

## Special Analysis

### Impact and Significance of Bank Branches on Deposit Balances

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#### Purpose

The purpose of this analysis is to examine the relationship between the number of local branches that banks have, and the amount of balances the same banks have from deposits. This analysis assumes that deposit balances that are reported in a specific location were originated in that location location.

#### Analysis

We examined the linear relationship (Regression) between the number of branches in 371 different cities with the corresponding deposit balances in the same cities. The raw data contains branches and balances information of 10,577 Federally-Insured institutions, and was obtained from the FDIC's Summary of Deposits (October 2008).

- We established Balances as the Dependent Variable (DV),
- We established Branches as the Independent Variable (IV).

#### Findings

- We found that 87.7% of the variance in the deposit Balances of banks can be explained by the variance in the number of local branches (Table 1).
- We found the analysis of variance (ANOVA) is very significant ( $\text{Alpha} < 0.01$ ) See table 2.
- We found extremely strong linear relationship between Branches and Balances (Beta .936), and very significant ( $\text{Alpha} < 0.01$ ). See Table 3.

#### Implications

- The number of local **branches positively impacts** the amount of deposit balances in the same location.
- The higher the number of branches in each location, the higher the total balance from deposits in the same location.
- For each additional local branch, deposit **balances will increase by an average of \$116 million dollars.**

**Table 1**  
R-Square of Branches (IV) and Balances (DV)

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.936 <sup>a</sup>	.877	.877	19588.714

a. Predictors: (Constant), Branches

**Table 2**  
Analysis of Variances

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.010E12	1	1.010E12	2.631E3	.000 <sup>a</sup>
	Residual	1.416E11	369	3.837E8		
	Total	1.151E12	370			

a. Predictors: (Constant), Branches

b. Dependent Variable: Deposits (millions)

**Table 3**  
Coefficients

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-7294.952	1119.900		-6.514	.000
	Branches	116.277	2.267	.936	51.295	.000

a. Dependent Variable: Deposits (millions)