

Excerpt from  
***Introduction to Real Estate Finance and Investment:  
Sample Problems, Student Edition, by Frank Gallinelli***

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## **Chapter 7: Vacancy and Credit Loss Allowance**

As the problems in the previous section make abundantly clear, not every residential unit or every square foot of commercial space stays occupied one hundred percent of the time. Or, if it does, then people are giggling behind your back because your rents are so low you couldn't get your tenants to budge with a stink bomb.

It is fair to presume that your perfect-world Gross Scheduled Income will be depleted by vacancy loss. It may also be reduced by something called credit loss, which is a polite term for those individuals or businesses who do indeed occupy your property but somehow fail to pay you for that privilege.

In the current or a past year you might report your loss as the actual dollar amount you experienced. If you are making projections regarding your property's performance in the future, then in most cases you will estimate your loss as a percentage of the property's Gross Scheduled Income. When you do so, you typically call it something like Vacancy and Credit Loss Allowance to indicate that it is indeed an allowance, a cushion to deal with the probability of lost income. In that case, the formula is simply

**Vacancy and Credit Loss Allowance = Gross Scheduled Income x estimated % vacancy and credit loss**

### **Problem 7-1:**

For the property described in Problem 6-4, what is your vacancy loss percentage?

### **Problem 7-2:**

You own a building with 15 units. Last year, they were all occupied, renting for \$600 per month. This year, you expect your Gross Scheduled Income to increase by 2%, but you also project a 3% vacancy and credit loss. If you are right, what will the dollar amount of your vacancy and credit loss be?

**Problem 7-3:**

In the scenario of Problem 7-2, suppose the fair market rent for your units is \$640 per month. Suppose this year, 14 of the units remain occupied, renting for \$610 per month, while the remaining unit is vacant for 4 months, then rents for the rest of the year at \$640 per month. What will your vacancy loss percentage be this year?

**Problem 7-4:**

In the scenario of Problem 7-3, suppose one of your tenants at \$610 per month disappears and never pays you the rent for December. What will your vacancy and credit loss percentage be?

**Answer 7-1:**

Problem 6-4 had both residential and commercial space:

Unit type	Occupied	@Rent	Vacant	@Market Rent
one-bedroom	11	1,225/mo	1	1,300/mo
two-bedroom	8	1,425/mo	1	1,500/mo

Unit type	Occupied	@Rent	Vacant	@Market Rent
Retail	5,000 sf	33.00 / sf		
Retail			3,000 sf	35.00 / sf
Office	2,000 sf	26.00 / sf		
Office			1,200 sf	28.00 / sf

The vacant residential space:

$$\begin{array}{r}
 1,300 \times 12 \times 1 = 15,600 \\
 \underline{1,500 \times 12 \times 1 = 18,000} \\
 33,600
 \end{array}$$

The residential space had a total Gross Scheduled Income of \$332,100. The percentage of vacancy loss for just the residential space, therefore, is 33,600 divided by 332,100, or 10.1%.

The vacant commercial space:

$$\begin{array}{r}
 3,000 \times 35.00 = 105,000 \\
 \underline{1,200 \times 28.00 = 33,600} \\
 138,600
 \end{array}$$

The commercial space had a total Gross Scheduled Income of \$355,600. The percentage of vacancy loss for just the commercial space, therefore, is 138,600 divided by 355,600, or 39.0%.

Overall, the property had vacancy loss of \$172,200 (33,600 plus 138,600) against a total Gross Scheduled Income of \$687,700 (332,100 plus 355,600). The percentage of vacancy loss for the entire property, therefore, is 172,200 divided by 687,700, or 25.0%.

**Answer 7-2:**

The total Gross Scheduled Income for the property last year was

$$600 \times 12 \times 15 = 108,000 \text{ (\$600 per month times 12 months times 15 units)}$$

This year you expect the Gross Schedule Income to be 2% higher:  $108,000 \times 1.02 = 110,160$ . If you anticipate a 3% Vacancy and Credit Loss you will multiply as shown here to estimate a loss of \$3,304.80:

$$110,160 \times 0.03 = 3,304.80$$

**Answer 7-3:**

The total Gross Scheduled Income for the property this year is

$$610 \times 12 \times 14 + 640 \times 12 \times 1 = 102,480 + 7,680 = 110,160$$

If the \$640 unit is vacant for four months, you will lose  $\$640 \times 4 = \$2,560$ . Your vacancy percentage will be 2.3%.

$$2,560 / 110,160 = 2.3\%$$

**Answer 7-4:**

In addition to the vacancy loss of \$2,560, you will have a credit loss of \$610 (one month's rent), for a total of \$3,170. So your total vacancy and credit loss percentage will be  $3,170 / 110,160 = 2.9\%$ .