Valuation of Personal Property and Fixtures

Using Assessors' Handbook Section 581
(Equipment Index, Percent Good, and Valuation Factors)

Appraisal Training: Self-Paced Online Learning Session

Lesson 4: Valuation Factors, Check Your Knowledge

Exercise 1

What is the market value, as of lien date 2011 (January 1), of 10 DEC 2150 computer servers purchased by a business in 2008, for $100,000?

Solution:

- Market Value = Cost × Valuation Factor (converted to a decimal equivalent)
- Market Value = $100,000 × 0.30
- Market Value = $30,000

- Locate the valuation factor for local area network equipment plus mainframe computers with a 2008 acquisition year, in Table 7: *Non-Production Computer Valuation Factors* of the January 2011 AH 581. (Note: a computer server is classified in the "local area network equipment plus mainframe computers" category in accordance with the non-production computers classification guidelines outlined in Exhibit 3.A. of AH 581.)

  2008 Year Acquired & Local Area Network Equipment plus Mainframe Computers = 30

- Calculate the market value of the equipment, as of the lien date (January 1, 2011), by multiplying the equipment's acquisition cost by the decimal equivalent of the valuation factor (percent) found in the preceding step.

  $100,000 × 0.30 = $30,000

Exercise 2

What is the market value, as of lien date 2011 (January 1), of 100 M&M 450 laser printers purchased by a business in 2008, for $50,000?

Solution:

- Market Value = Cost × Valuation Factor (converted to a decimal equivalent)
- Market Value = $50,000 × 0.24
- Market Value = $12,000

- Locate the valuation factor for personal computers with a 2008 acquisition year, in Table 7: *Non-Production Computer Valuation Factors* of the January 2011 AH 581. (Note: a laser printer is classified in the "personal computers" category in accordance with the non-production computers classification guidelines outlined in Exhibit 3.A., page 18, of AH 581.)

  2008 Year Acquired & Personal Computers = 24

- Calculate the market value of the equipment, as of the lien date (January 1, 2011), by multiplying the equipment´s acquisition cost by the decimal equivalent of the valuation factor (percent) found in the preceding step.

  $50,000 × 0.24 = $12,000

Exercise 3

What is the market value, as of lien date 2011 (January 1), of a SuperChip V molecular beam epitaxy system purchased and installed by a semiconductor manufacturer in 2008, for $375,000?

Solution:

- Market Value = Cost × Valuation Factor (converted to a decimal equivalent)
- Market Value = $375,000 × 0.46
- Market Value = $172,500

- Locate the valuation factor for semiconductor machinery and equipment with a 2008 acquisition year in Table 8: *Semiconductor Manufacturing Equipment and Fixtures Valuation Factors* of the January 2011 AH 581. (Note: a molecular beam epitaxy system is classified in the "machinery and equipment" category in accordance with the semiconductor classification guidelines outlined in Exhibit 3.B., page 20, of AH 581.)

  2008 Year Acquired & Machinery and Equipment = 46

- Calculate the market value of the equipment, as of the lien date (January 1, 2011), by multiplying the equipment's acquisition cost by the decimal equivalent of the valuation factor (percent) found in the preceding step.

  $375,000 × 0.46 = $172,500

Exercise 4

What is the market value, as of lien date 2011 (January 1), of a ChipStor 650 sodium hydroxide storage tank purchased and installed by a semiconductor manufacturer in 2002, for $125,000?

Solution:

- Market Value = Cost × Valuation Factor (converted to a decimal equivalent)
- Market Value = $125,000 × 0.31
- Market Value = $38,750

- Locate the valuation factor for semiconductor machinery and equipment with a 2002 acquisition year in Table 8: *Semiconductor Manufacturing Equipment and Fixtures Valuation Factors* of the January 2011 AH 581. (Note: a sodium hydroxide storage tank is classified in the "fixtures" category in accordance with the semiconductor classification guidelines outlined in Exhibit 3.B., page 20, of AH 581.)

  2002 Year Acquired & Fixtures = 31

- Calculate the market value of the fixture, as of the lien date (January 1, 2011), by multiplying the fixture's acquisition cost by the decimal equivalent of the valuation factor (percent) found in the preceding step.

  $125,000 × 0.31 = $38,750

Exercise 5

What is the market value, as of lien date 2011 (January 1), of a Bio Gen 3675 organic synthesizer purchased and installed by a biopharmaceutical company in 2008, for $225,000?

Solution:

- Market Value = Cost × Valuation Factor (converted to a decimal equivalent)
- Market Value = $225,000 × 0.55
- Market Value = $123,750

- Locate the valuation factor for biopharmaceutical industry "machinery and equipment" with a 2008 acquisition cost in Table 9: *Biopharmaceutical Industry Equipment and Fixtures Valuation Factors* of the January 2011 AH 581. (Note: an organic synthesizer is classified in the equipment category under "Machinery and Equipment (A-1) Lab Equipment (General Laboratory Equipment)" in accordance with the biopharmaceutical industry classification guidelines outlined in Exhibit 3.C., page 24, of AH 581.)

  2008 Year Acquired & Machinery and Equipment (A-1) = 55

- Calculate the market value of the equipment, as of the lien date (January 1, 2011), by multiplying the equipment's acquisition cost by the decimal equivalent of the valuation factor (percent) found in the preceding step.

  $225,000 × 0.55 = $123,750

Exercise 6

What is the market value, as of lien date 2011 (January 1), of a Bio Gen 4 clean room purchased and installed by a biopharmaceutical company in 2000, for $450,000?

Solution:

- Market Value = Cost × Valuation Factor (converted to a decimal equivalent)
- Market Value = $450,000 × 0.18
- Market Value = $81,000

- Locate the valuation factor for biopharmaceutical industry "fixtures" with a 2000 acquisition cost in Table 9: *Biopharmaceutical Industry Equipment and Fixtures Valuation Factors* of the January 2011 AH 581. (Note: a clean room is classified in the equipment category under "Fixtures (B-2) Fixtures and Process Piping" in accordance with the biopharmaceutical industry classification guidelines outlined in Exhibit 3.C., page 25 of AH 581.)

  2000 Year Acquired & Fixtures = 18

- Calculate the market value of the fixture, as of the lien date (January 1, 2011), by multiplying the fixture's acquisition cost by the decimal equivalent of the valuation factor (percent) found in the preceding step.

  $450,000 × 0.18 = $81,000

Exercise 7

What is the market value, as of lien date 2011 (January 1), of an Xcopier 6540 color copier purchased and installed by a business in 2009, for $40,000?

Solution:

- Market Value = Cost × Valuation Factor (converted to a decimal equivalent)
- Market Value = $40,000 × 0.47
- Market Value = $18,800

- Locate the valuation factor for document processors with a 2009 acquisition year in Table 10: *Document Processor Valuation Factors* of the January 2011 AH 581.

  2009 Year Acquired = 47

- Calculate the market value of the equipment, as of the lien date (January 1, 2011), by multiplying the equipment's acquisition cost by the decimal equivalent of the valuation factor (percent) found in the preceding step.

  $40,000 × 0.47 = $18,800

Exercise 8

What is the market value, as of lien date 2011 (January 1), of a Print World 723 4-color sheet feed offset lithographic printing press purchased and installed by a printing business in 2007, for $54,500?

Solution:

- Market Value = Cost × Valuation Factor (converted to a decimal equivalent)
- Market Value = $54,500 × 0.66
- Market Value = $35,970

- Locate the valuation factor for offset lithographic printing press equipment with a 2007 acquisition year in Table 11: *Offset Lithographic Printing Presses Valuation Factors* of the January 2011 AH 581.

  2007 Year Acquired = 66

- Calculate the market value of the equipment, as of the lien date (January 1, 2011), by multiplying the equipment's acquisition cost by the decimal equivalent of the valuation factor (percent) found in the preceding step.

  $54,500 × 0.66 = $35,970