REVENUE OUTLOOK

Revenue Summary

Although the drop in economic activity following the Covid-19 outbreak turned out to be less severe than was initially feared, the shock was still a significant one. Net job losses and the rate of unemployment currently match what was seen at the worst of the Great Recession. Even so, Oregon's primary revenue instruments have continued to grow despite the sharp reduction in economic activity. Collections of personal income taxes and corporate taxes both set record highs over the post-shutdown (March-to-September) period this year.

Could it be that losing 1 out of 12 jobs, in addition to billions of dollars in output, might not have a significant impact on state tax revenues? Of course not. However, the fact of the matter is, the economic pain has yet to be fully reflected in Oregon's revenue data.

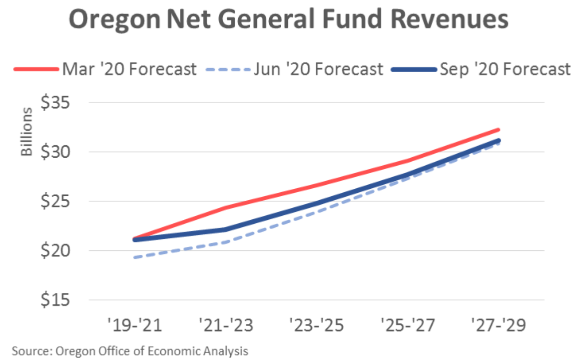
Timing is part of the reason. The unique nature of the Covid-19 downturn led to a sudden stop of economic activity. It will take some time for the fallout from this shock to work its way through the economy and eventually appear on tax returns. At the onset of a typical recession, it takes a couple of years after a suffering a recessionary shock before payrolls and economic output bottom out. When the economic outlook darkens, firms usually don't fire all of their workers immediately. Only over time, when the phone starts ringing less, do weak sales lead firms to cut back on parts and labor. These spending cuts in turn leads to lost income for suppliers and workers who reduce their downstream spending accordingly. This traditional recessionary dynamic is just getting under way, even though the overall labor market is improving as thousands of temporarily unemployed workers return to their jobs.

An unprecedented amount of federal aid is also supporting tax collections. Although recovery rebate checks associated with the CARES act are not taxable in Oregon, enhanced unemployment insurance benefits are. Around $170 million in personal income tax collections have already been withheld from unemployment insurance checks. However, to date, this is not far off of what was assumed in the June forecast. What was missing from the June forecast was the positive impact on tax collections associated with federal aid for businesses. Forgivable loans associated with the Payroll Protection Program, together with even larger industry bailouts for major corporations, have led to a surge in business tax liability. Ignoring the business income that flows through personal income tax returns, federal business aid has increased traditional corporate tax collections by $200-$300 million.

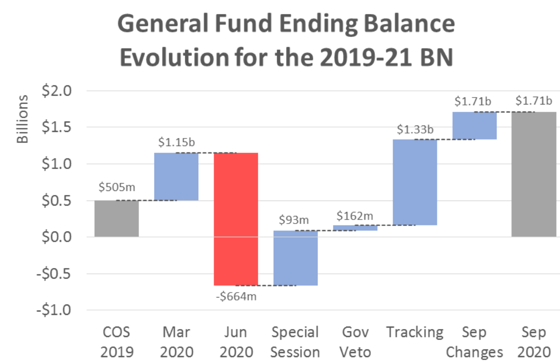
Another factor supporting strong tax collections is the fact that high-income households have been relatively spared from economic losses to date. Given widening economic inequality, high-income households have an increasingly disproportionate impact on aggregate economic indicators like spending and income. This dynamic is even more pronounced for Oregon's personal income tax revenues given our progressive rate structure. While this is a factor, the 5% net job losses we have already seen among high-wage industries are more than large enough to strain tax collections.

Finally, unexpected spillovers from the 2019 tax season have also boosted revenues in the current biennium. As year-end tax payments came in, both personal and corporate tax collections surprised on the upside. Unlike the traditional April surprise, however, this surprise did not come until July due to the fact that the tax payment deadline was extended. The 95% or so of 2019 tax returns that have been processed so far do not reflect the kind of liability growth that would match such strong collections. This suggests that the highest-income filers, who often file extended returns in the fall, earned more than other filers last year.

Due to the unexpectedly large flow of collections seen over the past year, the General Fund revenue outlook for the 2019-21 biennium is now no different than it was before the recession hit. Although the reduction in state revenues has been delayed, the pain will eventually be felt given the magnitude of the damage to Oregon's labor market. While the current biennium looks better, the September 2020 revenue forecast converges back to the June 2020 forecast over time.



If the September 2020 forecast proves accurate, not only is the General Fund in very good shape for the current biennium, but there will be additional revenues available to apply to the next (2021-23 BN). Following the June 2020 revenue forecast, the Oregon Legislature met in a special session and enacted measures that filled the expected budget hole for the 2019-21 biennium. As a result, the additional revenues in the September 2020 forecast are not needed immediately. Instead, an expected General Fund ending balance of $1.7 billion will be available to apply to the next budget period (2021-23 BN).



2019-21 General Fund Revenues

Gross General Fund revenues for the 2019-21 biennium are expected to reach $21,194 million. This represents an increase of $1,669 million from the June 2020 forecast, and an increase of $173 million relative to the Close of Session forecast. Most of the increase in the General Fund forecast can be tied to tracking in recent months as both personal and corporate income tax collections came in far higher than expected in June.

Table R.1

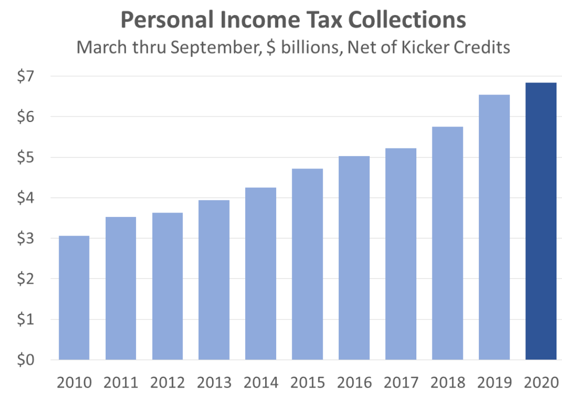
2019-21 General Fund Forecast Summary

(Millions)	2019 COS Forecast	June 2020 Forecast	September 2020 Forecast	Change from Prior Forecast	Change from COS Forecast
Structural Revenues					
Personal Income Tax	$18,283.5	$16,879.3	$18,175.5	$1,296.2	-$108.0
Corporate Income Tax	$1,190.8	$1,081.8	$1,330.5	$248.7	$139.7
All Other Revenues	$1,546.1	$1,564.2	$1,688.3	$124.1	$142.2
Gross GF Revenues	$21,020.4	$19,525.3	$21,194.3	$1,669.0	$173.9
Offsets and Transfers	-$203.5	-$251.9	-$106.9	$145.0	$96.6
Administrative Actions[1]	-$21.5	-$21.5	-$21.5	$0.0	$0.0
Legislative Actions	-$199.5	-$198.3	-$198.3	$0.0	$1.1
Net Available Resources	**$22,914.4**	**$21,763.0**	**$23,577.0**	**$1,814.0**	**$662.6**
Confidence Intervals					
67% Confidence	+/- 3.8%		$795.8	$20.40B to $21.99B	
95% Confidence	+/- 7.5%		$1,591.5	$19.60B to $22.79B	

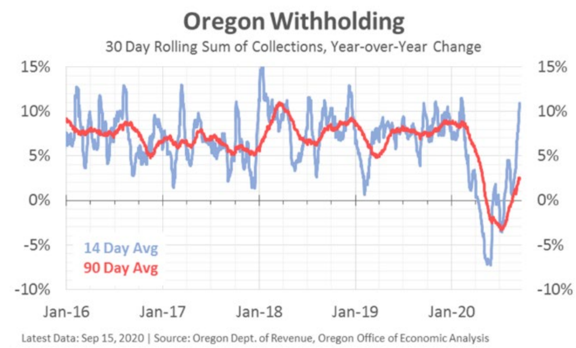
1 Reflects cost of cashflow management actions, exclusive of internal borrowing.

Personal Income Tax

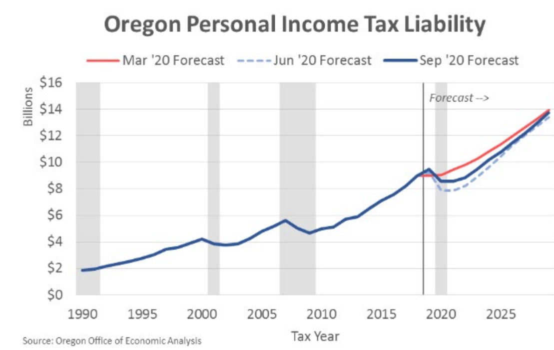
Personal income tax collections have far outstripped expectations since the June 2020 forecast. Despite Oregon losing 160,000 net jobs, personal income taxes have come in higher than ever in the seven months since the Coivd-19 shutdown. Timing issues, federal aid, income inequality and 2019 spillovers have all contributed to the surprisingly strong collections.



Strong personal income tax collections have been driven by both labor and investment income. Revenues surprised on the upside when year-end payments were made in July, likely due to investment income earned in 2019. More surprising has been the quick rebound in personal income tax withholdings that has been seen since social distancing restrictions were lifted. If the job numbers are correct, withholdings should weaken anew going forward.

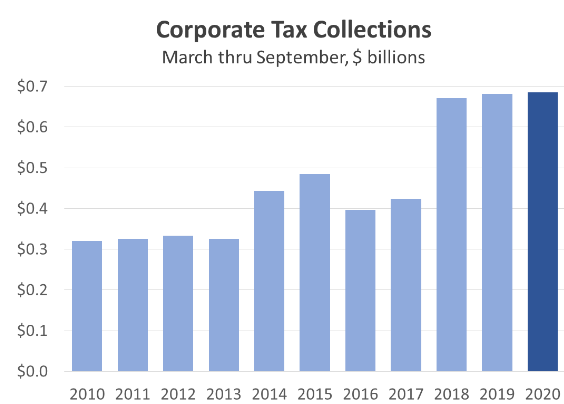


With personal income tax revenues growing instead of shrinking since the last forecast, a large forecast revision was in order. In addition to tracking, however, the outlook for personal income tax liability has been increased somewhat in keeping with the underlying economic forecast.



Corporate Excise Tax

As with personal income taxes, the corporate collections outlook has been revised up sharply in response to how revenues have been tracking since the latest forecast. Like personal income taxes, corporate tax collections have also reached a record high in the period since Covid-19 restrictions were put in place.



The strong growth in corporate taxes is particularly surprising given that they were expected to come back down to earth before the recession began. In the two years following the enactment of the federal Tax Cuts and Jobs Act, Oregon's corporate tax collections increased by around 50%. While some of this increase reflects a permanent increase in the tax base, a significant amount of the growth is expected to be temporary, including the realization of repatriated foreign income.

However, as of the July-to-September quarter, corporate tax collections had yet to weaken at all. Interpreting the July-to-September tax collections for both corporate and personal income taxes has been complicated by the extension of the tax filing deadline this year. Many tax payments that were traditionally received in April did not come until the current fiscal year.

Other Sources of Revenue

Non-personal and non-corporate revenues in the General Fund usually account for approximately 7 percent of the total. The two largest such sources are the Oregon Liquor Control Commission and estate taxes.

Combined all of these other sources of revenue have been revised upward by $124.1 million (+7.9%) relative to the previous forecast for 2019-21. They are raised $5.3 million (+0.4%) and $1.5 million (+0.1%) in 2021-23, and 2023-25, respectively.

In the current 2019-21 biennium, the vast majority of these upward revisions is due to legislative changes made during the second special session which brought the state budget back into alignment following the previous revenue forecast. One-time fund shifts were increased $114.2 million this biennium. Other legislative adjustments to the Criminal Fine Account, and the Oregon Liquor Control Commission resulted in a total legislative increase of $117.4 million. Revenue tracking and forecast adjustments brings the total changes for non-personal and non-corporate revenues in 2019-21 to the full $124.1 million (+7.9%).

Extended General Fund Outlook

Table R.2 exhibits the long-run forecast for General Fund revenues through the 2027-29 biennium. Users should note that the potential for error in the forecast increases substantially the further ahead we look.

Revenue growth in Oregon and other states will face considerable downward pressure over the 10-year extended forecast horizon. As the baby boom population cohort works less and spends less, traditional state tax instruments such as personal income taxes and general sales taxes will become less effective, and revenue growth will fail to match the pace seen in the past.

Table R.2

General Fund Revenue Forecast Summary (Millions of Dollars, Current Law)

Revenue Source	Forecast 2017-19 Biennium	% Chg	Forecast 2019-21 Biennium	% Chg	Forecast 2021-23 Biennium	% Chg	Forecast 2023-25 Biennium	% Chg	Forecast 2025-27 Biennium	% Chg	Forecast 2027-29 Biennium	% Chg
Personal Income Taxes	18,823.3	17.2%	18,175.5	-3.4%	19,687.7	8.3%	22,152.0	12.5%	24,643.8	11.2%	27,797.4	12.8%
Corporate Income Taxes	1,752.7	44.8%	1,330.5	-24.1%	1,260.4	-5.3%	1,418.6	12.6%	1,699.5	19.8%	1,880.5	10.6%
All Others	1,339.3	3.9%	1,688.3	26.1%	1,272.1	-24.7%	1,350.5	6.2%	1,446.7	7.1%	1,569.8	8.5%
Gross General Fund	21,915.3	18.1%	21,194.3	-3.3%	22,220.2	4.8%	24,921.1	12.2%	27,790.0	11.5%	31,247.6	12.4%
Offsets and Transfers	*(129.5)*		*(106.9)*		*(108.8)*		*(88.0)*		*(59.0)*		*(70.7)*	
Net Revenue	21,785.8	17.6%	21,087.4	-3.2%	22,111.4	4.9%	24,833.2	12.3%	27,731.0	11.7%	31,176.9	12.4%

Tax Law Assumptions

The revenue forecast is based on existing law, including measures and actions signed into law during the 2019 Oregon Legislative Session. OEA makes routine adjustments to the forecast to account for legislative and other actions not factored into the personal and corporate income tax models. These adjustments can include expected kicker refunds, when applicable, as well as any tax law changes not yet present in the historical data. A summary of actions taken during the 2019 Legislative Session can be found in Appendix B Table B.3. For a detailed treatment of the components of the 2019 Legislatively Enacted Budget, see: LFO 2019-21 Budget Summary.

Although based on current law, many of the tax policies that impact the revenue forecast are not set in stone. In particular, sunset dates for many large tax credits have been scheduled. As credits are allowed to disappear, considerable support is lent to the revenue outlook in the outer years of the forecast. To the extent that tax credits are extended and not allowed to expire when their sunset dates arrive, the outlook for revenue growth will be reduced. The current forecast relies on estimates taken from the Oregon Department of Revenue's 2019-21 Tax Expenditure Report together with more timely updates produced by the Legislative Revenue Office.

General Fund Alternative Scenarios

The latest revenue forecast for the current biennium represents the most probable outcome given available information. OEA feels that it is important that anyone using this forecast for decision-making purposes recognize the potential for actual revenues to depart significantly from this projection.

Table R.2b shows the revenue implications of the two alternative economic scenarios described on page 13. If the recovery were to take a step back next year as called for in the pessimistic scenario, revenues in the 2021-23 biennium would be reduced by $1.4 billion. If the recovery gets up to speed quickly as called for in the optimistic scenario, revenues in the 2021-23 biennium would be increased by $0.6 billion.

TABLE R2b — September 2020

Alternative Cyclical Revenue Forecast ($ millions)

	2017-19 BN		2019-21 BN		2021-23 BN		2023-25 BN		2025-27 BN	
Baseline Case	**FY'18**	**FY'19**	**FY'20**	**FY'21**	**FY'22**	**FY'23**	**FY'24**	**FY'25**	**FY'26**	**FY'27**
Personal Income										
Level	206.7	218.6	231.7	234.6	231.5	244.2	254.9	268.7	281.8	296.1
% change	*6.0%*	*5.8%*	*6.0%*	*1.2%*	*-1.3%*	*5.5%*	*4.4%*	*5.5%*	*4.9%*	*5.0%*
Taxes										
Personal Income	8,872	9,909	7,192	10,983	9,686	10,002	10,782	11,370	11,934	12,710
Corporate Excise & Income	739	927	488	842	627	633	682	737	816	884
Other General Fund	633	706	639	1,049	625	647	666	684	711	736
Total General Fund	10,244	11,542	8,319	12,875	10,938	11,282	12,130	12,791	13,461	14,329
% change	*4.3%*	*12.7%*	*-27.9%*	*54.8%*	*-15.0%*	*3.1%*	*7.5%*	*5.4%*	*5.2%*	*6.5%*
Optimistic Case	**FY'18**	**FY'19**	**FY'20**	**FY'21**	**FY'22**	**FY'23**	**FY'24**	**FY'25**	**FY'26**	**FY'27**
Personal Income										
Level	206.7	219.7	233.1	236.6	234.4	247.0	258.8	274.3	289.3	305.6
% change	*6.0%*	*6.3%*	*6.1%*	*1.5%*	*-0.9%*	*5.4%*	*4.8%*	*6.0%*	*5.5%*	*5.6%*
Taxes										
Personal Income	8,872	9,956	7,308	11,308	9,963	10,227	11,033	11,660	12,307	13,175
Deviation from baseline	*0*	*47*	*116*	*325*	*277*	*225*	*251*	*290*	*373*	*465*
Corporate Excise & Income	739	931	496	867	645	647	698	756	841	916
Deviation from baseline	*0*	*4*	*8*	*25*	*18*	*14*	*16*	*19*	*25*	*32*
Other General Fund	633	710	643	1,059	633	655	676	699	730	759
Total General Fund	10,244	11,597	8,447	13,234	11,241	11,529	12,407	13,114	13,878	14,851
% change	*4.3%*	*13.2%*	*-27.2%*	*56.7%*	*-15.1%*	*2.6%*	*7.6%*	*5.7%*	*5.8%*	*7.0%*
Deviation from baseline	*0*	*55*	*128*	*359*	*303*	*246*	*277*	*323*	*417*	*521*
Biennial Deviation		*55*		*486*		*550*		*600*		*939*
Pessimistic Case	**FY'18**	**FY'19**	**FY'20**	**FY'21**	**FY'22**	**FY'23**	**FY'24**	**FY'25**	**FY'26**	**FY'27**
Personal Income										
Level	206.7	217.4	229.4	227.4	220.5	230.0	237.4	252.1	265.5	278.6
% change	*6.0%*	*5.2%*	*5.5%*	*-0.9%*	*-3.0%*	*4.3%*	*3.2%*	*6.2%*	*5.3%*	*4.9%*
Taxes										
Personal Income	8,872	9,853	7,049	10,432	9,079	9,318	9,967	10,616	11,192	11,909
Deviation from baseline	*0*	*-56*	*-143*	*-552*	*-607*	*-684*	*-816*	*-753*	*-741*	*-801*
Corporate Excise & Income	739	921	479	800	588	590	630	688	765	828
Deviation from baseline	*0*	*-5*	*-10*	*-42*	*-39*	*-43*	*-52*	*-49*	*-51*	*-56*
Other General Fund	633	702	633	1,017	595	610	620	642	670	692
Total General Fund	10,244	11,476	8,161	12,249	10,262	10,517	11,218	11,946	12,627	13,430
% change	*4.3%*	*12.0%*	*-28.9%*	*50.1%*	*-16.2%*	*2.5%*	*6.7%*	*6.5%*	*5.7%*	*6.4%*
Deviation from baseline	*0*	*-65*	*-159*	*-626*	*-676*	*-765*	*-913*	*-845*	*-833*	*-900*
Biennial Deviation		*-65*		*-785*		*-1,442*		*-1,757*		*-1,733*

Corporate Activity Tax

HB 3427 (2019) created a new state revenue source by implementing a corporate activity tax (CAT) that went into effect January 2020. Projected gross revenues equal $1.2 billion for 2019-21 and $2.2 billion in 2021-23, up modestly from the previous forecast. The revision is due in part a healthier economy than projected a quarter earlier, as well as due to the impact of wildfires on the hospitality and construction industries.

These revenues are dedicated to spending on education. The legislation also included personal income tax rate reductions, reducing General Fund revenues. The net impact of HB 3427 was designed to generate approximately $1 billion per year in new state resources, or $2 billion per biennium.

In terms the macroeconomic effects of a major new tax, the Office of Economic Analysis starts with the Legislative Revenue Office's (LRO) impact statement and any Oregon Tax Incidence Model (OTIM) results LRO found. At the top line, OTIM results find minimal macroeconomic impacts across Oregon due to the new tax.

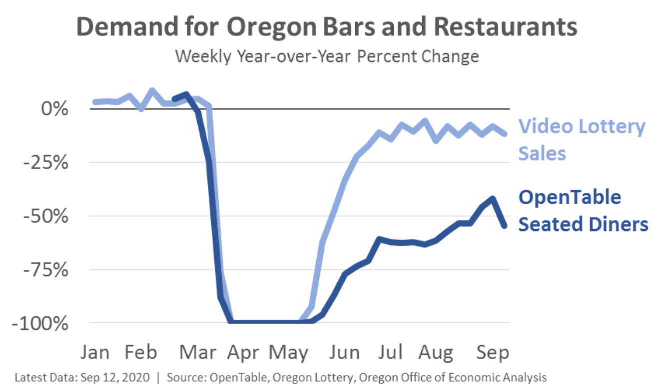
Personal income, employment, population, investment and the like are less than one-tenth of a percent different under the new tax relative to the baseline. The model results also show that price levels (inflation) will increase above the baseline as some of the CAT is pushed forward onto consumers. Of course these top line, statewide numbers mask the varying experiences that individual firms and different industries will experience. There are likely to be some businesses or sectors that experience large impacts from the CAT, or where pyramiding increases prices to a larger degree, while other businesses or sectors see relatively few impacts.

Table B.12 in Appendix B has details on 10 year forecast and the allocation of resources, while the personal income tax reductions are built into the General Fund forecasts shown in Tables B.1 and B.2.

Lottery Earnings

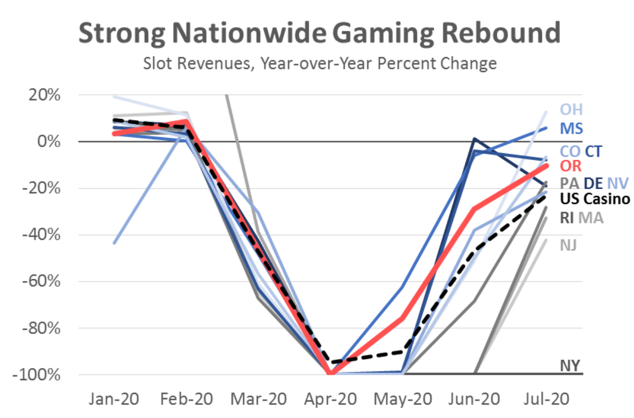
The lottery outlook has improved considerably in both the 2019-21 and 2021-23 biennia, while the longer-term forecast has been raised by more modest amounts. Available resources in 2019-21 are increased by $149.7 (+13.4%) and by $124.6 million (+9.2%) in 2021-23. While quite large by historical forecast standards, these changes undo around 40 percent of the declines built into the previous outlook. Even with these upward revisions, the lottery forecast remains significantly lower than it was prior to the pandemic.

In short, the upward revisions are due to much stronger video lottery sales than expected in recent months. While the reopening of the economy occurred faster than assumed in the last forecast, that was only a small factor in the upward revision. Rather it was the strong player response and pent-up demand that was unleashed immediately after reopening that led to the upward forecast revisions.



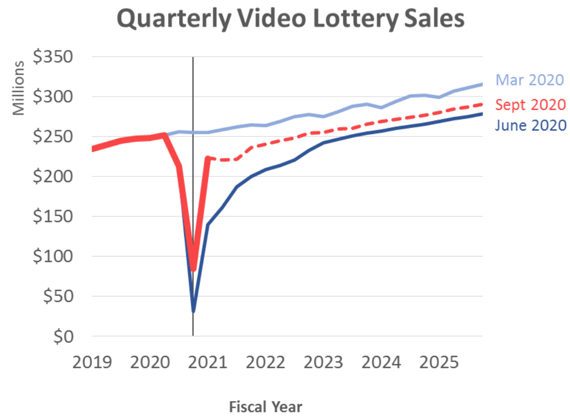
Now, video lottery sales remain smaller today than a year ago by about 10 percent. However this decline in sales is less than forecasted last quarter. Expectations were consumers would be cautious and gradually return to the state's bars and restaurants. Clearly this is true if one looks at the number of seated diners as reported by OpenTable, but the response has been considerably stronger among video lottery players. These two measures are not perfectly compatible nor do they measure the same exact thing, but are both broadly indicative of demand for bars and restaurants in Oregon.

A number of factors likely lead to this stronger increase in sales, including pent-up demand, the federal aid that boosted incomes, plus the relative lack of other entertainment options as movie theaters, sporting events, and the like shuttered due to the pandemic. As such the strength in sales is not just due to demand for gaming, but also in part due to the lack of other options. And regardless of when a state reopened its gaming establishments, this general pattern of a strong rebound is seen nationwide. This is one indication that broader,



macro trends are driving local sales as opposed to something more Oregon-specific in nature.

The strong sales recently likely means the worst of the recessionary impacts on Lottery are over. The forecast calls for a relative slowing in sales in the months ahead due to concerns over the virus in the colder fall and winter months, and as other entertainment options become available. The most likely sector to see any such concerns will be the bars and restaurants, including video lottey retailers, that are open today. Over the rest of the forecast horizon, the outlook has improved due to the strong player response in recent months and modest changes to the overall economic outlook.



As always, there are considerable risks to the outlook. On the upside, consumers may return to bars and restaurants to a greater degree sooner than expected. This is particularly the case should the pandemic be managed, brought under control, and a medical treatment becomes widely available earlier than assumed in the baseline. Additionally, should other forms of entertainment remain restricted, consumers may search out gaming opportunities to a great degree as well.

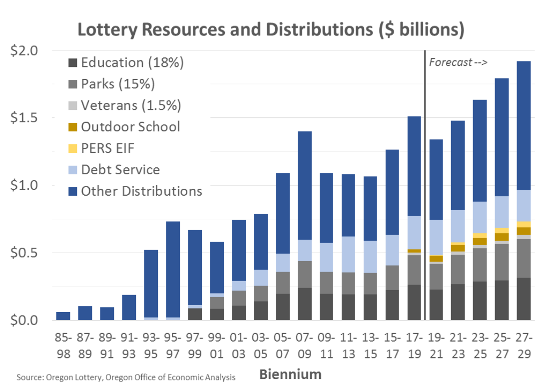
However, downside risks certainty remain. As the loss of federal aid weighs on consumers, they may pull back on discretionary spending in order to maintain household budgets. There has been no indication of this yet in the weeks following the lapse in expanded unemployment insurance benefits, however such shocks and changes generally take time to fully impact the economy. Additionally, should the pandemic worsen again, leading to another round of strict social distancing and the closing of bars and restaurants, there would be a direct impact on video lottery sales.

Modeling our office's pessimistic scenario of a double-dip recession, as laid out on page 13, would reduce the Lottery forecast by $57 million in 2019-21 and $121 million in 2021-23.

Lottery Outlook and Distributions

Big picture issues to watch include broader national trends in gaming markets, demographic preferences for recreational activities, and to what extent consumers decrease the share of their incomes spent on gaming. Up until the past couple of years, consumers had remained cautious with their disposable income. Increases in spending on gaming had largely matched income growth.

Over the long run our office expects increased competition for household entertainment dollars, increased competition within the gaming industry, and potentially shifts in generational preferences and tastes when it comes to gaming. As such, our outlook for video lottery sales is continued growth, however at a rate that is slightly slower than overall personal income growth. Lottery sales will continue to increase as Oregon's population and economy grows, however video lottery sales will likely be a slightly smaller slice of the overall pie.

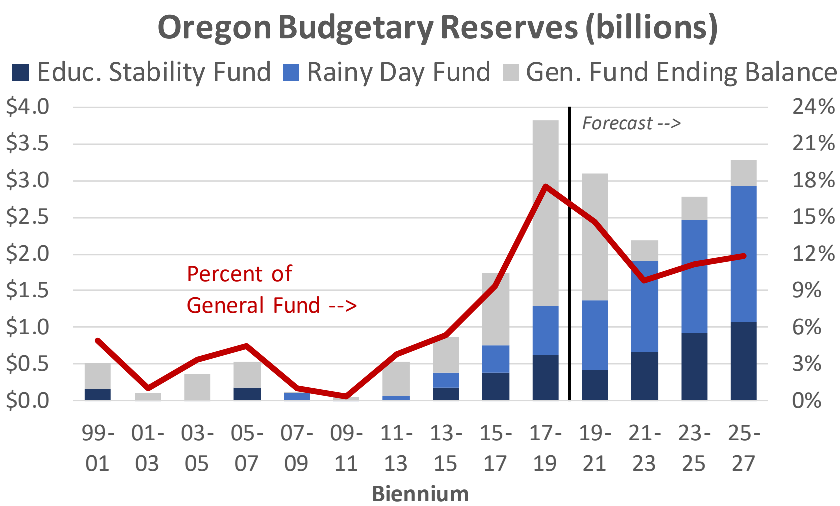


The full extended outlook for lottery earnings can be found in Table B.9 in Appendix B.

Budgetary Reserves

The state currently administers two general reserve accounts, the Oregon Rainy Day Fund[4] (ORDF) and the Education Stability Fund[5] (ESF). This section updates balances and recalculates the outlook for these funds based on the September revenue forecast.

As of this forecast the two reserve funds currently total a combined $1.61 billion. At the end of the current 2019-21 biennium, they will total $1.38 billion. The reduction is due to the $400 million withdrawal from the Education Stability Fund that the Legislature passed as part of the budget rebalancing during the second special session (HB 4303). Including the currently projected $1.71 billion ending balance in the General Fund, the total effective reserves at the end of this biennium are $3.09 billion.



Source: Oregon Office of Economic Analysis

Effective Reserves ($ millions)

	July 2020	*End 2019-21*
ESF	$734	$424
RDF	$881	$952
Reserves	$1,615	$1,377
Ending Balance	$1,714	$1,714
Total	**$3,328**	**$3,090**
% of GF	15.7%	14.6%

The forecast for the ORDF includes two deposits for this biennium relating to the General Fund ending balance from the previous biennium (2017-19). A deposit of $198.3 million was made in early 2020 after the accountants closed the books. Additionally a $66.5 million deposit relating to the increased corporate taxes from Measure 67 is expected at the end of the biennium. This exact transfer amount is subject to some revision as corporate filings are processed, however the transfer itself will occur. At the end of 2019-21 the ORDF will total $952.2 million.

[4] The ORDF is funded from ending balances each biennium, up to one percent of appropriations. The Legislature can deposit additional funds, as it did in first populating the ORDF with surplus corporate income tax revenues from the 2005-07 biennium. The ORDF also retains interest earnings. Withdrawals from the ORDF require one of three triggers, including a decline in employment, a projected budgetary shortfall, or declaration of a state of emergency, plus a three-fifths vote. Withdrawals are capped at two-thirds of the balance as of the beginning of the biennium in question. Fund balances are capped at 7.5 percent of General Fund revenues in the prior biennium.

[5] The ESF gained its current reserve structure and mechanics via constitutional amendment in 2002. The ESF receives 18 percent of lottery earnings, deposited on a quarterly basis – 10% of which are deposited in the Oregon Growth sub-account. The ESF does not retain interest earnings. The ESF has similar triggers as the ORDF, but does not have the two-thirds cap on withdrawals. The ESF balance is capped at five percent of General Fund revenues collected in the prior biennium.

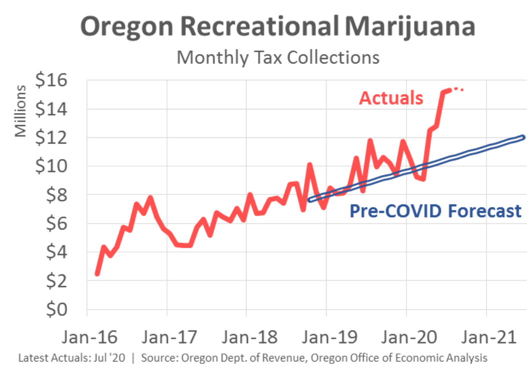
The forecast for the ESF calls for $204.7 million in deposits during the 2019-21 biennium based on the current Lottery forecast, an increase relative to the previous forecast. To date $113 million has been transferred, meaning the remaining $91.5 million will be subject to economic and revenue forecast changes over the remainder of the biennium. As part of the budget rebalancing during the second special session, the Legislature voted to withdrawal $400 million from the ESF in 2021. At the end of the current 2019-21 biennium, the ESF balance is expected to be $424.4 million. Even with the scheduled withdrawal, the ESF is still forecasted to reach its cap of 5% of the previous biennium's General Fund revenues at the beginning of FY2027, or a couple years later than previously forecast. Once the cap it reached, transfers accrue to the Capital Matching Account.

Together, the ORDF and ESF are projected to have a combined balance of $1.61 billion at the close of the 2019-21 biennium, or 7.6 percent of current revenues. Such levels of reserve balances are still relatively bigger than Oregon has been able to accumulate in past cycles. They are needed today given the recession and the fact the economic recovery will take years.

B.10 in Appendix B provides more details for Oregon's budgetary reserves.

Recreational Marijuana Tax Collections

Marijuana sales continue to be strong. Since the pandemic began, the increase in recreational sales have been more than 30 percent above forecast. Oregon is not alone is seeing increased sales as other states like Colorado, Nevada, and Washington have seen strong gains as well. There are a number of likely reasons for these higher level of sales and expectations are that some of these increases will be permanent. The overall outlook for marijuana has been raised.

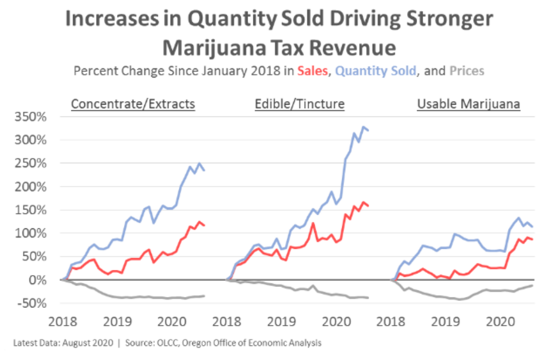


Factors leading to increases in sales include higher incomes due to federal support, increased stressors in everyday life, reductions in other forms of entertainment or recreational opportunities, and simply more time on one's hand be it due to a COVID-related layoff, or increased working from home. Overall indications are that the customer base is broadening some as the market grows due to more users trying an increasingly socially acceptable product and ongoing converts from the black market to the legal market. That said, the increase in sales is more likely to be due to larger or more frequent sales to existing customers than due to more overall customers alone.

A key question is now that the federal aid is gone and other entertainment options return in the months ahead, will some of this increase in sales in recent months subside? In a recent meeting of our office's marijuana forecast advisory group, the broad consensus was that yes, some of these sales will come off, but not entirely so. And the longer the pandemic lasts, the more likely customers will permanently adjust their behavior as they become accustomed to their new routines and buying patterns. As a result, Oregon can expect to sell somewhat more marijuana in the years than previous forecasts assumed.

One item to watch moving forward are prices and the relative impacts of supply and demand in the market. In recent years the supply of marijuana as greatly outstripped the demand, leading to lower prices. This is great news for consumers. Given that marijuana is a normal good, lower prices have led to larger quantities sold. But now that demand has increased, while supply has held steady, and with the potential impact of the wildfires right as growers are prepping for harvest, this balance in the market may shift. It is likely that demand and supply are in better balance today than ever before in Oregon's legal market. As such, it may be that prices rise, or at least not decline like they have in recent years.

The impact of higher prices on tax collections is indeterminate today, depending upon whether the income or substitution effect wins out. That said, higher prices, should they come, will likely lead to more tax revenue collected as the decline in quantity sold is not large enough to outweigh the price impact.



Offsetting the potential changes in supply and demand in the market today would be an increase in licenses approved by the Oregon Liquor Control Commission. To date, while there has been a moratorium on accepting new applications, the agency has been approving those already in the pipeline. As the pipeline begins to dry up, the agency may begin accepting new applications again. Should any of this lead to ongoing growth in marijuana production in the state, it could also alter the market balance, and ultimately tax collections as well.

Finally, of note for those following the state budget and program distributions from recreational marijuana would be the potential changes associated with the passage of Measure 110 on the ballot this year. Our office has taken no position on Measure 110 and it is not expected to impact marijuana tax collections. What it would do is reallocate, or redirect much of the marijuana tax collections into a new drug treatment and recovery fund. Whether current programs receiving marijuana tax revenue would ultimately see budgetary impacts would remain up to the Legislature should voters approve the measure this fall.

See Table B.11 in Appendix B for a full breakdown of distributions for recreational marijuana tax collections. Note that these distributions are based on current law.