

**COVID-19 Economic and Tax  
Revenue Impacts: Estimates for  
the Commonwealth of Virginia**



UNIVERSITY  
*of* VIRGINIA

Weldon Cooper Center  
*for* Public Service  
Center for Economic and Policy Studies

# About the Study

- Macroeconomic Forecasts
- Industry Exposure
- Economic and revenue impacts for state and localities
- Technical details available in online report and presentation (see [www.remi.com](http://www.remi.com))

COVID-19 ECONOMIC AND TAX REVENUE IMPACTS:  
ESTIMATES FOR THE COMMONWEALTH OF VIRGINIA  
AND LOCALITIES

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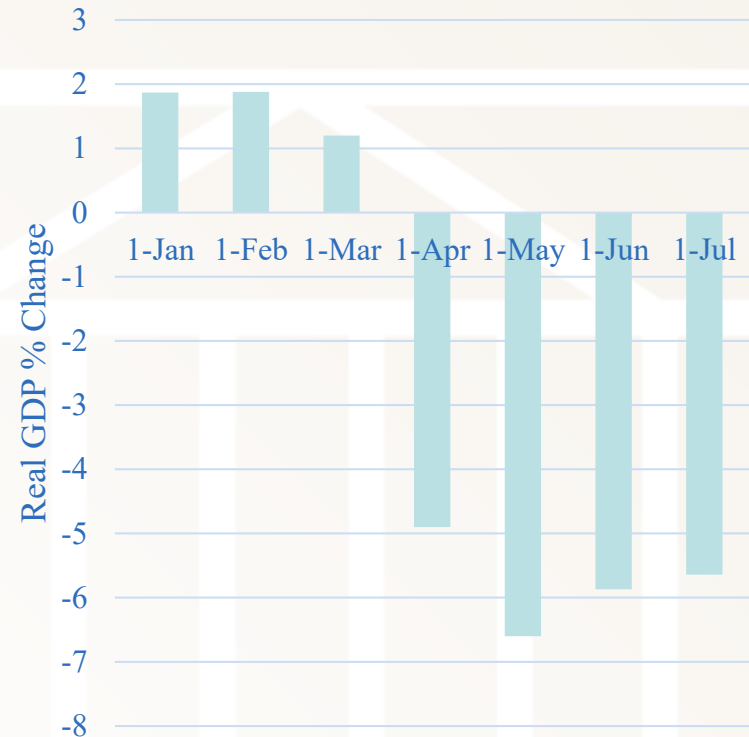
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# REMI Model Inputs

- ▶ Use national GDP forecast
- ▶ Adjust national final demand (85 GDP components) accounting for differential effects
- ▶ I used information available on March 31<sup>st</sup>. We now have much more information and forecasts have begun to stabilize.
  - First quarter GDP estimates
  - Non-farm payrolls
  - Personal income and outlays

# Macroeconomic Forecasts

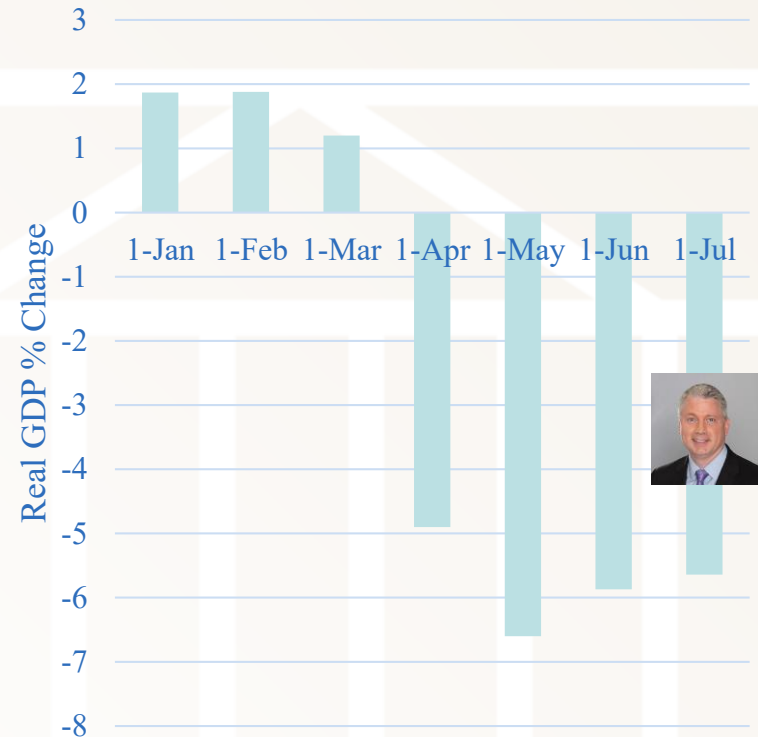
- ▶ Professional forecaster average is now generally in -4% to -8% real GDP range for 2020 (no second wave, no additional fiscal stimulus)
  - WSJ Economic Forecasting Survey (-5.6%)
  - Survey of Professional Forecasters (Philadelphia Federal Reserve) (-5.6%)



**Source:** WSJ Economic Forecasting Survey, 60 economists;  
<https://www.wsj.com/graphics/econsurvey/>

# Macroeconomic Forecasts

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# National Macro Forecast Assumptions (Real GDP)

	Date	2020	2021	2022	2023+
RSQE (Univ. of Michigan)	3/19	-1.8	3.2	2.1	NA
Wells Fargo	4/8	-3.0	1.7	NA	NA
IHS Markit	3/30	-5.4	3.4	5.2	NA
Average		-3.4	2.8	3.6	
<b>Scenarios</b>					
<b>-6% (severe)</b>		<b>-6.0%</b>	<b>3.0%</b>	<b>3.0%</b>	<b>2.0%</b>
<b>-2% (moderate)</b>		<b>-2.0%</b>	<b>3.0%</b>	<b>3.0%</b>	<b>2.0%</b>

# National Macro Forecast Update (Real GDP)

	Date	2020	2021	2022	2023+
RSQE (Univ. of Michigan)	May	-4.0	3.3	2.1	NA
Wells Fargo	July	-6.1	3.3	NA	NA
IHS Markit	June	-8.1	5.2	NA	NA
Average		-6.1	2.3	2.1	
<b>Scenarios</b>					
<b>-8% (severe)</b>		<b>-8.0%</b>	<b>4.0%</b>	<b>2.0%</b>	<b>2.0%</b>
<b>-4% (moderate)</b>		<b>-4.0%</b>	<b>4.0%</b>	<b>2.0%</b>	<b>2.0%</b>

# Industry Exposure Factors

- ▶ Used CBO (2005) industry exposure factors
- ▶ Exposure for 4 months of 2020, not beyond 2020

Industry	Decline
Agriculture	10
Mining	10
Utilities	0
Construction	10
Manufacturing	10
Trade (wholesale and retail)	10
Transportation & warehousing	67
Information; Finance; Prof. & business services	0
Education	0
Health care	-15
Arts/entertainment/accommodation/food	80
Other services	5
Government	0

Source: CBO (2005)



# COVID-19 Economic Impact on Virginia, Employment and GDP (Severe Scenario)

	2020	2021	2022	2023	2024
Total Employment	-503,918	-332,586	-249,143	-222,762	-195,348
%	-9.32%	-6.16%	-4.63%	-4.14%	-3.62%
GDP (\$ Billions)	-\$40.764	-\$33.109	-\$22.180	-\$17.757	-\$13.275
%	-7.60%	-5.83%	-4.12%	-3.47%	-2.85%

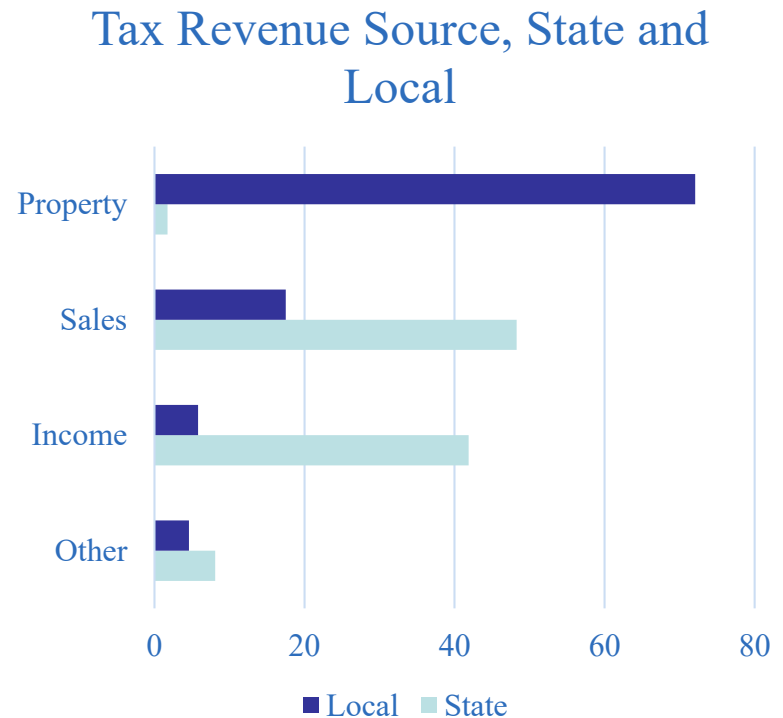
REMI Non-farm employment estimate (2019 to 2020)=-453,018

Actual BLS CES (May 2019 to May 2020)=-368,100

Actual BLS CES (Calendar Year 2019 to May 2020)=-376,900

# REMI Outputs for Revenue Estimation

- ▶ State impact estimates based on REMI Methodology
- ▶ Local revenue impact based on ad-hoc method
  - Estimates of county employment impacts based on reweighted state industrial impacts
  - Reliance on property taxes for most revenue (less sensitive to business activity and lag in comps and assessments)
  - Only “Other tax revenues” and commercial real property modelled using county revenue impacts and *Comparative Report of Local Government Revenues and Expenditures*



Source: Census of Government, Annual Survey of State and Local Government Finances (FY17)

# State and Local Tax Revenue Impact for Virginia (\$ Billions)

<b>Jurisdiction</b>	<b>FY20/FY21 Tax Revenue Impact</b>
State	-\$2.855
Localities	-\$0.975
Total	-\$3.830
% State	-74.5%

Estimate of -8% of General Fund Tax Revenues  
Virginia Department of Finance current estimate is -5%

# QUESTIONS?



