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## Assessing Money Creation Simulation

### Explanation of Simulation

In order to assist student in understanding the money creation examples presented in the principle textbooks, a simulation program was developed to give them a chance to follow the creation of new money in the banking system. The program offers the student the chance to repeat the exercise until they have mastered the concept. Once the student is satisfied with their score, he/she can either email the results to the teacher or ask for a print out that shows the score.

The students are also given an accommodating worksheet that has the balance sheet format that they are responding to on the computer screen. The program is available on the university's web site, so that the student can revisit it at any time or location. The students are assigned the new money amount and reserve requirement so that they don't get comfortable with just a 10% required reserve.

### Assessment

In order to assess the program, I compared the overall Exam III test scores along with the scores of the money creation part of the exam for the academic year 2001-2002 (when program was not used) with the test scores for the academic year 2002-2003. Exam III contained the material on money and monetary policy. The exam was not significantly changed over that time, and the same textbook was used both years. Both academic years, I taught two sections of Principles of Macroeconomics each semester. During the 2001-2002 academic year, I had 112 students who took Principles of Macroeconomics Exam III. The mean score for the exam was 77.8%. The 20-point section of the exam on money creation had a mean score of 17.9 or 89.5%. For the academic year 2002-2003, I had 98 students who took Principles of Macroeconomics Exam III. The mean score for the exam was 76.8%. The 20-point section of the exam on money creation had a mean score of 18.9 or 94.5%.

There was no difference in the 20-point section of the exam testing the students as to money creation for the academic years 2001-2002 and 2002-2003. However, the 2002-2003 academic year, in which the money creation simulation was used, had an increase in the mean score for that section of the same exam, 17.9 to 18.9 out of 20 points. This increase occurred while the overall exam score for the 2002-2003 year declined by 2% points on the average. This finding shows some indication of the value of the repetitive nature of the program to assist student learning of this concept.