosure. *Journal of Economics and Management Strategy* 6(4): 755–785.
- Özer, Ö., and W. Wei. 2006. Strategic commitment for optimal capacity decision under asymmetric forecast information. *Management Science* 52: 1238–1257.
- Padmanabhan, V., and I. Png. 1995. Returns policies: Make money by making good. *Sloan Management Review*. 37(1): 65–72.
- Padmanabhan, V., and I. Png. 1997. Manufacturer's returns policies and retail competition. *Marketing Science* 16(1): 81–94.
- Padmanabhan, V., and I. Png. 2004. Reply to "Do returns policies intensify competition?" *Marketing Science* 23(4): 614–618.
- Pasternack, B. 1985. Optimal pricing and returns policies for perishable commodities. *Marketing Science* 4(2): 166–176.
- Pasternack, B. 2008. Commentary Optimal pricing and return policies for perishable commodities. *Marketing Science* 27(1): 131–132.
- Perakis, G., and G. Roels. 2007. The price of anarchy in supply chains: Quantifying the efficiency of price-only contracts. *Management Science* 53(8): 1249–1268.
- Pratt, J. 1964. Risk aversion in the small and in the large. *Econometrica* 32: 122–136.
- Raghuathan, S. 2001. Information sharing in a supply chain: A note on its value when demand is nonstationary. *Management Science* 47(4): 605–610.
- Raiffa, H. 1968. *Decision Analysis*. Massachusetts: Addison-Wesley.
- Ray, S., H. Chen, M. Bergen, and D. Levy. 2006. Asymmetric wholesale pricing: Theory and evidence. *Marketing Science* 25(2): 131–154.
- Ritchken, P., and C. Tapiero. 1986. Contingent claims contracting for purchasing decisions in inventory management. *Operations Research* 34(6): 864–870.
- Roels, C., U. Karmarkar, and S. Carr. 2010. Contracting for collaborative services. *Management science* 56(5): 849–863.
- Savaskan, R., and L. van Wassenhove. 2006. Reverse channel design: The case of competing retailers. *Management Science* 52(1): 1–14.
- Serel, D. 2007. Capacity reservation under supply uncertainty. *Computers & Operations Research* 34(4): 1192–1220.
- Serel, D., M. Dada, and H. Moskowitz. 2001. Sourcing decisions with capacity reservation contracts. *European Journal of Operational Research* 131(3): 635–648.
- Shen, H., Z. Pang, and T.C.E. Cheng. 2011. The component procurement problem for the loss-averse manufacturer with spot purchase. *International Journal of Production Economics* 132(1): 146–153.
- Shin, H., and T. Tunca. 2010. Do firms invest in forecasting efficiently? The effect of competition on demand forecast investments and supply chain coordination. *Operations Research* 58(6): 1592–1610.
- Smith, C. 1976. Option pricing: A review. *Journal of Financial Economics* 3(1–2): 3–51.

- Sobel, M., and D. Turcic. 2008. Risk aversion and supply chain contract negotiation. Working paper, Department of Operations, Weatherhead School of Management, Case Western Reserve University.
- Song, Y., S. Ray, and S. Li. 2008. Structural properties of buyback contracts for price-setting newsvendors. *Manufacturing & Service Operations Management* 10(1): 1–18.
- Spengler, J. 1950. Vertical integration and antitrust policy. *Journal of Political Economy* 58(4): 347–352.
- Spinler, S., and A. Huchzermeier. 2006. The valuation of options on capacity with cost and demand uncertainty. *European Journal of Operational Research* 171(3): 915–934.
- Spinler, S., A. Huchzermeier, and P. Kleindorfer. 2003. Risk hedging via options contracts for physical delivery. *OR Spectrum* 25(3): 379–395.
- Taylor, T. 2002. Supply chain coordination under channel rebates with sales effort effects. *Management Science* 48(8): 992–1007.
- Taylor, T., and E. Plambeck. 2007. Simple relational contracts to motivate capacity investment: Price only vs. price and quantity. *Manufacturing Service Operation Management* 9(1): 94–113.
- Taylor, T., and W. Xiao. 2009. Incentives for retailer forecasting: Rebates vs. returns. *Management Science* 55(10): 1654–1669.
- Tereyağoğlu, N., and S. Veeraraghavan. 2012. Selling to conspicuous consumers: Pricing, production, and sourcing decisions. *Management Science* 58(12), 2168–2189.
- Tirole, J. 1988. *The Theory of Industrial Organization*. Boston: MIT.
- Trivedi, M. 1998. Distribution channels: An extension of exclusive retailership. *Management Science* 44(7): 896–909.
- Tsay, A. 1999. The quantity flexibility contract and supplier-customer incentives. *Management Science* 45(10): 1339–1358.
- Tsay, A. 2001. Managing retail channel overstock: Markdown money and return policies. *Journal of Retailing* 77: 457–492.
- Tsay, A. 2002. Risk sensitivity in distribution channel partnerships: Implications for manufacturer return policies. *Journal of Retailing* 78(2): 147–160.
- Tsay, A., S. Nahmias, and N. Agrawal. 1999. Modeling supply chain contracts: A review. In: *Quantitative models for supply chain management*, Handbooks in operations research and management science, ed. S. Tayur, R. Ganeshan, and M. Magazine, chapter 10. Boston/Dordrecht/London: Kluwer Academic.
- Vaagen, H., and S. Wallace. 2008. Product variety arising from hedging in the fashion supply chains. *International Journal of Production Economics* 114: 431–455.
- Viswanadham, N., V. Desai, and R. Gaonkar. 2005. Bullwhip effect in integrated manufacturing and service networks. *Proceedings of the 2005 IEEE International Conference on Robotics and Automation*, Barcelona.
- von Neumann, J., and O. Morgenstern. 1953. *Theory of games and economic behavior*, 3rd ed. Princeton: Princeton University Press.
- Wang, H. 2004. Do returns policies intensify retail competition? *Marketing Science* 23(4): 611–613.
- Wang, Y., and Y. Gerchak. 2001. Supply chain coordination when demand is shelf-space dependent. *Manufacturing & Service Operations Management* 3(1): 82–87.
- Wang, K., and Z. Jiang. 2014. Optimal production control of a service-oriented manufacturing system with customer balking behavior. *Flexible Services and Manufacturing Journal* 26(3): 387–407.
- Wang, X., and L. Liu. 2007. Coordination in a retailer-led supply chain through option contract. *International Journal of Production Economics* 110: 115–127.
- Wang, Q., and D. Tsao. 2006. Supply contract with bidirectional options: The buyer's perspective. *International Journal of Production Economics* 101: 30–52.
- Weng, Z. 1995. Channel coordination and quantity discounts. *Management Science* 41(9): 1509–1522.
- Whang, S. 1992. Contracting for software development. *Management Science* 38(3): 307–324.



- Whang, S. 1995. Coordinatin in operations: A taxonomy. *Journal of Operations Management* 12: 413–422.
- Wilmott, P., J. Dewynne, and S. Howison. 1994. *Option pricing: Mathematical models and computation*. Oxford: Oxford Financial Press.
- Wu, H. 2004. Pricing European options based on the fuzzy pattern of Black-Scholes formula. *Computers & Operations Research* 31(7): 1069–1081.
- Wu, D. 2013. The impact of repeated interactions on supply chain contracts: A laboratory study. *International Journal of Production Economics* 142(1): 3–15.
- Wu, D., and K. Chen. 2014. Supply chain contract design: Impact of bounded rationality and individual heterogeneity. *Production and Operations Management* 23(2): 253–268.
- Wu, Y., and T.C.E. Cheng. 2008. The impact of information sharing in a multiple-echelon supply chain. *International Journal of Production Economics* 115(1): 1–11.
- Wu, D., and P. Kleindorfer. 2005. Competitive options, supply contracting, and electronic markets. *Management Science* 51(3): 452–466.
- Wu, D., P. Kleindorfer, and J. Zhang. 2002. Optimal bidding and contracting strategies for capital-intensive goods. *European Journal of Operational Research* 137: 657–676.
- Wu, D., P. Kleindorfer, and Y. Sun. 2005. Optimal capacity expansion in the presence of capacity options. *Decision Support Systems* 40(3–4): 553–561.
- Wu, J., W. Yue, Y. Yamamoto, and S. Wang. 2006. Risk analysis of a pay to delay capacity reservation contract. *Optimization Methods and Software* 21(4): 635–651.
- Wu, J., S. Wang, X. Chao, C. Ng, and T.C.E. Cheng. 2010. Impact of risk aversion on optimal decisions in supply contracts. *International Journal of Production Economics* 128(2): 569–576.
- Xie, W., Y. Zhao, Z. Jiang, and P. Chow. 2013. Optimizing product service system by franchise fee contracts under information asymmetry. *Annals of Operations Research*. doi:10.1007/s10479-013-1505-2.
- Yang, J., and X. Qi. 2009. On the design of coordinating contracts. *International Journal of Production Economics* 122(2): 581–594.
- Yue, J., J. Austin, M. Wang, and Z. Huang. 2006. Coordination of cooperative advertising in a two-level supply chain when manufacturer offers discount. *European Journal of Operational Research* 168: 65–85.
- Zhao, Y., S. Wang, T.C.E. Cheng, X. Yang, and Z. Huang. 2010. Coordination of supply chains by option contracts: A cooperative game theory approach. *European Journal of Operational Research* 207(2): 668–675.
- Zhao, Y., L. Yang, T.C.E. Cheng, L. Ma, and X. Shao. 2013a. A value-based approach to option pricing: The case of supply chain options. *International Journal of Production Economics* 143(1): 171–177.
- Zhao, Y., L. Ma, G. Xie, and T.C.E. Cheng. 2013b. Coordination of supply chains with bidirectional option contracts. *European Journal of Operational Research* 229(2): 375–381.
- Zhao, Y., T.M. Choi, T.C.E. Cheng, and S. Wang. 2014a. Mean-risk analysis of wholesale price contracts with stochastic price-dependent demand. *Annals of Operations Research*. doi:10.1007/s10479-014-1689-0.
- Zhao, Y., T.M. Choi, T.C.E. Cheng, S. Sethi, and S. Wang. 2014b. Buyback contracts with price-dependent demands: Effects of demand uncertainty. *European Journal of Operational Research* 239(3): 663–673.

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