International Forest Business Conference

THE FORUM FOR FOREST AND WOOD INDUSTRY PROFESSIONALS

Forest €¢onometri¢$

Forest Asset Valuation

TIMING IS EVERYTHING

Dr. William E. Schlosser **FRASS Approach** **Sheraton Sopot Hotel, Poland**

1 & 2 June 2020, 16:30 - 19:30

Workshop Agenda

Forest Asset Valuation

Monday, 1 June 2020

16:30 Introductions and Overview

16:45 Asset Valuation Protocols

- Uniform Standards of Professional Appraisal Practice (USPAP)
- International Valuation Standards Council (IVSC)
- Income Capitalization Approach
- Market Approach
- Cost Approach
- Comparable Sales Approach

17:00 Forestland Physical Site Characteristics

- Tools of the trade
  - ESRI ArcMap
  - MapWindow GIS
  - QuantumGIS - QGIS
- Data Sources
  - USA – Geospatial Data Gateway
  - Internationally – Spatial Data Repository
- Data Analysis with meaning:
  - Road length: horizontally and vertically
  - Riparian Zones
  - Threatened, Endangered, and Sensitive Species habitat
- **One Timber Stand at a Time**

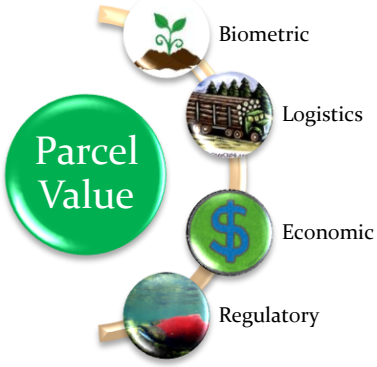
Extract meaningful information from otherwise 'suitable' data. Make them excellent and aligned within market structures.

17:30 Biometrics

- Tools of the Trade
  - Forest Biometrics Research Institute (FBRI)
  - Forest Vegetation Simulator (FVS)
- Why Merchandising is Everything

18:00 Nominal vs. Real Prices

- Align nominal data within your REAL markets



- User activities on-line into FRASS
- Students create Delivered Log Market and RPA portfolios
  - Sensitivity Analysis using Impatience Factors
  - Sensitivity Analysis using Inflation Changes

19:30 Conclude this session

The Forest Resource Analysis System Software (FRASS) was developed to create a reliable and efficient lands management system for scheduling economically optimal forest management activities while also valuing discrete timber land properties. FRASS integrates the factors of timber species, size, growth, density, and response to management with data on soils productivity, riparian protection for riverine species, bird species, and zoning regulations with monthly updated market economic data to provide users with predictions of value and management activities consistent with optimal economic decision-making tools.

Forest Asset Valuation

Tuesday, 2 June 2020

16:30 Creating your Forest Market Database

- Delivered Log vs. Stumpage Market
- Logging Cost by
  - timber site characteristics
  - tree size and density
  - species
  - markets
- Log Trucking Cost
- Reforestation Expenses
  - Seedlings & Labor
  - Free to Grow Status
- Regulatory Systems
  - Land Use Regulations
  - Taxation & Tariffs

17:00 Data Management Techniques

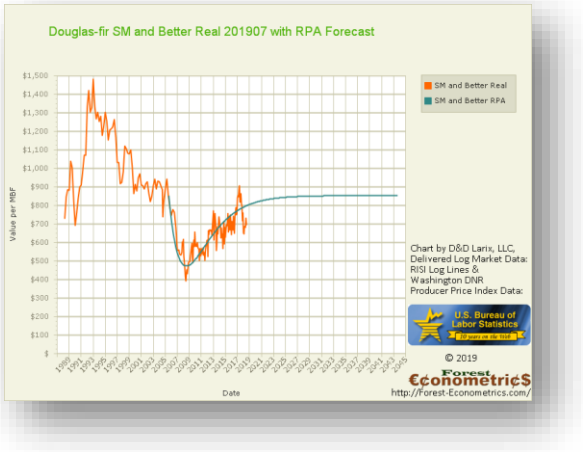
- SQL Database Integration
  - Spatial Analysis
  - Biometrics
  - Economics
- Time Forecast Factors
  - Annual for 10 years
  - Quinquennium for 300 years
  - *Decade or century?*

17:30 Analytic Econometrics

- Alignment of your Data
  - Real Price Appreciation Forecast Tool
  - Impatience Factor
  - Real prices

17:45 Sequential Quadratic Programming

- Millions of SQL Data Cells
- Migrating Macroeconomics
- Team Collaboration
- Reduce it to Print and Do It



18:30 Reports Generated

- Your asset value in today's currency
- USPAP & IVSC Report Generation
- Integration of Carbon Sequestration
- Alignment with Conservation Easements

- Buy & Sell Strategies using FRASS
  - Modify your Impatience Factor

- Questions & Ideas

19:30 Adjourn

Dr. William Schlosser is a Forest Economist working globally for forest industry and government clients, as he also serves as university faculty researching and teaching environmental science. He began his forestry career in the Pacific Northwest of the United States and Canada starting as a forestland laborer by logging, slashing, tree planting, and wildland fire control. As he progressed through university, he built a reputation as a Natural Resource Econometrician.

Class participants will experiment with physical site characteristics, economic realities, and impatience factor preferences. Asset management protocols place increased pressures on managers to reliably forecast prices, costs, market shocks, and regulatory conditions to express the Real value of the forestland commodity. In this class, we will take action to make it all come together.

Forest Asset Valuation

Forest Asset Valuation

This short course has been designed and developed for the participants of the **International Forest Business Conference, 2020, in Sopot, Poland**. Land management pressures around the world have placed increased pressures on forestland managers to provide quality wood products to the marketplaces near, and sometimes far from the properties where trees grow. At the same time, habitats for fisheries, wildlife, and aviary species receive governmental policy directives to mandate how timber products are grown and harvested. Carbon sequestration in trees grown for timber production has received attention as a potential revenue source, but integration of possible revenues with associated costs remains elusive to many asset managers.

This class guides participants through considerations of long-term financial optimization using technologies of biometrics, spatial analysis, and forest economics. True financial optimization is achieved for the current timber rotation, the next rotation, then each rotation through perpetuity.

Dr. Schlosser developed the **Real Price Appreciation Forecast Tool** software, aligned within competitive timber marketplaces, to forecast log price trends through time, and applied to timber stands on subject properties. Interpreted as a reserve price indicator for buyers and sellers, it makes price forecasting a business investment asset.

This theme speaks to the asset managers of Timber Management Organizations, publicly traded timber investment firms, forestland owning lumber mills, governments, and others who own and manage timberlands. This class is for those who want to integrate Carbon sequestration and conservation easement protocols with their timber management financial objectives.

These factors come into focus through the timing of financial returns and trade-offs made, based on individual investor **Impatience Factors** through **Time**.

Those attending this class will gain a strong foundation to make profitable decisions about harvest timing of their timber assets.

TIMING IS EVERYTHING and knowing where the clock resides makes it priceless.

Registrants to this class receive access to the **Forest Resource Analysis System Software (FRASS)** to experiment on-line with a working forestland located in the western Washington competitive delivered log market. Dr. Schlosser will guide participants through the process of understanding physical site characteristics, market parameters, and individual preferences for investor's time value of money.

Forest Resource Analysis System Software

Participants will discover forestland asset valuation on each parcel through Appraisal Reports, generated within the FRASS system and delivered on-demand to each user's FRASS account. Aligned both for **Uniform Standards of Professional Appraisal Practice** (USPAP) and **International Valuation Standards Council** (IVSC) the FRASS appraisal makes asset values for each property analyzed. These appraisal reports are generated within minutes of their request and based on the specifics of each parcel's timber stands, log market merchantability qualifications and market price forecasts.