

ECONOMIC IMPACTS OF THE COVID-19 PANDEMIC

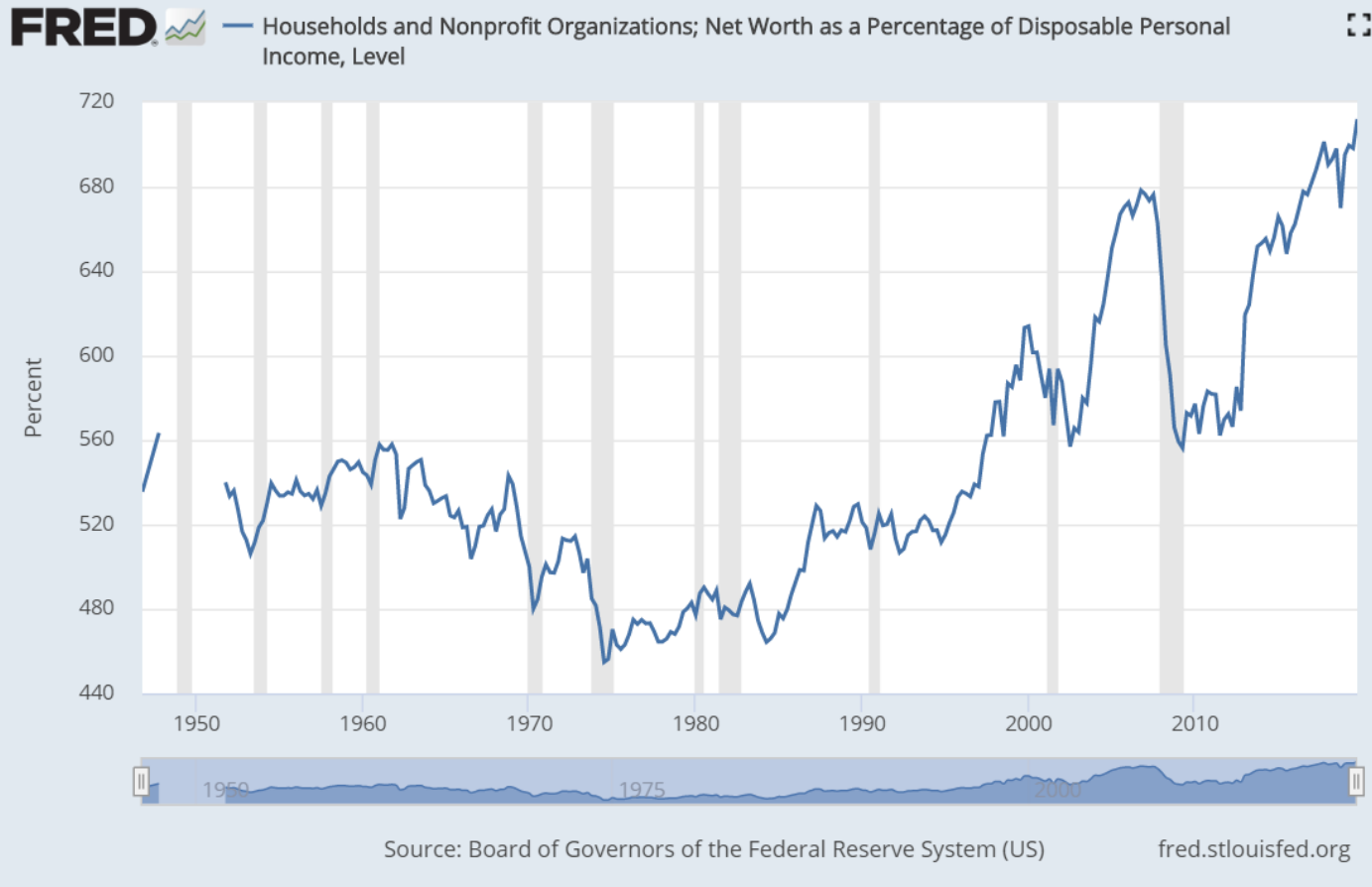
REMI WEBINAR
MARCH 31, 2020

Where We Started



- The “Everything Bubble”: high asset prices in almost every asset class—stocks, bonds, real estate
- Record low unemployment
- A consumption-led economy (access to credit; the “wealth” effect; strong job market)
- Relative weakness in investment—business investment, public investment (infrastructure)

Households and Nonprofit Organizations; Net Worth as a Percentage of Disposable Personal Income



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COVID-19 Shock



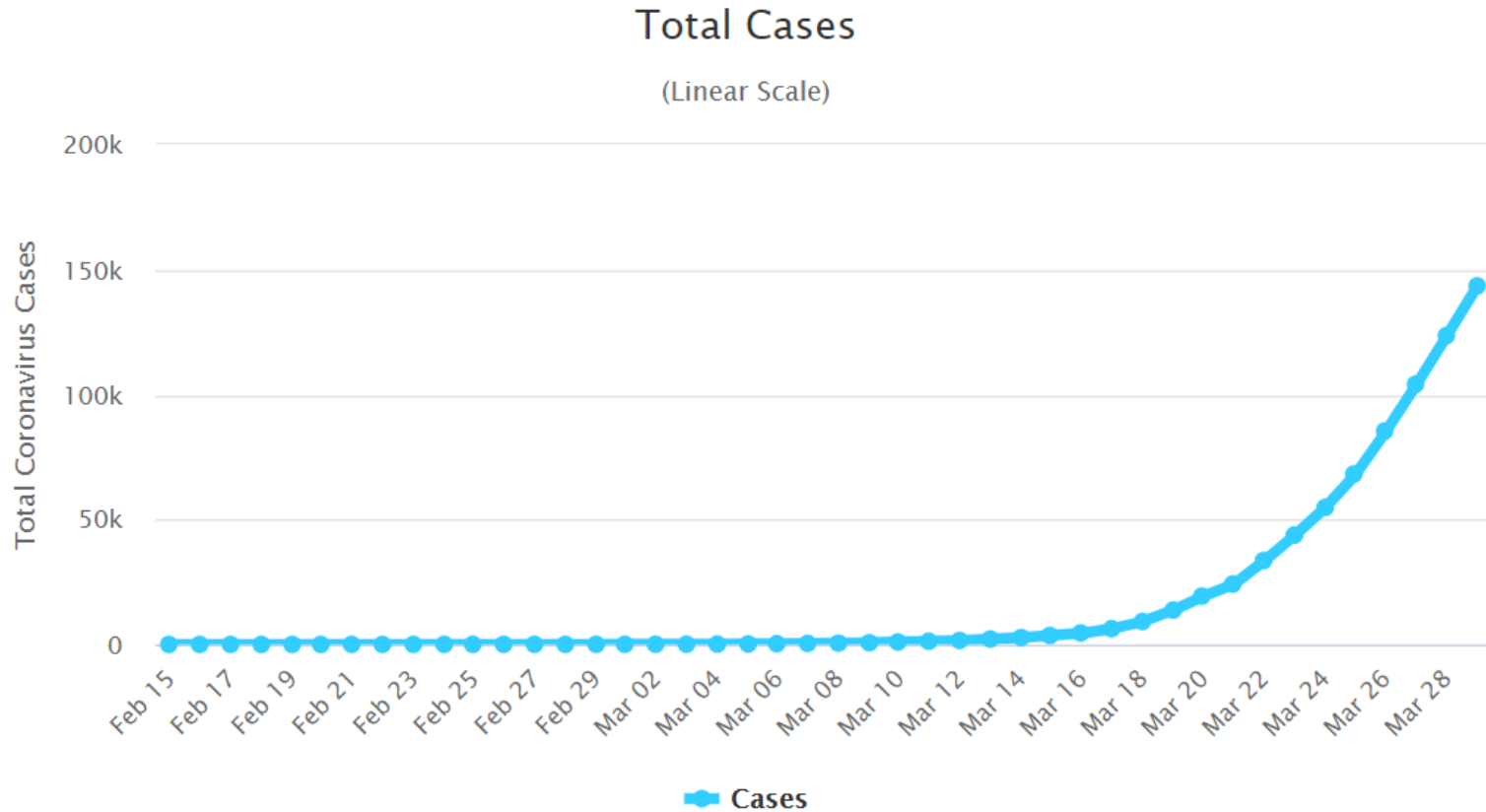
- Significant health impacts
 - 700k+ confirmed cases worldwide, 35k+ deaths
 - U.S. with 140k+ confirmed cases (20%), 2.5k+ deaths
- Sudden stop recession, policy response
 - 3/26 UI report: 3.3 million seasonally adjusted claims
 - Both supply- and demand-side shocks
 - Fed intervenes aggressively
 - Cuts FF rate to 0%, expands balance sheet
 - Stimulus package
 - Cash assistance, UI expansion, aid for businesses

Sudden Stop Recession



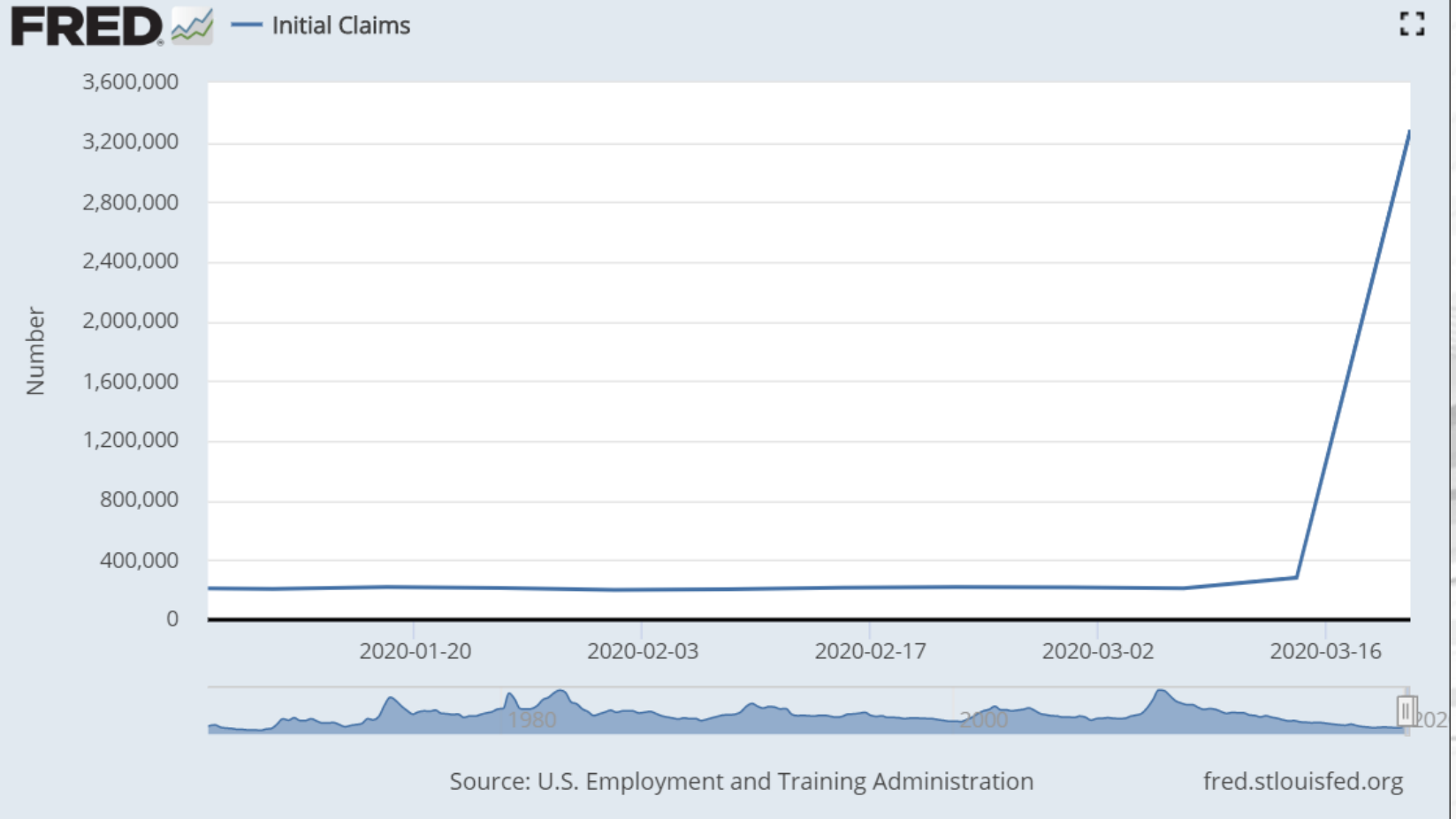
- Supply shock
 - Production pauses (by government order or voluntary)
 - Increased absenteeism & lower productivity
 - Supply chain disruptions
 - Wages increasing for needed workers
 - Higher mortality
- Demand drop
 - Decline/shift in domestic consumer spending
 - Government order, job/income loss, consumer confidence
 - Declines in global demand for exports
 - Higher mortality

Total U.S. COVID-19 Cases



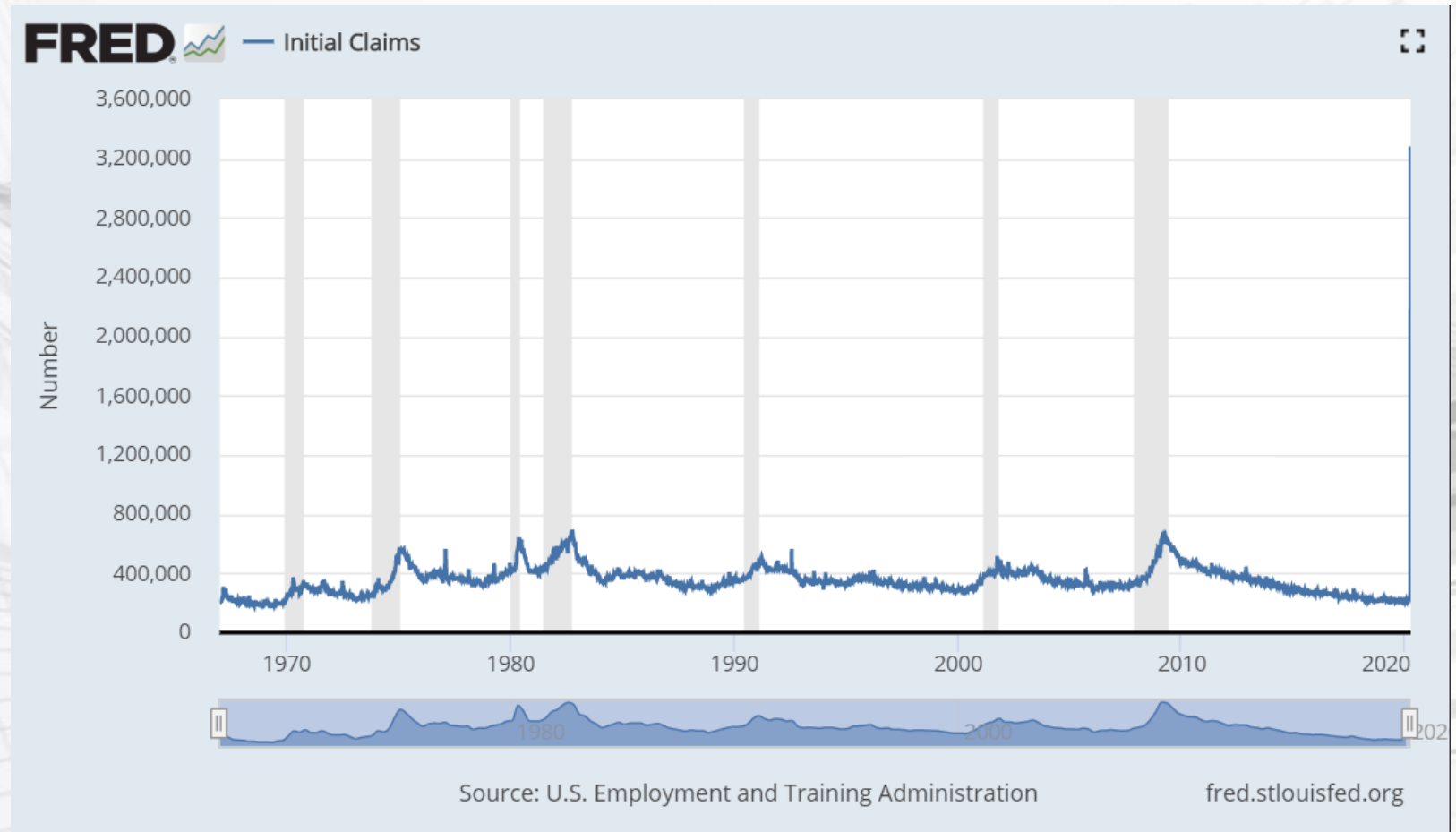
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Initial Claims (2020 YTD)



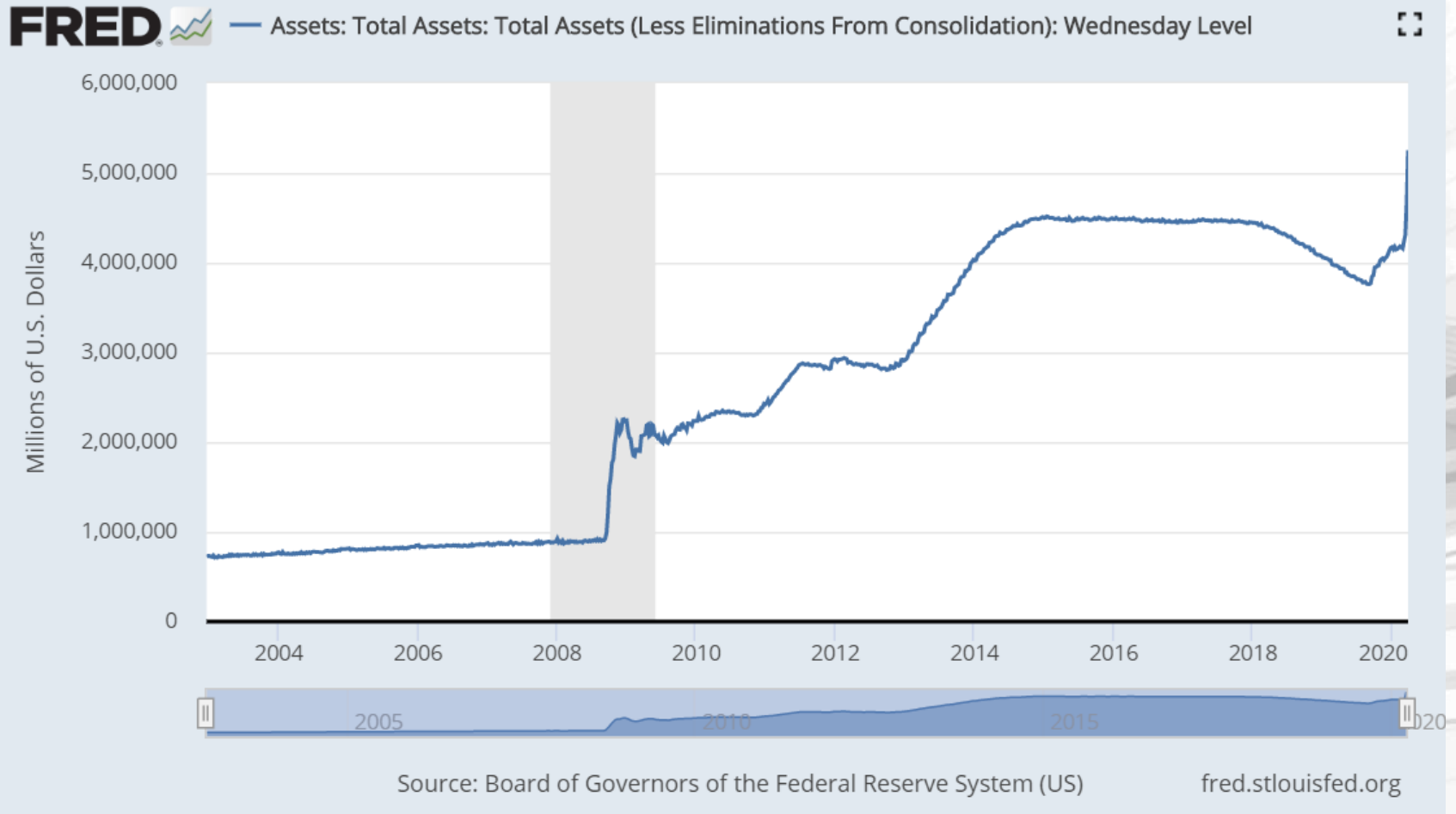
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Initial Claims (1967-2020)



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Total Assets (Less Eliminations From Consolidation): Wednesday Level



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Impacts over Time



- Uncertainty about economic recovery, changes
- Policy at federal (esp. stimulus), state, and local levels will have a significant impact
- Short-Term: How to prioritize testing, decide when/how to impose & lift shutdowns
- Medium-Term: Support business recovery, evaluate budgetary impacts
- Long-Term: Supply chain shifts, resilience/efficiency balance, long-distance agglomeration

Objective



- Simple, quick-to-implement new state/regional forecast based on COVID-19 repercussions
- Easily modified for best-case, worse-case, etc.
- Allows for “what-ifs?” either as shocks or as policy decisions that a Governor wants to look at
- For example, “what if” international college student enrollment drops by 25% in the fall; or “what if” the Governor cancels events, closes restaurants

Scenarios



- Short-Term
 - ▣ Impact of shutdowns/layoffs in different sectors

- Medium-Term
 - ▣ Impact of national slowdown on state revenues
 - ▣ State interventions to mitigate economic, fiscal losses

- Long-Term
 - ▣ Impact of changes in economic geography

Methodology: Overview



1. Modify Baseline National Forecast to Reflect National COVID-19 Slowdown/Recession Scenario
2. Use COVID-19 National Forecast to Drive State/Regional Forecast
3. Additional Modifications/What-Ifs for State/Region

Methodology: Details



- User has new national GDP growth forecast from Moody's, IHS, RSQE, etc., or has exogenous growth assumptions (annual, Q2 – important for states)
- User creates “New National Control” in Tax-PI or PI+ to create a national forecast scenario
- This COVID-19 national forecast is the new driver for an updated regional forecast
- Further adjustments on top of “New Regional Control” to reflect relative differences from nation

National Forecast Updates



- UCLA Anderson: -0.4% (Q2 -6.5%, Q3 -1.9%)
- IHS Markit: -0.2%
- Moody's: Q1 -1.6%, Q2 -2.5%
- Morgan Stanley: Q2 -4%
- Deutsche Bank: -1% (Q2 -13%)
- Pantheon: Q2 -10%
- Note: GM, Ford, Fiat Chrysler, Honda, Toyota temporarily shutting down North American plants

As of: March 18, 2020

Model Demonstration