FROM BOOM TO BUST: ANALYZING THE LINK BETWEEN CALIFORNIA'S TAXATION SYSTEM AND REVENUE VOLATILITY

A Thesis

Presented to the faculty of the Department of Public Policy and Administration

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Submitted in partial satisfaction of the requirements for the degree of

MASTER OF PUBLIC POLICY AND ADMINISTRATION

by

Sumeet Bedi

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Abstract

of

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Sumeet Bedi

The State of California has grown to become reliant on a progressive personal income tax (PIT) as its biggest source of state revenue. Given that the richest Californians making up a big bulk of PIT revenue, and that over 50% of the state's General Fund revenue comes from PIT, this exposes the State of California to revenue volatility. The phenomenon of revenue volatility means that California's budgets are linked to the cyclicality of the state economy – good economic times bring budgets with surpluses, whereas economic recessions lead to much less state revenue. Thus, revenue volatility can lead to fiscal uncertainty and unpredictability when it comes to state budgeting, as the state is susceptible to changes in the economy which causes revenue swings.

In this thesis, I explored the nature of revenue volatility in California today, looking at historical financial data and linking changes in California's revenue to changes in California's taxation system. Subsequently, I reviewed previous tax reform studies done in California to generate potential policy alternatives for mitigating the effect of revenue volatility in California. This led me to consider three policy options for mitigating revenue volatility: 1) increasing reserves in the State Rainy Day Fund, 2)

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instituting a revenue-neutral broader sales tax to include selected services, and 3) instituting a revenue-neutral split roll property tax.

Through my two-pronged research approach of doing five interviews and conducting a CAM analysis, I concluded that the best policy alternative for the state to manage revenue volatility is to continue adding to the State Rainy Day Fund reserves. With that said, I also called to action that the current Governor's Office should consider doing another commissioned study in order to further look into whether the Rainy Day Fund is a policy instrument sufficient in itself for managing revenue volatility in the wake of the COVID-19 pandemic. A commissioned study can expand upon my thesis in further preparing California to continuously be mindful of revenue volatility.

_____, Committee Chair

Rob Wassmer, Ph.D.

Date

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To all my PPA peers and cohort – getting to work with and know all of you for the past two years has been nothing short of exceptional. This program has exposed me to some lifelong friends and colleagues. As we complete this final step of the program, I look back wistfully at all we have done and accomplished. For that, I say – thank you.

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Chapter One

INTRODUCTION

The public asks a lot from government in terms of goods, services, and a system to ensure the public's rights. At the same time, most are reluctant to pay the taxes necessary to support the government activities they desire.¹ This conundrum, captured eloquently by U.S. Senator Russell Long in his quote – "Don't tax you. Don't tax me. Tax the fellow behind the tree" – necessitates asking the question, *which taxes should government levy to raise revenue, and on whom?*

The State of California, in recent decades, has leaned toward a progressive personal income tax (PIT), with the consequence of this being high volatility in state revenue. Good economic times see the state's General Fund surpluses rise as the highlytaxed affluent get richer. However, in recessions, General Fund deficits increase as state expenditure needs for the less affluent grow. Many have noted that this situation stems from the state's reliance on the PIT, with over 50% of the state's General Fund revenues coming from it. This dependence on PIT lends to a swing in revenue due to California taxing the realization of capital gains at the same rate as personal income. Since individuals have a choice for when they realize capital gains, they are less likely to do so when the economy is in recession and stock prices are lower. Thus, California gains surpluses in economically good times. With this understanding, in this Master's in Public Policy and Administration thesis, I explore the fiscal policy concern of how "best" to smooth out the volatility of California's state budget balances over an economic cycle.

¹ <u>https://behavioralscientist.org/why-we-hate-taxes-and-why-some-people-want-us-to/</u>

In the remainder of this introductory chapter, I offer the necessary background to understand why this is a relevant topic to study. First, I will describe the cyclical nature of California's general fund budget and its link to the state of the economy in order to establish the problem which my thesis will address. Following this section is a dialogue on California's major general fund revenue sources and fluctuations over time. From there, I will detail a comparative analysis of taxation in California versus other comparable states. This discussion on California's taxation will allow me to step back and consider the backdrop behind California's current budget situation due to the passage of Proposition 13. Finally, I will assert why this is an important issue, and conclude with a summary of what my following thesis chapters entail.

California General Fund Budget Trends

California's General Fund Budget Cyclicality over Time

To start, looking at numbers of California's general fund budget over time will provide a better understanding of the issue at hand. Figure 1.1 displays per capita General Fund revenues and expenditures from 1980-2016 in real 2016 dollars. From this graph, one can see that the economy is relatively cyclical, in that periods where revenues are greater than expenditures follow periods where expenditures are more than revenues. However, it is also important to note that across this timeframe, the economy has gone in waves of economic expansion and economic recession. There are four economic recession periods highlighted from this span of years. The first recession time occurred from July 1981 to November 1982, which encompasses FYs 1981-83, due to the Iranian Revolution and energy crisis. The second recession period happened from July 1990 to March 1991, which falls under the FY 1990-91, because of the 1990 oil shock and growing inflation. The third recession occurred briefly from March 2001 to November 2001, which includes FYs 2000-2002, because of the dot-com bubble burst. Finally, the most recent recession spanned from December 2007 to June 2009, which encompasses FYs 2007-09, due to the collapse of the housing bubble. During these periods of economic recession, California's General Fund expenditures were often much higher than the General Fund revenues available.

Another interesting trend to note – from 2002 to 2015, California's General Fund expenditures were substantially higher than General Fund revenues, when compared to previous FYs. One can attribute this bigger expenditure-revenue gap due to growth in services that required government spending – specifically, education and health care. Increased demand for health care and educational programs, linked with constitutional mandates on state spending like Proposition 98, precipitated a rise in state General Fund expenditures per capita.

This section highlighted the nature of how the state's General Fund budget has shifted during different economic periods and years; the question remains, *why is this the case?* A look at California's General Fund revenue sources may answer this question.

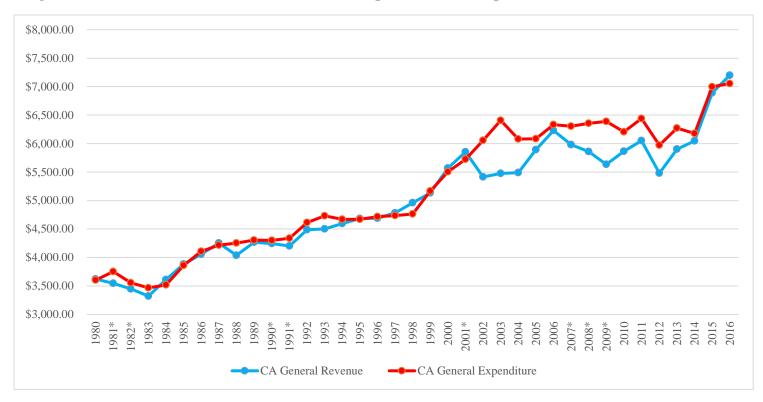


Figure 1: California General Fund Revenue and Expenditure Per Capita, in Real 2016 Dollars (in Millions)

Source: State & Local Government Finance Data Query System: <u>https://state-local-finance-data.taxpolicycenter.org/pages.cfm</u>. The Urban Institute-Brookings Institution Tax Policy Center. Data from U.S. Census Bureau, Annual Survey of State and Local Government Finances, Government Finances, Volume 4, and Census of Governments (Years).

Note: Asterisks (*) denote years where the economy was in a recession.

General Fund Revenue Sources

To understand the relationship between California's revenues and expenditures across FYs and economic periods, prudence requires a detailed look at the state's revenue sources for possible explanations. Given how much more pronounced the revenueexpenditure gap was in recent years, it will be important to note changes in how the state generates revenue. The Governor's 2019-20 Proposed Budget notes a big shift in what constitutes the biggest piece of California's General Fund revenue sources. From 1950-1980, the biggest revenue source for the California was retail sales and use tax. However, by the 1990s, personal income tax (PIT) became the major revenue source for California, nearly doubling in how much it constitutes of the state's revenues. The dominance of retail sales and use tax as California's top revenue source began to decline in the 1960s, and the rise of PIT occurred simultaneously, with a steep increase beginning in the 1970s.

While PIT and retail sales and use tax have been the two biggest revenue sources for California, the corporation tax has been a relatively consistent third source of funding. However, as the Governor's May Revision for the 2019-20 budget shows, the corporation tax, estate tax, and other forms of taxes have all constituted a smaller percentage of California's revenue sources, with PIT becoming the major vehicle for state funds. The May revision of the Governor's 2019-20 budget also presents the breakdown of California revenue sources for FY 2019-20, which shows that the state has obtained nearly 70 percent of General Revenue funds from PIT. This is a high reliance on one source for a majority of General Revenue funds. The next closest source, sales and use taxes, comes in at 19%. This dependence on PIT is extraordinarily and historically high, and amplifies how drastically reliant California has become on PIT as a source of revenue. With this understanding, I turn to a discussion of California major state taxes, and the roles they play as potentially volatile revenue sources.

State Taxation in California

Personal Income Tax (PIT)

As previously discussed, PIT has become the bulk source of revenue for the state of California. PIT comprises of taxes paid on wages, salaries, business income, and capital gains, among other things that constitute as income. The two more prominent forms of taxes in the State of California that falls under PIT are the individual income tax and the corporation net income tax. Figures 1.2 and 1.3 display the amount of tax collections the state of California has received from 1980 to 2016 for individual income and corporation net income, respectively. When comparing the two charts, what stands out is the fact that a bigger portion of PIT funds comes from individual income rather than corporation income. An in-depth explanation of each tax will paint a better picture of their role as revenue sources.

Individual Income Tax

Individual income is the total annual earnings which a person has accrued from wages, investment enterprises, and other ventures. Figure 1.2 shows the amount of individual income tax collections that the State of California made from 1980 to 2016, per capita, in real 2016 dollars.

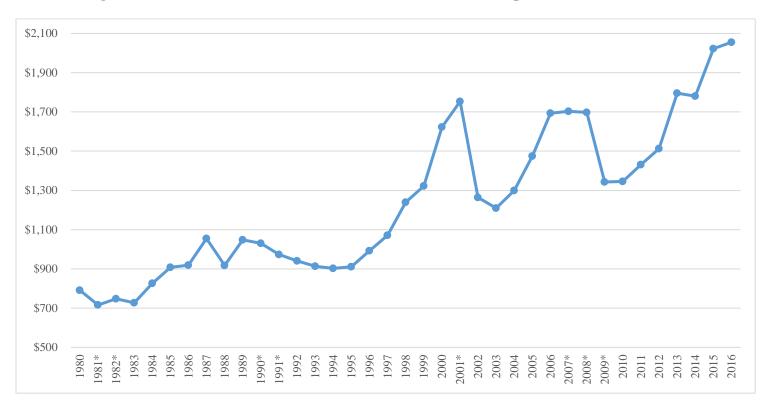


Figure 2: California Individual Income Tax Collections Per Capita, in Real 2016 Dollars

Source: State & Local Government Finance Data Query System: <u>https://state-local-finance-data.taxpolicycenter.org/pages.cfm</u>. The Urban Institute-Brookings Institution Tax Policy Center. Data from U.S. Census Bureau, Annual Survey of State and Local Government Finances, Government Finances, Volume 4, and Census of Governments (Years).

Note: Asterisks (*) denote years where the economy was in a recession.

There has been a huge growth in how much individual income tax the state collects per person, from \$755 in 1980 to \$2,055 in 2016. This graph shows how individual income tax has become a major revenue source in a matter of decades. Additionally, this graph shows the rapid nature by which individual income revenues jump and fall. During good economic times, the state has gained individual income tax collections per capita by over \$300. Conversely, in periods of economic recession, we see a steep decline in individual income tax collections. This decrease is especially prominent in the past decade's recession, where individual income tax collections per capita dropped by around \$500. These numbers indicate the volatility associated with individual income tax, as the steady increase in the amount garnered from individual income tax can come crashing down in line with an economic recession. The question here is, *why is individual income tax so susceptible to major peaks and valleys*? The answer lies in the fact that California taxes capital gains as a part of individual income, which is a highly volatile revenue source. Capital Gains

A capital gain is the profit that an individual obtains from selling a capital asset at a price higher than what they bought it for. The classic example of a capital gain is stocks. The State of California taxes capital gains under the umbrella of PIT, and is a key aspect behind the volatility associated with PIT. Capital gains are sensitive to how the economy is performing. When the economy is doing well, one can expect a reasonable profit from selling off capital assets. On the other hand, when the economy heads into a recession, the value of capital assets may fall, and individuals choose not to realize their capital gains at this time. This plays a key factor into the PIT's sensitivity to how the economy is doing, and starts with how PIT liability is distributed.

To start, the overall composition of PIT revenue spread across income levels shows a heavy dependence on taxing the very rich. According to the LAO, in 2015, nearly 40% of the PIT liability fell to individuals who earned \$1 million or more in California. This LAO report also displays the division of PIT liability across income groups, which shows how the highest income groups provide the most funding for PIT revenue (Miller and Chu 2018). Furthermore, of the 40% liability toward individuals with incomes of \$1 million or more, over 50% of that liability lies with those who earn \$5 million or more. In other words, PIT is not just heavily reliant on the rich, but on the very rich, as the basis for garnering funds.

This distinction of which income groups account for more of the PIT matters because different income groups rely on different income sources. In 2015, as the LAO notes, the highest-income taxpayers have a higher dependence on income sources like capital gains, partnership income, and dividends, interest, and rent (Miller and Chu 2018). In contrast, lower-income taxpayers have an income makeup comprised mostly of wages, salaries, and retirement income. The LAO also presents the percentage change, in dollars, for these different income sources (Miller and Chu 2018). What the LAO highlights is that the income sources for high-income individuals are much more volatile, as they can go up nearly 250% in value, but fall as low as negative 50%. Salaries, wages, and retirement income are more stable, with a relatively linear upward path. Thus, one can more easily anticipate the amount of PIT that the State will derive from stable sources like wages and salaries versus volatile sources like capital gains.

PIT Volatility

The LAO documents that the PIT is volatile because of two components of the individual income tax: what constitutes as personal income in California (i.e. capital gains) and who the state taxes at a higher rate (i.e. the rich). When measuring the volatility of PIT versus personal income itself, they found PIT to be five times more volatile than personal income. They attribute 40% of this higher volatility to the state's choice in what they tax as income, and another 40% due to taxing those with higher incomes at higher rates. The PIT gains a bulk of its revenue from taxing the very rich. The very rich have an income makeup which is more dependent upon sources such as capital gains, partnership income, and dividends, interest, and rent. These income sources, when compared to more traditional income sources like wages, salaries, and retirement income, are much more volatile given their dependence upon the state of the economy. Thus, one can link PIT volatility to the fact that the PIT is heavily dependent on the very rich's income, who root their wealth in volatile sources like capital gains. The LAO, in assessing why PIT is so volatile, makes a case similar to the one outlined here. Corporation Net Income Tax

Corporate net income is the net profit or earnings that a corporation makes after subtracting net costs from net revenue. Figure 1.3 shows the amount of corporate net income tax collections that the State of California has made from 1980 to 2016, per capita, in real 2016 dollars. From this chart, it is clear that corporate net income tax collections are not nearly as volatile as individual income tax collections, with the value of tax collections ranging from approximately \$200-350 per capita from 1980 to 2016. However, corporate net income is still sensitive to how the economy is performing, as the amount of corporate net income tax the State collects goes down following the years where the economy was in a recession. Even then, the value of corporate net income tax collections, when compared to that of individual income tax collections, shows just how much more reliant the State is on individual income tax collections. When looking at the 2016 values for corporate and individual income tax collections, individual income tax collection per capita is eight times larger than corporate income tax collection per capita. For a state like California, which has a higher than national average corporate tax, this amplifies the magnitude with which individual income outweighs other revenue sources.

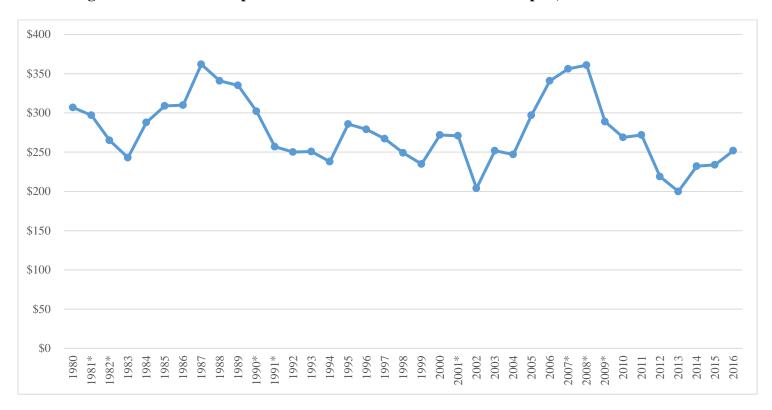


Figure 3: California Corporate Net Income Tax Collections Per Capita, in Real 2016 Dollars

Source: State & Local Government Finance Data Query System: <u>https://state-local-finance-data.taxpolicycenter.org/pages.cfm</u>. The Urban Institute-Brookings Institution Tax Policy Center. Data from U.S. Census Bureau, Annual Survey of State and Local Government Finances, Government Finances, Volume 4, and Census of Governments (Years).

Note: Asterisks (*) denote years where the economy was in a recession.

Sales Tax

As previously discussed, sales tax used to be the biggest source of General Fund revenues for the State of California. While it is no longer the primary source of funds, sales tax still plays an important role for how California garners state revenue. California applies a statewide sales tax to the sales of certain goods and services, with the total sales tax rate varying across cities and counties. However, for the purposes of my research, I want to focus specifically on California's general state sales tax. Figure 1.4 highlights the amount of general sales tax collections that the State has collected from 1980-2016, per capita, in real 2016 dollars. Similar to net corporate income, the amount of sales tax that the State collects has been relatively stable, ranging from approximately \$750-1100 per capita. Moreover, the amount garnered from sales tax collections is substantially more than the state collects from corporate income tax, nearly tripling or quadrupling the amount of corporate income tax collection. Even so, the state sales tax collection is still half the amount that California obtains from individual income tax. A trend present for California's individual income and corporate income tax collections also appears for its sales tax collections; the amount of tax collected goes down in years where the economy is in a recession. While this may seem axiomatic, as people will want to buy less during an economic recession, the point is that California's major tax revenue sources are all, to varying degrees, affected by the state of the economy. Depending upon tax sources which ebb and flow in line with the economy can lead to some very volatile revenue trends. Noting these three revenue sources for California, I want to address how other states collect funds, and detail their dependence on similar revenue sources.

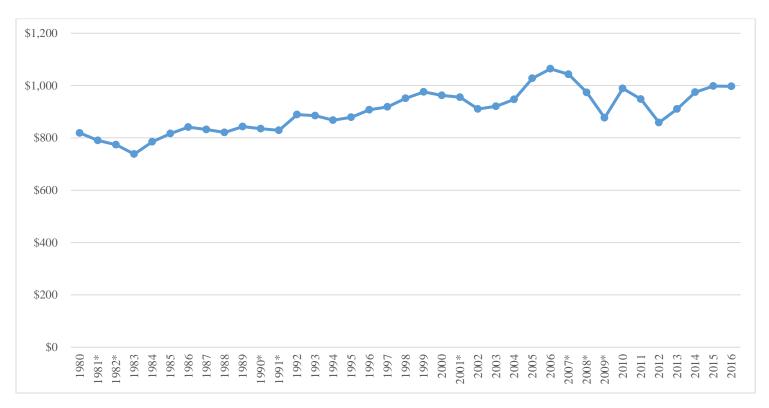


Figure 4: California Total General Sales Tax Collections Per Capita, in Real 2016 Dollars

Source: State & Local Government Finance Data Query System: <u>https://state-local-finance-data.taxpolicycenter.org/pages.cfm</u>. The Urban Institute-Brookings Institution Tax Policy Center. Data from U.S. Census Bureau, Annual Survey of State and Local Government Finances, Government Finances, Volume 4, and Census of Governments (Years).

Note: Asterisks (*) denote years where the economy was in a recession.

Taxation in California versus Comparable States

A brief overview of California's major taxation sources against other comparable states, such as Texas, New York, Florida, and Massachusetts, further amplifies California's dependence on PIT. According to the Tax Foundation, California has the highest top marginal tax rate among all states, at 13.3%, and ranks fifth highest across states in income tax collections per capita (Loughead 2019a; Loughead and Wei 2019). While New York and Massachusetts rank first and third, respectively, the states of Texas and Florida do not rely on income tax as a source of state revenue, as they have no income taxes. One can partially attribute this difference on having a state income tax to the differences in the states' political ideologies. While states like California and New York are more left-leaning and politically liberal, Texas and Florida are more rightleaning and conservative. These political beliefs espouse different actions with taxation.

When it comes to sales tax, California does not differ greatly from other comparable states. The states of California, New York, and Texas rank 9, 10, and 12, respectively, in terms of how high the sales tax is in their states (Cammenga 2019a). Florida also falls within the top 25 of states, but Massachusetts distantly ranks at 35. However, when talking about sales tax collected per capita, Florida and Texas both are in the top 10, while California, New York, and Massachusetts fall in the bottom 25 of states (Loughead 2019b). Again, one can refer to the differing political dynamics at play in each state to understand this contrast. Economists and politicians tout sales tax as a generally flat and regressive tax, which thus may not appeal to politically liberal states like California or New York, who emphasize equity over equality. Finally, a glance at property taxes showcases another stark contrast between California and other notable states. In terms of reliance on property tax as a state revenue source, California ranks 36. Texas, Florida, New York, and Massachusetts all rank in the top 25 states, with Texas having the fifth highest reliance on property taxes (Cammenga 2019b). For property tax collection per capita, California ranks at 17. Even with this higher ranking, the states of New York, Massachusetts, and Texas all collect more property taxes per capita, with New York and Massachusetts ranked 4 and 8, respectively (Loughead 2019c). This is key to note because policy experts have heralded property taxes as a stable source of revenue. The fact that other states comparable to California are more reliant on property taxes begs the questions, *why does California not gain as much from property taxes as other states?* This leads me to discuss Proposition 13 and its ramifications toward California's taxation system.

The Backdrop of Proposition 13

The rise in anti-government and anti-tax sentiments among California's populace in the early-mid 1970s fueled support for, and precipitated in, Proposition 13. In June 1978, around two-thirds of California voters passed Proposition 13, which capped ad valorem property tax rates (taxes based on assessed property value) at 1%. However, this was not the only feature of Proposition 13. Among other things, Proposition 13 relegated the authority of deciding how to allocate property tax revenues across local jurisdictions to state lawmakers, required any state tax measure to pass by a two-thirds majority in both legislative chambers, and required any "special" tax levied by local governments to be approved by two-thirds of their voters. It is undeniable that Proposition 13 changed the financial landscape for California since its passage, as the amount of property tax the State collected as a whole dropped significantly (Gordon et. al. 2007). This also coincided with the steep rise in income tax collections and the modest growth in sales tax collections. Property taxes are comparatively more stable revenue sources than are income or sales taxes (Miller and Chu 2018). As such, Proposition 13 resulted in a big cutback on how much California's state and local governments could rely on property taxes as a funding source, and pushed the state towards depending on more volatile revenue sources.

Proposition 13 was also significant in restricting the ability of state and local governments to raise taxes for revenues. For local governments, property taxes were a major source of funding for all sorts of services. With a reduction in property tax collections, local governments have had to rely more on intergovernmental revenue, or funding from the State of California, to ensure these services (Gordon et. al. 2007). This has served to only further add to the state's General Fund expenditures. As local governments have become cash-strapped with Proposition 13, and the state looks for ways to ensure funding for local governments, California had to find a way to garner additional revenue. While the state found that mainly through the income tax, the lack of stability in that revenue source still presents a looming challenge.

Why This Matters

Thus far, I have discussed how the State of California's General Fund has become more volatile in recent years, and how one can trace this back to California's taxation system. Yet, the question remains – *why does this matter?* Put simply, a volatile budget

revenue stream makes it hard to ensure the stability of funds across economic periods. Additionally, volatility makes managing and balancing the state budget that much harder for state policymakers (LAO 2005).

One reason to have concern over California's budget volatility is due to the potential effect it could have on economic stability at a national level. By itself, California is the fifth largest economy in the world, and plays a major role in the growth and development that political officials and economists attribute to the United States as a whole. However, if the economy find itself gearing towards a recession, California's potential drop-off in growth and development could have nationwide ramifications. Indeed, California's rebound from the Great Recession has coincided the state's growth with the boom that the whole nation has experienced, with 17% of the nation's growth attributed to California (McPhate 2017). Sectors like Silicon Valley are hotspots for innovation and progress that keep the economy going forward. As such, the State of California has a responsibility not just to its' residents, but to the nation, to be mindful of how a potential economic downfall due to budget volatility can affect the country.

At the state level, revenue volatility can affect the stability of California's service provision (Williams and Vasche 2005; Rueben and Randall 2017). In principle, the public would desire that the State is able to provide more services when citizens most need it, which would be during a recession. However, given the alignment of our major revenue sources to how the economy is performing, that is something that does not happen. Instead, the opposite occurs – when the economy is in a recession, California has less revenue to work with, and must choose between instituting budget cuts or attempting to pass tax laws to offset the loss (Schnur 2018). These prospective actions do not guarantee assurance of funds, and can put a variety of state programs in risk of lacking proper resources. Revenue volatility undermines the state's ability to steadily fund services and programs. Rather than reacting to a recession, we should look to reduce revenue volatility to ensure a steady stream of state funds, come economic rain or shine.

Last, there are potential ramifications that could occur with a highly progressive tax rate structure, in that the rich may choose to leave California. A study done on how tax changes have affected migration of millionaires in California has not found anything solidly linking the two together. However, as the researchers note, the most recent tax reform in 2012, which increased the tax rate for millionaires, did have a statistically significant effect in millionaires wanting to leave California (Varner, Young, and Prohofsky 2017). Therefore, if the progressivity of our current tax structure continue to rise or solidifies, the potential is there for the very rich to consider leaving California for other states that place less of a tax burden on them.

Thesis Outline

In Chapter 2, I detail findings from my literature review. This section will be broken down into three themes: 1) economic based articles and journals on state budget volatility; 2) political-based articles and journals on state budget volatility; and 3) previous reports on tax reform in the State of California. Along with these sources, I will intersperse relevant news article to consider public and media coverage of California's budget volatility. This review of the literature will generate policy alternatives I suggest to answer my thesis question of what tax policies California can consider to allow for a more stable flow of General Fund revenues.

Chapter 3 will detail the research methodology that I have undertook to dive deeper into this topic. I use and explain a criteria-alternative matrix (CAM) in order to consider potential tax policies that could subdue the amount of budget volatility that California faces. To supplement my CAM analysis, I will interview tax and budget policy experts to get their views on California's current budget volatility, and gauge their opinion for viable tax policy alternatives.

Chapter 4 synthesizes and discusses key points from my interviews with tax and budget policy experts. From there, I will conduct a CAM analysis, utilizing my interview results and information from my literature review, to analyze which tax policy alternative(s) may work best for the State of California to reduce the extent of volatility that it faces with the budget currently.

Chapter 5 will conclude my thesis with a summary and reflection on the findings from my research, interviews, and CAM analysis. Given how daunting the prospect of tax reform is in the State of California, I will look to provide recommendations on what next steps the State of California can take to implement some of the information derived from this thesis into practice.

Chapter Two

LITERATURE REVIEW

Revenue volatility is a problem in many states, with California among them. This problem became quite intense during the Great Recession of 2007-2009, as California found it difficult to ensure government-provided services to residents who most needed them, and resorted to tax increases or major cutbacks. This chapter will provide an overview of literature that has discussed state revenue volatility more generally, and in the California context. The purpose of this chapter is to gain insight from scholarly works and previous reports to analyze tax policy alternatives in later chapters. I have divided this chapter into three sections: 1) previous reports issued on tax reform in California; 2) economic-based articles and journals on state revenue volatility; and 3) political-based articles and journals on state tax policy and reform. After detailing the literature around state revenue volatility, I conclude with a summary of key points that contemporarily applies to California's revenue volatility and briefly discuss the following chapter.

CA Tax Reform Studies

Since the early 1900s, California policy experts have considered state tax reform as an avenue to reduce revenue volatility. I will focus on three more recent state tax reform publications: 1) a 2003 report from the California Commission on Tax Policy in the New Economy; 2) a 2009 report from the California Commission on the 21st Century Economy; and 3) a 2016 report from the State Controller's Office and the Controller's Council of Economic Advisors on Tax Reform. I will discuss the findings from each study in more detail, with Table 2.1 providing a breakdown of these tax reform reports.

Table 1: Summary of CA Tax Reform Reports

Author	Date of Publication	Key Points on Tax Reform	Specific Points on Personal Income Tax (PIT)
California Commission on Tax Policy in the New Economy (CCTPNE)	December 2003	 Sales Tax – Recommends improved collection method of use tax by Board of Equalization, and a broadening of the sales tax. Property Tax – Recommends increasing local govt. reliance on property taxes over sales taxes Local Tax – Recommends a constitutional minimum allocation of property taxes to local govts. 	 Discusses the volatile aspect behind progressive personal income tax in California Details a scoring guide on PIT across multiple criteria as a "good tax policy" Sees PIT as a tax policy which has good transparency and visibility, as well as ease and low cost of collecting PIT payments Highlights PIT's volatile nature, given its progressive structure, and the lack of simplicity in its structure as negative aspects
California Commission on the 21 st Century Economy (COTCE)	September 2009	 Focuses mainly on 3 types of taxes: personal income tax, sales and use tax, and corporation tax. Recommends restructuring of the PIT, elimination of corporation tax and state portion of sales tax, and creation of new tax – the Business Net Receipts Tax. 	 Highlights PIT as the major revenue source for the state, and the consequences of this being such a volatile source Dives into the details of PIT, which is concentrated on high-income earners Notes the growth in capital gains as a key composition of PIT funds
California State Controller Betty Yee & the Controller's Council of Economic Advisors on Tax Reform (CEATR)	June 2016	 Emphasizes four key characteristics for analyzing CA's tax system: volatility, predictability, sufficiency, and progressivity. Breaks down the three major tax sources (PIT, SUT, CT) like the 2009 report 	 Outlines historical trend of PIT becoming a major revenue source, as well as how the PIT is a pro-cyclical volatile source Notes proposals taming PIT volatility, which include reducing tax rate on capital gains, allowing spread of capital gains across multiple years, and taxing investment income when earned rather than when recognized.

December 2003 Tax Reform Report

In December of 2003, the CA Commission on Tax Policy in the New Economy (CCTPNE) submitted a report to then-Governor Gray Davis highlighting their three-year work of analyzing the intricacies and problems with California's tax structure, and recommended policy options for potential tax reform. At the time, California was facing a downturn in the economy, and the state government was subsequently dealing with tight fiscal conditions. Thus, the findings for this report centered on policies that would simply increase the state's revenues.

The report lays out recommendations for tax reforms by specific tax categories. On sales tax, the CCTPNE recommended improving the Board of Equalization's collection efforts on use tax and broadening the sales tax to include selected services while also lowering the state sales tax rate. Regarding property taxes, the report's recommendation was to change the mix of local-general purpose revenue to have local governments be more reliant on property taxes. With local taxes, the report outlines two recommendations: 1) ensuring a constitutionally mandated minimum allocation of property taxes to local governments, and 2) reducing the voting threshold for approval of local special-tax measures from 2/3 to 55 percent. Other tax reform options included establishing a state tax court, abolishing all taxes aside from "sin taxes²" and subsequently creating two flat taxes on personal income and business-added-value taxes.

The CCTPNE did not discuss the personal income tax (PIT) and revenue volatility in major detail. As previously stated, the purpose of the report seems more oriented

² Examples include cigarette and alcohol taxes.

toward consider how to increase the state's revenue through a variety of tax policy options. That said, the report outlined a scoring matrix for each different tax policy, more generally, as a "good tax policy" across three broad categories – fairness, operability, and purpose or goal. Within each category were more specific principles, and each tax policy was graded as either currently working well toward that principle or needing improvement. In regards to these different principles, the key positives of the PIT highlighted include the visibility and transparency of tax payment, as well as the convenience and low cost of collecting PIT payments. However, the negative facets of the PIT, including its volatile nature and the lack of simplicity in its structure, made the CCTPNE dub it as a tax policy which needs improvement in these areas.

September 2009 Tax Reform Report

In September of 2009, the CA Commission on the 21st Century Economy (COTCE) published a report that provides a snapshot of California's tax system at the time. Like the December 2003 report, the COTCE was working during a time of fiscal crisis in California, as they began their work in early 2008. However, this report provides a more substantive analysis of trends in California's budget revenue sources and the issues behind it, with a deeper attention toward PIT that closely touches on themes espoused in my previous chapter.

The COTCE narrows the focus of their analysis toward three specific taxes, given that they constitute around 90 percent of the state's General Fund revenue sources: personal income tax (PIT), sales and use tax (SUT), and corporation tax (CT). They highlight that the recent trend of the state's budget has been a more volatile and a less diverse revenue stream. Furthermore, the report elaborates on multiple economic and political factors influencing the current state of the tax system, including changes in technology and globalization. The report emphasizes multiple deficiencies with the taxation system, such as lagging economic change, narrowed tax bases, reliance on three relatively volatile revenue sources, and discouraged economic growth and investment (COTCE 2009). With this, the conception of a 21st century tax system lies in three principles: 1) improved revenue stability; 2) tightened link between taxes and spending; and 3) enhanced competitiveness and growth. Ultimately, COTCE's proposal to meeting these components of a 21st century tax system is to restructure the PIT, eliminate the corporation tax and state portion of the sales tax, and create a new tax called the Business Net Receipts Tax, which would levy a broad tax on all business activity in the state.

Unlike the CCTPNE, the COTCE extensively provided details about the PIT, and cited its volatility and narrow base as a key reason for state budget fluctuations. They noted that the changing composition of PIT from stable sources, like wages, to more variable sources, like capital gains, causes the PIT to become more sensitive to how the economy is performing. Furthermore, the growing reliance of the overall state budget on PIT only serves to further make the state's budget sensitive to economic changes. The report claims that the issue is not just getting a bulk of PIT revenues from the richest taxpayers. Rather, given the progressive structure of the PIT, a fair number of Californians did not have to pay any PIT, and makes California have one of the highest fraction of non-payers of income tax across all states (COTCE 2009). This illustrates how the PIT is not a broad revenue source, and its concentration among a narrow base can

lend itself to volatility. As a final point, the report highlights the growth in how much capital gains constitutes PIT, from 4 percent in 1992 to 12 percent in 2007. That figure is now down to around 9 percent of total PIT collections as of 2015 (Miller and Chu 2018). *June 2016 Tax Reform Report*

In June of 2016, California State Controller Betty Yee and the Controller's Council of Economic Advisors on Tax Reform (CEATR) published a report on tax reform in California. Yee created the CEATR to map the inadequacies in California's tax system and contemplate how to implement comprehensive change (Yee & CEATR 2016). This report focuses on sound fiscal management and modernization of the state's current tax system, with the report's purpose being more informative than prescriptive.

This 2016 report provides an overarching view and context to help inform the reader and make them understand California's tax system. Like the 2009 report, the Controller and CEATR detail the current tax system, with the three major revenue sources of personal income tax, sales and use tax, and corporation tax. They illustrate the implementation and administration of each tax, the tax rates, the state revenues generated from each source, and their positive and negative attributes from reliance on each tax. The report roots their evaluation of these tax policies and other alternatives, such as a split roll tax and a broadening of the sales tax, through four criteria: 1) volatility; 2) predictability; 3) sufficiency; and 4) progressivity. From there, the Controller and CEATR also provide a comparative analysis of California across similar states in the Western U.S. and those with large economies. The report highlights that California has a relatively less diverse tax base than most other states, and relies much more heavily on

PIT than others, with the exception of New York (Yee and CEATR 2016). Furthermore, for Fiscal Year 2013-14, California ranked 44th among all states in overall fiscal solvency, which encompasses, among other things, cash solvency, long-run solvency, and trust fund solvency. While this does not account for changes in fiscal policy recently made, like the State Rainy Day Fund, it does connote the need to consider options for solidifying California's fiscal management.

Regarding PIT, this report captures the trend of PIT becoming a major revenue source starting in the 1980s. The report's authors attribute this to the decline in state revenue following the passage of Proposition 13. Furthermore, a characteristic of PIT denoted in the report is that it is pro-cyclical, meaning that tax revenues from PIT change at a greater rate than the overall economy (Yee & CEATR 2016). Underlying this notion is how the dependence on capital gains is a key aspect of PIT's volatility. The report highlights three proposals discussed to tame the PIT's volatility in regards to capital gains: 1) tax capital gains at a rate lower than all other forms of income; 2) allow investors to spread their gains across multiple years; and 3) tax investment income when it is earned rather than when it is recognized. As such, each of these proposals have consequences on how much revenue the state can generate and could increase the complexity of the state's current tax system (Yee & CEATR 2016). The report finalizes their discussion of the PIT with the passage of Proposition 2 in 2014, which established a constitutional requirement for a Rainy Day Fund. The Rainy Day Fund deposits the surplus money that PIT gets from capital gains into a separate account, which state leaders can use in certain circumstances (Yee & CEATR 2016). The Rainy Day Fund is a possible remedy to the PIT's volatility, as the state can store extra funds from good economic times to potentially use during a recession.

Economic Reports on State Revenue Volatility

Issues surrounding budget and tax policy have two defining components to them – *economic*, and *political*. In this section, I will focus on the economic aspects surrounding volatility in budget and tax policy more broadly. Among other things, I outline two main causes for state revenue volatility, some California-centered statistics, and economically viable policy options that experts recommend for reducing revenue volatility. Table 2.2 presents the articles and publications that I utilize to provide insight on the above.

Two Principle Causes of Revenue Volatility

The chief cause often cited for revenue volatility is fluctuations in the business cycle (McNichol 2013; Dadayan & Boyd 2017; Rueben and Randall 2017). State revenue becomes more sensitive to economic changes as they become more reliant on policies like personal income tax and corporate income tax, which vary with business cycles.

Another issue that compounds how business fluctuations factor into state revenue volatility is a tax base that lacks diversity (McNichol 2013; Rueben & Randall 2017). Having a balanced mix of taxes makes state less highly dependent on revenue sources which can be very sensitive to economic changes, like the income tax. California's reliance on personal income tax, sales tax, and corporate income tax, which are all relatively volatile sources, plays a role in the state's swing in revenues during differing economic periods (Miller and Chu 2018). This touches on the importance of states in what tax options they choose to utilize for gaining revenue.

Author	Organization	Date of Publication	Key Points of Analysis
Brad Williams & John David Vasché	LAO	January 2005	 Volatility has been present in CA, but recent volatility is more extreme due to CA dynamic economy, high reliance on a progressive PIT with increased base of capital gains Solution – focus on budget management options
Elizabeth McNichol	Center on Budget and Policy Priorities (CBPP)	April 18, 2013	 Volatility due to economic changes, less diverse tax base No/lower income tax is not a solution to reducing volatility Solutions – strong reserve policies, minimize long-term spending or tax cuts, and diversify tax base
Lucy Dadayan & Donald Boyd	Rockefeller Institute	September 2017	 Volatile stock market as a prime reason for rapid change in state tax revenues. Fiscal uncertainty lies with changes in federal tax policy and fluctuations in the economy
Mac Taylor	LAO	September 2017	 Attributes 40% of the PIT's volatility to choice of which income to tax; another 40% due to the progressive rate structure; and 20% due to deductions and credits. Policy tradeoff between stability and progressivity
Kim Rueben & Megan Randall	Urban Institute	November 2017	 Business fluctuations as primary cause of revenue volatility, with emphasis on state budget and tax policy linked to these fluctuations (personal and corporate income taxes) Focus on budget management practices and process
Ryan Miller & Vu Chu	LAO	April 12, 2018	 Provides overview of CA's tax system, with detailed description of PIT, SUT, and CT Statistics outline composition of PIT, difference in income, how it affects volatility, etc. – the whole volatility picture

California Context

The LAO discusses in thorough detail the economic factors surrounding California's revenue volatility. Williams and Vasché (2005) noted that the phenomenon of revenue volatility in California has recently grown with the turn of the decade in a dramatic fashion. When compared to other states, California's revenue has seen a more than triple percentage change in tax revenues beginnings in the early 2000s (Williams and Vasché 2005). Whereas other states' tax revenues have gone up and down around 5 percent from Fiscal Years 1999-00 and 2000-01, California saw a 20 percent increase in tax revenues in FY 1999-00, and a 17 percent decrease in FY 2000-01. The LAO notes California's dynamic economy and reliance on a highly progressive PIT as chief factors in California's revenue volatility. They accurately stated that this would continue to be a future trend given California's tax system not having a diverse mix of revenue sources. Furthermore, the growth in capital gains and stock options as a key facet of PIT nearly accounts for all the increased fluctuations in state revenues (Williams and Vasché 2005).

With PIT representing around two-thirds of California's General Fund revenue, this factors as a key reason for the state's revenue volatility. Revenue from PIT is more than five times volatile than personal income, and PIT's tax base is more than three times volatile than personal income (Taylor 2017). This difference in volatility between PIT's tax base, revenue, and personal income is due to PIT's component of capital gains and other stock options (Miller and Chu 2018). The LAO further compartmentalizes the reasons for PIT's volatility to three points: 1) the state's choice of which income to tax; 2) taxing higher income at higher rates; and 3) tax deductions and credits for lowerincome families (Taylor 2017; Miller and Chu 2018).

Policy Solutions to Revenue Volatility

Much of the literature focuses on principles of budget management and forecasting as a key tool to keep track of and contain state revenue volatility (Williams and Vasché 2005; McNichol 2013; Rueben & Randall 2017; Taylor 2017). A commonly discussed policy option for budget management is to strengthen reserves and allocate growth in revenue from periods of economic boom into a budget stabilization fund, much like the route the State of California chose in 2014. Aside from such an option, experts say to diversify and broaden the tax base where possible (McNichol 2013; Rueben & Randall 2017) However, mixing the tax base to depend on more stable sources of revenue, like sales tax, can come at the cost of being regressive. The economic tradeoff for California's tax policy options is between equity and sustainability.

Political Reports on State Revenue Volatility

In this section, I describe the politics that surround the issue of state revenue volatility. This covers the dimension of policy choices from state political leaders and residents, with the underlying political beliefs and values espoused within a state. First, I describe how political challenge and stakeholders factor into the picture of tax policy. Then, I consider the political context specifically rooted in California. Table 2.3 presents a summary of the literature surrounding the political nature of state tax policy and reform at large and in California.

Author	Organization	Date of Publication	Key Points of Analysis
David Gamage	UC Berkeley School of Law	2010	 Legal and political constraints exist that inhibit public administrators' ability to deal with fiscal volatility Political personas and institutional design of the process of policymaking affects potential action taken by policymakers
Bert Waisanen	National Conference of State Legislatures (NCSL)	2010	 Recent renewed interest in implementing structured limitations for the budget process. Fiscal limitation mechanisms exacerbate the decision-making capacity of policymakers to deal with the issue
Kim Rueben & Megan Randall	Urban Institute	November 2017	 Different stakeholders and structural processes affect the implementation of tax policies Consider the role of groups that are inside and outside of the political field, as well as rules like supermajority voting requirements and politicians' term limits
Alexei Koseff	Sacramento Bee	November 19, 2018	 CA Governor Gavin Newsom wishes to do tax reform, which is something that previous Governor Jerry Brown did not take a shot at Backdrop of Proposition 13 as key event for issues in tax code, need to recoup lost state revenue
Patrick Murphy, Jennifer Paluch, & Radhika Mehlotra	Public Policy Institute of California (PPIC)	May 2019	 Even with tax increases approved in recent economic downturns, still a politically sensitive issue Anti-tax sentiment: 6/10 Californians feel they pay more than they should; supermajority requirement adds to issue

Table 3: Summary of Political-Based Articles

Political Challenges

State policymakers can face a lot of pressure in instituting the "right" tax policies given their state of residence and the constituents who they represent. This pressure can be two-fold: 1) pressure from different stakeholders, and 2) pressure from structural constraints. First, tax policy is such a sensitive issue that encompasses a variety of groups. Different constituencies meet any sort of tax policy that state legislatures consider with anguish. The public, business groups, taxpayers' associations, and other special interests can influence and affect tax policy within a given state (Rueben & Randall 2017). Furthermore, the political party in power and the prevailing political sentiments within a state's populace also looms over any tax policy discussion (Gamage 2010). Navigating this tense and active political field, where different groups congregate for a common cause, is something intrinsic to deliberations over tax policy.

Second, different constituent groups can impact tax policy through placing structural constraints on state legislatures. The public utilizes direct democracy tools, like ballots and initiatives, for the exact purpose of reining in state policymakers' action toward tax policy (Gamage 2010; Waisanen 2010; Rueben & Randall 2017). Taxpayer advocacy groups have used ballots and initiatives in the past to limit the ability of state public officials to implement tax policy alternatives through imposing rules, such as supermajority voting requirements (Gamage 2010; Waisanen 2010). A supermajority voting requirement codifies a stricter and more difficult pathway for policymakers to reform or change tax laws within a state.

California's Political Climate

California is no exception to the tricky political tensions that can arise in state tax policy reform and discussion. Any deliberation over the state's tax system and of reform harkens a conversation to the 1978 passage of Proposition 13, which came about through the initiative process from taxpayer groups. Proposition 13 sapped away a major revenue source for state and local governments in California, property taxes, while also imposing supermajority voting requirements for future increases in state taxes (Rueben & Randall 2017; Koseff 2018; Murphy, Paluch, & Melhotra 2019). The amendment of California's Constitution with Proposition 13 substantially altered the landscape for tax reform in contemporary times and established structural constraints for policymakers looking to make decisions on tax policy. The indelible legacy of Proposition 13 is still felt, as it led the state to rely on personal income tax as a major revenue source and contributed to the growth in revenue volatility that we see today. Indeed, Proposition 13 stands as a stark reminder of how powerful a direct democracy initiative, which gained ground among the public, can limit state policymakers for decades. That said, current Governor Gavin Newsom's ambition to tackle tax reform is commendable in the face of such structural and political obstacles that were embed from Proposition 13 (Koseff 2019).

Conclusion

This section has provided an overview over three types of literature: 1) previous tax reform studies in California; 2) economic-based articles on state revenue volatility; and 3) political-based articles on state tax policy and reform. This discussion has elaborated on experts' recommendation on budget management and policy options that can alleviate the issue of state revenue volatility, such as budget stabilization funds and increases to broader-based taxes. My next chapter will detail the methodology I employ in order to add to this literature and apply some of these findings to the state of revenue volatility in California today. I intend to utilize a criteria-alternative matric (CAM) analysis and interviews to make a tangible recommendation.

Chapter 3

METHODOLOGY

Chapter Two provided a review of the literature regarding state revenue volatility in three sub-sections: previous California tax reform studies, economic-based articles on state revenue volatility, and political-based articles on state revenue volatility. The key takeaway from Chapter Two was the policy alternatives that the literature highlights as potential options for mitigating the effects of budget revenue volatility. In this chapter, I detail my research methodology to evaluate some of these policy alternatives. My methodology falls under the guidelines of Eugene Bardach's (2012) Eightfold Path. In the previous two chapters, I worked toward the first two steps of the Eightfold Path – defining the problem and assembling evidence. This chapter continues the work of step two, further assembling evidence, while also completing steps three and four of the Eightfold Path: constructing alternatives, and selecting the criteria.

My research employs a two-pronged approach of doing interviews and conducting a criteria-alternative matrix (CAM) analysis in accordance with Bardach's (2012) model. First, I describe the logistics of my interview process, detailing my selection of interviewees from a mix of individuals with expertise on the topic of revenue volatility in California. Next, I discuss what a CAM analysis entails, focusing on the criteria and policy alternatives that I chose to evaluate. The policy alternatives that I describe in more detail below include 1) a broadened sales tax; 2) a split roll tax; and 3) an increase in the state's Rainy Day Fund reserves. This section concludes with a brief summary of Chapter Three, and a glance into Chapter Four.

Phase I: Interviews

The first phase of my research involved interviewing 5 individuals who are in some way involved with California's state budget or taxation system. This includes representatives from:

- The California State Assembly Speaker's Office
- The California State Senate Governance and Finance Committee
- The Legislative Analyst's Office
- The California Department of Finance³
- The Howard Jarvis Taxpayers Association

These interviews helped inform my evaluation of the different policy alternatives in my CAM analysis, and provided insight into what state officials and policy experts believe is the best route for mitigating the effects of revenue volatility in California. My interviews lasted around 30-45 minutes, and encompassed questions gauging the interviewees' perception of California's revenue volatility to their thoughts on each policy alternative. Appendix A presents a copy of the interview protocol that I administered.

My first interview, with a former executive official from the California Department of Finance, took place on February 4, 2020 from 11:30AM to 12:15PM. My second interview, with a staff member from the California State Assembly Speaker's Office, occurred on February 6 from 1:00PM-1:30PM. My third interview, with an individual from the Legislative Analyst's Office, took place on February 7 from 10:00-

³ My interviewee from the California Department of Finance was a former executive official of the agency. Their opinion does not represent or reflect the stance of the Department of Finance on this topic.

11:00AM. My fourth interview, with a staff person from the California State Senate Governance and Finance Committee, also happened on February 7 from 1:00-2:00PM. My final interview, with an executive official at the Howard Jarvis Taxpayers Association, occurred on February 18 from 1:30-2:00PM. These interviews encompassed a broad discussion on the root causes and condition of revenue volatility to an evaluation of different policy alternatives that California could implement to mitigate the issue.

My research relies on formal and semi-structured interviews, which is when a researcher schedules their interviews in advance and creates an interview protocol as a guide for when they conduct their interviews (Singleton and Straits 2017). This choice of methodology stems from the goal of my thesis being to understand the contemporary nature of revenue volatility in California. A qualitative method like interviews better elicits the attitudes and opinions of state government actors who currently play a role surrounding California's revenue and budgeting than would a quantitative method. Furthermore, my selection of interviewees was nonrandom, which stands in contrast to the random sampling method often used to garner respondents for quantitative research studies like surveys, as my topic requires engaging the ideas from specific individuals in key policy roles for the state government. Thus, as a qualitative research method, my interviews do not involve the use of random sampling (Singleton and Straits 2017). As a final point, the choice and framing of my interview questions align with the second part of my research methodology: using a CAM analysis to evaluate alternatives.

Phase II: CAM Analysis

The first part of my research involves conducting interviews with a variety of state officials to gain their insight on California's revenue volatility and taxation system in relation to the state budget. Building off the information I receive from doing interviews, the second part of my research entails assessing the potential outcomes from each policy alternative in a criteria-alternative matrix (CAM) analysis. The CAM is an analytical tool described by Bardach (2012) as a means to evaluate multiple policy proposals across a variety of standards. I find the CAM analysis to be an appropriate way to measure different policy actions across a variety of state objectives when it comes to mitigating the problem of revenue volatility. In this section, I first discuss and define the criteria which I will use to evaluate the policy alternatives. Then, I present and outline the alternatives that I shall analyze and weigh against each other.

Criteria

Table 3.1 details the criteria I will use to evaluate each of the policy alternatives, as well as the relative weights that each of these criteria will hold in my analysis.

Criteria	Weight
Administrability	15%
Equity	25%
Political Acceptability	25%
Sustainability	35%
Total	100%

 Table 4: CAM Criteria and Weighting

My analysis utilizes four criteria to evaluate the alternatives – administrability, equity, political acceptability, and sustainability. As Bardach (2012) notes, these four criteria are some of the more commonly used when it comes to conducting a CAM analysis on policy alternatives. Additionally, each criterion has a relative weight, with the total weight of each criterion adding to 100 percent. My review of previous research and literature in Chapter Two, along with my interviews, helped me in determining the weights for each criterion. A deeper discussion on what each criterion means, as well as a justification for the choice of weight on each criterion, follows.

Criterion #1: Administrability

My first criterion in my CAM analysis is administrability, which has the lowest weight of all my criteria at 15 percent. Here, administrability refers to the simplicity of a tax policy in two ways: 1) the collection and enforcement of a tax by the government; and 2) the ease of making taxpayers understand how the tax affects their daily lives and assisting the public as necessary. This criterion speaks to the need of evaluating how the state government transmits the message and implementation of a tax policy to the public, as taxpayers are always wary of changes to or enactment of any taxes. Conveyance of any proposed tax policy is integral to the success of implementing a tax without facing too much public backlash. That said, this criterion received the lowest weight as the principle of administrability is not the biggest concern for the problem of revenue volatility. Relative to other criteria, administrability is more so a function of soundly implementing a tax policy. However, this does not hold the most pressing precedent over the issue of how California can mitigate the effects of revenue volatility through tax policy.

Criterion #2: Equity

The second criterion that I include in my CAM is equity, which I gave a weight of 25 percent. Here, I consider the aspects of both horizontal and vertical equity as essential defining points for my criterion. Horizontal equity refers to the principle that individuals who fall in the same income bracket should be paying the same amount of taxes. Conversely, vertical equity is the idea that the higher the income that an individual has, the more in taxes they should pay. In a sense, equity can be associated with the principle of progressivism. This conception of equity is uniquely entrenched in California, which is one of the states that emphasizes having a progressive taxation system. While the extent of progressivity in California's PIT has played a major part in the revenue volatility we see today, this conception of equity is still a key component of any proposed policy within the state as it is part of the political essence in California. Thus, this criterion received a bigger weight than administrability, given that equity is quite important as an evaluative benchmark of California state policy.

Criterion #3: Political Acceptability

The third criterion in my CAM analysis is political acceptability, which has a weight of 25 percent. I define political acceptability as the extent to which state public officials are likely to support each policy alternative. This is an exhaustive look into potential support for a proposal among state officials across different positions of power, different legislative or executive bodies, different political parties, and the alike. In addition, political acceptability accounts for the potential public support or backlash for each proposal. Political acceptability encompasses all aspects of the state political arena, gauging the possible opposition to and backing for an alternative, where these conflicts may arise from, and whether the resistance outweighs the support or vice versa. This criterion is vital to consider given how debates over tax policy can lead into intense political deliberation. In California, the thought of government implementing new taxes or raising existing ones leads to a clamor over supermajority approval, whether in the state legislature or among the taxpaying public. It is instrumental to understand all avenues of the political spectrum, and especially that at California's State Capitol, to consider how each tax policy alternative would measure up in terms of political will and support to bring a policy into fruition. Thus, political acceptability holds an equal weight to equity in my analysis.

Criterion #4: Sustainability

The final criterion in my evaluation of the policy alternatives is sustainability, which has the biggest weight at 35 percent. This concept gets at the most central issue of my thesis – limiting the amount of revenue volatility that the state experiences. By sustainability, I am referring to the extent that each policy alternative mitigates the effect of revenue volatility in the state. This harkens to the amount of funds that the state government would collect across periods of economic boom and recessions. A sustainable tax policy is one that lessens the impact of revenue volatility in the state, as it would be a stable source of revenue regardless of the state of the economy. Given that this is the key variable and characteristic of interest for my thesis, I gave the criterion of sustainability a much bigger weight relative to the criteria. Now that I have defined and discussed my criteria, I will turn to elaborating on my chosen alternatives.

Policy Alternatives

Table 3.2 highlights the three policy alternatives chosen for my CAM analysis. The three alternatives I chose to evaluate include: 1) the state's budget stabilization fund (BSF), known as the Rainy Day Fund; 2) a broadening of the state sales tax; and 3) introduction of a split roll tax. I discuss these alternatives in more detail below.

Alternatives	Description
 State Rainy Day Fund (Budget Stabilization Fund) 	Continue forward with the State of California's Rainy Day Fund as the primary solution to the state's revenue volatility. Save up additional revenue from economic booms to use in times of recession.
2. Broader Sales Tax	Impose state sales tax on certain services, per 2003 tax reform report, that California does not tax. This will increase the overall base of the state sales tax, but be revenue neutral with a reduction in PIT.
3. Split Roll Tax	An alteration from Proposition 13 that would lead to assessing commercial properties at fair market value, resulting in higher commercial property taxes. This would also be revenue neutral, reducing state PIT.

Table 5: CAM Alternatives

Alternative #1: State Rainy Day Fund

The first policy alternative I chose to evaluate is California's Rainy Day Fund. In accordance with Bardach's (2012) model for a CAM analysis, this is a "let current trends continue" alternative. California's current policy vehicle in place to combat revenue

volatility is the State Rainy Day Fund, which passed in 2014 as Proposition 2, the Rainy Day Budget Stabilization Fund Act (Fehr and Murphy 2014). The state government of California allocates some of the budget surplus they receive during periods of economic boom into the State Rainy Day Fund. Then, when the state finds itself in a recession, it can pull resources from the Rainy Day Fund to ensure that the state government can continue to provide essential services to the public. As a baseline scenario, this alternative allows us to analyze if California's current position with the Rainy Day Fund is sufficient to combat the issue of revenue volatility versus other alternatives. Furthermore, we may question if the state needs to supplement the Rainy Day Fund by adding more to the coffers or any other potential improvements to make this a robust policy option. Thus, the Rainy Day Fund, as California's current policy option, is a natural alternative that is fit for evaluation.

Alternative #2: Broadening the Sales Tax

The second alternative that I will analyze is a broadening of the state sales tax. Currently, the State of California limits sales tax to the retail sale or use of tangible personal property in the state (CDTFA 2018). Given this definition, the State of California does not tax services that range from professional health or legal services to haircuts, lawn services, and eye exams. This alternative, argued for in the 2003 tax reform report by the California Commission on Tax Policy in the New Economy, would encompass 18 specific services that would be subject to the state sales tax. Table 3.3 lists the 18 services, retrieved from the 2003 report, that this second alternative would propose adding into the fold of California's state sales tax.

1. Vehicle Repair
2. Real Estate Management
3. Laundries
4. Beauty Shops
5. Admissions to Sporting Events
6. Appliance/Furniture Repair
7. Admissions to Amusements
8. Security Services
9. Veterinarians
10. Parking
11. Admissions/Golf
12. Funeral Homes
13. Billboards
14. Admissions to Bowling Alleys
15. Crop Services
16. Arcades
17. Bail Bonds
18. Shoe Repair

Table 6: Services to Add Under CA's Sales Tax⁴

Making these services attributable to the state sales tax would widen the overall base for the state sales tax, which would generate more revenue for the state from a more diverse source. This, in principle, would combat one of the aspects of revenue volatility that currently afflicts the State of California: getting a big percentage of its funds from a narrow tax base. Thus, a broadening of the sales tax to include selected services

⁴ Source: California Commission on Tax Policy in the New Economy (CCTPNE). (December 2003). Final report. Retrieved from: <u>http://www.californiacityfinance.com/CaComTaxPolicyNewEcon2003.pdf</u>. Chart on page 29.

represents an alternative that looks to combat revenue volatility through encompassing a wider population of people to tax for use of a service.

Alternative #3: Split Roll Tax

My third and final alternative for my CAM analysis is the institution of a split roll tax. This proposal has received a lot of attention, both positive and negative, given the current push among some of California's populace to place a split roll tax initiative on the ballot (Adler 2019; Bollag 2019). In essence, a split roll is the notion that commercial and industrial properties in California should be paying taxes at a rate different from, and usually higher than, residential properties. A split roll property tax fact sheet developed by the California Taxpayers Association highlights two forms of a split roll tax – a traditional split roll, and a stock change split roll. My alternative is a traditional split roll tax where the reassessment of nonresidential properties at fair market value would occur on a periodic basis (CalTax 2013). This policy alternative would allow the state to receive more funds from a more stable revenue source, as a split roll tax would likely increase the amount of property tax received from industrial and commercial buildings. In addition, a split roll tax proposal chips away at the restrictive nature that Proposition 13 imposes on state property tax.

Conclusion

This chapter has detailed the methodology I employ to consider how the State of California may move forward with mitigating the effects of revenue volatility. I use a two-step, mixed methods approach where I first interview relevant stakeholders in order to conduct a CAM analysis. Chapter Four provides the overall results of my interviews and CAM analysis. I will showcase these results with the use of a qualitative and quantitative CAM. While the qualitative CAM describes how each policy alternative holds up against the criteria in a narrative form, the subsequent quantitative CAM uses this information to grade each alternative across each criterion in order to ultimately place a final "score" on all of the policy alternatives.

Chapter 4

RESULTS

In Chapter Three, I outlined the methodology of my study. My research approach involved two phases: 1) interviewing key experts to gauge their opinions on revenue volatility in California, and 2) conducting a qualitative and quantitative criteriaalternative matrix (CAM) analysis based on the responses gained from the interviews. In this chapter, I present the results of my interviews, and apply that information into my qualitative and quantitative CAMs.

First, I discuss some of the initial insights from my interviews about revenue volatility in California and highlight shared and diverse viewpoints. Then, I showcase my qualitative CAM, which emphasizes key ideas and thoughts elicited from my interviews in regards to my chosen policy alternatives. Additionally, I will provide a thematic narrative that supplements my qualitative CAM. Next, I present each individual interviewee's quantitative CAM, as well as a final quantitative CAM that averages the scores of each respondent for my three alternatives in order to determine the "best" policy option. I conclude with a summary of the chapter, reiterating the "best" policy alternative, and convey a snapshot of my final chapter, Chapter Five.

Interview Synthesis

My five interviews, which encompassed a discussion on the interviewees' knowledge and thoughts on revenue volatility in California, occurred with the following individuals in this order:

• A former executive official with the California Department of Finance (DOF)

- A staff member of the California Assembly Speaker's Office (ASO)
- An employee of the Legislative Analyst's Office (LAO)
- A staff member of the California Senate Governance and Finance Committee (SGFC)
- An executive official of the Howard Jarvis Taxpayers Association (HJTA)

I began these interviews with a discussion on their background knowledge on revenue volatility in California, as well as their thoughts on Proposition 2, the Rainy Day Fund. The interviewees hit on some ideas that were similar, and some that displayed a divide in thinking behind revenue volatility in California. In this section, I present my interview results through a discussion on some of the key points from each interviewee, and then scope some of the similarities and differences in talking points that came throughout my conversations. This part of the chapter encompasses the beginning portion of my interviews, prior to a deeper dive into a discussion into my policy alternatives, which I shall discuss in my later CAM analysis sections.

Interview #1: Former DOF Official

My interview with the former Department of Finance official was quite intriguing, as this individual politically leans toward Republican, right-wing ideals of how the state should conduct its operations. When asked why California faces its current level of revenue volatility, this interviewee identified the highly progressive PIT structure as the main culprit for the issue. More specifically, they cited the role of capital gains, as a volatile income source for the rich, and as a key component of the volatility associated with PIT. Furthermore, they noted the decline of the sales tax as a major revenue source for the state around the 1990s, which allowed the PIT to become California's major revenue source. Even so, they do not see revenue volatility as an immediate problem. Rather, they are more concerned with spending the additional revenue that California accumulates during good economic times. They believe that the Rainy Day Fund is a policy vehicle that helps deal with revenue volatility, but its effectiveness depends on how the administration in California continues to prioritize saving over spending. They felt somewhat pessimistic about the current administration's agenda for spending on ambitious programs, and find it more ideal and equitable to institute a flatter, broader tax rate in California.

Interview #2: ASO Staff Member

My second interviewee, a Democratic staff member of the Assembly Speaker's Office, noted that California's progressive tax code is a main cause for revenue volatility. Interestingly enough, they provided a positive spin on revenue volatility, asserting this as "a choice by the public and elected officials" as a side effect of our progressive taxation system. They believe that the passage of Proposition 2 in 2014, the Rainy Day Fund, shows that California only became concerned recently with mitigating revenue volatility, and changed revenue volatility from being a significant state problem to a moderate one. However, the continued good economic trends helps to alleviate some of the concerns with revenue volatility. Proposition 2 was continuously highlighted as a policy that allows the state administration to better manage the budget and handle revenue volatility, as it allocates some of the more volatile revenue away from ongoing spending. They asserted that typical policy proposals for mitigating revenue volatility involves broader taxes, but they are not in favor of this, as it would run counter to the conscious choices that the public and state officials have already made for a progressive taxation system. *Interview #3: LAO Staff Member*

The LAO staff member who I interviewed began with emphasizing that California's reliance on the PIT leads to the levels of revenue volatility that we see today. More specifically, they stressed the role of capital gains and high marginal PIT rates as key drivers of revenue volatility. They also discussed the role of California's second biggest tax revenue instrument, the sales tax, and how having sales tax applied to goods, and not services, also contributes to volatility, as the consumption of services is more stable. For this LAO employee, the crux of the issue is a trade-off between revenue volatility and the principle of progressivity. Furthermore, they stated that revenue volatility makes them more cautious when it comes to budgeting, but it is not something that warrants the state to actively address. They steadfastly support the notion of having bigger fund balances through the Rainy Day Fund, and believe that this policy vehicle is the key to dealing with revenue volatility. When it comes to other policy options for handling revenue volatility, the LAO representative mentioned the notion of a broader sales tax and income averaging, which has people pay taxes on their average income from a three to five year range. Ultimately, they assert that managing the tax code is better than changing it.

Interview #4: SGFC Staff Member

The politically left-leaning Senate Governance and Finance Committee staff member indicated that revenue volatility is a byproduct of our taxation system, and that there is great importance in California's political history on taxes. More specifically, they dove into the background of Proposition 13's passage in 1978 and the precipitating factors that followed which allowed for the rise in PIT reliance. They likened revenue volatility to unpredictability, which is something that is not a huge problem so long as the state properly understands and accounts for it when budgeting. Furthermore, the staff person highlights the role that other extraneous factors, such as the level and type of spending, can have in affecting the impact that revenue volatility has on the state. Their belief is that ongoing spending or the expansion of services would raise major concerns for the effects of revenue volatility. In terms of solutions to mitigating revenue volatility, they believe the best alternative would be to reduce state spending. However, they also discussed the pros and cons with broadening taxes and reducing the high-end PIT rates. *Interview #5: HJTA Representative*

My final interview, with a Republican executive official from the Howard Jarvis Taxpayers Association, started with discussing the significance of income tax revenue and the overreliance on wealthy individuals' income. They also affirmed their support for Proposition 13, as it has helped to make property tax a stable revenue stream and act as a "shock absorber" for combatting revenue volatility. In regards to Proposition 2, the HJTA representative believes that the Rainy Day Fund has helped to ameliorate revenue volatility, as it categorizes excess revenues into savings instead of political officials pushing toward additional spending. Even so, they believe that revenue volatility is a significant problem when it comes to state taxation. They espouse their concerns primarily on the side of government spending, voicing the opinion that California's government should reduce the scope of what they do and limit their spending. In addition to less spending, they would want California to lower and flatten the PIT rates.

Consistencies and Discrepancies

In terms of similarities, all of the interviewees identified and specified their focus on California's current taxation system, and more specifically, the progressivity and high reliance on PIT, as major factors in the state of revenue volatility today. Thus, all interviewees held a common view on the root cause of revenue volatility in California. Furthermore, there was widespread support for Proposition 2, the Rainy Day Fund, as a policy vehicle for alleviating revenue volatility. All interviewees saw the Rainy Day Fund as a budget management tool that has, to some extent, reduced the risks that come with revenue volatility and equipped the state to more appropriately handle the matter. Additionally, when asked to consider policy proposals for ameliorating revenue volatility, all interviewees touched upon the conception of broader taxes and a need to further add to the coffers of the Rainy Day Fund.

When it comes to differences, the interviewees' political views took precedence. I could most starkly feel the divide in political spectrum by the degree to which the interviewees judged the gravity of the issue. While the Republican-leaning interviewees saw revenue volatility as a major problem, the Democratic-leaning interviewees saw it as just another factor to keep in mind when the state budgets its money. Moreover, some interviewees brought up additional concerns from revenue volatility which others did not consistently promote. This includes the issue of state spending, the tax burden on the wealthy, and concerns over different political administrations. As a final point of

variation, all of the interviewees discussed a broad range of criteria which they emphasized as most important to take into consideration when looking to mitigate revenue volatility. These criteria include equity, sustainability, administrability, market distortion, and political will or acceptability with elected officials. Even among these criteria, my five interviewees had different definitions and ways of which they conceived how these criteria, especially equity, fit into the picture with revenue volatility.

Qualitative CAM: Analysis and Discussion

In the previous section, I detailed some of the initial key points that my interviewees disclosed in regards to revenue volatility in California more generally. That section encompasses some of the bigger picture ideas that arose from my interviews prior to a more focused discussion on my three chosen policy alternative. Starting with this section, I shall focus on my interviewees' thoughts on my three policy options for mitigating revenue volatility, which were:

- 1. Increasing reserves in Proposition 2, aka the Rainy Day Fund (RDF)
- 2. Instituting a revenue-neutral broader sales tax that includes certain services
- 3. Instituting a revenue-neutral, traditional form of a split-roll tax

While eliciting the general thoughts on each alternative from my interviewees, I honed in our discussion of these alternatives to my four criteria – equity, sustainability, administrability, and political acceptability. I begin this section with Table 4.1, which presents my qualitative CAM. Following this table is a discussion on all three alternatives across these four criteria based off the information I received from my interviews.

Alternatives	Criteria				
	Equity	Sustainability	Administrability	Political Acceptability	
Increase reserves in the Rainy Day Fund (RDF)	Interviewees saw the RDF as the most equitable proposal, relative to the other choices. It is high on vertical equity, as well as horizontal equity, due to the fact that it sustains and supplements the current progressive taxation system in California. One interviewee did note that mandatory contributions to the Rainy Day Fund does reduce the funding available to help programs for low income Californians. In this sense, the Rainy Day Fund is an alternative that works counter to the goals and principles of equity.	In regards to sustainability, the RDF is a good budget management practice that harnesses the issues related to revenue volatility. The interviewees see it as a policy that appropriately handles and manages revenue volatility. The RDF acts as a reliable safety net that saves during good economic years and can be utilized during bad economic years. Thus, the state saves and uses excess revenues during years when there are budgetary downturns. Yet, my interviewees raised concerns over the total amount of funds in RDF being enough to withstand a recession.	Among the three policy choices, interviewees considered RDF to be the simplest and most straightforward option to implement and administer. Described as "simple as a personal savings account". One of my interviewees compared the RDF to a "nest egg" of savings that comes during good economic times. The only true concern in regards to administrability brought up by interviewees was the lack of enforcement when it comes to taking out funds from the RDF.	Interviewees believe that the RDF is a policy that the public, elected officials, and nonpartisan policy experts generally accept. Interviewees did not touch upon or detail any strong opposition to the RDF. The only political concern came from my politically right-wing- leaning interviewees, who continued to voice apprehension toward political officials' use of RDF funds.	

Table 7: Qualitative CAM

	Equity	Sustainability	Administrability	Political Acceptability
Institute a revenue-neutral broader sales tax to include selected services	Interviewees saw the broader sales tax as the most regressive policy option, as it affects a broader base of people more flatly. By placing taxes on certain services, these costs will disproportionately affect lower- and middle- income families and households. Some interviewees made the argument for horizontal equity, in the sense that people will be paying the same, flat tax rate. However, this proposal falls squarely against the principle of vertical equity.	Due to a broader sales tax having its roots in a wider base of people, this policy is a sustainable option. It mitigates one of the chief concerns with PIT for revenue volatility, in that it broadens the tax base. However, interviewees noted that sales tax linked to services can have a market distorting effect by dissuading consumers to not purchase those services which have an added cost from the tax. This proposal has the chance for being a volatile option if the shifting of consumer behavior were to occur.	When it comes to administering the broader sales tax, it is not as simple as the RDF. This proposal would require the state to tighten their definitions and bylaws and keep them concise for adding services to sales tax. Furthermore, the campaign to translate these changes to the public would be complicated, and could potentially lead to confusion among everyday people on what services the state is taxing.	Interviewees described the broader sales tax as an alternative "that will never happen" and "a political impossibility" in California. They cite that the broader sales tax runs counter to the progressive political nature in California, as the added cost of services would appear to run down to everyday people. The issue of tax incidence with this proposal, where it seems to be regressive and may hurt individuals from lower- incomes who need these certain services, makes it unpalatable from a political standpoint.

	Equity	Sustainability	Administrability	Political Acceptability
Institute a revenue-neutral split roll property tax	The split roll property tax falls in the middle of the three alternatives when it comes to equity. It increases taxes on richer commercial ventures without harming residential property taxes, but the issue of tax incidence seeping down to business customers looms over the proposal. Given that the split roll tax targets commercial properties, which individuals from wealthier backgrounds own, this option is high on vertical equity. Interviewees did not touch a lot on horizontal equity, but did note that individuals with commercial properties already established in California has a distinct advantage over new business ventures in the state due to changes in property market value.	Of the three alternatives, most interviewees rated the split roll tax as the weakest when it comes to sustainability. A couple of them said that the split roll tax is completely unrelated to sustainability, and thus would not be appropriate as a means of combatting revenue volatility. For those who said that the split roll tax is not very sustainable, they note the proposal's dependence on changes in property value, both in the short-term and long-term, as a wavering quality that makes it susceptible to volatility. An interviewee noted that Proposition 13 stabilized property taxes, and that chipping away at Prop 13 with this proposal would actually lend itself to more revenue volatility.	Interviewees described the split roll tax as the most difficult to administer of the three alternatives. In the words of one interviewee, a split roll tax could create an "administrative nightmare". Part of the reasoning behind the difficulties with administering the split roll tax is that it would increase the caseload of work and appeals from commercial properties. This would lead to the need for more staffing to have individuals like appraisers available to manage the caseload of coming up with the market value of commercial properties. The impression from interviewees is that this alternative would place a bigger administrative burden on the state.	The split roll tax also falls into the middle of the three policy choices when it comes to political acceptability, as it holds more appeal than the broader sales tax. However, it can still face sizable opposition from proponents of Proposition 13, and it does not have a robust coalition or support from elected officials to push through the state legislature. Recently, there has been some public support for the split roll tax, as it is an initiative in the upcoming state ballot. However, some interviewees believe that it will not have the political backing to pass.

Alternative #1: Increase RDF Reserves

The increased reserves to the Rainy Day Fund was my interviewees' most preferred alternative. Interviewees had a two-fold view on the RDF when it comes to equity. While some saw the RDF as unrelated to equity, others believed it has a positive impact on equity by supplementing California's progressive tax system. Interviewees also espoused that increasing RDF reserves is highly sustainable as it works in conjunction with the economy to save during good economic times and use during bad economic times. The RDF drew positive remarks for its ease of administrability, as the state would continue to apportion some amount of excess revenue toward this savings fund. One interviewee compared the RDF to a "nest egg" that is the state's "savings account". With political acceptability, most interviewees noted the wide acceptance of the RDF among the public and elected officials as a means of harnessing and saving surplus funds. However, a couple of interviewees noted a precaution and concern for a lack of stringent enforcement mechanisms to prevent elected officials from utilizing the RDF funds as they wish. Aside from this, the RDF alternative seemed to exhibit the strongest support among the options.

Alternative #2: Institute a Revenue-Neutral Broader Sales Tax

The broader sales tax with selected services alternative was one that interviewees said could help in mitigating revenue volatility, but has deep flaws when it comes to the California context. This option fared poorly when it comes to equity, as my interviewees deemed it a regressive policy that would disproportionately affect lower- and middleincome families. This lends itself to having low political acceptability in California among both the public and elected officials, who generally espouse progressive tax beliefs. Furthermore, the broader sales tax would be difficult to administer, as the definition and selection of which services to include under the sales tax would be scrutinized and demand a consistency in implementation and enforcement. The lone bright spot for this alternative was the criterion of sustainability. My interviewees asserted that a broader sales tax would be an effective way to combat revenue volatility through reduced PIT reliance and a broader tax base. Even so, the broader sales tax is a proposal with glaring weaknesses across criteria, apart from sustainability. *Alternative #3: Institute a Revenue-Neutral Split Roll Tax*

My third and final policy alternative, a split roll tax, played a wild-card role in its variation across criterion. The split roll tax fell in the middle of my three policy options in terms of equity and political acceptability. My interviewees found it equitable in the sense that a split roll tax effectively functions as a wealth tax toward non-residential property. However, my interviewees brought up the issue of tax incidence, where higher taxes on commercial property can lead to higher costs for everyday consumers. With political acceptability, some of the public has pushed for a split roll tax ballot initiative, but would face opposition from businesses and taxpayer associations. The split roll tax would be the least sustainable policy option given its dependence upon short- and long-term fluctuations in property market value, lending itself to being volatile. Additionally, my interviewees voiced their concerns with the split roll tax in terms of administrability, saying that more caseload work and appeals would come to state departments and

necessitate a need for more appraisers. Thus, the split roll tax is a proposal with some potential political support, but may not actually help to mitigate revenue volatility.

Quantitative CAM: Analysis and "Best" Policy Choice

Along with garnering my interviewees' thoughts on my alternatives, I had them score these policy options based upon their comments in order to decide which policy option is "best". Table 4.2 displays a quantitative CAM of how each interviewee assigned scores, and Table 4.3 shows the aggregated quantitative CAM which averages and weighs all the scores for a total.

From the results of my quantitative CAM, it is clear that the strongest policy alternative from the three choices is to increase reserves in the Rainy Day Fund. An intriguing point to note – on the sustainability criterion, which gets at the crux of my thesis' search into policy alternatives that can mitigate revenue volatility, the Rainy Day Fund alternative scored the exact same as the broader sales tax. This speaks to the nature of my interviews, which candidly reflected that the broader sales tax and increased Rainy Day Fund reserves were two appropriate policy actions for managing revenue volatility. However, across the other criteria – equity, administrability, and political acceptability – it is clear that increasing reserves to the Rainy Day Fund is a policy option that most uniquely fits into the sphere and scope of work of the State of California. The fact that the Rainy Day Fund alternative is a point and a half ahead of the next best option truly shows how powerful and strong of a policy tool that the Rainy Day Fund is for California, and typifies the amount of weight it holds among budget and tax policy experts in the state.

Alternatives	Criteria					
	Equity	Sustainability	Administrability	Political Acceptability		
Increase reserves in Rainy Day Fund (RDF)			•			
Interviewee #1: Former DOF Official	5	3	5	3		
Interviewee #2: ASO Staff Member	4	4	4	4/5		
Interviewee #3: LAO Staff Member	3	3/4	5	4		
Interviewee #4: SFGC Staff Member	4	3	5	4/5		
Interviewee #5: HJTA Official	5	5	5	5		
Institute a revenue-neutral broader sales tax to include selected services						
Interviewee #1: Former DOF Official	1	5	2	1		
Interviewee #2: ASO Staff Member	2	3	2	2		
Interviewee #3: LAO Staff Member	3	3/4	2	2		
Interviewee #4: SFGC Staff Member	1	4	3/4	1/2		
Interviewee #5: HJTA Official	3	3	2	3		
Institute a revenue-neutral split roll tax			•	•		
Interviewee #1: Former DOF Official	3	N/A	4	4		
Interviewee #2: ASO Staff Member	3	3	3	3		
Interviewee #3: LAO Staff Member	2/3	3	3	2		
Interviewee #4: SFGC Staff Member	3	1/2	1	1/2		
Interviewee #5: HJTA Official	1	1	1	2		

Table 8: Quantitative CAM by Interviewee

Alternatives		Total Score			
	Equity (25%)	Sustainability (35%)	Administrability (15%)	Political Acceptability (25%)	
Increase reserves in Rainy Day Fund (RDF)	4.2	3.7	4.8	4.2	4.12
Institute a revenue-neutral broader sales tax to include selected services	2	3.7	2.3	1.9	2.62
Institute a revenue-neutral split roll tax	2.5	2.125	2.4	2.5	2.35

Table 9: Final Quantitative CAM

Conclusion

This chapter has presented the results of my interviews and subsequent CAM analyses. I first touched upon the initial insights that each interviewee provided from their own perspective on revenue volatility in California. From there, I instilled their knowledge and thoughts into my qualitative and quantitative CAMs and ascertained that, of my three alternatives, increasing the reserves in the Rainy Day Fund would be the best policy option for the State of California. Across all of my criteria, the Rainy Day Fund alternative scored highly among my expert interviewees. The broader sales tax had faults when it came to equity and political acceptability, while the split roll tax was not an easily administrable nor sustainable option. In my next and final chapter, I talk in more detail about what this result means for California's task of mitigating revenue volatility, overarching trends from my interviews, and limitations of my research.

Chapter 5

DISCUSSION AND CONCLUSION

In Chapter 4, the results of my interviews and CAM analyses show that the "best" alternative, based upon the chosen criteria chosen and the relative importance assigned to each of the criterions, for California to mitigate revenue volatility from my three choices is to increase reserves in the Rainy Day Fund. The findings from my research convey the need to continuously be mindful of revenue volatility as the state begins the budgetary process for each fiscal year.

In this chapter, I go into a detailed discussion on my research, and delve into the path forward for revenue volatility in California. First, I touch on some common trends and key ideas that arose from my interviews for discussing revenue volatility. Then, I discuss California's current state of affairs to consider future action the state can take toward managing revenue volatility. Afterward, I note the limitations from my study which should guide future research. I conclude with a summary of this chapter, calling the State of California to action for further management of revenue volatility.

Interview Trends and Notable Ideas

Prior to concluding my thesis, my interviewees brought in some noteworthy talking points that warrant discussion and elaboration. First, I hit upon two commonly mentioned interviews trends. The first trend is the importance of California politics behind any deliberation related to state budget or tax policy, and any decision to tackle revenue volatility. The second trend is the essential trade-off between the criteria of equity with sustainability that is central to the problem of revenue volatility. Then, I focus on a couple of unique ideas that some of my individual interviewees discussed. These include the need to account for distortion as a key criterion in tax policy analysis, and the framing of revenue volatility as an issue versus a choice.

Interview Trend #1: Political Acceptability Matters!

Throughout my interviews, the respondents constantly espoused the criterion of political acceptability as a key measure of gauging how the State of California can go about mitigating revenue volatility. This theme was prevailing in the notion of recognizing how different state administrations choose to manage the state's budget cyclicality, particularly the extraordinary budget surpluses that California sees during good economic times. Given that the state adopted the Rainy Day Fund as its current apparatus to mitigate revenue volatility, the interviewees noted the importance of elected officials to continue to buttress the reserves, while also being mindful of when to utilize the funds. Moreover, the Republican-leaning interviewees actually declared the broader sales tax as the general "best" option for mitigating revenue volatility among the three choices, as it fits their vision of a flatter tax that does not disproportionately burden the rich. However, with them noting California's progressive political nature, they affirmed that the best policy for the State of California is the increased Rainy Day Fund reserves. This is notable in the sense that my interviewees put aside their partial beliefs or differences in order to reach a consensus that the Rainy Day Fund was the best alternative for California due to the state's political nature. The fact that the Republican-leaning interviewees were willing to concede this notion speaks to the power of California's politics in swaying such policy decisions.

Additionally, the public plays an important role when considering policy options for managing revenue volatility. The public wants continued assurance that the state budget is properly managed to deal with expenses for services and to pay off debt, while also assailing California's progressive political nature. While the public may lack the technical expertise to discuss revenue volatility, they are wary of the issue when it comes to state budgeting and how the state administers fiscal or tax policy. Within this economically-based problem of revenue volatility, my interviewees perpetually shrouded our conversations with the cloak of politics, showcasing the importance of political acceptability as a backdrop for the state's policy choices.

Interview Trend #2: Progressivity/Equity vs. Sustainability

Along the same line of politics, my interviewees noted that the discussion of revenue volatility falls squarely on a trade-off battle between the two criteria of equity and sustainability. To note, my interviewees used the term "progressivity" interchangeably with the criteria of equity as I stated that progressivity is a key part of my definition for equity. The crux of this notion is both intriguing and concerning. Suffice to say, any policy deliberation requires some sort of trade-off between two desirable principles. With revenue volatility, the state wants to be continually mindful of their fiscal situation and ensure itself that it has a sustainable financial apparatus to ensure provision of services to the public. At the same time, with greater reliance on the richest portion of California's population for its biggest revenue source, the PIT, the state does not have as broad of a base from which it can derive revenue. Higher taxes on the rich has allowed the State of California to provide more services to the more disadvantaged population of the state, thus working towards the criterion of equity. Yet, by doing so, the state puts itself in a riskier position with its finances should a recession occur and the richest Californians have less income to report and subsequently less taxes to pay. This central back-and-forth serves as a stark reminder of the relevance and significance of revenue volatility in California, as it looms over the state's tax policy structure and its subsequent budget management actions.

Notable Point #1: Distortion as Key Criterion

A couple of my interviews exposed me to the importance of market distortion as a pertinent criterion for evaluating tax policy alternatives. Distortion represents a change in behavior of businesses, consumers, or any individual entity or group given the imposition of a tax. For example, under the evaluative framework of distortion, one would consider how the sales tax alternative to expand selected services can affect consumer trends among these services and the potential tax incidence associated with that policy. By tax incidence, I refer to how much a business passes on the cost from a tax on a service to an individual paying for the service versus the business itself taking on the cost. This criterion would account for the negative or positive externalities that arise from instituting or changing a state tax, specifically in regards to changes in corporate behavior and taxpayers' consumption habits of goods and services. While this was not included in my analysis, I would argue that a more substantive analysis of policy alternatives to mitigate revenue volatility, and an evaluation of tax policy in general, should include distortion to consider the tangible economic effects of instituting or re-codifying a tax.

Notable Point #2: Revenue Volatility as Problem, or Choice?

The framing around the discussion of revenue volatility is an integral part of tackling the topic. Most of my literature review, research, and interviewees agreed with the perception of revenue volatility as an "issue" or "problem" for states to manage. However, my interview with the California Senate Finance and Governance Committee staff member brought a different perspective to the conversation. They asserted revenue volatility as a "choice" that California, per its elected officials and the public, made through deciding on a progressive taxation system. This harkens back to the central trade-off with revenue volatility: equity versus sustainability. Additionally, this brings up an interesting question: can California claim that revenue volatility is a problem when it arose from the decisions that we made as a state? This fundamental question is something that we need to tackle as a state to determine whether or not we want to actively mitigate revenue volatility, and if so, through what medium. The framing of revenue volatility as a problem or a choice should be a vital part of the conversation going forward.

California's Strategy for Revenue Volatility

After reflecting upon my research results, interview trends, and notable ideas that interviewees brought up, this led me to consider a strategy that the State of California can take to continue to handle and further manage revenue volatility. I find it best to capture this with reiterating the importance of strong fiscal management through a discussion of the timeliness of this subject matter. First, I illustrate the importance of managing revenue volatility by briefly touching on the State of California's response to the current COVID-19 pandemic from a fiscal standpoint. From this, I deliberate on a strategy that the State of California can adopt, in the wake of COVID-19, to further mitigate revenue volatility and strengthen the state's fiscal position.

California's Finances in the Wake of COVID-19

As I currently write my thesis, the State of California, like the rest of the world, is facing the repercussions of the COVID-19, or coronavirus, pandemic. This situation has accelerated concerns toward global public health and the government apparatus to respond to the pandemic in a timely manner. In regards to my thesis, this pandemic has also shed light on the need to maintain strong budgetary practices in order for states like California to weather the effects that coronavirus will have on the state's economy and fiscal position. A recent report from the LAO highlights the significance of having the Rainy Day Fund as a resource for additional funds to handle the crisis we currently find ourselves in with the coronavirus (Petek 2020). This report speaks to the timeliness of my thesis' subject matter, where California's handling of revenue volatility through policy instruments like the Rainy Day Fund allows the state to continue providing key services to the public, especially when major events such as the coronavirus can inhibit and impede state operations and the economy. Per the LAO report, the reserves built up in the Rainy Day Fund can help California respond to the coronavirus pandemic and the subsequent budget shortfalls that will occur once the state fully knows the effect of coronavirus on the economy. These reserves, coupled with other practices like paying down debt and having a balanced budget, puts California in strong economic footing (Petek 2020). The Rainy Day Fund is an instrument which has served to keep excess revenues in the reserves for times like this, and provides an important reminder to the

necessity of sustainable fiscal management for the state. Even then, concerns arise from the fiscal unpredictability and uncertainty which the COVID-19 pandemic has brought about for the state. This warrants a forward look to California's fiscal management as it works to combat the effects of COVID-19 on the state's economy and budget.

Moving Forward Financially from COVID-19

As the State of California moves forward from the COVID-19 pandemic, it must continue to be proactive with its budgeting practices and mindful of revenue volatility. The state has a lot riding on its budgeting and revenue estimates in order to effectively help state residents, businesses, and organizations recover from the COVID-19 pandemic. The Rainy Day Fund definitely has some positive attributes, and is a key part of California's fiscal response to the repercussions of the COVID-19 pandemic. However, the uncertainty surrounding the length and severity of the coronavirus situation puts into question whether the \$16 billion currently allotted in the Rainy Day Fund will be enough to manage the crisis and continue to keep the state's economy going in the right direction (Kasler 2020; Walters 2020). With that said, the state may want to consider further action to abet the strong fiscal position that California finds itself in with the Rainy Day Fund and alleviate tensions over lingering economic uncertainty.

A good place to start the action is with the Governor's Office. Governor Gavin Newsom is on record for wanting to consider tax reform and other proposals that can manage revenue volatility and other fiscally-related issues (White 2018; Adler 2019). The coronavirus crisis only amplifies the issues surrounding California's tax code and revenue volatility, with growing concerns about the state of California's revenue going forward. The timeliness of this subject matter is apparent. From this situation, it would seem most reasonable for Governor Newsom to create a commission to do a study looking into tax reform in California. This would build upon the tax reform study that State Controller Betty Yee and her Council of Economic Advisors conducted in 2016. The added benefit of doing a tax reform study now is that it can observe and analyze how effectively the current state apparatus, with the Rainy Day Fund, was able to assuage the fiscal ramifications of the COVID-19 pandemic. It may show that the Rainy Day Fund is an effective instrument all by itself, and simply needs to have more reserves added. Or, the study may show that the Rainy Day Fund is a good initial step toward managing revenue volatility, but the state still needs to institute some tax reform for the sake of modernizing the tax code and making the state's finances more sustainable. Regardless of the outcome, I believe that a commissioned study on tax reform and revenue volatility that builds off California's response to COVID-19 would be the best way to elucidate the state's current handling of finances, and potential routes moving forward to improve existing practices. It would also be pertinent to include voices from all perspectives and viewpoints on tax reform in California in order to generate an analysis that is more holistic and substantive. As a final point, I believe that a commissioned study would be able to mediate some of the limitations with my own research.

Limitations of My Research

The narrative above reflects my belief that the State of California's strategy to continue managing revenue volatility is to do a commissioned study on tax reform. This will specifically have the benefit of looking at California's financial apparatus for handling crises like COVID-19 and potential areas that the state can improve in when it comes to fiscal management. I draw this conclusion due to the limitations in my own research, as I believe a commissioned study would reconcile the confines of my research. The major limitations of my study include a limited set of policy alternatives and criteria, as well as a finite amount of interviewees.

Narrowed Alternatives and Criteria

One of the biggest limitations to my research is the narrow and specific policy alternatives that I analyzed throughout this paper. I chose these three alternatives meticulously and with a particular thought in mind. The Rainy Day Fund, as the State of California's current policy vehicle in dealing with revenue volatility, was a logical choice. The broadened sales tax option came from the 2003 tax reform report that was one of three major tax reform studies done during contemporary times in California. The final policy option of a split roll tax encapsulates some of the current political waves and rallying cries behind such a measure. Regardless, these three policy alternatives are not an exhaustive list of policy options that the State of California could consider when it comes to mitigating revenue volatility.

Additionally, my choice in criteria (equity, sustainability, administrability, political acceptability), and the weights provided to them, are also an inhibition of my study. As previously discussed in this chapter, some interviewees noted the importance of market distortion in measuring how policy proposals affect business behavior and consumer attitudes. Ideally, distortion would be another criterion of my analysis, as tax policies indeed have an effect on the way that consumers purchases goods and services,

and the way that businesses provide goods and services. On top of that, my CAM analysis is reliant upon the choice of how much each criterion weighs. If my analysis were to place more precedence toward one specific criteria, or lessen the importance of other criteria, the subsequent scores of my policy alternatives would differ, and may result in another policy option being the "best" choice. This speaks to the necessity of sensitivity analysis, which looks into how the weights of one's CAM analysis factors into the results. In my case, I distributed my criterion weight relatively equally, but one may argue that certain criteria deserve even bigger weights than others.

Number of Interviews

While my interviewees were incredibly insightful for my research, it seems clear that garnering the wisdom of five individuals limits the breadth and amount of information and viewpoints that I could gain on this topic. I chose my interviewees carefully, with the help of my thesis advisors, in order to get a variety of viewpoints from different state actors and prominent organizations. That said, there are other voices on this topic that are left unaccounted for in my analysis, including that of the current Governor's office and outside policy experts who are not closely aligned to the state government. A more well-rounded and substantive analysis would look to include these perspectives in the conversation and ultimately gain a richer, more detailed picture on the array of perceptions regarding revenue volatility in California.

Conclusion

This chapter has served to discuss the trends and notable points from my interviews, a forward-looking strategy for California to manage revenue volatility, and limitations of my study. From my research, I learned the importance of California politics when it comes to policymaking, that revenue volatility's central trade-off is between equity and sustainability, and that the framing of revenue volatility is a key part of the discussion. I believe a viable next step from my research is for the Governor's Office to take action with a commissioned study on tax reform in California. This study should take into account how California has handled the COVID-19 crisis, and the financial ramifications that have come with the state both presently and in the future. Considering the risks of revenue volatility can and should be a continued part of the state's efforts to strengthen its fiscal position and be a reliable provider of public services.

Appendix A – Interview Protocol

Thank you for taking the time to be interviewed. My name is Sumeet Bedi, and I will be interviewing you today. This interview should take around 30-45 minutes. Please remember there are no right or wrong answers. I am just interested in knowing your thoughts and ideas. I am recording this conversation so that I capture all of your perspectives accurately. Remain assured, the information you share and your identity will be kept confidential. Do you have any questions before we begin?

- Please describe your thoughts/knowledge on the topic of revenue volatility in California.
 - i. **Probe:** To what extent do you believe that revenue volatility is a problem in California (i.e. a significant one, a moderate one, insignificant, etc.)?
 - ii. Probe: What do you believe to be key reasons behind the level of revenue volatility that the State of California faces today?
- 2. Do you believe that the State of California, with the current taxation system and Rainy Day Fund, can appropriately deal with revenue volatility?
 - i. **Probe:** Would you say the same for California in 5-10 years?
 - ii. **Probe:** Are the current level of reserves adequate to deal with an economic recession? Why or why not?

- 3. What do you believe are appropriate policy instruments, related to the state budget or state taxes, that would help alleviate the issue of revenue volatility in California?
 - Probe: My reading of previous studies on the issue of revenue volatility in California has highlighted a couple of policy proposals that can mitigate the effects of revenue volatility. I am interested to know your thoughts on:
 - a. The Rainy Day Fund (aka budget stabilization funds)?
 - b. Substituting PIT with broadened sales tax that includes certain services?
 - c. Substituting PIT with a split roll tax?
- 4. What do you believe are important criteria to consider when evaluating each of the policy alternatives that we discussed above (i.e. equity, sustainability, and the alike)?
 - i. **Probe:** Why do you believe that criterion(s) is most significant to consider?
- 5. How would you rank these policy alternatives in terms of their equitableness (the degree to which each tax policy accounts for differences among socioeconomic groups)?
 - i. **Probe:** Why do you think the alternative of _____ is the most "equitable"?
 - ii. **Probe:** Why do you think the alternative of _____ is the least "equitable"?
 - iii. Probe: Is this a significant criterion to keep in mind when judging policy proposals aimed at reducing revenue volatility?

- 6. How would you rank these policy alternatives in terms of their sustainability (the magnitude of which each tax policy alleviates the issue of revenue volatility)?
 - i. **Probe:** Why do you think the alternative of _____ is the most "sustainable"?
 - ii. Probe: Why do you think the alternative of _____ is the least "sustainable"?
 - iii. Probe: Is this a significant criterion to keep in mind when judging policy proposals aimed at reducing revenue volatility?
- 7. How would you rank these policy alternatives in terms of their administrability (the ease of collecting the tax for state departments and the simplicity of conveying this to the public)?
 - i. **Probe:** Why do you think the alternative of _____ is the most "administrable"?
 - ii. Probe: Why do you think the alternative of _____ is the least "administrable"?
 - iii. Probe: Is this a significant criterion to keep in mind when judging policy proposals aimed at reducing revenue volatility?
- 8. How would you rank these policy alternatives in terms of their political acceptability (the willingness of state officials to support each of the policy alternatives)?

- i. **Probe:** Why do you think the alternative of _____ is the most "acceptable"?
- ii. Probe: Why do you think the alternative of _____ is the least "acceptable"?
- iii. Probe: Is this a significant criterion to keep in mind when judging policy proposals aimed at reducing revenue volatility?
- 9. Of the three alternatives we have discussed, which seems to be the best choice to you in terms of mitigating the extent of revenue volatility in California?
 - i. **Probe:** Why is that the alternative of your choice? Does a certain criterion or dimension of that policy outweigh the others?
- 10. Do you have any other final comments or thoughts that you would like to share?

Thank you for your time and input on this topic! Your privacy is of utmost importance, and your identity shall remain confidential. Do you have any questions for me?

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