



USER GUIDE

LandValue Solutions

DISCOUNTED CASH FLOW

LVS Proprietary Valuation Method

**used to estimate the value of an investment based
on its future cash flows**

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DISCOUNTED CASH FLOW

When **Discounted Cash Flow** option is selected under the **Income Approach to Value**, and saved, it shows in the Menu below Income Approach. Click on Discounted Cash Flow to activate the Wizard.

The user first selects the number of years, including reversion year, from a dropdown list as shown below:

Appraisal Overview
Scope of Work
Property Identification
Tax Assessments and Taxes
Zone
Pending Sale Information
Listing Information
Ownership and Transaction History
Lease Information
Regional, Neighborhood, Economic Information
Water Rights and Water Distribution System
Timber-Forest
Land Description
Permanent Plantings
Highest and Best Use
Valuation Methodology
Cost Approach To Value
Sales Comparison Approach to Value
Income Approach to Value
Cash Rent - Actual
Discounted Cash Flow

Save Delete Copy Manage Image/Docs Generate Report Transfer ownership Share Map

Discounted Cash Flow

Number of lease years:
11

User allocates the number of years in the cash flow from this dropdown list which includes the reversion year. This dropdown list is only visible in the DCF analysis.

INCOME

Source Re...	Income S...	Unit Meas...	Total Unit...	Stabilized ...	Stabilized ...	
Irrigated Ti...	Cash Lease	\$/Acre	257.80	1.00	\$95.00	Edit Delete
Summer Gr...	Cash Lease	AUM	50.00	7.00	\$22.00	Edit Delete
House & Bu...	Cash Lese	\$/Month	12.00	0.95	\$850.00	Edit Delete
Timberland	Merch Timber	\$/MBF	710.24	1.00	\$227.63	Edit Delete

Add Row

Real Estate Taxes

\$6,425.68

For each **Source of Income**, select “Add Row” at the bottom of the wizard and complete the form.

On page two of the inputs the user will check the box if the input is a Uniform Cash Flow Series, or alternatively, user can select “Add Year” if this is an uneven cash flow as shown in the following screen capture:

Property Classification - Agriculture, Rural Land, Timber-Forest

Income

Stabilized \$/Unit
\$95.00

Gross Income
\$24,491.00

Total years in this Cash Flow: 11
 Check if this is a Uniform Cash Flow Series.

Add year Remove all
 Add years for Uneven or Periodic Cash Flow(s). Enter the cash flow for that year. If no additional years are added, all subsequent years will auto populate the number entered. If subsequently, you enter \$0.00, then select additional year and enter \$0.00. The last column of the Cash Flow is used to conclude Reversion Sale Price and should represent an annual stabilized cash flow.

If a series of cash flows are uniform, check this box.

Add or remove years here, for uneven cash flow series.

Year 0
\$0.00

Year 1
\$24,491.00

Year 2
\$24,491.00

Year 3
\$24,491.00

Year 4
\$0.00

Year 5
\$24,491.00

In the previous example, the cash lease income is \$24,491 per year except the year the perennial hay crop is replanted. In year 4 scenario, the landlord receives no cash rent, therefore year 4 the income to the landlord is \$0.00. In year 5, and all subsequent years in the cash flow, the income is \$24,491. After inputting this amount in year 5, the cash flow will populate \$24,491 in all subsequent years. Alternatively, if a one-time income occurs in year 4, the user will put \$0.00 in all years prior to year 4, the one-time income in year 4, and \$0.00 in year 5. The application will auto-populate all subsequent years after year 5 as \$0.00.

If the user checks Uniform Cash Flow Series, it automatically begins in year 1 and ends at the reversion year. Year zero (0) income or expense is a manual input. If there is income in year zero, the user must add Year 0 from the “Add Year” link, and Year 1. The user inputs the one-time income or expense at year 0, and \$0.00 in year one, which will populate a \$0.00 in all subsequent years.

When the user exports to Excel, the spread sheet looks like the one on the following page. The user will manually input Number of Crop Acres, Annual Income Change and Annual Expense Change in the excel table. User will manually enter Reversionary Cap Rate, Selling Expense, Reversionary Discount Rate, and Cash Flow Discount Rate. Two sensitivity analyses are provided.

Outputs showing Internal Rate of Return on the two sensitivity analyses is shown on the page following the Discounted Cash Flow analysis.

IRR Sensitivity 1 PV			IRR Sensitivity 2 PV	
CFLO 0	-\$893,166		CFLO 0	-\$1,008,815
CFLO 1	\$33,356		CFLO 1	\$33,356
CFLO 2	\$33,724		CFLO 2	\$33,724
CFLO 3	\$33,600		CFLO 3	\$33,600
CFLO 4	\$8,493		CFLO 4	\$8,493
CFLO 5	\$33,345		CFLO 5	\$33,345
CFLO 6	\$33,214		CFLO 6	\$33,214
CFLO 7	\$33,081		CFLO 7	\$33,081
CFLO 8	\$32,945		CFLO 8	\$32,945
CFLO 9	\$32,806		CFLO 9	\$32,806
CFLO 10	\$1,062,529		CFLO 10	\$1,156,153
IRR	%4.66		IRR	%3.98

Market Derived Capitalization and Discount Rates from Comparable Sales populate into the Excel output as shown below:

Comparable Capitalization Rate Analysis									
Record Number	Adj. Sale Price	Sale Date	No. Units	Gross Income	Exp. Ratio	Net Income	Imprv. %	Cap Rate	Yield Rate
3345	\$392,647	01/14/2016	192.03	\$19,691	%31.00	\$13,512	%0.00	%3.44	%6.24
4391	\$238,572	06/14/2017	132.54	\$8,797	%22.00	\$6,904	%0.00	%2.89	%5.69
4772	\$1,203,000	08/31/2017	381.33	\$43,150	%24.00	\$32,953	%18.57	%2.74	%5.52
5184	\$1,095,000	05/18/2018	502.49	\$45,032	%13.00	\$39,071	%0.87	%3.57	%6.17
5190	\$440,000	01/31/2018	171.88	\$17,770	%28.00	\$12,741	%0.00	%2.90	%5.00

Outputs for Income and Expenses also populate into the Excel output:

Income Approach	Discounted Cash Flow	Scenario							
Farm:		Dennis Holdings Farm & Timber	Crop AC:	257.8	AC	Total AC:	568.64	AC	
Basis of Income Estimate:		Discounted Cash Flow							
Source Reference	Income Source	Units of Income Source	Unit Measure	Stabilized Yield	Total Production		Cash/Share/Owner's Income		
					Stabilized\$/Unit	Gross Income	Share %	Income	
Irrigated Timothy Hay	Cash Lease	257.8	\$/Acre	1.00	\$95.00	\$24,491	%100.00	\$24,491	
Summer Grazing	Cash Lease	50	AUM	7.00	\$22.00	\$7,700	%100.00	\$7,700	
House & Building Lease	Cash Lease	12	\$/Month	0.95	\$850.00	\$9,690	%100.00	\$9,690	
Timberland	Merch Timber	710.24	\$/MBF	1.00	\$227.63	\$161,672	%100.00	\$161,672	
Expense Type	Expense Description	Cost	% pd by LL	LL Share	Comments				
Fixed Expense	RE Taxes	\$6,426	%100.00	\$6,426					
Variable Expense	Liability Insurance	\$850	%100.00	\$850					
Variable Expense	Maintenance & Repair	\$750	%100.00	\$750					
Capital Expense or Replacement Reserve	Capital Expense	\$500	%100.00	\$500					