

Projected Revenue Impact of COVID-19



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In response to a request from the General Assembly, this document updates the Pennsylvania Independent Fiscal Office’s (IFO) official General Fund revenue estimate for fiscal year (FY) 2019-20 to reflect the projected impact from COVID-19 and provide a preview of revenue estimates for FY 2020-21. The estimates represent potential outcomes based on the length of mandated business closures under two scenarios. Scenario 1 assumes a six-week closure that ends April 27. Scenario 2 assumes a ten-week closure that ends May 25. The assumed duration of the mandated closures was selected to reflect (1) a best-case scenario (six-week closure) and (2) the date when the IFO must release a preliminary forecast for FY 2020-21 (ten-week closure). Per statute, the IFO will release its preliminary revenue estimate for FY 2020-21 on May 20. At that point, it should be clear whether the assumed length of the business closures must be revisited and updated.

To provide context for this update, **Table 1** displays forecasts by the IFO and Governor’s Budget Office (GBO) for their official revenue estimates released last summer and updated by the IFO (January 2020) and GBO (February 2020). The estimates are similar and both offices increased their official revenue estimates earlier this year. Through March, actual revenues exceeded the IFO official estimate by roughly \$165 million if impacts related to COVID-19 are excluded. The overage was attributable to inheritance tax revenues (\$101 million) and escheats collections (\$118 million). Other revenue sources were relatively close to estimate.

	IFO			Gov. Budget Office		
	Official	Mid-Year	Change	Official	Budget	Change
General Fund	\$35,518	\$35,738	\$220	\$35,497	\$35,697	\$200
Corporate Net Income	3,458	3,433	-25	3,558	3,401	-158
Gross Receipts	1,211	1,197	-14	1,229	1,192	-37
SUT - Non-Motor	9,996	10,051	55	9,933	10,035	102
SUT - Motor Vehicle	1,548	1,564	17	1,521	1,560	39
PIT - Withholding	10,793	10,810	18	10,866	10,856	-10
PIT - Non-Withheld	3,751	3,796	45	3,704	3,885	182
Inheritance	1,067	1,118	52	1,100	1,114	14
All Other	3,696	3,768	73	3,585	3,654	68

Notes: Millions of dollars. IFO Mid-Year Update released January 2020. GBO Budget released February 2020. SUT is sales-use tax. PIT is personal income tax.

Table 2 (next page) displays relevant economic growth rates for calendar year (CY) 2020 used by the IFO for its Mid-Year Update (January 2020) and the growth rates assumed for the two stylized scenarios. The income sources displayed in Table 2 reflect the majority of income received by Pennsylvania residents. Retirement (pensions, IRA disbursements) and transfer (Social Security) income are not shown because the analysis

assumes that the growth rate of those income sources is unaffected by mandated business closures. Moreover, those income sources are not subject to Pennsylvania personal income tax.

Wage and salary income comprises nearly 60 percent of all cash income received by state residents, and excludes self-employed individuals and independent contractors. Wages motivate personal income tax withholding revenues. The non-wage income shown in Table 2 (net profits of sole proprietors, self-employed, partnerships and S corporations, capital gains and dividends) reflect most other income that is reported on the Pennsylvania personal income tax return. Corporate profits reflect all U.S. corporations because estimates are not published for states. The following scenarios were used for CY 2020:

- Based on workers affected by business closures, wages-salaries decline by -1.0 percent (Scenario 1) and -1.7 percent (Scenario 2). Both scenarios assume that 1.1 million workers (includes self-employed that receive unemployment compensation) are impacted by business closures in 2020 Q2. In Scenario 1, one-half return to work after the six-week closure while the other half remain unemployed through June. For 2020 Q3, three-quarters of affected workers are rehired by the end of the quarter. For 2020 Q4, all affected workers are rehired by the end of the quarter. The same pattern holds for Scenario 2, but business closures last ten weeks instead of six weeks.
- Net profits fall by 10 and 15 percent. During the Great Recession, this series declined by 9.5 percent for tax year 2009.
- Capital gains fall by 15 and 25 percent and dividends fall by 10 and 20 percent. In tax year 2008, these two series declined by 53.7 and 13.9 percent, respectively. In tax year 2009, they declined again by 39.2 and 26.1 percent. Both series are highly sensitive to C corporation profits and corporate cash flow. Due to the reduction in business sales, corporations will be motivated to retain cash by reducing dividends and share buybacks.
- Corporate profits decline by 15 and 25 percent. This national profit series declined in 2007 (-9.5 percent), 2008 (-11.3 percent) and 2009 (-14.3 percent) due to the Great Recession.

Table 2
CY 2020 Pennsylvania Economic Growth Rates

	IFO Mid-Year	Scenario One	Scenario Two
Wages-Salaries	3.9%	-1.0%	-1.7%
Net Profits	5.0%	-10.0%	-15.0%
Capital Gains	6.0%	-15.0%	-25.0%
Dividends	6.0%	-10.0%	-20.0%
Corporate Profits	3.0%	-15.0%	-25.0%

Notes: Excludes impact of federal stimulus. Corporate profits are domestic profits for non-financial firms.

For CY 2021, all income sources shown in Table 2 are assumed to revert to a level that is approximately five to six percent higher than CY 2019. Despite the assumed rapid V-shaped recovery, the level of income that results from that assumption is lower than it would have been in the absence of the business closures.

The economic growth rates do not reflect the potential impact of federal stimulus. The federal stimulus will support consumer purchases, the rehiring (or retention) of employees and on-going business operations, and should have a material impact on state revenues. Those impacts are tracked separately and discussed later in this document.

Table 3 displays the economic forecast recently published by IHS Markit for Pennsylvania and the U.S. The state forecast reflects the projected impact of the COVID-19 virus, but includes only part of the impact of federal stimulus (an estimate for individual rebates/cash payments). The U.S. forecast (released later) reflects all federal stimulus provisions. For CY 2020, the forecast projects that:

- Pennsylvania real GDP growth declines by 2.5 percent, but rebounds by 3.3 percent in CY 2021.
 - Wages-salaries decline by 1.7 percent.
 - The unemployment rate increases to 8.7 percent and employment contracts by 264,000 jobs (both full- and part-time). That figure represents the average job loss over the entire year and excludes self-employed and independent contractors. The actual employment contraction in 2020 Q2 will be considerably higher.
 - Most of the job loss occurs in the retail trade, accommodation-food service and administrative support sectors. The final sector includes placement of temporary and seasonal workers.
- U.S. real GDP falls by 5.4 percent, personal consumption expenditures fall by 4.7 percent and corporate domestic profits decline by nearly one-third.

Table 3					
IHS Markit Economic Forecasts					
	Annual Growth Rate, Change or Level				
<u>Pennsylvania Forecast</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Real GDP	2.6%	2.3%	-2.5%	3.3%	2.5%
Wages-Salaries	4.3%	4.7%	-1.7%	3.9%	6.6%
Unemployment Rate	4.3	4.4	8.7	7.8	4.9
Net Job Change (000s)	68.9	55.5	-264.0	19.1	215.1
Manufacturing	8.0	4.1	-23.9	-30.5	10.5
Retail Trade	-6.0	-10.9	-82.8	7.9	57.5
Accomm-Food Service	4.2	3.3	-71.3	20.1	-3.8
Administrative Support	2.4	2.9	-53.8	15.5	53.0
All Other	60.2	56.0	-32.1	6.0	97.9
<u>US Forecast</u>					
Real GDP	2.9%	2.3%	-5.4%	6.3%	4.0%
Personal Consumption Expenditures	5.2%	4.0%	-4.7%	8.8%	5.9%
Unemployment Rate	3.9	3.7	8.0	7.9	4.3
Corporate Domestic Profits	2.4%	-1.2%	-32.8%	78.0%	1.9%

Source: IHS Markit state forecast released March 28, 2020 and U.S. forecast released April 4, 2020.

Table 4 provides estimates of the funds that will flow into Pennsylvania due to federal stimulus and state payments for unemployment compensation. The table only includes monies that will be directly injected into the economy by the state or federal government that do not need to be repaid and excludes general loans to businesses that cannot be forgiven. Detail regarding the estimates are as follows:

- The individual rebates are based on federal income tax return data for Pennsylvania residents and other data from the Social Security Administration. Rebate amounts and phase-out thresholds are as follows: single (\$1,200 rebate, \$75,000 phase-out begins), head of household (\$1,200 and \$112,500) and married filing jointly (\$2,400 and \$150,000). The \$10.4 billion estimate includes Social Security recipients and disabled that do not file a tax return.
- The unemployment compensation (UC) estimates are motivated by a similar set of assumptions regarding workers affected by business closures that impact wages and salaries as outlined for Scenarios 1 and 2 above. The estimates assume that roughly 1.1 million workers (includes self-employed that receive only federal monies) are impacted by business closures in 2020 Q2 and receive UC payments. Both scenarios assume that affected workers start to be rehired after the six- or ten-week closure period and that all are rehired by the end of 2020 Q4.
- The state UC payments were informed by estimates of unemployment and the number of initial claims for UC benefits as well as estimated average weekly benefits paid in Pennsylvania for affected economic sectors (\$356).¹ The estimates of the federally-funded expansion of benefits include (1) UC benefits paid to self-employed individuals and independent contractors, (2) UC benefits for the first week of unemployment for all affected workers, (3) the 13-week extension of benefits from 26 weeks to 39 weeks, (4) federal reimbursements for UC payments to certain workers that are ineligible under the state program and (5) federal bonus payments of \$600 per week. The estimate for federal bonus payments assumes that all currently unemployed and affected workers (including self-employed and independent contractors) would receive the federal bonus payments for as long as they remain unemployed (up to 16 weeks maximum).

Table 4 Federal and State Stimulus		
	<u>Scenario 1</u>	<u>Scenario 2</u>
Rebates/Cash Payments	\$10.4	\$10.4
UC Paid by State Government	\$4.5	\$6.0
UC Paid by Federal Government	\$10.1	\$11.7
Various Business Tax Cuts	\$4.3	\$4.3
Forgivable Small Business Loans	\$12.5	\$12.5
Federal Grants to State Government	\$4.6	\$4.6
Federal Grants to Local Government	<u>\$3.4</u>	<u>\$3.4</u>
Total	\$49.8	\$52.8

Notes: Billions of dollars. See text for descriptions. Except for business tax cuts, amounts shown in table should be entirely disbursed in CY 2020.

¹ This figure is lower than averages for recent recipients (\$395) due to the disproportionate number of lower-wage workers affected by mandated business closures in the retail trade and food service sectors.

- The business tax cuts are national estimates published by the Joint Committee on Taxation and apportioned to Pennsylvania (3.5 percent share).² The estimate reflects provisions that impact individual loss limits, the relaxation of the limit on interest deductions and the employee retention credit that are part of the Coronavirus Aid, Relief and Economic Security (CARES) Act.
- The small business loans and grants are the projected share that Pennsylvania receives from the \$349 billion set aside in the CARES Act. While the \$349 billion is administered as a loan, the loans will be forgiven if used for eligible expenses such as rent, mortgage, utilities and certain employee compensation. Currently, the U.S. Treasury Department has requested that Congress increase the program by \$250 billion.
- State government support reflects funds used to support various state government operations and programs. Of the allocated amounts, \$2.7 billion represents general state aid administered by the U.S. Treasury Department, and the remaining \$1.8 billion represents support for education, public health initiatives, food and nutrition access, small urbanized and rural transit agencies and other various activities.³
- Local government support reflects up to 45 percent of funds allocated to states (\$2.2 billion) for eligible large local governments (cities and counties with populations that exceed 500,000) and includes nearly \$1.0 billion in grants administered by the Federal Transit Administration to support local transit agencies.⁴ The remaining amount represents transfers for various local government programs, including \$124 million in increased Community Development Block Grants and Emergency Solution Grants.

Under normal conditions, the injection of federal monies into a state economy would directly stimulate economic activity and also trigger what is referred to as “multiplier” effects.⁵ However, in this instance, the direct and multiplier effects of many federal provisions were not included in the analysis and would likely be muted for several reasons:

- For many recipients, the UC payments will facilitate the purchase of necessities such as groceries or payment of regular bills such as rent, mortgage, utilities and student and car loans. The income will be received with a short delay and acts to “backfill” essential or non-discretionary spending that would have otherwise occurred (and is generally not subject to sales tax). In this manner, the payments minimize economic damage, defaults and personal bankruptcies, but are not stimulative.⁶ These payments are not subject to Pennsylvania personal income tax.
- For the \$16.8 billion of small business support and tax cuts from Table 4, much of those funds also likely reduce worst-case outcomes and allow firms to maintain operations. For example, the forgivable small business loans must be spent on mortgage, rent, utilities or payroll expenses. The monies act as a stop gap to allow firms to pay existing obligations or retain employees who would have been laid off. Without the loans/grants, more firms would face insolvency. The use of the federal monies for those

² See <https://www.jct.gov/publications.html?func=startdown&id=5252>.

³ *FFIS Estimated State Funding for Coronavirus Pandemic*, Federal Funds Information for States (April 7, 2020).

⁴ *COVID-19 Stimulus Bill: What it Means for States*, National Conference of Legislators (NCSL) and Federal Funds Information for States (April 2, 2020). See <https://www.ncsl.org/ncsl-in-dc/publications-and-resources/coronavirus-stimulus-bill-states.aspx>.

⁵ Multiplier effects are also known as indirect and induced effects. Indirect effects are firms in supply chains that are impacted by the purchase of final goods and services. Induced effects are from workers that receive extra compensation from the federal stimulus and spend those monies on other goods and services.

⁶ However, analysts have noted that the extra weekly \$600 of federal payments will allow many recipients to receive more benefits compared to the compensation they would have received if still employed. For those recipients, the UC payments could fund additional discretionary spending that is not included in this analysis.

purposes reflects the unusual immediate loss of all cash flow, as opposed to a federal stimulus provided in response to a slow down or recession which may be used for business investment and expansion.

- Due to uncertainty regarding outcomes and the exact amount of federal stimulus, the analysis did not include multiplier effects for any income losses (i.e., business closures) or gains (i.e., federal stimulus). In this manner, the income gains and losses are treated symmetrically.

For these reasons, the analysis only considers the direct revenue impact from the \$10.4 billion in federal rebates and the \$7.9 billion in direct grants to state and local governments. The federal funds injected into the state economy from those provisions are largely known and should occur quickly. Informed by the IMPLAN input-output model, those rebates and grants could imply an additional \$400 to \$500 million in state tax revenues, but any revenue impact would not materialize until FY 2020-21.⁷ A range is used due to the uncertainty of the revenue impact from those provisions. For example, it is not clear how much of the rebates will be spent, as opposed to saved or used to reduce debt. The revenue impact is also itemized separately and not included with the revenue impact from business closures and tax payment shifting.

Table 5 displays updated estimates for FY 2019-20 based on the two scenarios and the economic assumptions from Table 2. Three types of adjustments to the IFO official revenue estimate are shown. The first adjustment is Revenues Through March, which reflects the impact of actual revenues received through the first nine months of the fiscal year, and excludes any impacts related to the COVID-19 virus, payment or processing delays. The second adjustment is Shifts to Next Fiscal Year and reflects revenues expected to shift to FY 2020-21. The analysis assumes the following shifts to FY 2020-21: (1) two-thirds of the personal income tax final payment for tax year 2019 normally due in April, (2) 80 percent of the two estimated personal income tax payments for tax year 2020 normally received in April and June and (3) 90 percent of final corporate net income tax payments normally due in May. The third adjustment reflects the revenue impact under Scenarios 1 and 2 due to lower economic activity.

	Adjustments to Revenue Estimate				IFO Revised Estimate			
	Revenues	Shifts to	Economic Effects		Scenario One		Scenario Two	
	thru March	Next FY	S1	S2	Amount	Change	Amount	Change
General Fund	\$165	-\$2,040	-\$1,260	-\$1,771	\$32,383	-\$3,135	\$31,872	-\$3,646
Corporate Net Income	6	-550	-269	-355	2,645	-813	2,558	-899
Gross Receipts	-75	0	-2	-2	1,134	-77	1,134	-77
SUT - Non-Motor	-26	0	-370	-566	9,601	-396	9,405	-592
SUT - Motor Vehicle	20	0	-100	-150	1,467	-80	1,417	-130
PIT - Withholding	26	0	-286	-358	10,533	-260	10,461	-332
PIT - Non-Withheld	30	-1,490	-128	-162	2,163	-1,589	2,129	-1,622
Inheritance	101	0	9	9	1,176	109	1,176	109
All Other	83	0	-114	-187	3,665	-31	3,591	-104

Notes: Millions of dollars. IFO official estimate released June 2019. Scenario 1 (S1) assumes a six-week business closure. Scenario 2 (S2) assumes a ten-week business closure.

⁷ The estimates assume that the federal rebates are not subject to state personal income tax.

For FY 2019-20, the analysis finds that:

- Scenario 1 reduces revenues by \$3.1 billion and \$2.0 billion is shifted to next fiscal year. The economic impact of the business closures reduces revenues by \$1.3 billion.
- Scenario 2 reduces revenues by \$3.6 billion and \$2.0 billion is shifted to next fiscal year. The economic impact of business closures reduces revenues by \$1.8 billion.

Table 6 concludes the analysis with a preliminary projection for FY 2020-21 based on the two scenarios. To provide context for the potential revenue impact, the two scenarios are compared to a preliminary revenue projection for FY 2020-21 made by the IFO for the Mid-Year Update in January 2020 that assumes “normal” economic growth. Compared to that forecast and excluding any revenue shifts into the fiscal year:

- Corporate net income tax revenues decline by \$517 (S1) and \$754 (S2) million.
- Sales-use tax revenues decline by \$46 (S1) and \$366 (S2) million.
- Personal income tax revenues decline by \$803 (S1) and \$997 (S2) million.
- Total General Fund revenues decline by \$1.4 (S1) and \$2.2 (S2) billion.
- For FY 2019-20 and FY 2020-21 combined, revenues fall by **\$2.7 billion (S1)** and **\$3.9 billion (S2)**. The two-year total is not affected by revenue shifts because the amounts shifted into FY 2020-21 exactly offset the amount shifted out of the prior year.
- Both estimates exclude a potential gain of \$400 to \$500 million from federal stimulus.

Table 6 Preliminary General Fund Estimate for FY 2020-21							
	IFO Mid-Year	Scenario One			Scenario Two		
		Amount	Change	Exclude	Amount	Change	Exclude
				Shifts			Shifts
General Fund	\$37,117	\$37,754	\$637	-\$1,404	\$36,989	-\$128	-\$2,168
Corporate Net Income	3,546	3,579	33	-517	3,343	-204	-754
Sales and Use	12,055	12,009	-46	-46	11,689	-366	-366
Personal Income	15,450	16,137	687	-803	15,943	493	-997
All Other	6,066	6,028	-38	-38	6,015	-51	-51
Potential Impact of Federal Stimulus		\$400 to \$500 million			\$400 to \$500 million		

Notes: Millions of dollars. Federal stimulus only reflects direct rebates to individuals and grants to state and local governments.

As noted, the scenarios presented in Table 6 represent a best-case scenario (six-week closure) and one plausible outcome (ten-week closure) among many. The IFO will revisit these assumptions for its May 20 Preliminary Revenue Estimate.