

Welcome



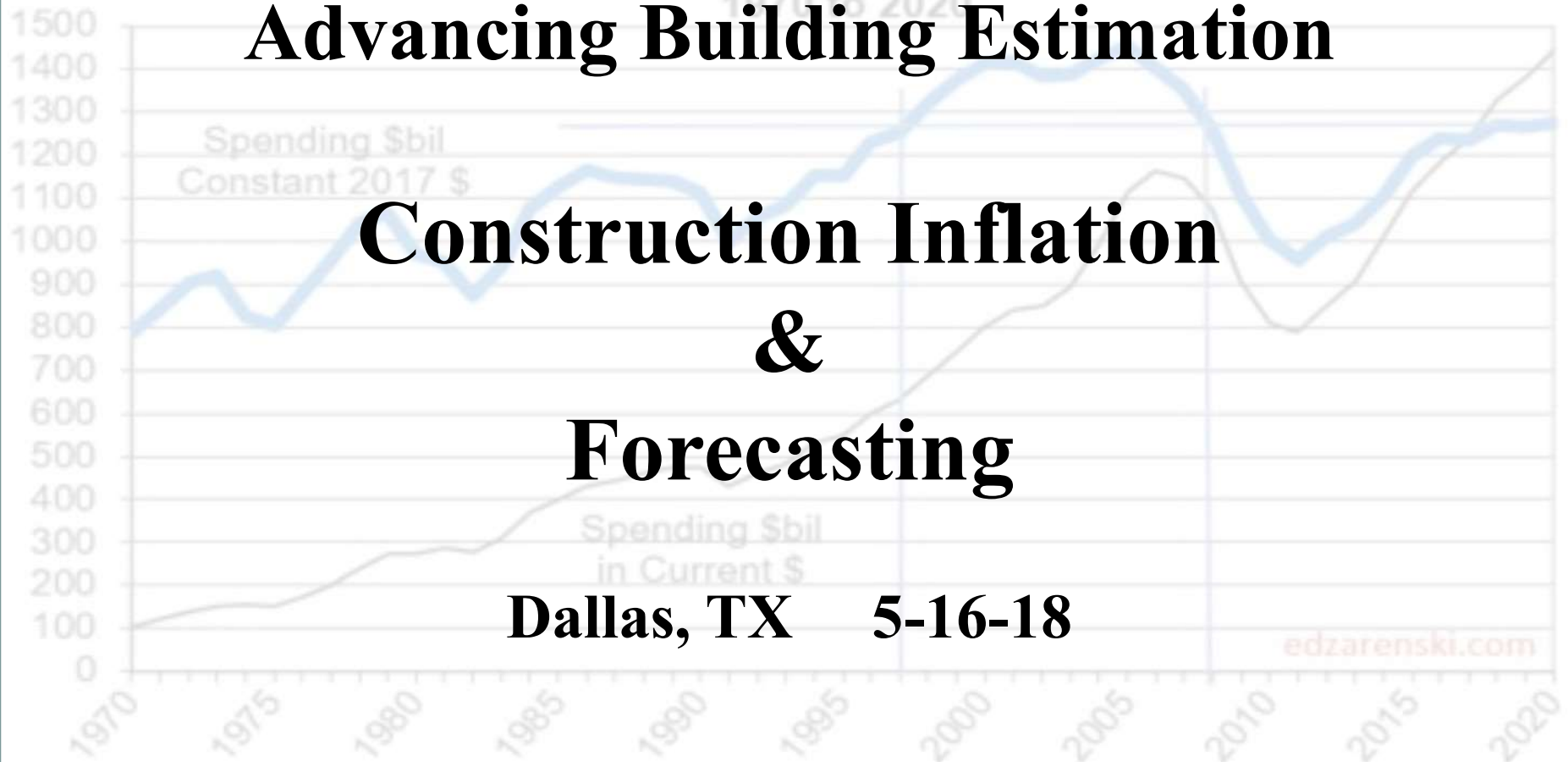
Construction Spending \$Billion
Current vs Constant 2017 \$
1970 to 2020

Advancing Building Estimation

Construction Inflation &

Forecasting

Dallas, TX 5-16-18



edzarenski.com

Causes of Inflation



- Labor Availability / Wage Rate
- Material Availability and Demand
- Productivity
- Spending / Work Volume

Level of Spending can have as much or more impact on inflation than labor & mtrl

Project Inflation Impact



- Labor = 30% to 40% of project
- Increase 3% adds 0.9% to 1.2% inflation
- Material = 40% to 50% of project
- Increase 3% adds 1.2% to 1.5% inflation
- Margins = applied to 100% of project
- Increase 3% adds 3% to inflation

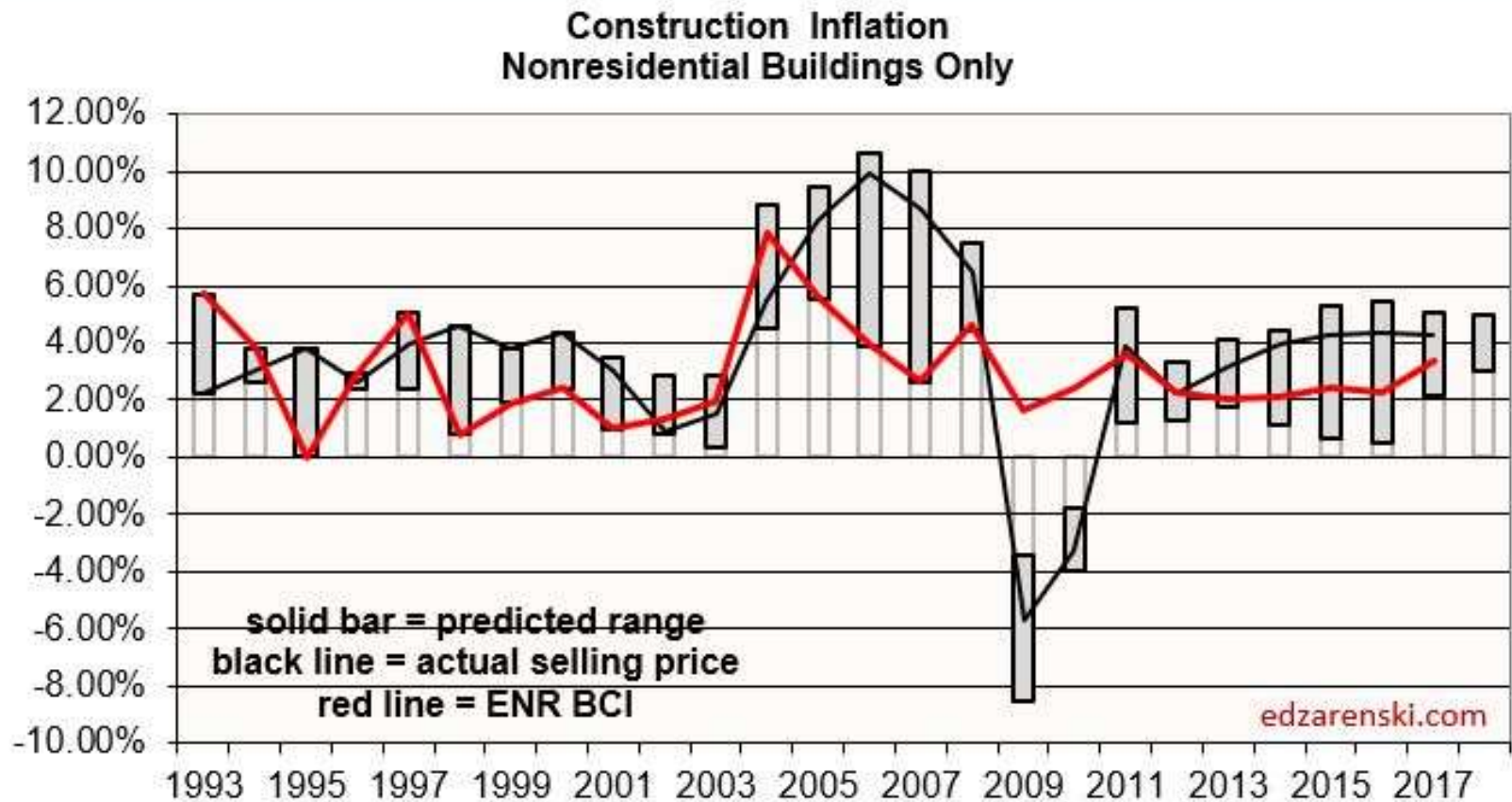
Project Inflation Impact



Project Cost Inflation – Steel Tariff

- +25% tariff on mill steel
- mill steel is $\frac{1}{4}$ of Str Stl total cost
- Str Stl is 10% of building cost
- Other steel is 6% of building cost
- 25% tariff = 1% of building cost
- could be 5% of steel bridge cost

Construction Inflation Indices



Sources of Forecasting Data



Starting Backlog + New Starts creates Cash Flow

- Nonres Bldgs Spending 70%-75 from Starting Backlog
- Residential Spending 70% from New Starts
- Cash Flow = Spending = Revenue

Forecasting – Market Sector Activity



Forecasting Future Outlook



Common Oversights in Forecasting

- Misusing Starts/Backlog Data
- Not Adjusting History for Inflation
- Not Using Appropriate Indices
- Ignoring Productivity
- Considering Revenue = Volume
- Staffing to meet Revenue

Sources of Forecasting Data



Current \$ Spending = Revenue

Current \$ Spending is not adjusted for inflation

Constant \$ Spending = Volume

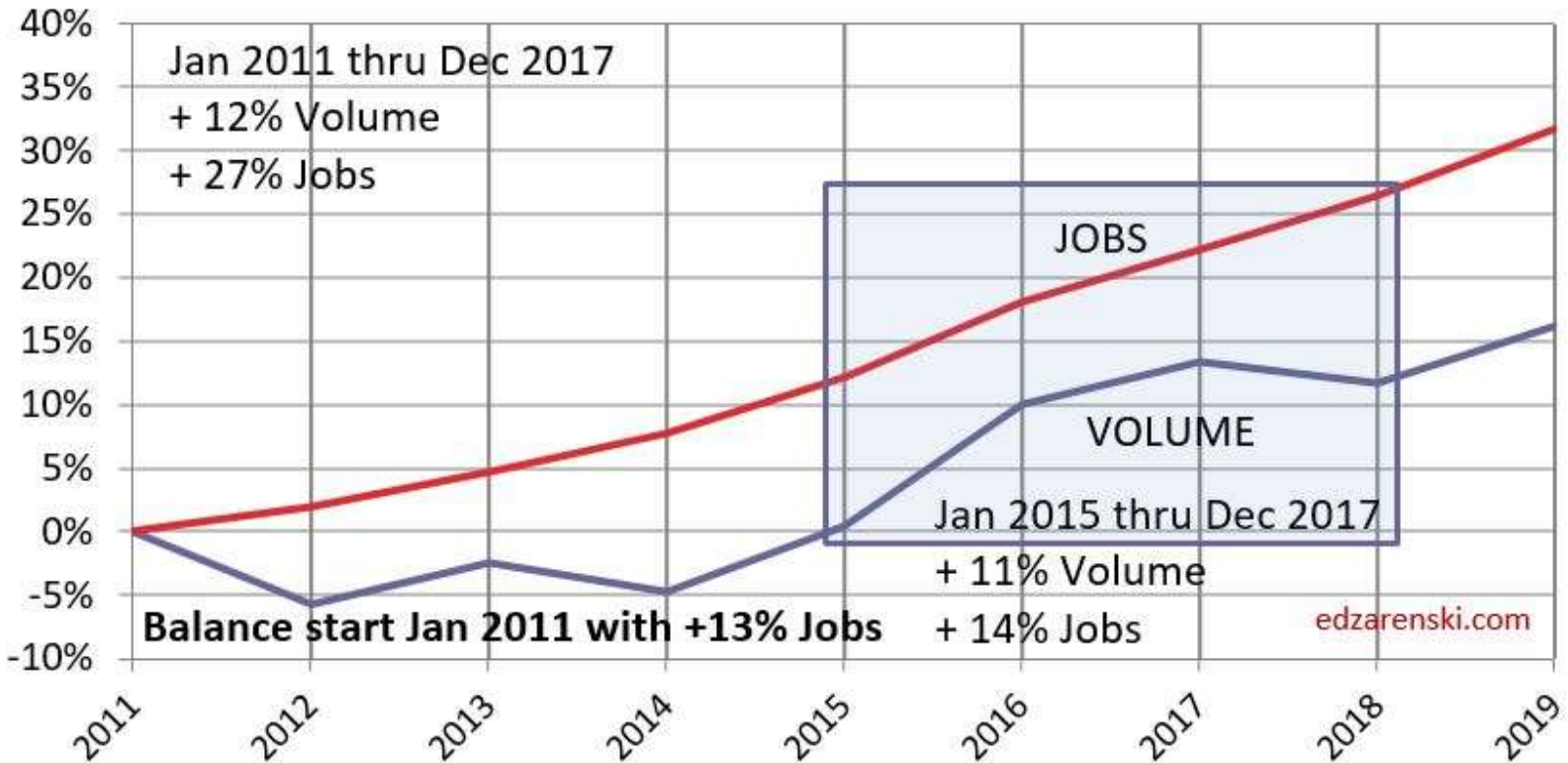
Constant \$ Spending = adjusted for inflation

Volume dictates Staffing Needs

Forecasting Data – Jobs Nonres



Construction Jobs vs Construction Volume Nonresidential Buildings Growth 2011 thru 2017



Forecasting Data – Jobs Rsdn



Now You Know



THE DIFFERENCES

Inputs / Selling Price

General Index / Market Sector Index

Starts / Cash Flow / Spending

Revenue / Volume

Thank You



Ed Zarenski
Construction Analytics
edzarenski@gmail.com
@EdZarenski
edzarenski.com