State Government Earnings Discretion and Implications on International Investment

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[Abstract] This study analyzes government earnings discretion using data from 2014 to 2022. Findings indicate that discretionary accruals by the government tend to persist over time. It was observed that higher leverage contributes to increased discretionary accruals. The study reveals that both the governor's salary and gender influence these accruals. Additionally, the legislature's salary also plays a significant role. Furthermore, the study offers a valuable summary of the financial situation in each state. This research offers insight into how local government finances can influence investment decisions and strategies.

[Keywords] discretional accrual, government, investment

Introduction

Government earnings discretion refers to the degree of flexibility or judgment that government entities have in reporting their financial earnings. This concept is an aspect of accounting discretion, which, broadly defined, is the latitude given to management in a corporation or government to decide how to report income, assets, liabilities, and other financial items. The extent of earnings discretion in government entities depends largely on the specific accounting and financial reporting rules that they must follow. In the United States, the Governmental Accounting Standards Board (GASB) sets the guidelines for state and local government financial reporting. These rules are designed to provide transparency and accountability, but they also allow for some level of discretion in certain areas. While in a perfect world, this discretion would be used judiciously and in the best interest of citizens, it has the potential for abuse. There have been instances where governments have used this discretion to manipulate their reported earnings and misrepresent their true financial position. This manipulation can be used to create an illusion of financial health and meet political objectives (Kido, Petacchi, & Weber 2012).

Although the subject of discretion in for-profit accounting has been extensively examined, its counterpart in the public sector, governmental accounting, has not been afforded the same focus. This can, in part, be attributed to the issue of data availability. Although fiscal information relating to government finances is publicly accessible, the absence of a unified database makes research a manually intensive task. Despite this laborious process, we believe that the exploration of governmental finance is critical, given its significant role in the economy. As per the U.S. Census Bureau, the total revenue and expenditure of states in 2021 amounted to $3.11 trillion and $2.95 trillion, respectively. Furthermore, the financial health of a state plays a vital role in creating an attractive investment environment. When states maintain strong fiscal conditions, they can better support essential infrastructure, ensure smooth supply chain operations, and provide access to financial and human resources. These are all key factors that influence investment decisions. This study examines the impact of governors' gender, their compensation, the salaries of legislators, and leverage on earnings discretion. Earnings discretion and leverage are both significant factors to consider when investing in a region. Regional variations in financial reporting practices and

debt levels can significantly impact investment outcomes. This analysis uncovers important state-by-state differences in these factors, offering valuable insights that investors might otherwise miss when making location-based investment decisions.

Literature Review

Governments' use of discretion in financial reporting and budgeting has been the subject of significant academic study. A study by Alesina & Perotti (1999) found that governments often use creative accounting practices to disguise the size of budget deficits and public debt. This finding is consistent with research on private sectors (Jelinek, 2007; Lazzem & Jilani, 2018). Public debt can be vital for development. In fact, investment-driven economic growth fueled local government debt growth in China (Qu, et al., 2023). While public debt can be vital for development, it can also be a heavy burden. Higher leverage typically leads to higher borrowing cost in private sector (Tanin, et al., 2024). Borrowing costs for US states may not be influenced by debt level currently (Robbins & Simonsen, 2012), this pattern could shift. For investors, evaluating a state's financial health becomes more complex when considering both potential future borrowing cost changes and variations in financial reporting practices.

A key factor that influences the extent of government earnings discretion is the quality of the country's institutions, including its legal system, regulatory environment, and level of corruption (Kaufmann, Kraay, & Mastruzzi, 2009). Stronger institutions tend to limit earnings discretion and promote greater transparency and accountability in government financial reporting. Research by Milesi-Ferretti (2004) confirmed that political cycles significantly impact the exercise of fiscal discretion. However, the implications of earnings discretion for public financial management and governance remain a contentious issue, with some arguing for more rigid rules to prevent manipulation (Hagen & Wolff, 2006), while others argue for the need for a degree of discretion to allow for adaptive and responsive public finance management (Hallerberg, Strauch, & Hagen, 2009).

Beyond debt levels, legal frameworks, and political conditions, researchers have examined many specific factors that influence regional investment decisions. Numerous research shows evidence of earnings management in a government setting, with many pointing out pension funding in particular. Eaton & Nofsinger (2004) concluded that state pension plans under high fiscal constraints have low salary growth rates and high expected rates of return (ERR) assumptions that lower the required contribution. Kido, Petacchi, & Weber (2012), identified two accounts (the compensated absence liability account and the unfunded pension liability account) that offered incumbent gubernatorial candidates flexibility for manipulation. Naughton, Petacchi, & Weber (2015) found that states' discretion to understate pension funding gaps is associated with periods of fiscal stress. Michel & Fichtner (2016) stated that although correlation is not causation, and the data presented in their paper do not prove that wasteful year-end spending exists, some anecdotal evidence suggests that the current budget rule of "use it or lose it" is not optimal and may encourage wasteful spending of taxpayer dollars.

Glegg, Harris, Ngo, & Susnjara (2021) found robust evidence that government suppliers engage in more real earnings management than their non-government contracting industry peers. This finding is robust to alternative definitions of earnings management and persists even after accounting for potential endogeneity and selection biases. Cziffra, Fortin, & Singer (2023) found consistent evidence that the provincial governments in Canada exercise a higher degree of conservatism and even excessive conservatism over the provision for student loan losses than do

state-run loan authorities in the United States. Costello, Petacchi, & Weber (2017) found that states with strict balanced budget rules not only address deficits by raising taxes and curbing expenditures, but also by selling public assets and transferring resources across government funds to close the budget shortfall. Felix (2014) found that transfers are used to manage the general fund balance towards zero, which can be perceived as a neutral and stable position. Both large surpluses and deficits can lead to political consequences or perceptions of mismanagement. Interestingly, the tendency to manage the fund towards zero is more prevalent in municipalities with more external oversight, as well as in municipalities with a strong-mayor form of government.

Gavazza & Lizzeri (2011) argued that the effectiveness of such discretion can depend significantly on the level of transparency. Khumawala, Marlowe, & Neely (2014) explored the role of accounting professionalism and the adoption of Generally Accepted Accounting Principles (GAAP) in local governments. The study found that GAAP non-compliance was surprisingly common among larger local governments. It was suggested that for many local governments, the decision to adopt GAAP was a response to the pressures of professionalism rather than a rational response to political and economic motives.

The area of not-for-profit research also indicates discretion in reporting. Numerous research documented not-for-profit discretion to reach zero profit. Gilchrist, Etheridge, & Liu (2021) revealed that Australian not-for-profit disability service providers engage in earnings management practices, primarily aimed at reducing reported profits to meet the normative financial expectations of stakeholders, such as public sector funders and philanthropists. The executives of these organizations strive to report profits close to zero, being cautious not to report a loss, which might raise concerns about their sustainability. Verbruggen & Christiaens (2012) stated characteristics of managed and unmanaged earnings as well as the multivariate analysis based on discretionary accruals show strong evidence of earnings management towards zero profit. The comparison of reported and unmanaged results shows that the former is more centered around zero profit. When analyzing the effect of subsidies on this earnings management pattern, they concluded that there is evidence that earnings management is more evident in organizations with high levels of subsidization.

Miller (2021) found nonprofit firms are more likely to cut expenses when faced with small expected losses than with larger losses, and this pattern varies predictably with incentives to reach the zero-profit threshold. Jegers (2013) concluded using 844 financial statements (2007) of Belgian nonprofit organizations that accounting manipulations of earnings towards zero clearly present. Vansant (2016) contributed to the research literature by suggesting that nonprofit hospital managers prefer reporting higher earnings. However, they are attentive to institutional pressures that constrain them from reporting what could be construed by stakeholders as "excessive" earnings. Similarly, Leone & Van Horn (2005) found evidence that not-for-profit hospitals adjust discretionary spending to manage earnings. Ballantine, Forker, & Greenwood (2008) findings suggested that, in the context of English National Health Service Hospital Trusts and the incentivization of CEOs, centrally imposed governance mechanisms aimed at mitigating agency costs override the potential effectiveness of private sector governance mechanisms such as remuneration committees. Basu, DeVides, & Harris (2022) found that profitability is associated with greater public support; however, when not-for-profits are excessively profitable, they receive fewer subsequent donations. Also, there is a similar relationship, but to a smaller degree, between profitability and government funding.

The aim of this study is not to advocate for or against the implementation of rigid rules to

curb earnings discretion. Rather, its objective is to explore the influence of leverage, governors and legislators on earnings discretion. By examining this impact, investors, policymakers and citizens can gain valuable insights to make well-informed decisions. An essential aspect in investigating discretionary accounting choices lies in quantifying discretion itself. To address this challenge, Beck (2018) devised a model of governmental discretion, which is employed in this study to measure earnings discretion.

Methodology

We manually gathered comprehensive annual financial statement data for each state from their respective websites for the years 2014 to 2022. Our final model used data from 2015 to 2022, as lag data was necessary for the analysis. This study employed the accrual basis discretionary accrual model based on Jones (1991), revised by Beck (2018) to suit governmental accounting. Additionally, it uses other financing sources and uses as proxy for modified accrual basis discretional accrual following Beck (2018).

Accrual basis total accrual=accrual basis net income minus modified accrual revenues less expenditure. (1)

Accrual basis total accrual=$\alpha+\beta1(1/\text{population})+ \beta2(\text{change revenues}^{\text{full accrual}})+ \beta3(\text{total depreciable capital asset before depreciation})+ \beta4(\text{net income}^{\text{full accrual}})+\varepsilon$ (2)

All variables are scaled by population.

Accrual basis discretional accrual=total accrual-total accrual predicted from equation (3)

Discretionary accruals eventually reverse, so discretionary accrual models incorporate a lag year factor. These models also account for variables such as the governor's gender and salary, and the base salary of the legislature. Additionally, whether the net position is negative, or leverage is also incorporated. Negative net position is a proxy for high leverage under the accrual basis discretional accrual model. Leverage itself is used on a modified accrual basis. We used negative net positions instead of leverage under accrual basis because outliers significantly skew the results.

$$\text{Accrual basis discretional accrual}= \alpha+\beta1(\text{Pre-discretionary accrual NI}^{\text{full accrual}})+ \beta2(\text{NetIncome}^{\text{full accrual}}{}_{it-1})+ \beta3(\text{AccrualBasisDiscretionalAccrual}_{it-1})+ \beta4\text{GovernmorGender}+\beta5\text{GovernorSalary}+\beta6\text{LegislatureBaseSalary}+ \beta7\text{NegativeNetPosition}+ \text{year fixed effect}+ \varepsilon. \quad (4)$$

Discretional accrual under modified accrual basis is other financing sources and uses (OFSU) taken from modified accrual basis financial statement.

$$\text{OFSU}= \alpha+\beta1(\text{Pre-OFSU NI}^{\text{Modified accrual}})+ \beta2(\text{NetIncome}^{\text{modified accrual}}{}_{it-1})+ \beta3(\text{OFSU}_{it-1})+ \beta4\text{GovernorGender}+ \beta5\text{GovernorSalary}+\beta6\text{LegislatureBaseSalary}+ \beta7\text{Leverage}+ \text{year fixed effect}+ \varepsilon. \quad (5)$$

Results

Table 1
Mean Descriptive Statistics by Year

Year	Accrual Basis Discretional Accrual	Modified Accrual Basis Discretional Accrual	Accrual Basis Leverage	Modified Accrual Basis Leverage	Governor's Salary	Legislature's Base Salary
2015	54.02	93.05	81.89%	36.41%	135,113	30,825
2016	-54.03	110.60	85.95%	36.03%	137,331	30,849
2017	-60.57	141.97	91.51%	36.15%	136,710	31,451
2018	-45.20	136.38	99.39%	33.35%	138,460	31,752
2019	-47.24	110.23	92.93%	31.98%	143,270	33,083
2020	-30.15	109.66	90.49%	40.01%	145,730	33,873
2021	-18.06	155.84	85.17%	35.81%	147,201	34,459
2022	161.84	98.69	69.02%	33.55%	148,939	34,944

As indicated in Table 1, the average leverage under the accrual basis is more than twice that under the modified accrual basis. In the short term, state finances appear healthy when measured by the modified accrual basis debt-to-asset ratio. However, the average long-term debt-to-asset ratio ranges from 69% to 99%. As shown in Table 2, this average is skewed by states with very high leverage, particularly Illinois, Massachusetts, New Jersey, and Connecticut. Additionally, state governors earn approximately four times the salary of state legislators.

Table 2
Mean Descriptive Statistics by State

State	Accrual Basis Discretional Accrual	Modified Accrual Basis Discretional Accrual	Accrual Basis Leverage	Modified Accrual Basis Leverage	Governor's Salary	Legislature's Base Salary
Illinois	-264.80	200.15	470.46%	92.06%	179,395	68,344
Massachusetts	-82.49	437.15	431.01%	46.40%	168,400	64,843
New Jersey	-307.46	371.48	410.25%	33.65%	175,000	49,000
Connecticut	90.43	289.10	322.80%	34.35%	150,000	28,000
Hawaii	295.70	687.25	141.44%	33.95%	156,897	61,698
Maryland	266.11	498.82	139.88%	49.77%	167,500	48,836
Delaware	133.60	545.45	139.08%	39.68%	171,000	46,097
Kentucky	209.56	113.29	134.24%	41.89%	147,761	11,292
California	94.88	153.16	119.69%	59.79%	196,657	108,573
Rhode Island	490.20	521.56	106.30%	48.89%	140,541	15,879
Vermont	-44.95	151.48	103.74%	33.57%	169,433	24,492
Louisiana	-77.91	66.93	89.98%	52.03%	130,000	18,300
Pennsylvania	10.32	89.82	88.42%	55.15%	197,332	88,631

New York	-66.77	132.38	87.68%	60.71%	202,000	94,750
Maine	132.89	238.62	86.58%	45.55%	70,000	22,032
New Hampshire	195.47	263.48	83.43%	39.29%	129,613	100
Michigan	126.42	191.90	64.94%	38.93%	159,300	71,685
Ohio	117.04	204.92	64.40%	40.82%	155,061	63,380
Colorado	-202.44	32.01	63.00%	32.97%	90,675	35,121
West Virginia	48.01	136.52	59.22%	46.29%	150,000	20,000
Indiana	18.05	16.41	56.56%	32.29%	120,883	26,347
Wisconsin	-88.62	-81.11	56.28%	76.38%	149,974	52,510
Oregon	119.50	382.24	55.78%	20.91%	98,600	28,018
Washington	190.65	250.78	55.59%	25.73%	177,624	50,414
Nevada	5.02	24.98	54.53%	51.31%	153,088	9,360
Texas	-130.72	-133.74	54.22%	18.90%	152,790	7,200
Georgia	-213.32	-108.59	53.64%	34.86%	157,170	17,125
Minnesota	-12.09	12.13	52.88%	30.44%	126,519	40,365
Mississippi	-49.69	100.92	46.44%	27.63%	122,160	18,438
Kansas	79.88	148.85	44.44%	40.72%	103,788	7,979
Virginia	104.28	233.62	43.03%	40.61%	175,000	17,933
South Carolina	-99.33	-10.10	39.18%	28.82%	106,078	10,400
Arkansas	-295.60	-236.65	37.96%	21.98%	140,801	41,124
Arizona	-10.48	-62.72	37.37%	31.33%	95,000	24,000
Alabama	-51.08	91.65	36.79%	19.29%	122,367	47,547
Missouri	-137.39	68.76	36.08%	21.44%	134,239	36,027
Florida	103.10	127.82	35.72%	24.41%	131,250	29,697
Montana	4.62	57.30	30.79%	22.47%	114,263	8,240
Iowa	-203.16	-174.72	30.33%	36.45%	130,000	25,000
North Carolina	158.63	134.86	27.42%	34.08%	148,369	13,951
New Mexico	-486.29	-111.87	23.74%	10.66%	110,000	0
Wyoming	-266.85	22.46	19.91%	17.77%	105,000	5,250
Oklahoma	-25.80	79.59	19.55%	20.99%	147,000	39,830
Utah	229.13	129.65	18.28%	16.53%	139,986	12,555
Tennessee	-6.18	17.58	18.15%	25.22%	184,345	23,046
Idaho	-165.96	-86.67	18.08%	15.60%	130,832	17,700
Nebraska	-49.06	27.76	16.74%	29.48%	105,000	12,000
South Dakota	53.95	182.80	15.46%	23.55%	113,935	9,260
Alaska	412.96	59.11	13.50%	7.12%	145,000	50,350
North Dakota	-691.33	-503.87	10.18%	9.03%	132,082	10,004

As shown in Table 2, 11 out of 50 states have an accrual basis debt-to-asset ratio greater than 100%,

while 9 states have a ratio less than 20%. Although this study does not aim to determine the ideal debt-to-asset ratio, a ratio exceeding 100% indicates a negative net position, excluding the effects of deferred inflows and outflows. This is certainly a situation of concern. While underfunded pension plans bear a significant share of the blame, other factors also contribute. For example, Illinois' underfunded pension obligation accounted for over 50% of its total liability in 2022. Even without this obligation, Illinois' debt-to-asset ratio was still above 150% in 2022.

Similarly, California's underfunded pension and other post-retirement benefits comprised about 30% of its total debt in 2022. Without these obligations, California's debt-to-asset ratio was still above 70% in 2022. Government debt levels significantly impact investment decisions. High public debt can compromise a government's ability to maintain essential services and infrastructure. To manage heavy debt burdens, governments might reduce services or increase taxes. These changes can threaten investment returns by limiting access to necessary resources, reducing skilled workforce availability, and increasing operating costs through higher taxation.

Table 3

Median Descriptive Statistics by Year

Year	Accrual Basis Discretional Accrual	Modified Accrual Basis Discretional Accrual	Accrual Basis Leverage	Modified Accrual Basis Leverage	Governor's Salary	Legislature's Base Salary
2015	-19.47	74.23	56.96%	30.85%	136,580	24,070
2016	-43.39	83.91	55.98%	31.91%	139,705	24,336
2017	-70.44	84.69	60.19%	30.81%	139,517	24,608
2018	-46.59	99.00	60.26%	30.36%	141,758	24,404
2019	-21.06	93.88	56.20%	27.52%	146,378	24,962
2020	3.58	112.21	57.11%	38.38%	148,287	25,352
2021	1.35	93.23	53.42%	33.91%	148,500	25,800
2022	132.99	83.97	42.73%	31.57%	148,500	25,838

Unlike Tables 1 and 2, Tables 3 and 4 present the median values for each variable instead of the mean. The median accrual basis debt-to-asset ratio ranges from 43% to 60%. The median is a more accurate indicator of states' accrual basis debt-to-asset ratio because outliers significantly skew the mean. The modified accrual basis debt-to-asset ratio indicates that current liabilities are about one-third of current assets.

Table 4
Median Descriptive Statistics by State

State	Accrual Basis Discretional Accrual	Modified Accrual Basis Discretional Accrual	Accrual Basis Leverage	Modified Accrual Basis Leverage	Governor's Salary	Legislature's Base Salary
Illinois	-326.93	130.72	475.25%	93.12%	177,412	67,836
Massachusetts	-77.15	402.28	453.72%	47.49%	168,400	64,402
New Jersey	-366.84	332.85	409.09%	33.18%	175,000	49,000
Connecticut	-205.81	369.30	335.86%	29.96%	150,000	28,000
Maryland	258.09	497.32	144.15%	53.63%	170,000	50,330
Hawaii	118.64	585.15	138.47%	31.16%	157,146	62,604
Delaware	121.46	544.99	128.41%	39.06%	171,000	45,791
Kentucky	212.03	130.96	125.73%	45.83%	150,212	11,293
California	32.73	136.65	118.89%	58.04%	198,742	108,850
Rhode Island	411.95	514.37	111.60%	46.42%	142,725	15,795
Vermont	-124.08	186.69	105.61%	29.18%	172,160	24,757
Louisiana	-113.85	67.56	90.71%	52.43%	130,000	16,800
New Hampshire	183.77	278.17	85.29%	37.37%	131,012	100
Maine	133.97	225.06	85.11%	45.03%	70,000	25,806
New York	-115.37	110.51	83.64%	61.88%	189,500	94,750
Pennsylvania	8.53	77.56	82.91%	57.50%	194,850	87,895
Michigan	75.84	146.73	64.41%	39.37%	159,300	71,685
Ohio	99.06	216.22	64.16%	41.91%	151,268	61,796
West Virginia	-3.87	60.44	62.28%	36.90%	150,000	20,000
Colorado	-171.77	36.93	59.93%	28.84%	90,000	35,121
Wisconsin	-79.58	-90.34	58.01%	74.80%	150,042	51,975
Washington	200.49	238.36	57.77%	25.33%	178,766	49,501
Oregon	94.86	405.23	57.56%	20.60%	98,600	27,708
Indiana	5.61	1.50	56.63%	32.99%	121,282	26,218
Georgia	-207.66	-132.54	56.02%	32.14%	157,170	17,342
Nevada	-11.66	30.49	55.56%	47.02%	149,652	9,318
Minnesota	29.05	3.24	49.14%	31.91%	127,629	45,000
Texas	-172.55	-137.58	47.93%	17.60%	153,750	7,200
Mississippi	-27.13	107.34	46.48%	26.72%	122,160	23,500
Kansas	24.73	158.56	46.01%	39.35%	99,636	7,979
Virginia	90.48	196.49	43.39%	41.71%	175,000	18,000
Arkansas	-347.14	-244.42	40.70%	21.11%	145,977	40,791
Arizona	-59.81	-65.45	38.05%	31.15%	95,000	24,000
South	-86.67	7.92	37.93%	29.27%	106,078	10,400

Carolina						
Florida	87.38	133.87	36.50%	23.20%	130,273	29,697
Alabama	-47.24	58.38	35.95%	19.27%	120,395	47,190
Missouri	-157.36	75.29	35.15%	20.43%	133,821	35,915
Iowa	-195.83	-166.98	31.90%	37.15%	130,000	25,000
Montana	34.56	60.55	29.80%	21.80%	115,505	8,240
North Carolina	175.90	118.87	27.86%	35.12%	144,349	13,951
New Mexico	-513.07	-102.21	24.18%	10.15%	110,000	0
Oklahoma	-36.07	94.12	19.73%	21.17%	147,000	38,400
Idaho	-150.41	-94.99	19.07%	17.99%	131,369	17,619
Utah	201.54	76.10	18.81%	15.11%	150,000	12,555
Wyoming	-289.77	21.49	18.43%	16.07%	105,000	6,000
Tennessee	-15.51	15.22	18.24%	25.04%	190,806	23,492
Nebraska	-65.76	27.73	15.73%	30.21%	105,000	12,000
Alaska	289.85	6.97	13.43%	6.27%	145,000	50,400
South Dakota	64.62	149.78	12.35%	18.33%	113,088	8,690
North Dakota	-673.84	-507.68	8.90%	8.58%	129,096	9,812

The median and mean leverages under the accrual basis differ significantly due to some outlier states, particularly Illinois, Massachusetts, New Jersey, and Connecticut. These four states have a debt-to-asset ratio exceeding 300%, with Illinois at 475.25%. These states are deeply in debt and have negative net positions. The modified accrual basis leverage measures the current debt to current asset ratio. Illinois is the only state with modified accrual basis leverage nearing 100% (93.12%), putting it at risk of defaulting on its current liabilities. All states with the worst debt positions have severely underfunded pensions (Kriz, 2021). These states attract investors, particularly from overseas, thanks to their strategic transport infrastructure, including major ports like New York-New Jersey, Bridgeport, Boston, and Chicago. While these transportation advantages create investment opportunities, investors must weigh them against the states' high debt burdens when making investment decisions.

Table 5
Accrual Basis Discretional Accrual Regression Analysis
Overall model fit: P<0.0001
R-Square=0.2131

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	58.6971	52.4589	1.12	0.2639
Governor Gender	34.6378	46.1523	0.75	0.4534
PreDiscretional Accrual NI	0.0645	0.0127	5.08	<0.0001
Accrual NIit-1	0.0226	0.0129	1.76	0.0797
Discretional Accrualit-1	0.2785	0.0499	5.58	<0.0001
Governor Salary	-1054.6565	403.6700	-2.61	0.0093
Legislature Base Salary	4989.6338	1913.7539	2.61	0.0095
Negative Net Position	102.8143	41.8913	2.45	0.0146

Discretionary accruals under the accrual basis are significantly positively influenced by pre-discretionary accrual net income, the previous year's discretionary accrual level, the legislature's base salary, and whether the net position is negative. In contrast, they are significantly negatively associated with the governor's salary. A higher governor's salary significantly reduces accruals, while a higher legislature's base salary significantly increases them. The governor's gender does not have a significant effect on accruals.

To summarize, the size of pre-discretionary accrual net income increases discretionary accruals as expected. The salaries of governors and legislators have opposite effects: a higher governor's salary discourages discretionary accruals, while a higher legislature's salary encourages them. A negative net position, which indicates high leverage, increases discretionary accruals. This is consistent with research in both public and private sectors. Combination of high debt levels and flexible financial reporting practices creates significant uncertainty for investors. When evaluating investment opportunities, investors should thoroughly assess a state's economic conditions and stability. In situations where these risks are present, investors may want to consider shorter investment timeframes and maintain flexible exit strategies.

Table 6
Modified Accrual Basis Discretional Accrual Regression Analysis
Overall model fit: P<0.0001
R-Square=0.6113

Parameter	Estimate	Standard Error	t Value	Pr > |t|
Intercept	-70.7983	29.6894	-2.38	0.0176
Governor Gender	47.6852	21.4468	2.22	0.0268
PreOFSUNI	0.0067	0.0061	1.10	0.2725
Modified Accrual NIit-1	-0.0027	0.0061	-0.44	0.6614
OFSUit-1	0.7281	0.0360	20.24	<0.0001
Governor Salary	-12.9213	191.1131	-0.07	0.9461
Legislature Base Salary	1541.2716	892.1797	1.73	0.0849
Leverage	101.4492	45.2501	2.24	0.0255

Discretionary accrual under the modified accrual basis is significantly positively influenced by the previous year's discretionary accrual. Higher discretionary accrual in the prior year leads to higher discretionary accrual in the current year. Additionally, having a female governor and higher leverage are significantly positively associated with discretionary accrual. In contrast to discretionary accrual under the accrual basis, which is significantly impacted by pre-discretionary net income and the salaries of the governor and legislature, discretionary accrual under the modified accrual basis is not significantly affected by these factors. The governor's gender does not influence discretionary accrual under the accrual basis, but a female governor tends to increase discretionary accrual under the modified accrual basis.

Robust test

The estimation of discretionary accrual under the accrual basis will vary because the total estimated accrual under this basis changes depending on the data used. We estimated discretionary accrual under the accrual basis using data from 2008-2022 instead of 2014-2022. The final results remain consistent with the longer-term data, indicating that the formula for calculating discretionary accrual under the accrual basis can be fixed rather than evolving to incorporate new data. Although the estimation will differ each time new data is accommodated, the final result is likely to remain unchanged. The method for calculating discretionary accrual under the accrual basis, as modified by Beck (2018) to fit governmental accounting settings, is a robust calculation method that remains reliable over time without needing modification to accommodate new data.

Conclusion

While discretionary accrual under the accrual basis increases with higher net income, discretionary accrual under the modified accrual basis is unaffected by net income size. Both accrual and modified accrual basis discretionary accruals are significantly positively associated with the previous year's discretionary accrual, indicating that higher discretionary accrual tends to carry forward. The governor’s gender does not influence accrual basis discretionary accrual, but a female

governor tends to increase modified accrual basis discretionary accrual. A higher governor's salary leads to lower discretionary accrual under the accrual basis, while a higher legislature's salary leads to higher discretionary accrual under the accrual basis. Neither the governor's nor the legislature's salary affect discretionary accrual under the modified accrual basis. The differing impacts of the governor's and legislature's salaries might be due to their distinct interests: the governor is responsible for the entire state, while the legislature answers to individual districts. This study concludes that higher leverage increases both accrual and modified accrual basis discretional accrual. The research reveals two consistent patterns across both accrual and modified accrual accounting methods. First, higher levels of discretionary accruals tend to predict higher levels in the future. Second, higher debt levels correlate with increased use of discretionary accruals.

While this research examines what influences discretionary accruals, it remains neutral on whether higher or lower levels are advantageous. However, the discovery that higher debt levels lead to increased discretionary accruals under both accounting methods provides important information for investors to consider in their decision-making. Although higher state debt levels don't currently translate to higher borrowing costs, this relationship may shift in the future. The combination of debt and discretionary accounting practices makes it challenging for investors to accurately evaluate a state's financial health. Unlike in some other countries where debt comes from economic competition (Qu, et al, 2023), U.S. state debt is largely driven by pension obligations. Investors must carefully assess regions that have high debt and flexible accounting practices. This assessment should include examining the long-term outlook for infrastructure, public services, and tax rates.

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