Effect of Location and Institution Type on Interest Rate Variability

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Question: Retail provisions of financial services are highly homogenous. Therefore, prices should be same across all sellers. In comparing interest rates on multiple types of accounts among different institutions varying in location and institutions characteristics, is there variation? Furthermore, is there a detectable pattern across locations and/or institution characteristics?

Variables:

- Types of accounts:
  - Savings
  - Money-market
  - IRA
  - Mortgage loan
  - Auto loan
- Locations:
  - Hartford, CT
  - Ukiah, CA
  - Corvallis, OR
  - Lincoln, NE
  - New York City, NY
  - Portland, OR
- Institution Characteristics:
  - Bank
  - Credit Union

Portfolio of customer:

- Initial investments:
  - Savings (standard account): $25,000
  - Money-market: $10,000
  - IRA: $5,000
- Mortgage: 30-year fixed rate
- Auto: new vehicle, 24-month loan term
- Credit score (300-850): 800

Results:

Location	Bank	Credit Union	Savings Account	Money-Market	IRA Account	Mortgage Loans	Auto Loans
Hartford, CT	Chelsea Groton Bank		0.1%	0.1%	0.05%	4.51%	5.0%
Ukiah, CA		Redwood Credit Union	0.25%	0.25%	0.3%	4.875%	3.74%
	Savings Bank of Mendocino County		0.25%	0.25%	0.25%		
Corvallis, OR		OSU Credit Union	0.05%	0.45%	0.05%	4.625%	4.24%
	Umpqua Bank		0.1%	0.5%		4.5%	6.25%
Lincoln, NE	Cornhusker Bank		0.3%	0.25%			
NYC, NY		Municipal Credit Union	0.25%	0.35%		4.375%	3.5%
	Ally Bank		1.09%	0.2%		3.75%	
Portland, OR		Advantis Credit Union	0.3%	0.2%	0.2%	4.651%	5.19%
	Pacific Continental Bank		0.4%	0.4%	0.4%		

Table 1: Interest Rates with Different Account Types, Institution Types, and Varying Locations

Method of data collection/analysis:

In order to collect the data, the variables that needed to be researched were first identified: location, account type, institution type. Then, various factors were chosen within these variables, ones that reflected a more complete spectrum to allow for a more comprehensive analysis. Locations were chosen to include different regions of the US, as well as varying population values and real estate markets. Within some of these locations, both a bank and credit union were selected to account for different institution types. The data (Table 1), were collected by visiting the websites of the various banks and credit unions, and using the predetermined customer portfolio to compare interest rates on comparable terms. In the analysis of the data, below, mean values were used to more concisely compare the impact of various factors on the interest rates. It must be noted that certain values for IRA accounts and mortgage and auto loan interest rates were not available without reporting a more detailed portfolio.

Analysis:

Regional Effects:

Our data did indicate significant differences in interest rates; however, it does not appear that they are related to region. Additional research showed that rates within metropolitan areas varied significantly between institutions. For example, within the small area of the Detroit metropolitan region, interest rates for savings accounts vary from 0.65% to 0.05%. The data, collected the week of October 12, 2010, reported a national average savings account interest rate of 0.17%. A further issue to be addressed involves why rates on mortgages would not show more differentiation between regions as opposed to institutions, because land and real estate pricing vary greatly across regions.

Effect of Institution Type:

The average interest rate on savings accounts offered by credit unions was 0.46%, while the average rate for banks was 0.85%, a difference of 0.39%. On money-market accounts, the average for credit unions was 0.31%, while the average for banks was 0.34%, resulting in a difference of 0.03%. On IRA accounts, the average interest rate offered by credit unions was 0.18%, while the average rate offered by banks was 0.23%, resulting in a difference of 0.05%. These all show a markedly lower interest rate offered by local credit unions as opposed to local banks.

For auto loans, the average rate offered by credit unions was 4.17%, while the average rate offered by banks was 5.63%, resulting in a difference of 1.46%. The average for credit unions interest rates for mortgage loans given our portfolio stood at 4.63%, while the average rate for banks was 4.25%, resulting in a higher interest rate for banks by 0.38%.

The major difference between banks and credit unions is that in order to deposit or take a loan from a credit union, you must be a member. Each member gains part ownership of the credit union, sharing in the profits as well as the losses. This could contribute to the difference seen in the interest rates between credit unions and banks, as well as the difference in mortgage rates between credit unions and banks.

Discussion:

Based on the data, a trend that credit unions have lower return rates than banks for savings and money-market accounts was identified. For loan transactions, there was not enough data to come to a confident conclusion. In discussing the impact of institution type on the interest rate offered, it must be noted that Ally Bank's rates differ greatly from those of other banks, a point which they have advertised and has called media attention to the stability of the bank. However, even after exclusion of Ally Bank's savings account interest rate in the average interest rate offered by banks, the interest rates offered by credit unions were still lower. In terms of regional effects on interest rates, there was evidence against the supposition that the location of a local bank has an impact on rates, due both to high variability within a region as well as little correlation between location and value of the offered interest rate. Although certain assertions can be made in this report, a more in-depth evaluation of interest rates across these factors may yield stronger correlations.