

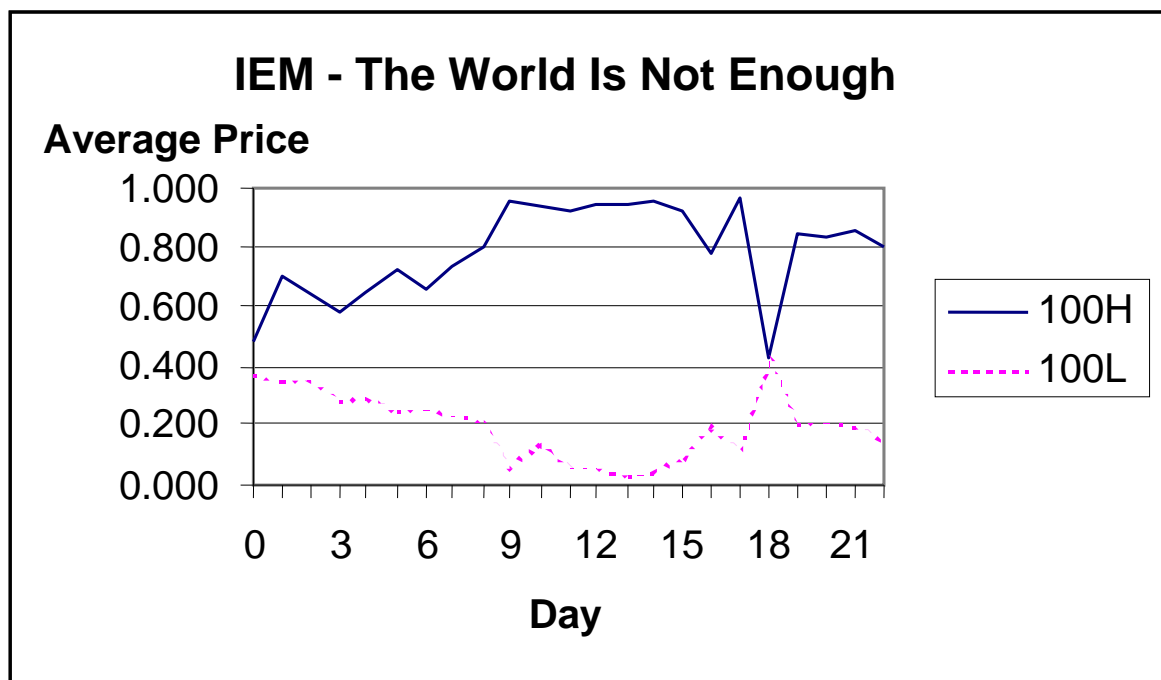
The World Is Not Enough

In November-December 1999 the Iowa Electronic Market (IEM) offered a “winner take all” market based on the domestic box-office receipts for the major motion picture *The World Is Not Enough*. Contracts were based on the receipts for the movie in the first four weeks following its national release on Friday, November 19. The following contracts were available:

<u>Name</u>	<u>Pays</u>
WINE40L	\$1 if 4-week domestic receipts \leq \$40 million, 0 otherwise;
WINE60L	\$1 if \$40 million $<$ 4-week domestic receipts \leq \$60 million, 0 otherwise;
WINE80L	\$1 if \$60 million $<$ 4-week domestic receipts \leq \$80 million, 0 otherwise;
WINE100L	\$1 if \$80 million $<$ 4-week domestic receipts \leq \$100 million, 0 otherwise;
WINE100H	\$1 if 4-week domestic receipts $>$ \$100 million, 0 otherwise.

For the purposes of the IEM the “official” domestic receipt figures are those compiled by AC Nielsen EDI. Daily movie receipts are generally available by 5:00pm EST the following day, except for weekend (Fri/Sat/Sun) figures, which are posted on Monday. A weekend estimate is posted on Sunday.

Investors could at any time purchase from IEM a “unit portfolio” consisting of one of each of the 5 WINE contracts, for a total of \$1. Note that at the close of the market exactly one of the contracts will be worth \$1 and the others will be worthless, regardless of the movie’s four-week receipts. Contracts are traded openly on the IEM using a bid/ask mechanism. The movie had a strong opening, and the prices of the 40L/60L/80L contracts rapidly fell to near zero. The average market prices for the 100L and 100H contracts for the period 11/18/99 – 12/10/99 (days 0-22 of the film’s release) are shown in the following chart.



The data available by the end of the day on Friday 12/10/99 consisted of the film's gross receipts in its first 3 weeks of distribution, which were \$93,251,684. At this point there was considerable uncertainty as to whether or not the movie would break the \$100 million mark for the 4-week domestic gross on which the IEM contracts were based. The average trading price for the 100H contract on 12/10/99 was about 80 cents.

Your assignment is to use a regression analysis based on the data for the first 3 weeks of distribution to predict the 4-week domestic receipts for *The World Is Not Enough*. The domestic receipts for days 1-21 (11/19/99-12/9/99) are available from the class web site in the spreadsheet wine21.xls. Write a memo (6 pages max) that describes your analysis and conclusions. Based on the first 3 weeks of receipts would you predict that the movie will break the \$100 million mark for its 4-week gross? Does the price of the 100H contract on 12/10/99 seem reasonable?