



*MARYLAND'S REVENUE VOLATILITY
PROGRAM
SEPTEMBER 2019*

Office of the Comptroller
State of Maryland

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Disclaimer

- I represent myself today
- Not the Comptroller, not the Board of Revenue Estimates

April Surprise



State Estimating Program

- Board of Revenue Estimates (BRE) Responsibility
 - Comptroller Peter Franchot
 - Treasurer Nancy Kopp
 - Budget Secretary David Brinkley
 - Andrew Schaufele, Executive Secretary
- Revenue Monitoring Committee
 - 16 to 20 fiscal minded individuals from BRE related agencies and Legislative Services
 - Chaired by BRE Executive Secretary
- One Estimate For The State!!! All working from same base

State Budget Program

- Governor must use BRE's estimate for the introduction of the budget (some amendments with cause enabled)
 - Supported by:
 - September Estimate for building budget plan
 - December Estimate as final before budget introduction
- General Assembly passes budget
 - Supported by:
 - March Estimate for final shot at it
- Required to have 5% in the Rainy Day Fund
- We never used the Rainy Day Fund during the Great Recession

Impetus – April Surprises

- Actually handled the fiscal cliff and the up-and-down from tax years 2012 and 2013 quite well
- Botched tax years 2014 and 2015 (fiscal years 2015 and 2016)

Fiscal Year	Source	Estimated	Actual	Dollar Var	Pct Var
2015	Final	3.3%	16.0%	+\$107M	13.8%
2015	Refunds	2.8%	-0.4%	+\$38M	-2.8%
2015	Total GF	4.0%	5.4%	+\$214M	1.4%
2016	Final	3.2%	-2.7%	-\$52M	-5.8%
2016	Refunds	2.6%	8.4%	-\$75M	-5.6%
2016	Total GF	3.3%	1.7%	-\$250M	-1.5%

Notes: (1) Dollars in Millions; (2) GF is total; (3) Final & Refund are Jan to June

The Reaction

- I'm hauled in front of Legislative Spending Affordability Committee to explain/be-intimidated
 - Leads to the “Why don't you just forecast 98% of revenues”
 - To which I reply “Why don't you just spend 98% of revenues”
 - Gained valuable experience, but not going anywhere fast on the policy front
- Create a workgroup
 - Composed of key fiscal bureaucrats
 - Principle staff is Legislative Services (DLS)
 - Supported by BRE
 - We knew it was largely related to capital gains, but wanted to empirically prove and gain insight for policy considerations

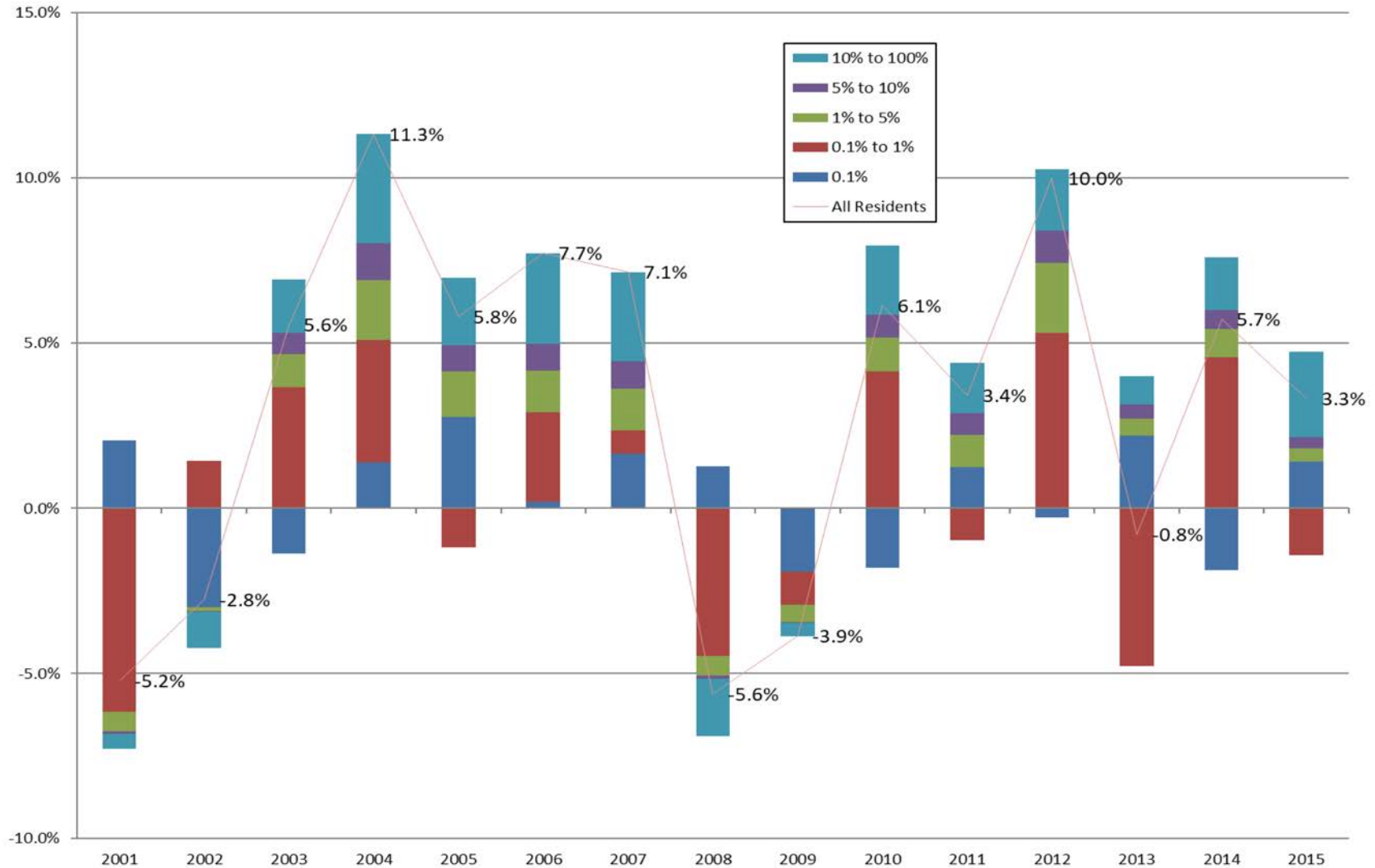
Deep Learning on Volatility Cause

Percentile	# Tax Payers	Net Maryland Tax (\$)	Average Federal Gross Income (\$)	Share State Net Tax (%)	Cum Share State Net Tax (%)
Top 0.01%	269	252,606	19,270	3.7	3.7
>0.01% & <=0.1%	2,422	356,414	2,981	5.2	8.8
>0.1% & <=1.0%	24,225	859,189	755	12.4	21.2
>1.0% & <=5.0%	107,668	1,300,847	283	18.8	40.0
>5.0% & <=10.0%	134,584	941,602	179	13.6	53.7
>10.0% & <=25.0%	403,752	1,666,099	116	24.1	77.7
>25.0% & <=50.0%	672,920	1,328,280	64	19.2	97.0
>50.0% & <=75.0%	672,920	374,667	30	5.4	102.4
>75.0% & <=100.0%	672,920	-163,973	13	-2.4	100.0
Total	2,691,680	6,915,731	76	100	100

Notes: (1) Dollars in Thousands; (2) Ordered by State Net Tax; (3) Tax Year 2014

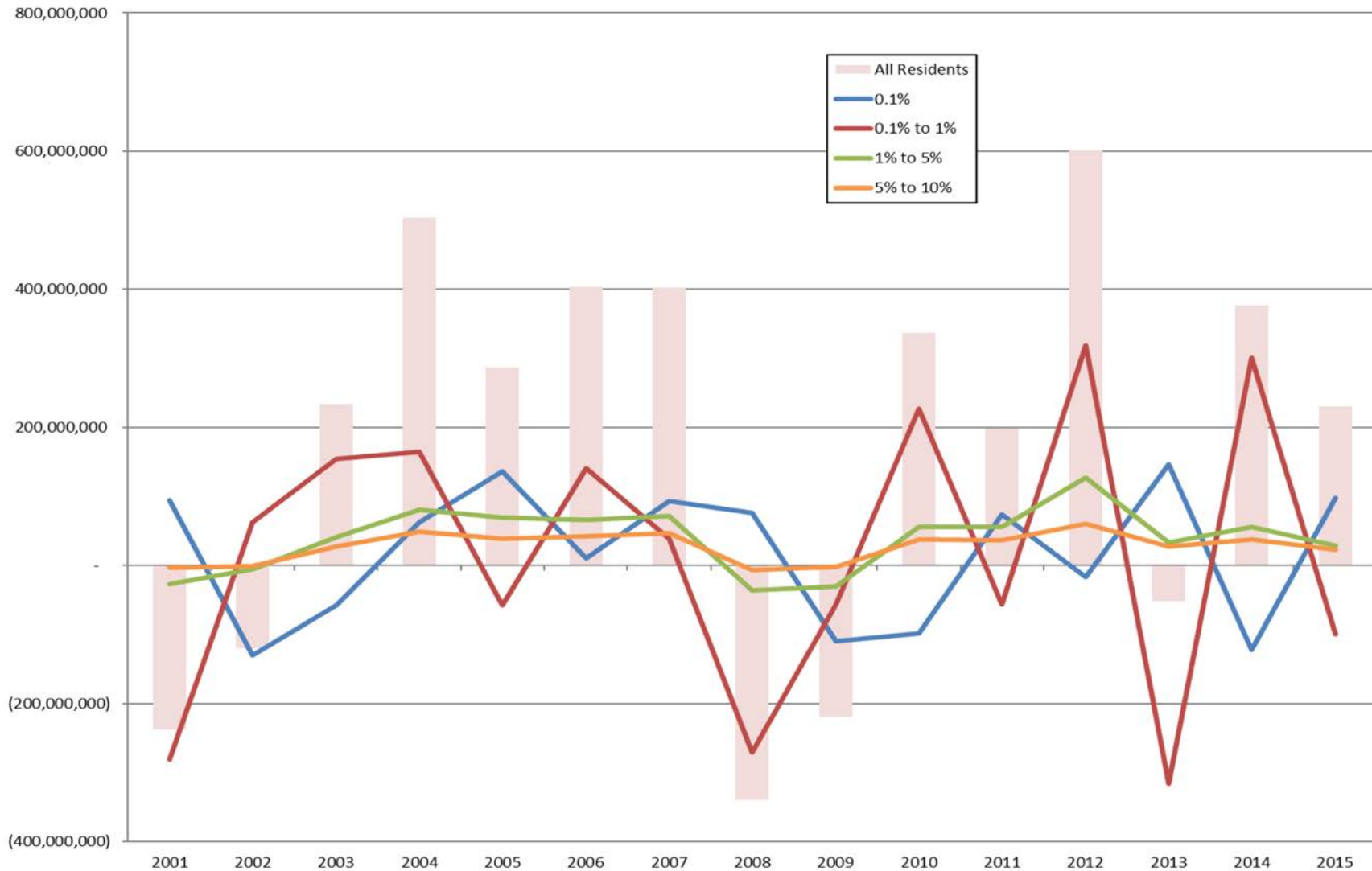
Deep Learning on Volatility Cause

Certain Income Classes' Share of Net Resident MD Tax Year-Over-Year Growth



Deep Learning on Volatility Cause

Dollar Difference -- Year-over-Year



Deep Learning on Volatility Cause

Year-Over-Year Growth in Average Amounts For Various Tax Share Groups

Top 5 Sources for Top 0.1%

		Average AGI	Average Sched E (29% of Total AGI)		Average Wages (29% of Total AGI)		Average CapGains (26% of Total AGI)		Ordinary Dividends (5% of Total AGI)		Taxable Interest (4% of Total AGI)		Average Other
		All	With	All	With	All	With	All	With	All	With	All	All
≤0.1%	TY 13	-21.4%	-4.9%	-6.9%	-12.8%	-9.1%	-38.8%	-40.2%	-26.9%	-27.2%	2.0%	0.9%	-52.0%
	TY 12	20.7%	11.2%	13.0%	10.8%	8.9%	23.1%	24.6%	96.3%	97.6%	1.5%	1.7%	45.1%
	TY 11	9.0%	-4.6%	-2.0%	4.5%	1.4%	40.5%	41.9%	-2.7%	-2.9%	-9.7%	-9.7%	26.7%
	TY 10	11.1%	7.6%	4.8%	19.1%	18.1%	8.0%	9.5%	28.3%	27.8%	-8.2%	-8.9%	24.0%
	TY 09	-11.6%	31.0%	37.6%	-11.4%	-18.6%	-31.9%	-33.0%	16.4%	14.7%	-1.4%	0.2%	-59.1%
	TY 08	-33.9%	-6.1%	-11.5%	-16.4%	-5.4%	-55.2%	-57.3%	-58.5%	-59.6%	-60.3%	-61.0%	-5.7%
	TY 07	9.5%	-25.2%	-25.6%	-7.0%	-7.6%	25.9%	26.2%	23.5%	23.1%	37.3%	37.0%	211.2%
	TY 06	14.3%	19.9%	22.2%	14.3%	12.2%	25.0%	26.0%	20.2%	22.2%	20.6%	20.9%	-58.0%
	TY 05	6.8%	12.0%	13.2%	-12.4%	-11.8%	24.0%	24.8%	-26.5%	-26.1%	-33.2%	-32.9%	124.7%
	TY 04	39.1%	4.6%	1.0%	36.0%	34.5%	84.5%	86.8%	137.3%	137.9%	126.0%	125.8%	-15.6%
	TY 03	17.9%	12.7%	18.2%	4.8%	4.8%	28.8%	29.4%	28.0%	26.8%	5.5%	5.5%	91.6%
	TY 02	-16.1%	1.2%	4.1%	-5.0%	-5.6%	-39.2%	-40.4%	-27.2%	-28.5%	-23.4%	-23.3%	-42.1%
	TY 01	-23.5%	-9.4%	-1.3%	-29.2%	-27.5%	-40.4%	-40.9%	-19.5%	-19.2%	-3.9%	-3.8%	24.5%
	Average	1.7%	3.9%	5.1%	-0.4%	-0.4%	4.2%	4.4%	14.5%	14.4%	4.1%	4.0%	24.2%
	Median	9.0%	4.6%	4.1%	-5.0%	-5.4%	23.1%	24.6%	16.4%	14.7%	-1.4%	0.2%	24.0%
	StDev	20.3%	13.8%	15.5%	16.8%	15.7%	39.8%	41.0%	51.3%	51.7%	42.0%	42.0%	76.7%

Conclusion

- **We cannot accurately estimate the top 1%**
 - They account for ~**20%** of the income tax and, therefore, ~**10%** of total general fund
- There are no variables or models that we have found that help us estimate this group
 - We are close when we are close to the forecast for capital gains, but..... (model has a 35% SE)

Policy Response

- Evaluated other States' approaches
 - Some limit to budget to percentage of revenues (e.g., 97%)
 - Some limit by historic growth rates
 - Some target capital gains specifically
- Made a 2 prong recommendation:
 1. Limit share of non-wage income to a 10 year historic average – reduce estimate by the amount that exceeds that average, with a cap of 2% of total revenues
 2. Specify what happens to revenue when below or exceeding the estimate – attempt to treat that income as not ongoing and dedicate to one-time purposes

Implementation

- Relationship of trust with Legislature and bipartisan/multi-agency work product was passed with ease
 - Held special meetings to review and discuss with Leadership as well as key Committees
- In 2017 Session - Legislation passed with unanimous votes from both Chambers (included some minor amendments)
 - Slated to take effect in FY20 (outside budget window for that session)
- But..... reality kicks in

Implementation

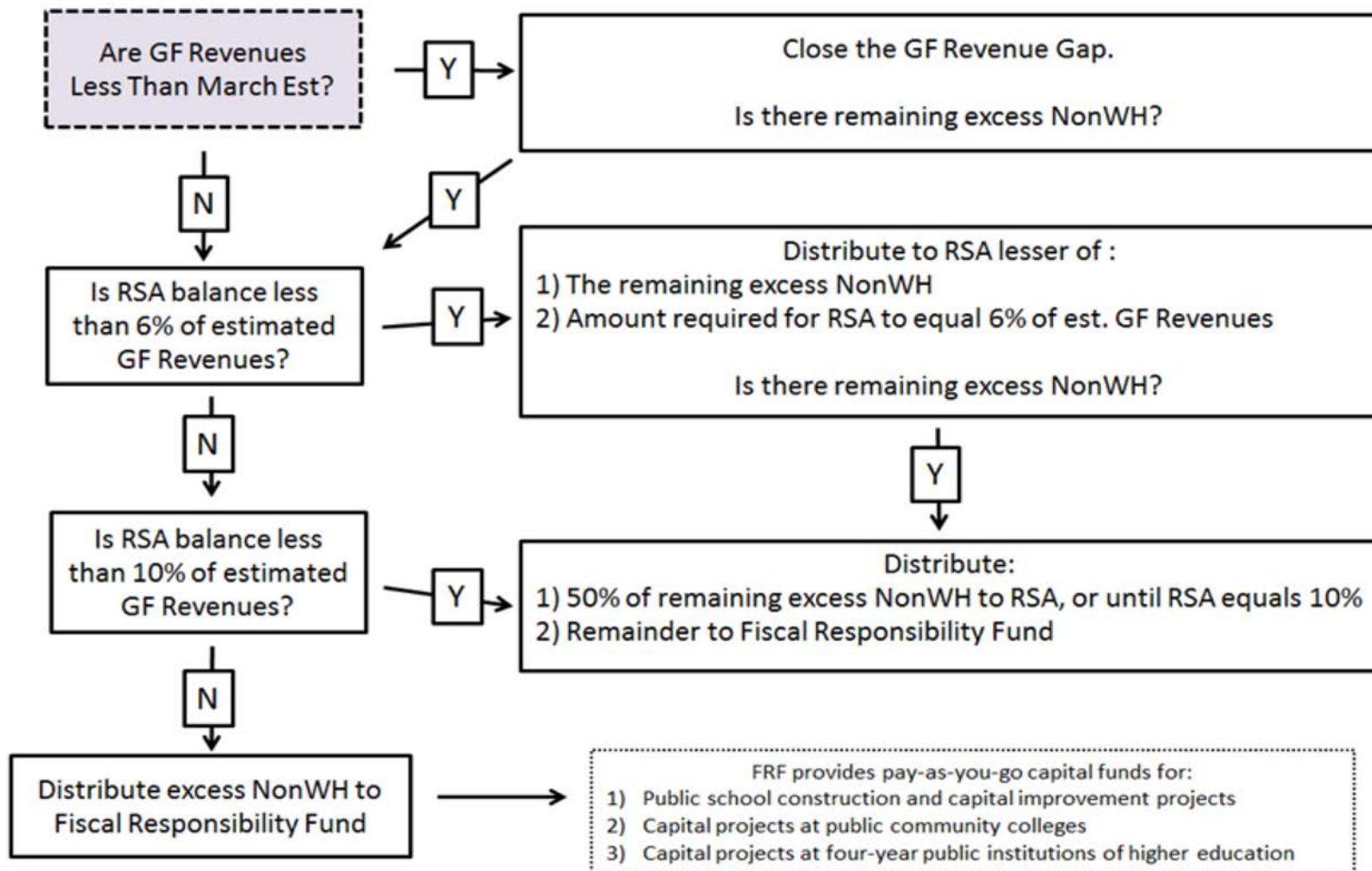
- 2018 Session – the BRFA reduces the “cap of the cap” from 2% to a phase in:
 - 0.5% in FY20
 - 1% in FY21
 - 2% in FY22
- 2019 Session – the BRFA reduces the “cap of the cap” from 0.5% in FY20 to 0.225%
- 2020 Session – We shall see, but probably another reduction or even elimination

What it looks like – The Cap

Preliminary Maryland General Fund Revenues - Sep 2019					
Fiscal Years 2019 - 2025					
(\$ in thousands)					
		FY 19 Actual	FY 20	FY 21	FY 22
INCOME TAXES					
	Individual	10,272,352	10,546,882	10,882,090	11,266,876
	Corporation	1,033,109	992,036	1,093,637	1,193,492
	Total	11,305,461	11,538,917	11,975,726	12,460,368
SALES AND USE TAXES					
		4,812,090	4,956,167	5,049,943	5,159,702
STATE LOTTERY RECEIPTS					
		552,375	567,145	579,197	592,890
OTHER REVENUES					
		1,729,113	1,675,358	1,645,914	1,656,936
TOTAL CURRENT REVENUES					
		18,399,039	18,737,587	19,250,780	19,869,896
	Excellence in Education Fund	(200,000)			
	Volatility Cap		(42,160)	(192,508)	(279,412)
GRAND TOTAL					
		18,199,039	18,695,427	19,058,272	19,590,484

What it looks like – Directing the \$\$\$

Revenue Volatility Distributions: Flow of Non-Withholding Amount that Exceeds Cap



Lessons Learned

- Driving from respected bureaucrats was key
- Communicating with Legislators early
- Stress tested the cap's cap and the 10 year average history
 - Didn't expect the 10 year average to encompass a full expansion!
- The rating agencies loved the policy, but foresaw the difficulty that the Legislature would have actually implementing
 - So did we, but I think that it still exists is a positive
- If we can let this program phase in in-full during the next expansion, we can:
 - Prevent new ongoing spending from being based on unsustainable revenue; and
 - Direct unsustainable revenue to bolster the State during downturns as well as our education capital

Thank You

- [The Volatility Workgroup Document](#)
- [The Original Legislation](#)

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