

References:

Admundson, R., Berhe, A.A., Hopmans, J.W., Olson, C., Sztein, A.E., Sparks, D.L. 2015. Soil and human security in the 21st century. *Science* 348(6235), DOI: 10.1126/science.1261071.

Andersen, D.F., Maxwell, T.A., Richardson, G.P., Stewart, T.R. 1994. Mental models and dynamic decision making in a simulation of welfare reform. In *Proceedings of the 1994 International Conference of the System Dynamics Society, Society Social and Public Policy*; 11-18.

Akerlof, K.; Maiback, E.W.; Fitzgerald, D.; Ceden, A.Y.; Neuman, A. Do people “personally experience” global warming, and if so how, and does it matter? *Global Environmental Change*, 2012, DOI:10.1016/j.gloenvcha.2012.07.006

Bakken, B.E. 1992. Frequency and experiential learning in unstable markets. In *Proceedings of the 1992 International Conference of the System Dynamics Society*, 52-64. Accessible at: <http://www.systemdynamics.org/conferences/1992/proceed/pdfs/bakke051.pdf>

Barlas, Y.; Özevin, M.G. 2001. Testing the decision rules used in stock market models. In *Proceedings of the 19th International Conference of the System Dynamics Society*. Accessible at: <http://www.systemdynamics.org/conferences/2001/proceed.pdf>

Bellard, C.; Bertelsmeier, C.; Leadley, P.; Thuiller, W.; Courchamp, F. Impacts of climate change on the future of biodiversity. *Ecological Letters* 2012, 15, 365-377, doi:10.1111/j.1461-0248.2011.01736.x.

Beautement, P.; Broenner, C. *Complexity demystified: a guide for practitioners*. Triarchy Press, Devon, UK, 2011.

Brouder, S.M., Gomez-Macpherson, H. 2014. The impact of conservation agriculture on smallholder agricultural yields: A scoping review of the evidence. *Agriculture, Ecosystems and Environment* 187:11-32.

Cheung, W.W.L.; Sarmiento, J.L.; Dunne, J.; Frolicher, T.L.; Lam, V.W.Y.; Deng Palomares, M.L.; Watson, R.; Pauly, D. 2012. Shrinking of fishes exacerbates impacts of global ocean changes on marine ecosystems. *Nature Climate Change* 2012, DOI: 10.1038/NCLIMATE1691.

Corlett, R.T.; Westcott, D.A. Will plant movements keep up with climate change? *Trends in Ecology and Evolution*, 2013, DOI: 10.1016/j.tree.2013.04.003

Croson R., Donohue K., Katok E., Sterman J. D. 2004. “Order Stability in Supply Chains: Coordination Risk and the Role of Coordination Stock.” Working Paper, MIT Sloan School of Management.

Croson, R., Donohue, K., Katok, E., Sterman, J. 2014. Order Stability in Supply Chains: Coordination Risk and the Role of Coordination Stock. *Production and Operations Management* 23(2), 176-196.

- Deaton, A. 1999. "Commodity Prices and Growth in Africa." *J. Econ. Perspect.* 13(3):23-40.
- Diehl, E.W. 1988. Participatory simulations as training tools: a study based on the market growth model. In *Proceedings of the 1988 International Conference of the System Dynamics Society*; 52-64. Accessible at:
<http://www.systemdynamics.org/conferences/1988/proceed/dieh052.pdf>
- Diehl, E.W. 1989. A study on human control in stock-adjustment tasks. In *Computer-Based Management of Complex Systems: Proceedings of the 1989 International Conference of the System Dynamics Society*. Springer: Berlin; 205-212. Accessible at:
<http://www.systemdynamics.org/conferences/1989/proceed/parallel-pdf/diehl205.pdf>
- Diehl, E.W.; Sterman, J.D. 1995. Effects of feedback complexity on dynamic decision making. *Organizational Behavior and Human Decision Processes* 62(2): 198-215.
- Ford, D.N., McCormack, D.E.M. 2000. Effects of time scale focus on system understanding in decision support systems. *Simulation and Gaming* 31(3):309-330.
- Forrester, J.W. 1965/1975. A new corporate design. *Industrial Management Review* 7(1):5-17. Reprinted in Forrester (1975), Ch. 6.
- Forrester, J.W. 1975. *Collected Papers of Jay W. Forrester*. Pegasus Communications: Waltham, MA.
- Forrester, J.W. 1994. Learning through System Dynamics as Preparation for the 21st Century. Keynote Address for Systems Thinking and Dynamic Modeling Conference for K-12 Education, Concord Academy, Concord, MA., Accessible at: <https://ocw.mit.edu/courses/sloan-school-of-management/15-988-system-dynamics-self-study-fall-1998-spring-1999/readings/learning2.pdf>.
- Forrester, J.W. 2006. System dynamics as an organizing framework for pre-college education. *System Dynamics Review* 9(2):183-194.
- Forrester, J.W. 2009. System Dynamics: The Classroom Experience Quotations from K-12 Teachers. Creative Learning Exchange, Accessible at:
http://static.clexchange.org/ftp/documents/whyk12sd/Y_2009-02QuotationsFromTeachers.pdf.
- Forrester, J.W. 2011. Fireside Chat, given at the 29th International Conference of the System Dynamics Society, Washington, DC., Accessible at:
<https://www.youtube.com/watch?v=4YIIAYUqX34>
- Fugle, K.O., MacDonald, J.M., Ball, E. 2007. Productivity Growth in U.S. Agriculture. EB-9, U.S. Dept. of Agriculture, Econ. Res. Serv., September.

Georgantzas, N.C. 1990. Cognitive biases, modeling and performance: an experimental analysis. In Proceedings of the 1990 International System Dynamics Conference; 410-424. Accessible at: <http://www.systemdynamics.org/conferences/1990/proceed/pdfs/georg410.pdf>

Giller, K.E., Andersson, J.A., Corbeels, M., Kirkegaard, J., Mortensen, D., Erenstein, O., Vanlauwe, B. 2015. Beyond conservation agriculture. *Frontiers in Plant Science* 6:870, doi: 10.3389/fpls.2015.00870

Größler, A. 1998. Structural transparency as an element of business simulators. In Proceedings of the 16th International Conference of the System Dynamics Society; 39. Accessible at: <http://www.systemdynamics.org/conferences/1998/PROCEED/00085.PDF>

Größler, A., Maier, F.H., Milling, P.M. 2000. Enhancing learning capabilities by providing transparency in business simulators. *Simulation and Gaming* 31(2):197-229.

Haddeland, I.; Heinke, J.; Biemans, H.; Eisner, S.; Florke, M.; Hanasaki, N.; Konzmann, M.; Ludwig, F.; Masald, Y.; Schewe, J.; Stacke, T.; Tessler, Z.D.; Wada, Y.; Wisser, D. Global water resources affected by human interventions and climate change. 2014, *PNAS*, 111, 3251-3256, DOI:10.1073/pnas.1222475110

Henneron, L., Bernard, L., Hedde, M., Pelosi, C., Villenave, C., Chenu, C., Bertrand, M., Girardin, C., Blanchart, E. 2014. Fourteen years of evidence of positive effects of conservation agriculture and organic farming on soil life. *Agron. Sustain. Dev.* DOI 10.1007/s13593-014-0215-8

Herriott SR, Levinthal D, March JG. 1985. Learning from experience in organizations. *American Economic Review* 75(2): 298–302.

Howie, E., Sy, S., Ford, L., Vicente, K.J. 2000. Human-computer interface design can reduce misperceptions of feedback. *System Dynamics Review* 16(3):151-171.

Kirkwood, C.W. 1998. "The Beer Game". Chapter 4 in *Business Process Analysis Workshops: System Dynamics Models*. Available at: <http://www.public.asu.edu/~kirkwood/sysdyn/SDWork/work-4.pdf>. Accessed September 14, 2016.

Lachapelle, P.R., McCool, S.F., Patterson, M.E. 2003. Barriers to Effective Natural Resource Planning in a "Messy" World. *Society and Natural Resources* 16:473-490.

Langley, P.A. 1995. Building cognitive feedback into a microworld learning environment: results from a pilot experiment. In *System Dynamics '95: Proceedings of the 1995 International System Dynamics Conference*; 628-637. Accessible at: <http://www.systemdynamics.org/conferences/1995/proceed/papersvol2/langl628.pdf>

Langley, P.A.; Paich, M.; Sterman, J.D. 1998. Explaining capacity overshoot and price war: misperceptions of feedback in competitive growth markets. In Proceedings of the 16th

International Conference of the System Dynamics Society; 3. Accessible at: [Accessible at: http://www.systemdynamics.org/conferences/1998/PROCEED/00026.PDF](http://www.systemdynamics.org/conferences/1998/PROCEED/00026.PDF)

Levinthal D, March JG. 1981. A model of adaptive organizational search. *Journal of Economic Behavior and Organization* 2(4): 307–333.

Lyneis, D., Stuntz, L.N. 2007. System Dynamics in K-12 Education: Lessons Learned. Proceedings of the International Conference of the System Dynamics Society. Accessible at: <http://www.systemdynamics.org/conferences/2007/proceed/papers/LYNEI390.pdf>.

Machuca, J.A.D., Carrillo, M.A.D. 1996. Transparent-box business simulators versus black-box business simulators: an initial empirical comparative study. In Proceedings of the 1996 International System Dynamics Conference; 329-332. Accessible at: <http://www.systemdynamics.org/conferences/1996/proceed/papers/machu329.pdf>

Mahmood, R.; Pielke, Sr., R.A.; Hubbard, K.G.; Niyogi, D.; Dirmeyer, P.A.; McAlpine, C.; Carleton, A.M.; Hale, R.; Gameda, S.; Beltran-Przekurat, A.; Baker, B.; McNider, R.; Legates, D.R.; Shepherd, M.; Du, J.; Blanken, P.D.; Frauenfeld, O.W.; Nair, U.S.; Fall, S. Land cover changes and their biogeophysical effects on climate. *International Journal of Climatology*, 2014, 34, 929-953, DOI: 10.1002/joc.3736

Meadows, D.H., Meadows, D.L., Randers, J., Behrens III, W.W. 1972. *The Limits to Growth: a report for the Club of Rome's project on the predicament of mankind*. Universe Books. ISBN 0-87663-165-0.

Meadows, D.H., Randers, J., Meadows, D.L. 2004. *Limits to Growth: The 30-Year Update*. Chelsea Green Publishing/Earthscan. ISBN: 193149858X

Meadows, D.H. 2007. The history and conclusions of *The Limits to Growth*. *System Dynamics Review* 23(2/3):191-197.

Mitchell, D.P., Norton, T.W., Grenfell, R.I., Woodgate, P.W. 2007. Barriers to implementation of natural resource management at the landholding level in the intensive agricultural zones of Southern Australia. *Australasian Journal of Environmental Management* 14:2, 103-110.

Montgomery, D.R. 2007. Soil erosion and agricultural sustainability. *PNAS* 104(33):13268-13272.

Nepstad, D.C.; Boyd, W.; Stickler, C.M.; Bezerra, T.; Azevedo, A. Responding to climate change and the global land crisis: REDD+, market transformation and low emissions rural development. *Philosophical Transactions of the Royal Society B*, 2013, DOI: 10.1098/rstb.2012.0167

O'Neill, K. 1992. Real-time tragedies: a simulated 'commons learning laboratory'. In Proceedings System Dynamics 1992: Supplement; 25-34. Accessible at: <http://www.systemdynamics.org/conferences/1992/proceed/pdfs/suponeil25.pdf>

- Paich, M.; Sterman, J.D. 1993. Boom, bust, and failures to learn in experimental markets. *Management Science* 39(12): 1439-1458.
- Palm, C., Blanco-Canqui, H., DeClerk, F., Gatere, L., Grace, P. 2014. Conservation agriculture and ecosystem services: An overview. *Agriculture, Ecosystems and Environment* 187:87-105.
- Park, H.J., Kim, J., Yi, K.S., Jun, K. 1996. Enhancing the performance in dynamic decision making: the adaptive model reconstruction using feedforward vs feedback decision strategy. In *Proceedings of the 1996 International System Dynamics Conference*; 413-416.
- Pauls, S.U.; Nowak, C.; Balint, M.; Pfenninger, M. The impact of global climate change on genetic diversity within populations and species. *Molecular Ecology*, 2013, 22, 925-946, DOI: 10.1111/mec.12152.
- Pimentel, D. 2006. Soil Erosion: A Food and Environmental Threat. *Environment, Development and Sustainability* 8:119-137.
- Pittelkow, C.M., Liang, X., Lingquist, B.A., van Groenigen, K.J., Lee, J., Lundy, M.E., van Gestel, N., Six, J., Venterea, R.T., van Kessel, C. 2014. Productivity limits and potentials of the principles of conservation agriculture. *Nature* 517, 365–368, doi:10.1038/nature13809
- Rahmandad, H., Repenning, N., Sterman, J. 2009. Effects of feedback delay on learning. *System Dynamics Review* 25(4):309-338.
- Ricardson, G.P., Rohrbaugh, J. 1990. Decision making in dynamic environments: exploring judgments in a system dynamics model-based game. In *Contemporary Issues in Decision Making*, Borcherding, K., Larichev, O.I., Messick, D.M. (eds). North-Holland: Amsterdam; 463-472.
- Ritchie-Dunham, J.L. 2001. Informing mental models for strategic decision making with ERPS and the balanced scorecard: a simulation-based experiment. In *Proceedings of the 19th International Conference of the System Dynamics Society*; 126. Accessible at: http://www.systemdynamics.org/conferences/2001/papers/Ritchie-Dunham_1.pdf
- Rouwette, E.A.J.A.; Größles, A.; Vennix, J.A.M. 2004. Exploring Influencing Factors on Rationality: A Literature Review of Dynamic Decision-Making Studies in System Dynamics. *Systems Research and Behavioral Science* 21: 351-370.
- Savenige, H.H.G.; Hoekstra, A.Y.; van der Zaag, P. Evolving water science in the Anthropocene. *Hydrology and Earth System Science*, 2014, 18:319-332.
- Schultz, F.; Dutta, P.; Johnson, P. 2000. Mental models and decision making in a dynamic health care environment. In *Sustainability in the Third Millennium: Proceedings of the 18th International Conference of the System Dynamics Society*; 186. Accessible at: <http://www.systemdynamics.org/conferences/2000/PDFs/schultz2.pdf>

Scott-Trees; T., Doyle, J.K., Radzicki, M. 1996. Using cognitive styles typology to explain differences in dynamic decision making in computer simulation game environment. In System Dynamics '96: Proceedings of the 1996 International System Dynamics Conference; 557-560.

Senge, P. 1990. *The Fifth Discipline: The Art and Practice of Learning Organizations*. Doubleday/Currency. ISBN 0-385-26094-6.

Sengupta, K.; Abdel-Hamid, T.K. 1993. Alternative conceptions of feedback in dynamic decision making environments: an experimental investigation. *Management Science* 39(4): 411-428.

Seto, K.C.; Gualp, B.; Hutyra, L.R. Global forecasts of urban expansion to 2030 and direct impacts on biodiversity and carbon pools. *PNAS*, 2012, 109, 16083-16088, DOI:10.1073/pnas.1211658109

Sheffield, J.; Wood, E.F.; Roderick, M.I. Little change in global drought over the past 60 years. *Nature*, 2012, 491:435-438. DOI: 10.1038/nature11575

Shindell, D.; Kuylenstierna, J.C.I.; Vignati, E.; van Dingen, R.; Amann, M.; Klimont, Z.; Anenberg, S.C.; Muller, N.; Janssens-Maenhout, G.; Raes, F.; Schwartz, J.; Faluvegi, G.; Pozzoli, L.; Kupiainen, K.; Hogland-Isaksson, L.; Emberson, L.; Streets, D.; Ramanathan, V.; Hicks, K.; Kim Oanh, N.T.; Milly, G.; Williams, M.; Demkine, V.; Fowler, D. Simultaneously mitigating near-term climate change and improving human health and food security. *Science*, 2012, 335, DOI: 10.1126/science.1210026

Sterman, J.D. 1989a. Modeling Managerial Behavior: Misperceptions of Feedback in a Dynamic Decision Making Experiment. *Management Science* 35(3): 321-339.

Sterman, J.D. 1989b. Misperceptions of feedback in dynamic decision making. *Organizational Behavior and Human Decision Processes* 43(3): 301-335.

Sterman, J.D. 1992. Teaching Takes Off: Flight Simulators for Management Education "The Beer Game". *OR/MS Today*, October, 40-44.

Sterman, J.D. 1994. Learning in and about complex systems. *System Dynamics Review* 10(2-3):291-330.

Sterman, J.D. 2002. All models are wrong: reflections on becoming a systems scientist. *System Dynamics Review* 18(4):501-531.

Sterman, J.D. 2007. Exploring the next great frontier: system dynamics at fifty. *System Dynamics Review* 23(2/3):89-93.

Sterman, J.D., Dogan, G. 2015. "I'm not hoarding, I'm just stocking up before the hoarders get here." Behavioral causes of phantom ordering in supply chains. *Journal of Operations Management* 39-40, 6-22.

Stuntz, L.N., Lyneis, D.A., Richardson, G.P. 2002. The Future of System Dynamics and Learner-Centered Learning in K-12 Education. Proceedings of the International Conference of the System Dynamics Society, Accessible at:

<http://www.systemdynamics.org/conferences/2002/proceed/papers/Stuntz1.pdf>.

Tàbara, J.D., Pahl-Wostl, C.P. 2007. Sustainability learning in Natural Resource Use and Management. *Ecology and Society* 12(2): 3.

Taylor, R.G.; Scanlan, B.; Doll, P.; Rodell, M.; van Beek, R.; Wada, Y.; Longuevergne, L.; Leblanc, M.; Famiglietti, J.S.; Edmunds, M.; Konikow, L.; Green, T.R.; Chen, J.; Taniguchi, M.; Bierkens, M.F.P.; MacDonald, A.; Fan, Y.; Maxwell, R.M.; Yechieli, Y.; Gurdak, J.J.; Allen, D.M.; Shamsudduha, M.; Hiscock, K.; Yeh, P.J.F.; Holman, I.; Treidel, H. Groundwater and climate change. *Nature Climate Change*, 2012, DOI: 10.1038/NCLIMATE1744.

Teixeira, E.I.; Fischer, G.; van Velthuisen, H.; Walter, C.; Ewert, F. 2013. Global hot-spots of heat stress on agricultural crops due to climate change. *Agricultural and Forest Meteorology*, 170, 206-215.

Tomek, W.G., and K.L. Robinson. 2003. *Agricultural Product Prices*. Cornell University Press, Ithaca.

Trenberth, K.E.; Dai, A.; van der Schrier, G.; Jones, P.D.; Barinichivich, J.; Briffa, K.R.; Sheffield. Global warming and changes in drought. *Nature Climate Change* 2013, 4, 17-22, DOI: 10.1038/NCLIMATE2067.

Turner, G. 2008. A comparison of The Limits to Growth with thirty years of reality. *Global Environmental Change* 18(3):397-411.

Van den Bergh, J.C.J.M.; Grazi, F. Ecological footprint policy? Land use as an environmental indicator. *Journal of Industrial Ecology*, 2013, DOI: 10.1111/jiec.12045

van Ittersum, M.K.; Cassman, K.G.; Grassini, P.; Wolf, J.; Tittonell, P.; Hochman, Z. Yield gap analysis with local to global relevance—A review. *Field Crops Research*, 2013, 143, 4-17. DOI:10.1016/j.fcr.2012.09.009

Vermeulen, S.J.; Campbell, B.M.; Ingram, J.S.I. Climate Change and Food Systems. *Annu. Rev. Environ. Resour.*, 2012, 37, 195-222. DOI: 10.1146/annurev-environ-020411-130608

Wall Street Journal. 1998. News item. November 27, A2.

Walsh, C.L.; Blenkinsop, S.; Fowler, H.J.; Burton, A.; Dawson, R.J.; Glenis, V.; Manning, L.J.; Kilsby, C.G. Adaptation of water resource systems to an uncertain future. 2015. *Hydrology and Earth System Sciences Discussions*, 12, 8853-8889.

Wang, S.L., Heisey, P., Schimmelpfennig, D., Ball, E. 2015. Agricultural Productivity Growth in the United States: Measurement, Trends, and Drivers, ERR-189, U.S. Department of Agriculture, Economic Research Service, July.

Wheeler, T.; von Braun, J. 2013. Climate Change Impacts on Global Food Security. *Science* 341, 508-513, DOI: 10.1126/science.1239402.

Worthy, D.A., Gorlick, M.A., Pacheco, J.L., Schnyer, D.M., Maddox, W.T. 2011. With Age Comes Wisdom: Decision Making in Younger and Older Adults. *Psychological Science*. DOI: 10.1177/0956797611420301

Worthy, D.A., Maddox, W.T. 2012. Age-based differences in strategy use in choice tasks. *Frontiers in Neuroscience* 5, doi: 10.3389/fnins.2011.00145

Yang, J. 1996. Facilitating learning through goal setting in a learning laboratory. In *System Dynamics '96: Proceedings of the 1996 International System Dynamics Conference*; 593-596.

Yang, J. 1997. Give me the leverage, I will be a good dynamic decision maker. In *15th International System Dynamics Conference: Systems Approach to Learning and Education into the 21st Century*; 709-712.

Young, S.H. Yang, J., Wang, S.F. 1992. Enhancing the learning effects of dynamic decision game on systems thinking. In *Proceedings System Dynamics*; 847-856. Accessible at: <http://www.systemdynamics.org/conferences/1992/proceed/pdfs/young847.pdf>

Young, S.H.; Chen, C.P.; Wang, S-W.; Chen, C.H. 1997. The landmine structure and the degrees of freedom of decision-making. In *15th International System Dynamics Conference: Systems Approach to Learning and Education in the 21st Century*; 15-20. Accessible at: <http://www.systemdynamics.org/conferences/1997/young.pdf>

Appendix 1. Model equations for the beer game model to aid in team performance evaluation in this study.

	Equation	Units
1	Backlog D[Team]=INTEG (bFlow D[Team],0)	cases
2	Backlog F[Team]= INTEG (bFlow F[Team],0)	cases
3	Backlog R[Team]= INTEG (bFlow R[Team],0)	cases
4	Backlog W[Team]= INTEG (bFlow W[Team],0)	cases
5	bFlow D[Team]=ordered W[Team]-sold D[Team]	cases/Week
6	bFlow F[Team]= ordered D[Team]-sold F[Team]	cases/Week
7	bFlow R[Team]=ORDER-sold R[Team]	cases/Week
8	bFlow W[Team]=ordered R[Team]-sold W[Team]	cases/Week
9	coming[Team]=ordered F[Team]	cases/Week
10	Cost[Team]= INTEG (cost increase[Team],0)	\$
11	cost increase[Team]=cost of backlog[Team]*(Backlog D[Team]+Backlog F[Team]+Backlog R[Team]+Backlog W[Team])+cost of inventory[Team]*(inventoryD[Team]+inventoryF[Team]+inventoryW[Team]+inventory R[Team])	\$/Week
12	cost of backlog[Team]= 1	\$/cases/Week
13	cost of inventory[Team]= 0.5	\$/cases/Week
14	d cost increase[Team]=(cost of inventory[Team]*inventoryD[Team])+(cost of backlog[Team]*Backlog D[Team])	\$/Week
15	d costs[Team]= INTEG (d cost increase[Team],0)	\$
16	eff inv D[Team]=inventoryD[Team]-Backlog D[Team]	cases
17	eff inv F[Team]=inventoryF[Team]-Backlog F[Team]	cases
18	eff inv R[Team]=inventoryR[Team]-Backlog R[Team]	cases
19	eff inv W[Team]=inventoryW[Team]-Backlog W[Team]	cases
20	f cost increase[Team]=(cost of inventory[Team]*inventoryF[Team])+(cost of backlog[Team]*Backlog F[Team])	\$/Week
21	f costs[Team]= INTEG (f cost increase[Team],0)	\$
22	import D placed orders[Team]:= GET XLS DATA('Book1.xlsx', 'orders (D)', 'A', 'B2')	cases/Week
23	import F placed orders[Team]:=GET XLS DATA('Book1.xlsx', 'orders (F)', 'A', 'B2')	cases/Week
24	import R placed orders[Team]:=GET XLS DATA('Book1.xlsx', 'orders (R)', 'A', 'B2')	cases/Week
25	import W placed orders[Team]:=GET XLS DATA('Book1.xlsx', 'orders (W)', 'A', 'B2')	cases/Week
26	in D[Team]=DELAY FIXED(sold F[Team], 2, 4)	cases/Week
27	in F[Team]=DELAY FIXED(coming[Team], 2, 4)	cases/Week
28	in R[Team]=DELAY FIXED(sold W[Team], 2, 4)	cases/Week
29	in W[Team]=DELAY FIXED(sold D[Team], 2, 4)	cases/Week
30	inventoryD[Team]= INTEG (in D[Team]-sold D[Team],12)	cases
31	inventoryF[Team]= INTEG (in F[Team]-sold F[Team],12)	cases
32	inventoryR[Team]= INTEG (in R[Team]-sold R[Team],12)	cases
33	inventoryW[Team]= INTEG (in W[Team]-sold W[Team],12)	cases
34	ORDER= 4+STEP(4, 5)	cases/Week
35	ordered D[Team]= DELAY FIXED (import D placed orders[Team], 1, 4)	cases/Week

36	ordered F[Team]= DELAY FIXED (import F placed orders[Team], 1, 4)	cases/Week
37	ordered R[Team]= DELAY FIXED (import R placed orders[Team], 1, 4)	cases/Week
38	ordered W[Team]= DELAY FIXED (import W placed orders[Team], 1, 4)	cases/Week
39	r cost increase[Team]=(cost of inventory[Team]*inventoryR[Team])+(cost of backlog[Team]*Backlog R[Team])	\$/Week
40	r costs[Team]= INTEG (r cost increase[Team],0)	\$
41	sold D[Team]=MIN(inventoryD[Team]+in D[Team], ordered W[Team]+Backlog D[Team])	cases/Week
42	sold F[Team]=MIN(inventoryF[Team]+in F[Team], ordered D[Team]+Backlog F[Team])	cases/Week
43	sold R[Team]=MIN(inventoryR[Team]+in R[Team], ORDER+Backlog R[Team])	cases/Week
44	sold W[Team]=MIN(inventoryW[Team]+in W[Team], ordered R[Team]+Backlog W[Team])	cases/Week
45	TIME STEP=1	week
46	w cost increase[Team]=(cost of inventory[Team]*inventoryW[Team])+(cost of backlog[Team]*Backlog W[Team])	\$/Week
47	w costs[Team]= INTEG (w cost increase[Team],0)	\$