VIEWPOINT
AG VALUATION & CONSULTING

Valuing Maple Assets

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Background

Rob Guay - Mooers, NY

Certified General Real Estate Appraiser

- New York, Vermont, New Hampshire

Viewpoint Ag Valuation & Consulting, LLC

- Small independent firm serving banks, individuals, government entities, law firms, etc.
- Real estate, personal property and business valuation.
- Specialize in agriculture and related processing.

Producing syrup on 7,500 taps in Altona, NY with brother and other family involved.

Presentation Contents/Goals

- Gain familiarity with common appraisal/valuation terms & methods.
- Discuss standards of valuation for different users and different uses.
- Discuss factors that drive sugarbush values and rural property values in general.
- Discuss application of market data to guide asset valuation.
- Discuss some considerations for maple financing.

Common Types of Value

Tax Value (assessment) – based on an assessment formula

Insurance Value – based on replacement cost or actual cash value

"Book" Value – cost-based valuation

Investment Value – value specific to an individual or business

Business Value – total assets of the business as a "going concern"

Market Value – Market value is the most probable price that a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus.

Appraisal vs. Assessment

Appraisal: An expert estimate of the value of something. An appraisal most often determines "market value", using data obtained from the marketplace.

Assessment: The value calculated by the assessor used to determine the amount of taxes to be paid. An assessment is typically calculated using a formula determined by the government with taxing authority.

Insurance Value

Replacement Cost: Based upon average cost to rebuild or replace the asset. Does not include depreciation. Allows for full replacement of the asset in the event of a covered loss.

Actual Cash Value: Replacement cost minus depreciation as determined by the insurance company. May or may not approximate market depreciation. Allows for payment at estimated value of the asset in the event of a covered loss.

Book Value

Book Value: Accounting value based on cost minus IRS depreciation.

Used for income tax / balance sheet purposes and determined by accountant.

Does not typically reflect market-based depreciation.

May include installation costs and amortization costs that may not be recognized in a market value analysis.

Investment Value

Investment Value: Value to an individual or business based upon considerations that are unique to the investor.

Used to analyze maximum value for investment purposes based upon an expected rate of return on investment.

May be higher of lower than market value, depending on impact of investment on overall business operations. Example: abutting land purchase at above market price.

Should be analyzed prior to a purchase but may not reflect market value. Investment values to different parties may be VERY different.

Going Concern Value

Business Value (Going Concern) = ***Real Estate + Personal Property + Intangible Assets***

Intangible Assets = intellectual property, brand, trained workforce, market share, business relationships, etc.

Determined by analysis of the income stream and comparison with sales of business within the industry or in similar industries.

Bulk syrup or sap producers generally do not have intangible asset value. Commodity agricultural producers in the US do not generally have intangible asset value.

Going Concern Value

Development of retail markets or wholesale markets that pay above bulk price may have value based on increased income. Sales in more profitable channels bring additional value.

Consider it two separate but related businesses. Production of syrup in bulk versus sale of syrup in smaller containers.

If production and sales business are integrated, keep records to analyze them separately in order to prove degree of increased income over bulk markets.

Overlapping assets may be allocated between the businesses – sugarhouse, filter press, truck, labor force, etc.

Market Value

Market Value: Determining value based upon applicable market data.

Used for collateral purposes to determine asset value.

Used to inform sellers for marketing of assets or for asset transfer.

Reflects market-based depreciation and typical market behavior.

Market Value

Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- buyer and seller are **typically motivated**
- both parties are **well informed** or well advised
- both parties acting in their **own best interest**
- reasonable time is allowed for **exposure in the open market**
- payment is made in terms of cash in **U.S. dollars** or comparable
- sale **unaffected by special or creative financing** or concessions

Parts of an Appraisal

Identification of:

- client
- intended users
- intended use
- effective date
- report date

Property description (legal, physical, economic)

Scope of Work

Explanation of methods of appraisal used/excluded

Summary of analyses, rational and conclusions

Parts of an Appraisal - continued (Pay attention to these!)

"Extraordinary Assumptions"

- Something unknown but assumed to be true
- If ultimately found to not be true, could impact value

"Hypothetical Conditions"

- Something known to not exist but appraised as though it did.
- If completed differently than described, could impact value.

Highest and Best Use

Typically, property is appraised at its "Highest and Best Use"

HBU = most profitable use of property given legal, physical and economic limitations.

Current use of property is not necessarily the HBU.

Can be complex – this presentation assumes that HBU is sugarbush (as often it is in the more rural locations of the region).

Approaches to Value

3 recognized approaches to value:

- Sales comparison
- Cost
- Income

All intended to reflect buyer sentiment and market behavior

All rely on market data and analysis of sales data

An appraisal can include 1, 2 or all 3 approaches. Omission of an approach does not necessarily indicate an error was made. Approaches developed should be reflective of analyses performed by market participants.

Sales Comparison Approach

Compares subject property to sales of similar properties

Make adjustments to sale prices for differences

Adjustments based on observation of market data:

- Trend analysis
- Matched paired sales
- Discussion with sellers/buyers

Cost Approach

Used for properties with buildings or for newer equipment. Considered most reliable for valuation of assets with limited reliable sales data available.

Based on premise that an informed buyer won't pay more for existing structures or equipment than the cost of constructing/buying a reasonable substitute:

Determine land value + Site Improvements

"Replacement Cost New Less Depreciation"

- Cost to Build subtracted by Physical, Functional and Economic depreciation

Cost Approach (continued)

How we determine cost new? Cost guides, comparable projects in market area, buyer expectations.

Physical depreciation
- Depreciation in appraisal ≠ tax depreciation
- Typically use effective age/economic life

Functional depreciation
- Do unique characteristics of property impact value?

Economic depreciation
- "lost capital"
- Buyers often pay less than cost due to changing standards and economic conditions.

Determining Cost New

Actual Owner Costs or Typical Market Costs:
- Owner labor versus contractor labor
- Farm lumber versus purchased materials
- Discounted equipment vs full retail cost

Depending on intended use, you may use actual owner cost or market-based cost data. Market value uses market costs.

Include installation costs? For some items, in some cases, yes! In others, this may not be appropriate.

UVM Maple Investment Profiles to provide some guidance on typical market costs. To be released in early 2021.

Income Approach

Based on principle of anticipation

Present value is indicated by the expectation of future income/benefits.

Determine "rate" based on sales: **Rate = Income ÷ Value**

Apply "rate" to income of subject: **Income x Rate = Value**

Rental based approach vs. owner-operator: real estate value versus going concern value

Analysis of Sugarbush Real Estate

Primary Considerations

Location

Access

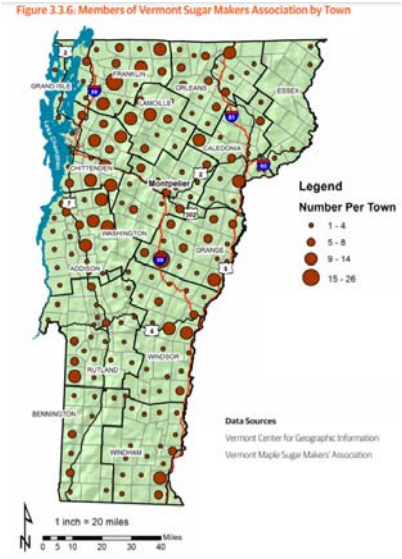
Electrical/Communication Service

Density

Ease of Operation

Forest Health/Site Quality

Other Amenities



Location

Concentration of potential buyers in neighborhood.

Level of competition in the neighborhood for maple parcels.

Proximity to sap purchasers and competition for purchased sap in the neighborhood.

Proximity to population centers or other higher value uses.

Access

Road Frontage: Property located directly on a developed and maintained public roadway.

Right of Way (ROW): Deeded right to cross another property.

Landlocked: No legal right to access the property on a regular basis.

Electrical/Communication Service

Electrical/Internet Service: Power and internet supplied by a public utility.

Developed on site – Little cost to hook up to existing service located on the property.

At the road – Slightly more cost to hook up than if already existing on site.

At a distance – How far must it be extended? Are there easements in place to extend utilities? Can easements be obtained?

Economic feasibility – Generators are commonly used but are less efficient than public electrical service.

- Special consideration: "Contribution in Aide of Construction"

Density

Number of Spouts	VT Current Use	NOFA – VT	NOFA – NY
1	10" – 14"	9" – 14.9"	9" – 14"
2	16" – 20"	15" – 20.9"	15" – 21"
3	22" and over	21" and over	22" and over
4	Prohibited	Prohibited	Not Addressed

Density = Total Potential Taps ÷ Acreage.

All else being equal, a property with higher density is worth more than one with lower density.

Density in the range of 40 TPA to 100 TPA is most typical.

High density probably has a limit – optimal density allows for full crown development with proper spacing of trees.

Management differences can impact tap counts. What's the minimum diameter you are tapping? Which standards are you following?

Ease of Operation (EOO)

Measure of the operability of the parcel as related to "ideal"

Slope – Toward the access point or away? Drainage to one location or multiple locations? How many pump stations?

Pitch – How steep is the parcel? Any big ravines that would impact tubing layout?

Internal Roads – Is there existing access to the back of the woods? What is the quality of the existing roads?

Underbrush – How open is the canopy (after logging) and how open is the forest floor? Directly related to labor requirements for tubing installation and maintenance.

Forest Health/Site Quality

Forest Health – Tree health overall, crown dieback, canopy closure, tap hole closure, logging damage to roots and stems.

Marketable Timber – Does the management plan call for harvest soon? What is scheduled to be harvested – non-maple sawtimber or lower value wood products?

Past Management – What were past management goals and how has this impacted the resource? Were past logging jobs closed out properly or are there signs of erosion and road degradation?

Site Quality – Can use site index as a guide to site quality. Sap production history can be a clue to site quality.

UVM forest/ site assessment resources to become available in 2021.

Other Amenities

Water – Municipal water, drilled well, dug well, developed spring on own land, spring on neighboring land.

Wastewater Disposal – Municipal sewer, approved/working septic system, septic permit, perc tested soils.

Lease Income – Wind leases, recreational leases, hunting leases.

Timber – Income from harvest of non-maple may offset expenditures for maple improvements.

Other Land Types – Cropland, wetlands, potential building lots, etc.

Pipeline Valuation

What is the useful physical life of pipeline? 10 years? 15 years? 20 years?

Market data indicates a degree of lost capital (10-20%) and an estimated 10-year economic life.

Economic life = a measure of the length of time that the asset will remain useful to the average owner. This may be different than actual physical life.

Pipeline Valuation

Changing technology may make pipeline decline in value when it still has remaining physical life.

Changes in best practices over 10-15 years can make pipeline obsolete, despite remaining physical life.

Production history may provide an indication of utility of the pipeline: normally a poor layout will show up in production records.

Pipeline Valuation

Like used concrete: if it's in good shape and located right where you want it, it may have some value. Otherwise, it's a cost to remove.

Cost new for pipeline averages $15/tap; but can be over $20/tap. Sales data indicates $0 - $12 per tap contribution to sale price. Data is highly variable and lacking in consistency.

Poor collateral: lenders typically don't want to take pipeline as collateral because it's very difficult to collect.

Equipment Valuation

Estimating Market Value of Equipment:

- Cost analysis – cost new minus market derived depreciation as measured from turn-key maple operation sales or from market equipment sales. Estimation of depreciation rates requires in depth sale analysis.
- Sales comparison analysis –value estimated based on market sales of similar equipment. Sales information is limited because many sales are private, or dealer related.
- Income analysis – not generally reliable or applicable to equipment valuation.

Sugarhouse Valuation

Estimating Market Value of Sugarhouses:

- Cost analysis – cost new minus market derived depreciation as measured from improved maple sales. Estimation of depreciation rates requires in depth sale analysis. Cost new generally in the $30-$50/SF range exclusive of land or equipment value.
- Sales comparison analysis – $/SF value extracted from improved maple sales. Few sales of modern sugarhouses reduces reliability for modern structures. Values generally in the $10-$30/SF range exclusive of land or equipment value.
- Income analysis – estimated rental rate and application of capitalization or discount rate. Few rentals of modern sugarhouses reduces reliability.

Assets on Leased Land

Leased land improvements:

Likely has value in private sale if the lease is assigned to a new owner and the buyer perceives low risk. Is the lease assignable to the bank or to a new owner with or without owner consent?

Insecure land ownership poses risk to buyer that the lease term will not be completed. Look for long term lease – some are as long as 18-20 years. 10-year leases are common in this area.

Who removes pipeline at the end of the lease? This can be a considerable cost if buyer is required to remove.

Likely poor collateral: nearly impossible to collect full value of these assets and may be discounted significantly by lenders.

Financing Considerations

Real estate:

Land generally holds value. Consider alternative uses of the property and how that impacts long term utility. Changes in industry conditions or general economic conditions may impact specialized real estate more than real estate with multiple alternative uses.

Buildings generally depreciate over time. Single purpose, unique buildings can depreciate faster or experience larger losses in market value as industry conditions or best practices change over time.

Financing Considerations

Equipment:

Market depreciation can vary with industry conditions and changes in technology. External depreciation rates in some industries are currently in excess of 40%. Maple industry remains well below this level, but this could change over time.

Collateral value should not include installation costs for most items. This portion of the cost is generally not recoverable. Other types of value may include installation costs. For example, book value would include these costs.

Some equipment may have a limited market and market value may be significantly different than cost new.

Financing Considerations

Pipeline:

Often not counted in collateral value but included in balance sheet calculations. Hard asset with real market value, but hard to collect in event of default.

Best practice is to exclude from real estate value, include on equipment valuation and depreciate $1.50/year +/- to approximate market depreciation over 10-year period.

Significant cost to maple operations and is critical for profitable operation at larger scale.

BUT – it's not easy to finance. Save your cash to install pipeline!

Final Thoughts

- Market value is most commonly used for financing and acquisition analysis. Other types of value are valid and useful in specific situations but should not be confused with market value.
- Profitability in the maple industry has driven new investment and the maple industry has become more bankable in the past decade. Market based asset valuation should drive investment decision making.
- Maple operations must invest significant capital into pipeline systems in order to operate efficiently and profitably. These make poor collateral for financing, requiring special consideration in business planning.

Thank you! Questions?