The Economic Outlook and State/Local Government in Indiana

April 1, 2020

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# A Forecast for 2020 (Feb. 11, 2020)

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Forecast</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Real GDP Growth</td>
<td>2.3%</td>
<td>2.2%</td>
<td>Growth rate at capacity.</td>
</tr>
<tr>
<td>Unemployment Rate</td>
<td>3.6%</td>
<td>3.5%</td>
<td>About as low as it can go.</td>
</tr>
<tr>
<td>Inflation Rate</td>
<td>2.3%</td>
<td>2.3%</td>
<td>Fed target, no big changes in oil prices</td>
</tr>
<tr>
<td>3-mo. Treasury Bill</td>
<td>1.5%</td>
<td>1.5%</td>
<td>No further reductions in federal funds rate.</td>
</tr>
<tr>
<td>Interest Rate</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>10-year Treasury Bond</td>
<td>1.8%</td>
<td>2.2%</td>
<td>Rising deficit.</td>
</tr>
<tr>
<td>Interest Rate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recession?</td>
<td></td>
<td></td>
<td>No. Expansionary fiscal and monetary policy, confident consumers.</td>
</tr>
</tbody>
</table>
To stop the spread of the virus, we must isolate ourselves from one another. But most economic activity takes place in groups.
What is happening?

- **Supply is decreasing**
  - Supply chains are interrupted
  - Employees are afraid, sick, quarantined
  - Mandated closures

- **Demand is decreasing**
  - People fear to associate in groups
  - They reduce shopping and travel
  - Mandated social isolation

- **Financial markets are unstable**
  - Businesses and households see sales and incomes fall, withdraw funds, draw on credit lines
  - Lenders must sell assets to meet depositor/borrower/creditor demands
  - Asset values fall, lenders increase reserves
What do we know?

Daily and weekly data
Gross Domestic Product growth
- Growth in 4\textsuperscript{th} quarter 2019 was 2.1%
- 1\textsuperscript{st} quarter 2020 GDP growth will be released on April 29
- 2\textsuperscript{nd} quarter 2020 GDP growth will be released on July 30

The Unemployment Rate
- The February unemployment rate was 3.5%
- The March unemployment rate will be released on April 3 (Friday). Based on survey from the 2\textsuperscript{nd} week of March.
- The April unemployment rate will be released on May 8.
Dow Jones Industrial Average, Daily, 2010–2020

Source: S&P Dow Jones Indices LLC  fred.stlouisfed.org

Shaded areas indicate U.S. recessions
Dow Jones Industrial Average, 3/30/2019 – 3/30/2020

-37%
Feb 12 – March 23

-24%
Feb 12 – March 30

Shaded areas indicate U.S. recessions
Source: S&P Dow Jones Indices LLC
fred.stlouisfed.org
Corporate Bond Interest Rates

Moody’s Seasoned Aaa Corporate Bond Yield
Moody’s Seasoned Baa Corporate Bond Yield

BAA Corporations
AAA Corporations

Shaded areas indicate U.S. recessions
Source: Moody’s
fred.stlouisfed.org
Corporate Bond Interest Rates, Spread BAA–AAA Bonds, 2006–2020

Shaded areas indicate U.S. recessions

Source: Moody’s

fred.stlouisfed.org
10-Year Treasury Bond Interest Rate, 2006–2020

Shaded areas indicate U.S. recessions  
Source: Board of Governors of the Federal Reserve System (US)  
fred.stlouisfed.org
Spread, AAA Corporate Bond Interest Rate minus 10-Year Treasury Bond Interest Rate, 2006–20

Moody’s Seasoned Aaa Corporate Bond Yield Relative to Yield on 10-Year Treasury Constant Maturity

Shaded areas indicate U.S. recessions

Source: Federal Reserve Bank of St. Louis

fred.stlouisfed.org
Exchange Rate, Canada Dollar per $1 US, 3/27/2019 – 3/27/2020

Shaded areas indicate U.S. recessions

Source: Board of Governors of the Federal Reserve System (US)

fred.stlouisfed.org
Initial Claims for Unemployment Insurance, 1967–2019

Shaded areas indicate U.S. recessions

Source: U.S. Employment and Training Administration
Initial Claims for Unemployment Insurance, 2006–2020

Source: U.S. Employment and Training Administration

Shaded areas indicate U.S. recessions
Initial Claims for Unemployment and Monthly Total Unemployed People, 1987–2019

Shaded areas indicate U.S. recessions

Sources: BLS, U.S. Employment and Training Administration

fred.stlouisfed.org
4 week total Initial Claims for Unemployment Benefits and Monthly Unemployed People, April 2006 to March 2009

\[ y = 4.8729x + 867.08 \]

\[ R^2 = 0.9801 \]
4 week total Initial Claims for Unemployment Benefits and Monthly Unemployed People, April 2006 to March 2009

- 39.4% Unemployment Rate
- 12.1% Unemployment Rate

4 weeks of Initial Claims at one week level

One week Initial Claims added to existing unemployed
7 daily/weekly indicators. Same store retail sales, initial claims for unemployment benefits, weekly staffing index, daily survey of consumers, raw steel production, electric utility output, U.S. fuel sales.
How much is shut down?

We need a number
Headlines: Businesses Close

Auto manufacturing shutdown to take toll on Northwest Indiana's steel industry
Monday, March 23, 2020 6:02 PM

U.S. Steel and Arcelor/Mittal taking blast furnaces offline because of auto plant shutdowns
Wednesday, March 25, 2020 7:58 PM

U.S. Steel to idle Gary Works blast furnace indefinitely, slash capital spending in COVID-19 response
Friday, March 27, 2020 5:31 PM

Amazon workers at Jeffersonville facility fear exposure to virus
John Boyle, (Jeffersonville & New Albany) News and Tribune
Monday, March 30, 2020 10:14 AM

Two biggest hotels in Indianapolis suspend operations
Wednesday, March 25, 2020 10:02 PM

Coronavirus leaves local hotels mostly vacant: “We have no money for payroll,” operator of two in Greenfield said; “We have no money for anything”
Tuesday, March 24, 2020 11:28 AM

Southern Indiana casino in Rising Sun to lay off 407 workers
Friday, March 27, 2020 7:15 PM
Coronavirus creates boom at Washington business providing personal protective equipment for its medical customers

Jasper's Kimball Electronics hiring to meet medical demand

GM recalls 1,000 workers to build ventilators at Kokomo plant and others in Marion
Assumptions: How much of the Indiana economy is shut down?

- Construction
- Durable goods manufacturing including autos
- Non-durable manufacturing except food, beverage, fuel refineries
- Retail trade except groceries, pharmacies and gas stations
- Air and ground passenger transportation
- Real estate
- Arts, entertainment and recreation
- Accommodation and food services
- Other services
Assumptions: How much of the Indiana economy are *not* shut down?

- Agriculture
- Mining and Utilities
- Food and beverage manufacturing, refineries
- Wholesale trade
- Retail trade: groceries, pharmacies, hardware/supply, motor fuel
- Rail, water, truck transportation; warehousing
- Finance, insurance, rental and leasing
- Professional, Management, Education services
- Health care and social assistance
- Federal, state, local government
26% Income Loss
36% Employment Loss
# State Revenue Loss

<table>
<thead>
<tr>
<th></th>
<th>Actual 2018</th>
<th>Budget 2019</th>
<th>Budget 2020</th>
<th>Budget 2021</th>
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</thead>
<tbody>
<tr>
<td>Revenues</td>
<td>15,837</td>
<td>16,693</td>
<td>17,056</td>
<td>17,518</td>
</tr>
<tr>
<td>Sales Tax</td>
<td>7,663</td>
<td>7,915</td>
<td>8,205</td>
<td>8,460</td>
</tr>
<tr>
<td>Ind. Income Tax</td>
<td>5,816</td>
<td>6,057</td>
<td>6,202</td>
<td>6,396</td>
</tr>
<tr>
<td>Corp. Income Tax</td>
<td>660</td>
<td>948</td>
<td>875</td>
<td>872</td>
</tr>
<tr>
<td>Gaming</td>
<td>442</td>
<td>443</td>
<td>445</td>
<td>464</td>
</tr>
<tr>
<td>All Other</td>
<td>1,255</td>
<td>1,329</td>
<td>1,329</td>
<td>1,327</td>
</tr>
</tbody>
</table>

26% for one month: $370 million  
26% for one quarter: $1.1 billion  
26% for half a year: $2.2 billion
End of FY2020: $2,369

How Much Federal Aid?
State Revenue Loss

Last Thursday’s press conference

Gov. Holcomb anticipates using up to $1 billion from its $2.4 billion budget reserve to carry Indiana through the current budget year.

OMB Director Cris Johnston: "We plan to continue the existing appropriations and funding for schools as was adopted in the budget through the rest of this biennium.“ But this "will be influenced by the availability of future revenues, uncertain economic conditions and the flexibility afforded in the recently adopted federal assistance legislation."
Headlines: Local Government

Indiana schools ordered to close through May 1, spring testing canceled amid coronavirus pandemic
Thursday, March 19, 2020 3:23 PM

IHSAA cancels boys basketball tournament
Thursday, March 19, 2020 4:27 PM

Meals will be provided to public in Connersville by the city, local businesses and churches, supplementing what is offered by schools
Saturday, March 21, 2020 12:10 PM

Local first responders, officers increase protective measures to combat spread of coronavirus
Saturday, March 28, 2020 6:40 PM

Delaware County court system 'down to the bare minimum'
Monday, March 23, 2020 7:11 PM

IndyGo to cut schedule, eliminate fares due to coronavirus
Thursday, March 26, 2020 7:54 PM

Property tax delays brings uncertainty to local governments

By TIM TEDESCHI ttedeschi@chronicle-tribune.com  Mar 26, 2020  •  0
Local Government Revenues

Property Tax
- Levies are fixed. Penalties waived for 60 days, payment delays, delinquency
- Lower property values now affect tax bills in 2022
- Lower Maximum Levy Growth Quotient, 2022–27

Local Income Tax
- Distributions were set last July. State can’t “short” local governments w/o legislation
- Lower collections now will reduce distributions in 2021 or 2022; State payment delay to July 15
- Will 15% balance be enough?
Local Government Revenues

- **State Road Aid**
  - Motor fuel tax collections are down; monthly distributions likely to be affected.

- **State School Aid**
  - Depends on how long, how deep the recession, how severe is the state revenue loss. State revenue report for March released next week.

- **Other**
  - Loss of charges and fees for suspended activities.
What policies have been adopted?

Monetary and Fiscal Policy
Federal Funds Rate, Upper Range of Target Rate, 2015–2020

Shaded areas indicate U.S. recessions

Source: Board of Governors of the Federal Reserve System (US)

fred.stlouisfed.org
$2 Trillion CARES Act

Coronavirus Aid, Relief, and Economic Security (CARES) Act

- For households: Expanded unemployment insurance, $1,200 recovery rebate (refundable tax credit).
- For businesses: Paycheck protection program, payroll tax credit and delayed payment.
- For businesses, states, cities: Emergency lending program.
- For states and cities: Coronavirus relief fund.
- $2 trillion is 9% of the U.S. $21.7 trillion GDP
- Disaster relief, a bridge from February to the time when the virus is under control.
What can we learn from history?

1918–19 Flu pandemic
Pandemics Depress the Economy, Public Health Interventions Do Not: Evidence from the 1918 Flu

Sergio Correia, Stephan Luck, and Emil Verner*

March 26, 2020

- Using geographic variation in mortality during the 1918 Flu Pandemic in the U.S., we find that more exposed areas experience a sharp and persistent decline in economic activity. The estimates imply that the pandemic reduced manufacturing output by 18%.
- We find that cities that intervened earlier and more aggressively do not perform worse and, if anything, grow faster after the pandemic is over. Our findings thus indicate that non-pharmaceutical interventions not only lower mortality; they also mitigate the adverse economic consequences of a pandemic.
V–shaped or L–shaped

Quick sharp recovery or lingering misery?