

2.964, Fall 2005

Assignment 1

Due: in class on Wednesday, September 28, 2005

Your colleagues at Global Marine 2K Capital Corp. have asked you to evaluate a business plan for a large-scale multi-national fish farming operation. A central assumption of the proposal's business case is that global seafood consumption will increase over the next five to ten years at least as fast as the world's population. The proposal quotes from a 1995 press release by the Consultative Group on International Agriculture Research:

"Global fish catches have increased five-fold between 1950 and 1989 to some 100 million tons, but overall production has stagnated since then as fishers have exhausted new sources of supply. The United Nations estimates that an additional 16 million tons would be needed annually to maintain consumption at current levels in the year 2010, assuming present population growth."

Total world seafood production today is about 130 million tons per year, of which some 100 million tons come from wild capture fisheries and the remainder from aquaculture. Thus the proposal appears to expect annual growth rates in global seafood consumption on the order of 10 percent per year, and growth rates in global aquaculture production of 20 to 30 percent per year. The proposal also assumes that average seafood unit prices will increase by about 5 percent per year over the next ten years.

How realistic do you consider these assumptions to be? How would you go about analyzing the likely changes in seafood supply and demand over the next ten years? Think about some of the concepts we have covered in class: the factors that determine the shape of supply and demand curves; elasticities; time frames; etc.

Your analysis should be no more than 3 pages or so. You may use figures to illustrate your points. You don't have the time in this case to produce an exact estimation of present or future supply and demand. Your colleagues are looking only for a clear explanation of what factors are important to future changes in quantity and prices of seafood consumed, and your general assessment of the assumptions in the proposal.

Background information is available at:

[http://www.fao.org/documents/show\\_cdr.asp?url\\_file=/docrep/007/y5600e/y5600e00.htm](http://www.fao.org/documents/show_cdr.asp?url_file=/docrep/007/y5600e/y5600e00.htm)