July 2024

REVENUE ESTIMATE PERFORMANCE

FISCAL YEARS 2012-13 TO 2023-24

Independent Fiscal Office

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This document examines the performance of General Fund revenue estimates made by the Independent Fiscal Office (IFO) from fiscal year (FY) 2012-13 through FY 2023-24. For this document, specific commentary is only included for estimates since FY 2016-17. For earlier budget cycles (FY 2012-13 to FY 2015-16), see prior year releases. For each fiscal year, the document compares actual collections to the IFO's Official Revenue Estimate that occurs in June of the preceding fiscal year, as required by the statute that created the office. For example, the IFO official estimate for FY 2023-24 was released on June 20, 2023. When appropriate, the estimate is adjusted for any statutory changes that affect General Fund revenues that were not reflected in the June release.

The text that follows discusses the performance of IFO General Fund revenue estimates for the past eight fiscal years and describes the factors that caused forecast errors. As a general rule of thumb, a total forecast error that is within one percentage point of actual revenue collections is considered a solid forecast. A one percent forecast error implies a $400 to $450 million deviation from actual revenues.

Fiscal Year 2016-17

The difference between actual collections and the IFO official estimate was -$841 million, or -2.7% of final General Fund revenues. If the scheduled $200 million transfer from the Pennsylvania Professional Liability Joint Underwriting Association (JUA, Act 85 of 2016) that was not received is excluded, then the adjusted difference is -$641 million, or -2.0%. Those revenues are excluded because the non-receipt of the scheduled transfer was attributable to a court ruling, as opposed to economic or technical factors that could have been anticipated by revenue forecasters. Nearly all revenue sources came in under forecast, with the exception of escheats. Economic growth rates were considerably lower than forecast, contributing to much of the realized error. Most of the PIT overprediction (-$391 million) was attributable to weak quarterly and annual payments, which are motivated by business profits, capital gains, rents and dividends. Data for tax year 2016 show actual declines in all of those income sources, which is highly unusual for a non-recession year. The SUT overprediction (-$236 million) was attributable to weak non-motor vehicle sales tax collections.

Fiscal Year 2017-18

The difference between actual collections and the IFO official estimate was -$178 million, or -0.5% of final General Fund revenues. If the scheduled $200 million JUA transfer (Act 44 of 2017) that was not received is excluded, then the adjusted difference is $22 million, or 0.1%. Corporate net income tax revenues were below forecast likely due to profit shifting out of tax year 2017 in response to the large federal corporate rate cut enacted by the Tax Cuts and Jobs Act (TCJA) of 2017. The CNIT overprediction error (-$193 million) was offset by underpredictions for SUT ($141 million) and PIT ($118 million). Other revenue sources that were materially different than forecast include escheats (-$146 million), gross receipts (-$91 million) and inheritance ($50 million).

Fiscal Year 2018-19

The difference between actual collections and the IFO official estimate was $959 million, or 2.8% of final General Fund revenues. All main revenue sources came in over estimate with the highest being SUT ($349 million) and CNIT ($323 million). The unexpected increase in SUT revenues was due to stronger than anticipated consumer spending from the TCJA of 2017 and the taxation of internet sales via Act 43 of 2017.

Corporate net income tax revenues exceeded forecast due to strong profits growth and (likely) a greater than expected impact on the corporate tax base from the TCJA of 2017. Most other revenue sources also came in marginally higher than forecast including: PIT ($116 million), licenses and fees ($103 million) and gross receipts ($37 million). Much of the licenses and fees error was attributable to one-time revenue gains from gaming expansion.

Fiscal Year 2019-20

The difference between actual collections and the IFO official estimate was -$1,304 million, or -3.8% of final General Fund revenues.[1] The entire shortfall was attributable to reduced economic activity due to business closures and other mitigation efforts related to the COVID-19 pandemic. With the exception of inheritance tax, all major tax revenue sources fell short of the official estimate, including SUT (-$566 million), PIT (-$374 million) and CNIT (-$256 million). Escheats was the only revenue category to exceed projections by a significant amount ($126 million).

Fiscal Year 2020-21

The difference between actual collections and the IFO official estimate was $4,518 million, or 11.2% of final General Fund revenues.[2] The overage was attributable to the enactment of additional federal stimulus (Lost Wage Assistance Program, the Consolidated Appropriations Act and the American Rescue Plan) after the release of the estimate, which provided for extended unemployment compensation benefits, additional economic impact payments and more funding for the Paycheck Protection Program. As a result of the significant influx of federal monies, all major tax revenue sources came in well above the official estimate, including SUT ($1,383 million), CNIT ($1,235 million) and PIT ($905 million).

Fiscal Year 2021-22

The difference between actual collections and the IFO official estimate was $6,219 million, or 12.9% of final General Fund revenues. All major tax revenue sources dramatically outperformed the official estimate, with PIT ($2,607 million), CNIT ($1,557 million) and SUT ($1,456 million) primarily driving the underprediction. Many factors contributed to the forecast error, including: (1) a tight labor market that resulted in very strong wage growth (PIT and SUT), (2) much higher than expected inflation rates (PIT and SUT), (3) unprecedented increases in capital gains and net business profits for tax year 2021 (PIT), (4) the continued moratorium on federal student loan repayments (SUT), (5) higher prices that were pushed forward to consumers (CNIT) and (6) shifts in consumer purchases to higher margin products (CNIT).

Fiscal Year 2022-23

The difference between actual collections and the IFO official estimate was $2,730 million, or 6.1% of final General Fund revenues. Several revenue sources considerably outperformed the official estimate, with CNIT ($1,251 million), SUT ($829 million) and Treasury collections ($436 million) driving the underprediction.

[1] The IFO estimates that $1.9 billion in FY 2019-20 revenue was shifted to FY 2020-21 as a result of tax due date extensions in response to the COVID-19 pandemic. The amounts include $375 million in CNIT, $1,335 million in PIT, $160 million in SUT and $68 million in Other Tax. To facilitate an accurate comparison, this analysis assumes that the delayed revenues were received in FY 2019-20.

[2] The IFO official estimate refers to the estimate published on June 22, 2020 and excludes statutory changes (+$331.2 million) enacted in November 2020 in conjunction with the FY 2020-21 state budget.

The forecast error was primarily due to (1) higher than projected non-financial corporate domestic profits (CNIT), (2) an underestimation of residual savings from prior stimulus payments and (3) historically high general fund balances combined with rapidly rising interest rates (Treasury).

Fiscal Year 2023-24

The difference between actual collections and the IFO official estimate was $273 million, or 0.6% of final General Fund revenues. The overage was driven by gross receipts tax (+$195 million), SUT (+$191 million) and Treasury collections (+$291 million) and was partially offset by a shortfall in non-withheld PIT payments (-$393 million). Factors contributing to the forecast error include: (1) resilient consumers that sustained spending despite persistent inflation, (2) wealth effects of continued stock market gains and rapid home price appreciation and (3) interest rates that remained elevated and combined with unprecedented General Fund balances to push Treasury collections to record levels.

Summary

For four of the twelve fiscal years, the IFO official estimate has been roughly within one-half percentage point of actual revenues. In those cases, revenues were slightly higher than projected (excludes JUA transfer for FY 2017-18). For the eight remaining years, the forecast error was split between over (three years) and underprediction (five years) errors. A highly unusual period was the three fiscal years FY 2019-20 to FY 2021-22 due to the outbreak of a global pandemic in March 2020, followed by three massive waves of federal stimulus that drove demand, causing inflation to spike to the highest rate in four decades. Most of the federal stimulus was enacted during the fiscal year and was not included in the original forecast. The forecast errors for those years (an overprediction error followed by two large underprediction errors) are different than other years and generally do not provide insight regarding the underlying reliability of forecast models.

Forecasts that continually under or overpredict may not be efficient and could suggest underlying issues with the models and methodologies used to make projections. Excluding the three pandemic-impacted fiscal years noted above, two of the past nine estimates overpredicted actual revenues, three underpredicted and four estimates were within 0.6% of the actual. Projections within 0.6% of actual revenues are very close for forecasting purposes and not considered a material forecast error. If the pandemic-impacted years are excluded, then there is no clear bias towards under or overprediction error.

General Fund Revenues: Difference from Estimate

Fiscal Year	CNIT	PIT	SUT	Other Tax	All Non-Tax	Total
2012-13						
$ diff	$166	$151	-$285	$33	$72	**$137**
% diff	6.9%	1.3%	-3.2%	0.6%	12.4%	**0.5%**
2013-14						
$ diff	$42	-$283	-$109	-$196	-$2	**-$547**
% diff	1.7%	-2.5%	-1.2%	-3.9%	-0.3%	**-1.9%**
2014-15						
$ diff	$328	$81	$30	$131	$66	**$635**
% diff	11.7%	0.7%	0.3%	2.6%	6.0%	**2.1%**
2015-16						
$ diff	$53	-$156	-$45	$175	$101	**$129**
% diff	1.9%	-1.2%	-0.5%	3.4%	15.7%	**0.4%**
2016-17						
$ diff	-$194	-$391	-$236	-$102	$81	**-$841**
% diff	-7.0%	-3.1%	-2.4%	-1.9%	8.9%	**-2.7%**
2017-18						
$ diff	-$193	$118	$141	$12	-$256	**-$178**
% diff	-6.7%	0.9%	1.4%	0.2%	-10.0%	**-0.5%**
2018-19						
$ diff	$323	$116	$349	$86	$85	**$959**
% diff	9.5%	0.8%	3.1%	1.6%	10.6%	**2.8%**
2019-20[1]						
$ diff	-$256	-$374	-$566	-$151	$43	**-$1,304**
% diff	-8.0%	-2.6%	-5.2%	-2.9%	6.4%	**-3.8%**
2020-21						
$ diff[2]	$1,235	$905	$1,383	$449	$546	**$4,518**
% diff	27.9%	5.6%	10.8%	8.0%	45.0%	**11.2%**
2021-22						
$ diff	$1,557	$2,607	$1,456	$512	$87	**$6,219**
% diff	29.3%	14.4%	10.5%	8.4%	1.9%	**12.9%**
2022-23						
$ diff	$1,251	$262	$829	$13	$376	**$2,730**
% diff	20.4%	1.5%	5.9%	0.2%	33.0%	**6.1%**
2023-24						
$ diff	-$48	-$416	$191	$139	$407	**$273**
% diff	-0.8%	-2.3%	1.3%	2.3%	25.3%	**0.6%**

Note: In dollar millions.

1 The IFO estimates $1.9 billion in FY 2019-20 revenue was shifted to FY 2020-21 as a result of tax due date extensions in response to the COVID-19 pandemic. The amounts include $375 million in CNIT, $1,335 million in PIT, $160 million in SUT and $68 million in Other Tax. To facilitate an accurate comparison, this analysis assumes that the delayed revenues were received in FY 2019-20.

2 Estimate refers to the IFO's Official Estimate published on June 22, 2020 and excludes the $331 million in statutory changes enacted in November 2020 in conjunction with the FY 2020-21 state budget.