

PHILIP ANGELIDES Treasurer State of California

June 1999

HONORABLE GRAY DAVIS Governor

HONORABLE JOHN L. BURTON President pro Tempore of the Senate

HONORABLE ANTONIO VILLARAIGOSA Speaker of the Assembly

I am hereby transmitting for your consideration, **Smart Investments**, a special update of California's Debt Affordability Report.

The statutorily required Debt Affordability Report is submitted annually to provide an analysis of the State's debt position and debt capacity – a look at how much the State can afford to borrow for infrastructure investment. This report is designed to assist the Governor and the Legislature in their capital planning and financing decisions. This special update is being provided to make a timely contribution to the current deliberations on the vital matter of public investment in California's future.

More than at any time in our recent history, public and private sector leaders and members of the general public are confronting the reality that California's future success is dependent on our willingness to make smart investments in the public fabric that will sustain both economic growth and favorable living conditions.

The State Treasurer is responsible for advising the Governor and the Legislature on how much debt the State can afford to issue for infrastructure investment. As the State's fiscal and investment officer, the Treasurer has an obligation to advocate for the most prudent, effective and efficient use of precious financial resources. Further, the Treasurer's Office has a responsibility to make recommendations with respect to debt capacity and infrastructure investments that best assure our long term economic viability.

June 1999

Our future economic strength, and the State's fiscal stability, are in no small part dependent on the continued attractiveness of California not only as a place to *locate business*, but also as a good place to *work* and *live*. Growth patterns that accelerate environmental degradation and exacerbate the widening gap in economic opportunity among our residents threaten California's future success.

It is clear that California must plan now for the dramatic growth projected to occur in the years ahead and must make the investments needed to accommodate that growth. The State's intelligent investment of its public resources in a manner that supports environmentally respectful, well-planned growth and promotes equality of opportunity is vital to our sustained economic progress.

Accordingly, this report goes beyond simply providing an updated fiscal analysis; it urges a new approach, **Smart Investments**, which recognizes that how we spend precious dollars and the approaches we take to capital investment can shape the vibrancy of California into the 21st Century.

The dialogue about how California meets the public investment challenges of the 21st Century is just beginning. The policy recommendations contained in this report are by no means meant to be fully comprehensive. Rather, they should be viewed as important foundational principles for discussion by the Governor, the Legislature, the Governor's Commission on Building for the 21st Century, and the other public and private sector groups seeking to create smart investment policies and planning processes.

This report represents only a first step by this office to contribute to this important debate. We plan to bring forth, in the months ahead, additional recommendations for consideration, including proposals for cost-effective financing strategies to meet the State's investment goals.

I look forward to assisting in this critical endeavor so that together, we can secure a livable, economically vibrant California.

Sincerely,

PHILIP ANGELIDES State Treasurer

cc: Honorable members, California Legislature

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During the next 20 years, California will add more than five million new jobs. This economic growth will be accompanied by more than 12 million new residents, over four million new house-holds, and upwards of two million new schoolchildren. The projected growth of the next 20 years will equal that experienced in the boom years of the 1950s, 1960s, and 1970s combined. Perhaps even more astounding, it will surpass the growth California saw during its first *century* of statehood.

This projected growth will pose the most dramatic challenge for California's leaders since California became a state. It will increase the need for all forms of public and private sector goods and services – needs that will overwhelm public resources if investment policies are not conceived with wisdom and vision. These needs will include – but by no means be limited to – quality schools, parks and public open spaces, and the provision of adequate, cost-efficient systems of water, electricity, and

transportation. This surge in jobs and population not only will create the need for *new* investments, it also will place added stress on an already overburdened and deteriorating physical infrastructure.

It is clear that California must plan now for the dramatic growth pro-

achieve economic success in the long run if our environment is degraded or if there are pockets of economic failure throughout our State.

California will not

jected to occur in the years ahead and must make the investments needed to accommodate that growth. Decades of under-investment have worn thin our public fabric. Apart from the demand created by new growth, we must invest to improve our current quality of life – reducing public school class size, enhancing our mobility, and restoring our parks and community facilities – even as we plan to meet the needs of expected future growth.

Sustained economic success in the 21st Century will require the investment of public resources to ensure the continued attractiveness of California as a place not only to locate business, but also as a good place for people to work and live. Implicit in these investment objectives is the recognition that California will not achieve economic success in the long

run if our environment is degraded or if there are pockets of economic failure throughout our State.

It is clear that the challenge for policy makers is not whether California will grow, but rather, how we will grow and how investment policy can support growth patterns which bolster the State's economic, environmental, and social progress.

At this critical juncture, it is particularly important to examine anew the most productive, innovative, and cost-efficient means of investing precious public capital to support sustainable growth patterns which best ensure long-term economic success.

This special update of the Debt Affordability Report – **Smart Investments** – examines the State's capacity to incur debt to finance infrastructure investments and makes a set of recommendations to help guide the dialogue on how the State can best invest to secure California's economic future.

This report makes the following findings and recommendations:

California has significant debt capacity, but lacks an investment plan.

The State's projected General Fund debt capacity is approximately \$32.5 billion over the next ten years, based on the current revenue projections and budget structure. This amount includes \$14.7 billion in bonds already authorized but not yet issued. Depending on revenue projections over the next decade, the total General Fund debt capacity could range from as low as \$27.5 billion to as much as \$38 billion.

The current proposed State Budget (Governor's May 1999 Revision) allocates 4.17 percent of General Fund revenues to debt service. The debt capacity projected in this report is based on the



State retaining this level of commitment to debt service. Maintaining the current 4.17 percent will require expenditure containment consistent with revenue growth. Increasing the percentage committed to debt financing will require either new revenues, revenue growth which outpaces expenditure increases, or reductions in other program expenditure levels.

If the State gradually increased the ratio of debt to General Fund revenues to 5 percent over the next five years, debt capacity would increase by approximately \$10 billion to \$42.9 billion over the next ten years. If the State increased this ratio to 6 percent over the same period, the debt capacity would reach \$58.6 billion over the next ten years.

Debt capacity analysis, by its nature, cannot factor in unexpected spikes in revenues since debt must be issued against a reasonably stable flow of revenues. Therefore, more funding for infrastructure investment beyond debt capacity may be available on a "pay as you go basis" from such one time revenue increases. The State should give high priority – as the Governor

proposed in his May 1999 budget revision — to using such surpluses for infrastructure investment, given the substantial investment needs of the State and given the desirability of not committing funds available on a one-time basis to long-term obligations.

The State's General Fund debt capacity is in addition to the \$35.6 billion identified by the Department of Finance as available for infrastructure investment from other funding sources, including the State's "pay as you go" programs, over the next ten years. These combined resources most likely will fall short of expected needs. However, current needs assessments are not based on a comprehensive plan of investment nor are they centered around achieving the goals of sustained economic growth, environmental preservation, equality of opportunity, and livability. Rather, they represent a list of projects compiled independently by various public agencies.

While our infrastructure needs will almost certainly exceed currently identified funding and debt capacity, California must first adopt visionary investment principles and strategies for the wise use of precious capital, rather than focusing solely on additional dollars needed for an undefined task.

Economic growth principles, not "magic" budget percentages or project "laundry lists," should drive investment policy.

California must clearly make a commitment to invest as needed to ensure the State's continued economic vibrancy. Yet, good investment policy dictates that the nature and exact level of public investment should be driven by a set of principles guiding California's future economic growth,

not by a "magic" percentage of the State's budget or a laundry list of capital projects desired by various agencies.

To date, much of the discussion surrounding infrastructure investment has revolved around dollar needs versus dollar availability, in the absence of a strategic investment plan. No successful, dynamic company would begin its investment planning without first asking fundamental questions: Where do we want to be in the 21st Century? What do we want to look like in the years ahead? What are the best investments to achieve our goals? What are the most cost-effective ways of making those investments? What processes and structures will get us there?

California needs to ask these questions and more. The answers to these questions should drive the nature, direction, and amount of our investments.

The postwar generation of Californians looked ahead and made investments that strengthened this State for decades. The State invested in a public fabric – a great

university system, a state of the art transportation network, remarkable water projects - that was the foundation for economic expansion. The next wave of investment should be designed with the vision to meet the vastly changing needs of the next 50 years - and should not be a mere replication of the types of facilities that were built to serve Californians for the last 50 years.

This new age of investment must support growth principles that best ensure the State's long term economic strength, environmental quality, and equality of opportunity.

A key principle: Investments that support livable communities, sustainable development, and sound environmental practices strengthen the economy.

California's long-term economic health depends, in part, on a change in our growth patterns – to new forms of more sustainable development at the urban fringe, and to renewed economic growth and investment in existing communities, many of which have been left behind in the California economy. Infrastructure investments are a critical determinant of growth patterns, and therefore must support these goals.

Present growth trends and practices are eroding our economic competitiveness and environmental quality, just as blind resistance to growth will create chaotic results and impede economic progress. The sheer magnitude of the State's job and population increases will require that new growth be accommodated in more thoughtful ways both at the urban perimeter and within the



existing urban fabric. Stronger regional planning and state infrastructure investment consistent with such planning are required to foster these new growth goals.

Sustainable development means land uses that support transportation options beyond more freeways and roads; a better mix of housing in communities and neighborhoods; locating jobs near housing and balancing job growth with new housing; communities centered around civic spaces with features such as tree-lined streets and "human scale" design; more efficient, well planned higher-density use of land; and protection of environmental resources.

California's economic attractiveness has been and will always be integrally tied to the State's livability and environmental quality. Our infrastructure investments and growth patterns must recognize this reality.

Re-investment in declining communities is essential to reverse a dangerous trend toward "two Californias," one in poverty and the other enjoying an economic boom.

The predicament of poorer, established neighborhoods has been exacerbated by the lack of consistent public investment throughout California in the past three decades and by growth patterns that have discarded neighborhoods in 25-year cycles. California as a whole cannot succeed economically if there are two Californias – with most of the State experiencing a buoyant economy while simultaneously there are pockets of the State in economic decline and devastation. Present land use and growth patterns reflect the growing separation of these two Californias.

A two-tiered California poses a number of threats to long-term economic success. Educational failure will damage the quality of our workforce. Poverty will increase the fiscal burden on the State and local governments. Fears for public safety will negatively affect private sector investment decisions. Most importantly, the very essence of the California dream – equality of opportunity – will be lost.

Investments should be directed to support communities at risk or in decline, which in turn would advance the goals of more sustainable development and reduced growth pressures at the urban perimeter.

The predicament of poorer, established neighborhoods has been exacerbated by the lack of consistent public investment throughout California in the past three decades and by growth patterns that have discarded neighborhoods in 25-year cycles. Although economic

resurgence of such neighborhoods will require multi-faceted public policy attention, infrastructure investment is an important tool of revitalization.

Smart investment policy requires a new focus on cost-effectiveness, return on investment, and results to sustain California's economic growth.

Every dollar invested in support of the goals of sustainable economic growth and community reinvestment must be viewed as a precious resource. Under any analysis, the State's investment needs are enormous. Therefore, hard questions must be asked of any investment proposal, as they would be asked by any successful corporate entity considering strategic expenditures:

- Is the investment proposal consistent with growth principles that best ensure California's long-term economic, environmental, and social strength?
- Is it the most cost-effective means of achieving the desired result?
- Will it provide an adequate return on investment?
- Will it protect or enhance already existing assets?

This approach entails a move away from simply building more conventional facilities and demands a smarter fiscal approach that looks at cost-effective alternatives. For example, a smart

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investment plan should consider how reallocation of water rights and conservation of water lessens the need for new water facilities; how community, library and educational facility needs can be met more costeffectively through joint use efforts; how community mental health programs, substance abuse treatment, and youth employment opportunities could reduce the need for new prisons; and how the State can continue to meet its energy needs, as it has in the recent past, through innovative approaches such as demand management, competition, and new technology.

New avenues may not always be the easiest to explore inasmuch as they may challenge the existing orthodoxy and political status quo. Yet, the prudent stewardship of public resources demands such examination and exploration.

Smart, cost-effective investing represents a new discipline for the public sector and also requires an understanding of which public goods and services best contribute to private economic expansion. Therefore, the strategic investment process needs to actively engage California's dynamic private sector and needs to be built on a foundation of long-range economic analysis.

The State's investment plan must rely on strong regional planning to meet its objectives.

California needs a *comprehensive* state capital planning process to evaluate, scrutinize, and prioritize the investments needed to achieve the State's economic growth objectives.

The need for such a rational capital outlay process has been widely and properly recognized by a variety of public and private sector organizations.

In establishing such a process, it is critical to acknowledge that strong regional planning is elemental to achieving sustainable growth and community reinvestment goals. Issues such as affordable housing, jobs and housing balance, open space preservation, and transportation transcend traditional city and county boundaries.

Accordingly, any state capital outlay financing process must include a strong regional planning component, with state infrastucture investments made in accordance with and in support of credible regional plans which foster the State's growth principles. Further, regions must be empowered to better finance investments of regional significance.

Communities need majority vote approval for local capital investments.

Although the State takes the lead in investments of statewide significance, it is clear that investment needs cannot be met by the State alone. As noted above, any successful investment plan must recognize the importance of regional solutions. And, any meaningful strategy must free up California communities to make investments that contribute to their own efforts to sustain economic growth, protect the environment, enhance quality of life, and provide opportunity to struggling neighborhoods. California is too large for a single statewide approach.

To that end, communities should have the right, by majority vote, to make capital investments in schools, parks, and other critical community improvements. This is particularly important for existing, established neighborhoods that cannot rely on growth-related fees and revenues. While other reforms to local financing are needed, a majority vote threshold supports the goal of stabilizing existing, at risk communities and recognizes that local communities are best positioned to make decisions about neighborhood needs. Local empowerment also recognizes that an already strained state budget cannot adequately finance local needs.

California faces critical choices as to how it invests to build and sustain its economy while simultaneously contributing to the quality of life and equity of opportunity of its inhabitants well into the 21st Century.

The Treasurer's Office stands ready to work with the Governor, the Legislature, the Governor's Commission on Building for the 21st Century, and the people of California as we embark on a new era of investment in our future.

California faces critical choices as to how it invests to build and sustain its economy while simultaneously contributing to the quality of life and equity of opportunity of its inhabitants well into the 21st Century.

Smart Investments

CHAPTER 1-FINDINGS AND RECOMMENDATIONS

INTRODUCTION

During the next 20 years, California will add more than five million new jobs.¹ This economic growth will be accompanied by more than 12 million new residents, over four million new house-holds², and upwards of two million new schoolchildren³. The projected growth of the next 20 years will equal that experienced in the boom years of the 1950s, 1960s, and 1970s combined and will surpass the growth California saw in its first century of statehood.

This projected growth will pose the most dramatic challenge for California's leaders since California became a state. Growth will increase the need for all forms of public and private sector goods and services – needs that will overwhelm public resources if investment policies are not conceived with wisdom and vision. These needs will include – but by no means be limited to – quality schools, parks and public open spaces, and the provision of adequate, cost-efficient systems of water, electricity, and transportation. This surge in jobs and population not only will create the need for new investments, it also will place added stress on an already overburdened and deteriorating physical infrastructure, much of which was built in the 1950s and 1960s.



California's Capital Outlay as a Percentage of Total State Budget

At the same time, budgetary pressures and lack of long term planning over the past few decades have resulted in a significant decline in public investment, which in turn is threatening California's livability, environmental quality, and economic competitiveness. Capital investments declined as a percentage of the State's budget from more than 20 percent in the 1950s and 1960s to less than 5 percent in the 1980s.⁴

California's competitiveness and economic strength have been, in no small part, a result of the State's exceptional livability and environmental quality. In the current global economy, businesses

	and entrepreneurs in the fastest growing, highest value-added sectors
California's	have the ability to locate virtually anywhere in the world.
competitiveness and	According to the Center for the Continuing Study of the California Economy, "A high quality of life is, increasingly, a determinant in attract-
economic strength have	ing entrepreneurs and workers in global industries Failure to protect
been, in no small part, a	the natural attractiveness of California can, therefore, hurt the State's future prosperity." ⁵
result of the State's	However, California's current growth patterns, when combined with the
exceptional livability	magnitude of expected growth and insufficient public investment,
and environmental	threaten California's environmental quality and livability, and, therefore, its long-term economic health.
quality.	Sustained economic success in the 21st Century will require the invest-
	ment of public resources to ensure the continued attractiveness of

ment of public resources to ensure the continued attractiveness of California as a place not only to *locate business*, but also as a good place for people to *work* and *live*. To maintain California's economic vitality, we

must make needed capital investments in clean air and water, efficient transportation and public services, and attractive cultural facilities and recreational opportunities, in addition to renewed programmatic efforts aimed at achieving quality education and a well trained workforce.

According to Sanford C. Bernstein and Company, a significant investor in California municipal securities, "Maintaining the State's quality of life will depend on how well California invests in the rebuilding of its existing infrastructure, as well as in the construction of new roads, schools, water treatment plants and [other public facilities]."⁶

The Eighth Annual Business Climate Survey, sponsored by the California Business Roundtable and the California Chamber of Commerce, found that 71 percent of the State's business leaders are concerned about the need for increased public investment.⁷ And according to the Chamber, "Investing in the State's infrastructure is an investment in California's future."⁸

Implicit in the call for investment is the recognition that California will not maintain economic success in the long run if our environment is degraded. Of equal significance is the reality that future economic strength will be elusive if there are pockets of economic failure throughout our State. Failure anywhere is failure everywhere.

Although the State's economy currently is growing at a strong pace, not all Californians are sharing the benefits of this growth. By 1996, the gap between rich and poor in California was greater than in all but four states.⁹ This gap also has manifested itself in a physical separation of Californians by income, class and race that has been exacerbated by short-sighted land use patterns and inattention to struggling communities. A two-tiered California threatens the State's long-term economic success



by limiting the quality of our workforce, increasing the fiscal burden on the State and local governments to provide social services, and discouraging private sector investment. While this problem will need to be addressed on a number of fronts, one important tool of public policy is to direct infrastructure investment in ways that help lift up communities with the greatest needs.

The challenge for policy makers is not whether California will grow, but rather, how we will grow and how public investment policy can support growth patterns that bolster the State's economic, environmental and social progress. Given the magnitude of expected growth, it is particularly

critical to examine anew the most productive, innovative, and cost-efficient means of investing precious public capital to support sustainable growth patterns which best ensure long-term economic success.

The State's infrastructure investments are powerful tools in shaping our growth. These investments also are a precious resource which should be managed through a long-term strategic investment plan that prioritizes economic growth, environmental protection, equality of opportunity, and an improved quality of life among its most important measures of return on investment.

California has significant debt capacity, but lacks an investment plan

The State's total projected General Fund debt capacity is approximately \$32.5 billion over the next ten years (through fiscal year 2008-09), based on current revenue projections and budget structure. This amount includes \$14.7 billion in bonds already authorized but not yet issued. Total General Fund debt capacity over the next decade could range from nearly \$27.5 billion to more than \$38 billion, depending on projected revenues in the coming years.

This projected debt capacity is based on the State maintaining, in each of these next ten years, a commitment of 4.17 percent of General Fund revenues to debt service (as provided in the fiscal year 1999-00 budget as of May 14, 1999). This ratio derives from approximately \$2.627 billion of proposed General Fund spending on net long-term debt (including capital leases)¹⁰ and \$62.985 billion of proposed General Fund revenues in the Governor's May 14, 1999 revised fiscal 1999-00 budget.¹¹ Inherent in maintaining the above ratio of 4.17 percent over time is the assumption that long-term growth rates in expenditures on all state services will track long-term growth rates in state revenues.

Since revenue and expenditure trends can be difficult to forecast with accuracy, this report uses "sensitivity" analyses – based on differing revenue scenarios – to illustrate a range of estimated debt capacity under varying economic and fiscal circumstances. These sensitivity analyses result in an expanded range of debt affordability, encompassing both higher and lower alternative projections of additional capacity for new General Fund debt over the next ten years, as summarized in the following table.

Total Additional D	ebt Capac	ity Under A	iternative	Revenue Sce	enarios (\$	BIIIIOUS)
	FY 200 Annual Debt Service	0-2001 Cumulative Additional Debt Capacity	FY 200 Annual Debt Service	04-2005 Cumulative Additional Debt Capacity	FY 20 Annual Debt Service	008-2009 Cumulative Additional Debt Capacity
DOF Forecast + 1%	\$0.17	\$4.30	\$1.42	\$19.92	\$2.81	\$38.03
DOF Forecast (base)*	0.11	3.43	1.22	17.16	2.41	32.53
DOF Forecast – 1%	0.06	2.57	1.04	14.57	2.03	27.46

* "Base Case" based on Department of Finance 10-year Revenue Forecast, as of May 14, 1999. Alternative scenarios reflect a +/- 1% change in revenue growth, compounded annually.

¹ Annual Debt Service above reflects only the incremental annual debt service on projected additional bond issues, exclusive of debt service on existing bonds. See Appendices for additional details on existing and projected debt service.

² Total additional debt capacity includes \$14.7 billion of authorized but unissued bonds.

³ All scenarios maintain a maximum annual ratio of debt service to General Fund revenue at 4.17%. All scenarios assume bonds are sold at an average interest rate of 6.0% with final maturities of 30 years following date of issuance. Annual debt service is assumed to begin in the fiscal year following issuance.

As indicated above, the "base case" estimate of the State's total debt capacity is approximately \$32.5 billion over the next ten years, assuming the State continues to devote 4.17 percent of General Fund revenues to debt service and sells its previously-authorized but unissued debt as quickly as possible, consistent with this constraint. The sensitivity analyses project a range of possible debt capacity in the event revenues increase or decrease from forecasts by 1.0 percent compounded annually. The resulting expanded range of total debt capacity spans from a low of \$27.5 billion (base case revenues minus 1.0 percent) to a high of over \$38 billion (base case revenues plus 1.0 percent). It is important to note that this additional capacity is available only incrementally over the next ten years, beginning in 1999-00, unless an additional share of the budget is allocated for this purpose.

This report's methodology contrasts with prior approaches to projecting debt affordability, which resulted in a swing in projected debt capacity from \$34.4 billion in 1997 to \$49 billion in 1998. This dramatic one year swing was the result of two compounding factors, the first, an 11.7 percent change – from \$49.2 billion to \$54.9 billion — in General Fund revenues from one year to the next. The impact of this revenue surge was magnified by a debt capacity calculation based on an assumed 6 percent ratio of debt service to General Fund revenues – far higher than existed at the time. The state budget would not support increasing debt service to a 6 percent level in the near-term without cuts to existing programs, or devoting new revenues, beyond those currently existing, to debt service.

By accepting a one-year swing of almost \$15 billion in projected debt capacity *and* not recognizing the dramatic underlying changes in the state budget that would be required to utilize the supposed capacity, the prior approach failed to provide a realistic view of our long-term debt capacity. It is not prudent to encourage long-term debt obligations based on short-term revenue fluctuations without regard to the real level of competing demands on the State's revenues.

Simply to *maintain* the current 4.17 percent will require expenditure containment consistent with revenue growth, given that any higher rate of spending on other state goods and services will constrain the dollars available for debt service. *Increasing* the percentage committed to debt financing will require either new revenues, revenue growth that outpaces expenditure increases, or reductions in other program expenditure levels. For example, as noted earlier, the Governor's May revised proposed 1999-00 state budget includes \$2.627 billion for debt service, which represents 4.17 percent of estimated General Fund revenue of \$62.985 billion. This ratio is well below the 6 percent ceiling discussed in prior debt affordability reports; so, it is easy to see how such an increased commitment to debt service

Current needs assessments are not based on a comprehensive plan of investment nor are they designed to achieve the goals of ensuring sustained economic growth, environmental preservation, equality of opportunity, and livability.

would require major reductions in current State programs or revenue increases in excess of expenditure growth. For example, the \$1.15 billion in additional annual debt service associated with reaching a 6 percent ratio of debt service to General Fund revenues is more than the entire budget augmentation for the Governor's proposed Education Initiatives for K-12 and Community Colleges; nearly all the projected General Fund costs of instruction in the entire California State University System; or approximately 13 percent of the General Fund money being spent on higher education.

If the State chose to increase the ratio of debt service to General Fund revenues, it would have a significant impact on debt capacity. For example, if the State gradually increased the ratio to 5 percent over the next five years, debt capacity would increase by \$10 billion, to \$42.9 billion, over the next ten years. If the State increased this ratio to 6 percent over the same period, the debt capacity would reach \$58.6 billion over the next ten years.

By its nature, debt capacity analysis looks at a long-range view of the State's economy. As a result, it cannot factor in unexpected spikes in revenues; debt can only be prudently issued against a reasonably stable flow of revenues.

Therefore, directing one-time budget surpluses toward "pay as you go" capital investments offers one option for financing some of the State's immediate capital needs without jeopardizing the State's ability to respond to less favorable revenue trends in the future. Given the substantial investment needs of the State, such an infusion of capital will address some of the most pressing needs while not committing funds available on a one-time basis to long-term obligations.

The State's General Fund debt capacity is in addition to the \$35.6 billion in non-debt resources identified by the Department of Finance as available over the next ten years for infrastructure investment.¹² These combined resources most likely will fall short of expected needs. However, current needs assessments are not based on a comprehensive plan of investment nor are they designed to achieve the goals of ensuring sustained economic growth, environmental preservation, equality of opportunity, and livability.

While our infrastructure needs will almost certainly exceed currently identified funding and debt capacity, California must first adopt visionary investment principles and strategies for the wise use of precious capital, rather than focusing solely on additional dollars needed for undefined tasks.

Economic growth principles, not "magic" budget percentages or project "laundry lists," should drive investment policy.

California clearly must make a commitment to invest in ways and in amounts that ensure the State's continued economic vibrancy. This premise was recognized in the 1999 *Capital Outlay & Infrastructure Report* published by the California Department of Finance, which noted, "The State's schools, highways, bridges, water systems, public safety facilities, and natural resources are the framework for individual and collective quality of life. Without a strong framework, both the private and public sectors of the economy will falter."

Infrastructure investment is one tool and a key determinant to affect how California grows. Even as we consider additional resources, the significant available resources identified above should be invested wisely to support growth patterns that are sustainable in order to keep California's economy strong in the years ahead.

Good investment policy dictates that the nature and exact level of public investment should be driven by a set of principles guiding California's future economic growth, not by a "magic" percentage of the state's budget or a compilation of capital projects desired by various agencies. To date, much of the discussion surrounding infrastructure investment has revolved around dollar needs versus dollar availability, in the absence of a strategic investment plan.

No successful, dynamic company would begin its investment planning without first asking fundamental questions:

- Where do we want to be in the 21st Century?
- What do we want to look like in the years ahead?
- What are the best investments to achieve our goals?
- What are the most cost-effective ways of making those investments?
- What processes and structures will get us there?

California needs to ask these questions and more. The answers to these questions should drive the nature, direction, and amount of our investments.

Successful businesses recognize the importance of a strategic focus backed by long-range investment strategies. In its 1998 Annual Report, PepsiCo, Inc. illustrates this perspective well: "So we've pursued a strategy you could sum up in two words: *focus* and *investment*. You get your ducks in a row, then put some real money behind them...The whole point is to make our businesses much stronger and more competitive for the long term — and able to weather economic storms and marketplace skirmishes with minimal disruption. So that's the big picture."¹³

The postwar generation of Californians looked ahead and made investments that strengthened this State for decades. The State invested in public projects – from a great university system to a state of the art transportation network – that were the foundation for private sector economic expansion. The

next set of investments should be designed to meet the vastly changing needs of the next 50 years – and not merely to replicate the types of facilities built to serve Californians for the last 50 years.

Investments that served the State well when our population was just over ten million may no longer be appropriate for a state with upwards of 40 million people. For example, a recent University of California, Berkeley College of Engineering study found that every 10 percent increase in miles of new freeway lanes generates a 9 percent increase in traffic within five years.¹⁴ While the best transportation solution for the 1950s and 1960s may have been to build more roadways, the 21st Century likely will require new and more varied transportation investments.

This new age of investment must be focused on supporting growth principles that best ensure the State's long-term economic strength, environmental quality, and equality of opportunity.

A key principle: Investments that support livable neighborhoods, sustainable development, and sound environmental practices strengthen the economy.

California's long-term economic health depends, in part, on a change in our growth patterns. To accommodate expected growth, we need new forms of sustainable development to expand wisely at the urban fringe and renewed growth and investment to revitalize existing communities, many of which have been left behind in the California economy. This two-pronged approach must be mirrored in our infrastructure investments inasmuch as these investments are a critical determinant of growth patterns.

Present growth trends and practices are eroding our economic competitiveness and environmental quality, just as blind resistance to growth will invite chaotic results and impede economic progress.

Examples of the costs of current development patterns abound. Increased traffic congestion and the need to commute great distances to travel from home to work, school or shopping are stealing



quality time from family and productive time from our economy. From 1987 to 1995, the number of hours that California drivers spent in congested conditions on urban highways increased 70 percent, from fewer than 200,000 hours per day to more than 300,000 hours per day.¹⁵ This trend is projected to continue. In the San Francisco Bay Area, for example, vehicle hours of delay are projected to grow by 249 percent between 1990 and 2020.¹⁶ According to the California Chamber of Commerce, congestion hinders the California economy as truck deliveries are delayed and access to ports is hampered. The annual cost of congestion in California's five largest urban areas is \$14.8 billion.¹⁷

Traffic congestion is a primary cause of another major problem facing California: poor air quality. All of California's major metropolitan regions are classified as non-attainment areas for air pollutants, exposing more than 80 percent of the State's population to unhealthy levels of air pollution.¹⁸ In fact, eight of the fifteen worst air quality regions in the *nation* are located in California according to the US Environmental Protection Agency. The South Coast Air Quality Management District estimates that the cost of attaining clean air in the District's four county area will exceed an average of \$1.6 billion per year.¹⁹ The cost of air pollution also can be measured in lives lost. Los Angeles tops the list, with more than 5,000 early deaths annually due to air pollution.²⁰ Beyond traffic congestion and air pollution, the lack of affordable housing in California is another example of the negative impacts of present growth patterns on the State's economy. California has 11 of the 25 least affordable housing markets in the country.²¹ California has the second lowest homeownership in the country.²² While there is a need for more than 250,000 new housing units every year in California, only 126,000 homes were produced last year.²³ And, while in the late 1980s, one new house was built in California for each 1.6 new jobs, since 1995, permits have been issued for only one new housing unit for each 5.4 new jobs statewide.²⁴

The resulting affordable housing supply shortage is especially acute in high job growth areas such as the Silicon Valley, and is exacerbated in a booming economy. While the number of jobs in the

The sheer size of the State's job and population increase will require that new growth be accommodated in more thoughtful ways both at the urban perimeter and within the existing urban fabric.

nine-county Bay Area grew by 9.5 percent between 1995 and 1997, the number of new housing units grew by only 1.3 percent, according to the Bay Area Council. A poll of Bay Area business leaders found that an overwhelming 90 percent rated the housing supply problem an 8, 9 or 10 on a scale of 1 to 10. In the words of Roche Bioscience President James N. Woody, "In our own recruiting efforts we lose one exceptional candidate per month on the cost of housing issue."

Affordable housing for workers is a necessary component for California's sustainable, long-term economic health.

Present patterns of growth are consuming our open space at a rate even faster than our population growth. The inefficiency of present growth patterns is illustrated by the experience of Los Angeles. From 1970 through 1990, the population growth of metropolitan Los Angeles was greatly outpaced by the amount of developed land.²⁵

These patterns of expansion are not sustainable fiscally, economically, environmentally, or politically. Fiscally, the State and local governments

cannot afford to meet the demand for transportation, public works, and other services needed to connect increasingly far-flung new communities. Economically and environmentally, our quality of life, on which our future competitiveness depends, is being eroded. Politically, if we fail to achieve a needed consensus on growth, our State will become a battleground, creating chaotic development and instability, and impeding economic progress.

The sheer size of the State's job and population increases will require that new growth be accommodated in more thoughtful ways both at the urban perimeter and within the existing urban fabric. The principles of sustainable development are emerging as critical ingredients to successful growth strategies. Over the past decade, these values, whether called "New Urbanism," "Smart Growth," or "Sustainable Development," are the basis for a growing consensus among progressive business, community, and environmental leaders alike.

As an example, Hugh L. McColl, Jr., Chairman and CEO of Bank of America, remarked in a speech to the International Council of Shopping Centers earlier this year, "If we're going to change our country's landscape as much in the **next** hundred years as we have in the **past** hundred years... we would be wise to think long and hard about how we can achieve that growth while building strong communities and protecting our environment at the same time."²⁶

And, in the words of Carol Galante, President of BRIDGE Housing Corporation, a leading nonprofit provider of affordable housing in California, "A car and 50 mile commute should not be the price of entry to a good job and an affordable place to live in our State. Unfortunately, that is the case for too many Californians. For the sake of our economy and our quality of life, we need to strike a better balance in providing affordable, safe and decent housing close to jobs, transportation, daycare and other services."

These themes are echoed in the words of Dan Silver, Executive Director of the San Diego Endangered Habitat League, "The time to fight all growth is past. California will grow. Our job is to develop policies for smart growth – smart enough to preserve critical resources and valuable open space, smart enough to make our cities attractive places to live, and smart enough to provide housing and a high quality of life for all Californians."²⁷

The traditional growth control agenda has sought to limit economic activity altogether. Blind resistance to the reality of growth will create haphazard results and harm the State's economy. Conversely, sustainable development accepts the reality that we will experience growth and asks how best to direct this growth without destroying the quality of life which is a critical factor in stimulating private investment.

Sustainable development means land uses that support transportation options beyond more freeways and roads; a better mix of housing in communities and neighborhoods; locating jobs near housing and balancing job growth with new housing; land use designs that bring homes, schools, workplaces, services and retail shops closer together; communities centered around civic spaces,



with neighborhood features such as well-lit, tree lined streets and inviting, human scale architectural design; more efficient, well planned higher density use of land; and protection of environmental resources.

An elemental component of smart growth is the recognition that accommodating more growth within the existing urban fabric takes pressure off the urban fringe and simultaneously brings new economic opportunities to existing communities. This strategy is more economical, more efficient, and less harmful to our natural environment.

Infrastructure investment should be linked to supporting sustainable

development. Sustainable development, especially from the State's perspective, means defining an infrastructure investment strategy aimed at making more efficient use of our public facilities – both what we already have and what we elect to add. In short, sustainability is a smart investment strategy.

Successful examples of sustainable growth exist in many parts of our State and nationwide. Over the past decade, the sustainability movement, which began with a few pioneering projects in the 1980s, has become a part of mainstream planning and private development.

One example of a sustainable development is the City of Sylmar's Village Green. The homes in Village Green feature advanced energy efficient technology, which will reduce energy costs by 30 to 50 percent, and easy access to public transportation, including the Sylmar/San Fernando Metrolink/ MTA Transit Station. Community facilities located within the development include a Transit Tots

child-care facility and a 27,000 square foot park with a tot lot and picnic area. Village Green is one of the nation's first new home communities to be built under the Partnership for Advancing Technology in Housing (PATH), a cooperative effort between private industry, the public sector and the federal government to increase energy efficiency and environmental awareness in housing.²⁸

In the nine-county San Francisco Bay Area, the Metropolitan Transportation Commission has designated \$54 million over six years in capital grants for its Transportation for Livable Communities (TLC) program to support projects linking transportation investments with community quality of life goals, including pedestrian- and transit-friendly developments and streetscape improvements. Additional funding for planning is also provided through the TLC program.²⁹

The California Tax Credit Allocation Committee (CTCAC) is incorporating smart growth principles in its allocation of scarce public resources. Chaired by the Treasurer, CTCAC awards approximately \$450 million per year in federal and state tax credits to assist in the construction and rehabilitation

> of affordable rental housing. CTCAC has put forth new regulations to score applications for credits according to a point system that focuses limited tax credits in a manner consistent with sustainable growth. Among other criteria, housing applications are given points for being within a quarter of a mile of a transit corridor, a half mile of parks and recreational facilities, or a half mile of retail grocery shopping. Apartments for families are given points if they are located within a half mile of a public school, or if services such as day care or after school programs are available on site. Senior projects are given points if they are located within a half mile of a senior center. And points are awarded to projects

in existing low-income communities in need of quality affordable housing where a comprehensive revitalization effort is underway.

Another form of sustainable development is urban land recycling. An example is The Crossings neighborhood in Mountain View, which transformed a 1960s auto-oriented strip mall into a pedestrian-oriented community. Located adjacent to a new CalTrain commuter station, The Crossings combines small-lot single-family homes, townhouses, row houses, and apartments within a short walk of shopping and transit. Neighborhood park and open spaces are distributed throughout the 18-acre site.

Besides alleviating blight, smart investments in urban land recycling also redirect growth to distressed urban areas that already have a basic foundation of existing infrastructure and public services. This approach increases the return on past public investments and reduces demand for new public facilities on the urban fringe. In the same speech in which he commented on sustainable growth, Bank of America Chairman McColl called for "working together to rebuild our inner cities, where land has already been developed and infrastructure already exists — instead of using our land, a limited natural gift, as a disposable product, to be used once and thrown away."³⁰

In addition to making new capital investments, we should ensure that we are using our existing infrastructure to its full capacity. In many older communities, significant additional capacity exists in the roads, water and sewer systems that already have been built. Preserving, upgrading, and fully utilizing existing facilities is often a more cost-effective way of delivering services than building new



facilities. To protect and make full use of this available capacity, the State and local governments should encourage "infill" development in older communities, a strategy that also may relieve some of the demand for new development and infrastructure investment at the suburban fringe.

New homes constructed in existing urban neighborhoods can be attractive to buyers who value the convenience of nearby jobs, shopping, and services. Just minutes away from the State Capitol in downtown Sacramento, Metro Square is one example of a popular infill development. Built on the site of a prior medical clinic, all 45 homes in Metro Square were sold on the opening day of the offering. The project features single-family, detached homes ranging from 1,340 to 1,580 square feet at a density of 18 units per acre. The Old Town Square in Oakland's downtown area is a mixed-use housing project that met with similar success. The 98 condominium units in Phase 1 were nearly sold out prior to completion of the project in 1998.

Infill development directs new capital into struggling areas which can reassure and attract additional private capital sources to reinvest in these communities. A targeted infusion of public and private investment can play a role in restoring marginal urban and suburban neighborhoods to economic health. Infrastructure is one tool of many that must be applied to ensure the neediest communities will not continue to be left behind.

Re-investment in declining communities is essential to reverse a dangerous trend toward "two Californias," one in poverty and the other enjoying an economic boom.

California as a whole cannot succeed economically if there are two Californias – with most of the State experiencing a buoyant economy while simultaneously there are pockets of the State in economic decline and devastation. Present land use patterns reflect the growing separation of these two Californias.

Clearly, the costs of allowing economically struggling communities to fail are more than we A two-tiered California poses a number of threats to long term economic success. Educational failure will damage the quality of our workforce. Poverty will increase the fiscal burden on the State and local governments. Fears for public safety will negatively affect private sector investment decisions. Most importantly, the very essence of the California dream – equality of opportunity – will be lost. Clearly, the costs of allowing economically struggling communities to fail are more than we can afford.

can afford.

Because of the significant threat to California's economy of leaving communities behind, any infrastructure plan must consider how the State's public investment can address the growing separation between rich and poor. Public investments should support communities at risk or in

decline which, in turn, also would advance the goals of more sustainable development and reduce growth pressures at the urban perimeter.

The benefits of public investment in these communities include inducing private investment, improving the public fabric, stabilizing neighborhoods, and bringing confidence and hope to local residents and businesses. Of course, infrastructure investment alone will not be sufficient – but coupled with other investments and policy initiatives in education, public safety, and human services – such investments can bolster revitalization efforts

California has the largest gap between rich and poor of all states except four. Among the 11 largest states, the gap between the wealthiest 5 percent and the poorest 20 percent grew wider in California between 1978 and 1996 than in any state except New York.³¹ Even more striking, according to the Public Policy Institute of California, this increase in inequality of income has not resulted from unusual income growth for the wealthiest Californians, but rather from "...a precipitous drop in income at the mid-to-lowest levels of the distribution."³²

Despite California's recent growth and tremendous wealth, the share of the State's residents living below the poverty line increased by 28 percent between 1988-89 and 1995-96.³³ California children have been especially hard hit. More than one out of every five California children is living below the poverty line.³⁴ In 1987, California's child poverty rates placed us a disheartening 31st among all states and the District of Columbia; by 1996, our standing had dropped further, to 43rd in the nation.³⁵

Present land use, economic, and growth patterns reflect the separation of these two Californias by race, income, and class. In the words of Harvard University professor Dr. Cornel West, we now see "a world of advanced sectors and regions connected with one another and weakly linked to the backward sectors and regions of their own societies."³⁶

Examples of the growing income disparity of older cities and new suburbs can be seen in many California regions. In the Sacramento Metropolitan area, for example, poverty rates were more than twice as high in urbanized Sacramento County than in rapidly growing suburban and rural Placer County in 1995, the latest year for which data is available. Even more striking than the current disparity, the poverty gap between these two counties increased by 50 percent between 1989 and 1995.³⁷

In the Los Angeles area, the effective buying income per capita in Simi Valley is more than twice that for Compton.³⁸ And in the San Francisco Bay Area, poverty is concentrated in the older, more



urbanized communities, while incomes are rising sharply in communities on the urban fringe.³⁹

Even *within* new communities, the divisions by income and class have been accentuated by the form and larger scale of modern developments. Pre-World War II neighborhoods were designed on a smaller scale with large and small homes, apartments, and neighborhood businesses built in close proximity to one another. Due to the much larger increments of demand, today's developments are built on a larger scale, with 500 apartment units in one location, 500 small lot homes in another place, 500 medium sized lots in another location and 250 larger lot homes in

yet another place – a pattern that cannot help but exacerbate separations. These aggregations of housing of a single type and size are frequently separated by wide swaths of asphalt thoroughfares, perimeter gates, or mazes of cul-de-sacs, without pedestrian-access between neighborhoods or to the nearest commercial centers.

In his recent study of poverty and geography, University of California Professor Manuel Pastor noted that "[H]istoric patterns of suburbanization have contributed to both racial and income

inequality: resources and economic dynamism have often left the central cities where most racial minorities live, leaving diminished community structures and hazardous waste in their wake."⁴⁰

These discrepancies also are evident in the geographic distribution of new jobs. The percentage of employment in suburbs has been rising steadily in recent decades, outpacing the suburban popula-

We cannot succeed in the long term with thriving, successful suburbs and devastated or troubled inner cities and older neighborhoods.

tion growth. Yet, while African Americans and Latinos comprise 44 percent of residents of central cities, these groups make up only 16 percent of suburban populations.⁴¹ In Los Angeles County, for example, Latino and African Americans comprise only 35 percent of the population in high job growth areas of the county, while these same groups make up more than 60 percent of the population in low job growth areas.⁴²

We cannot succeed in the long term with thriving, successful suburbs and devastated or troubled inner cities and older neighborhoods. The predicament of poorer, established neighborhoods has been exacerbated by the lack of consistent public investment throughout California in the past three decades and by growth patterns which have discarded neighborhoods in 25-year cycles.

Reducing poverty and income inequality benefits all members of a community. Poverty is a drain on our collective economic prospects. Inequality and poverty breed distrust and social tension and lower the skill base necessary for a competitive economy. An econometric analysis of 74 metropolitan regions found that reductions in central city poverty led to more rapid income increases for all residents in a region.⁴³

One example of the costs of failing to address our growing inequality is the current difficulty California is experiencing in its efforts to move welfare recipients to work. According to an April 1999 Research Brief by the Public Policy Institute of California, welfare recipients in California have substantially lower basic skills than welfare recipients in the rest of the nation, and the basic skills gap between welfare recipients and workers in California is greater than in other states. This reality may explain why California has had less success than other states in moving people from welfare to work. While the number of individuals receiving public assistance has decreased nationwide, the decline in California was the smallest of all states but four.⁴⁴

Given the challenge to long-term economic health posed by California's income disparity and segregation, the State should focus infrastructure investment in the areas of greatest economic need. As an example, the California Infrastructure and Economic Development Bank, chaired by the Secretary of Trade and Commerce and on which the Treasurer serves as a Board member, recently proposed to make community economic need a baseline requirement for the first \$150 million in local infrastructure financing, which is being made available from the Infrastructure Bank. This requirement would ensure that this scarce pool of infrastructure funds is targeted to areas of the State with high unemployment and poverty.

Physical infrastructure investment is one of many strategies necessary to unlock the potential of the poorest California communities. By no means is it a substitute for other needed types of investment or policy initiatives. For instance, infrastructure investment, to be successful, must be coupled with strategic investments in education and training in the poorest California communities to help lift people out of poverty and meet the workforce needs of California's growing economy.

Indeed, neighborhoods that are struggling economically face broad challenges which require action on many fronts. For example, a recent study of San Diego high schools comparing student performance at schools in the various neighborhoods of the city underscores the importance of investing in education in the poorest California communities. This study found that student dropout rates at schools in the poorest neighborhoods were five times higher than dropout rates at schools in the richest neighborhoods. Average SAT scores were 100 points higher at the richest schools than at the poorest schools. And while half of the students in the richest schools met entrance standards for the University of California or California State University, only one in five students at the poorest schools met those standards.⁴⁵ If California is to succeed economically, we must increase public investment, including infrastructure investment, in neighborhoods that are falling behind.

As a 1996 Public Policy Institute of California study of income distribution concluded, "Continuing growth in inequality is not inevitable. It is evident that government policies do affect the distribution of income, although the mechanisms are not fully understood. The challenge is...to identify state policies that can promote equity and opportunity, as well as efficiency, in the California economy."⁴⁶

Smart investment policy requires a new focus on cost-effectiveness, return on investment, and results to sustain California's economic growth.

Every dollar invested in support of the goals of sustainable economic growth and community reinvestment must be viewed as a precious resource. Under any analysis, the State's investment needs are enormous. Therefore, hard questions must be asked of any investment proposal, as they would be asked by any successful corporate entity considering strategic expenditures. Our goals must be to improve the economy, environment, quality of life, and equality of opportunity for all Californians. To ensure that we invest wisely, we must ask questions as to how and to what extent each investment we make today will achieve these goals.

- Is the investment proposal consistent with growth principles that best ensure California's long-term economic, environmental, and social strength?
- Is it the most cost-effective means of achieving the desired result?
- Will it provide an adequate return on investment?
- Will it protect or enhance already existing assets?

This approach entails a move away from simply building more conventional facilities and demands a smarter fiscal approach that looks at cost-effective alternatives. A smart investment plan should consider, among other things, how reallocation of water rights and conservation of water lessens the need for new water facilities; how community, library and educational facility needs can be met more cost-effectively through joint use efforts; how community mental health programs, substance abuse treatment, and youth employment opportunities could reduce the need for new prisons; and how the State can continue to meet its energy needs, as it has in the recent past, through innovative approaches such as demand management, competition and new technology.

For example, since 1977 Californians have saved more than \$16 billion in energy costs, the equivalent of constructing 11 new power plants, through energy conservation and the use of

efficient lighting and appliances. While California's per capita electricity consumption is almost unchanged since 1975, the U.S. average has increased by 35 percent.⁴⁷

Conservation and increased efficiency also have succeeded in dramatic reductions in water usage by California families, businesses and institutions. The City of Los Angeles today uses no more water than it did in 1970, even though the City's population has grown by 32 percent, or nearly one million people.⁴⁸ This increased efficiency was achieved through successful conservation programs

such as distribution of low-flow showerheads, and rebates for the installation of high efficiency washing machines and ultra low flush toilets. Similar efforts in the eastern San Francisco Bay Area have led to a 34 percent decrease in household water use from 1975 to 1995.⁴⁹

A specific example of a cost-effective alternative investment is the "Cool Schools" program to plant trees and to replace asphalt with landscaping at elementary schools in Los Angeles. An average of 88 trees will be planted at each of 40 schools, and 30 percent of the asphalt in the schoolyards will be replaced with landscaping. The trees and landscaping will cool the schools, create energy cost savings of 12 percent to 18 percent,⁵⁰ and save

additional capital costs by reducing the need for air conditioning equipment. In addition to the energy savings, the trees will combat pollution, beautify urban neighborhoods, conserve water, and help prevent storm water pollution.⁵¹

Similarly, we ought not ask how many more cars will be able to use a freeway if we add an additional lane of traffic, but, rather, whether this investment – or another — will most improve the long-term mobility of people and goods within the State. Using this approach, an investment in public transit that reduces the number of vehicles on the road and hence improves both personal and commercial mobility may be a more cost-effective investment than adding additional lanes to an existing freeway. Investments in telecommunications infrastructure that facilitate telecommuting also may reduce the need for constructing additional costly transportation facilities. By focusing on the desired result of improving the mobility of people, information and goods, we would better improve both our economic competitiveness and the quality of life of our citizens. And we would be making smarter use of precious public dollars.

Smart investments in youth employment opportunities, drug prevention and treatment, parolee services, and mental health programs should be examined to reduce the need to build more prisons. The Legislative Analyst's Office (LAO) believes that restored funding for parolee services is in part responsible for the recent drop in prison population growth to 1.0 percent for first half of 1998-99, the lowest rate in many years. The modest \$5.5 million expansion of parolee services, including substance abuse counseling and short term residential shelters, was restored by the Legislature and the Governor last year. These services may allow offenders to more easily make the transition into the community, lowering the recidivism rate. The LAO notes that when the California Department of Corrections eliminated about \$5 million in these parole services in 1997, the rate of parole failure increased significantly and the State experienced an unexpected surge in its prison population.⁵²



Also, more than 9 percent of inmates in state prison are seriously mentally ill.⁵³ Investment in mental health services both within prison and outside, particularly to provide community housing, more intensive counseling and treatment, and electronic monitoring of mentally ill offenders released on parole, can be cost-effective.⁵⁴

Similarly, in 1999, the Sheriff of Sacramento County conducted a study of the County's arrestees, and found that over 13 percent suffered from serious mental illness. The study examined data from arrestees in 1998 and identified 423 nonviolent seriously mentally ill offenders who repeatedly cycled through the criminal justice system. The cost to Sacramento County in 1998 was an estimated \$3.2 million in criminal justice costs alone.⁵⁵

Additionally, an analysis of the long-term effects of early childhood programs and family support programs published by the David and Lucille Packard Foundation demonstrate that these investments can be cost-effective in reducing delinquency and associated costs to the criminal justice system and to crime victims. For example, one study cited in the analysis found that an investment of \$12,356 per family in early childhood and family programs yielded benefits

totaling \$108,000 in savings to the justice system, to victims of crime and in educational benefits. $^{\rm 56}$

New avenues may not always be the easiest to explore, inasmuch as they may challenge the existing orthodoxy and political status quo. We must overcome these difficulties to make the investment decisions that are in the best interests of the State.

New avenues may not always be the easiest to explore, inasmuch as they may challenge the existing orthodoxy and political status quo. We must overcome these difficulties to make the investment decisions that are in the best interests of the State.

Smart, cost-effective investing represents a new discipline for the public sector and also requires an understanding of which public goods and services best contribute to private economic expansion. Therefore, the strategic investment process needs to actively engage California's dynamic private sector and needs to be built on a foundation of long-range economic analysis. The Governor has recognized the value of private sector input to long-range capital outlay planning by appointing more than 20 private sector leaders to serve on the Commission on Building for the 21st Century. We also must explore ways to maintain a role for the private sector as we implement this process.

One way to utilize private sector expertise that has been endorsed by the California Business Roundtable and the California Chamber of Commerce is to encourage public-private collaborations, also known as entrepreneurial partnerships. Entrepreneurial partnerships could be used to

finance, construct and operate both new and existing/updated capital facilities such as highways, bridges, airport facilities and other transit systems.

In addition, the State needs to develop a strong capacity to forecast and analyze long-run economic trends, and to match investments to these trends, as well as the ability to measure the impact of potential investments on achieving the State's goals of enhancing economic viability, environmental preservation, equality of opportunity, and quality of life. To do so will require developing indicators of regional and statewide economic competitiveness and quality of life.

The State Commission on Finance, chaired by the State Treasurer, did produce long-range forecasts and special economic studies until its sunset in 1994. It is critical that the State build the capacity to perform the long-range analysis necessary to match state capital investments to economic trends and to measure return on investment.

Measuring the economic, environmental and social returns of each state investment will ensure that the limited dollars available for infrastructure investment are not wasted.

The State's investment plan must rely on strong regional planning to meet its objectives.

California needs a *comprehensive* state capital planning process to evaluate and prioritize investments based on the State's growth principles designed to achieve our economic vision. Leading private and public organizations, including the California Business Roundtable and the Legislative Analysts' Office, have identified the need for a rational capital planning process as a top priority for the State.

While the State has a number of planning and regulatory efforts that are organized at the regional level dealing with matters such as transportation and air quality, those efforts are not comprehensive in scope and effect.

Stronger regional planning is required to ensure that communities work cooperatively to foster sustainable growth goals. Infrastructure investment is one of the most important tools available to state government to promote sustainable regional growth and community reinvestment initiatives consistent with such growth. Therefore, the State's infrastructure investments should be based on and supportive of sustainable regional plans.



Many major public policy challenges facing the State, from transportation to employment, from affordable housing to preservation of open space, must be addressed from a regional perspective, for these problems transcend traditional city and county boundaries.

Increasingly, economists recognize the central importance of regional economies. Smart coordination among localities can increase regional economic competitiveness. A recent successful example is Joint Venture: Silicon Valley. Among its many achievements, this private-public partnership brokered agreement on a uniform building code for 27 cities and two counties. This compact facilitates new and expanding businesses

locating in the region by saving companies' time and money.

Another example is the Jobs-Housing Footprint Project of the Bay Area Council, comprised of 230 of the largest employers in the San Francisco Bay Area. The Project seeks to more closely match the location of new housing and new jobs expected in the region over the next two decades. By planning new housing and jobs closer together, the project aims to reduce future demands on surface transportation systems and encourage land use patterns more conducive to efficient transportation alternatives such as transit, walking and bicycling. To develop the footprint, the project convened key stakeholders including homebuilder, real estate development, affordable housing, and environmental groups to map the potential developable land in the nine county Bay Area and seek consensus on optimal housing development areas.

Yet another example is the San Diego Association of Governments' (SANDAG) creation in 1998 of the San Diego Regional Economic Prosperity Strategy, which seeks to sustain the region's economic growth. The strategy recommends ten actions, including providing sufficient urban land for housing needs, making housing affordable, and developing workforce and educational linkages.



Stronger regional planning is a critical ingredient for both sustainable new development and reinvestment in existing communities. No one community, acting alone, can achieve these goals. By working together at a regional level, communities can improve land use planning, pool local funds to make capital investments in public transit, commuter and intercity rail, and jointly develop parks and other public spaces. One need not reach complete regional governance in order to provide incentives for decisions to be made based on regional planning and collaboration.

Accordingly, any state capital outlay financing process must include a

strong regional planning component, with state infrastructure investments made in accordance with and in support of regional plans which foster the State's sustainable growth principles. Further, regions must be empowered to better finance investments of regional significance.

Such a process will help achieve the goals of sustained economic growth, community reinvestment, and smart use of public dollars.

Communities need majority vote approval for local capital investments.

Although the State takes the lead in investments of statewide significance, it is clear that investment needs cannot be met by the State alone. Local infrastructure needs are substantial. For example, the California Transportation Commission has identified over \$10 billion in unfunded local road and street deferred maintenance projects over the next decade.⁵⁷ The local share of California's K-12 school construction and rehabilitation needs over the next ten years, are also estimated to be in excess of \$10 billion.⁵⁸

As noted above, any successful investment plan must recognize the importance of regional solutions. And any meaningful investment strategy must free up California communities to make investments that contribute to their own efforts to sustain economic growth, protect the environment, provide equality of opportunity, and enhance quality of life. California is too large for a single approach.

To that end, communities should have the right, by majority vote, to make capital investments in schools, parks, transportation, and other critical community improvements. This is particularly important for existing, established neighborhoods that cannot rely on growth-related fees and revenues. While other reforms to local financing are needed, a majority vote threshold supports the goal of stabilizing existing, at risk communities and recognizes that local communities are best positioned to make decisions about neighborhood needs. Majority vote needs to be the standard for locally authorized general obligation bonds, sales taxes, and special tax measures.

A full 83 percent of all local general obligation bond and special tax measures, and 98 percent of local *education* bond and special tax measures, would have passed in the November 1998 general election, had a majority, rather than "super-majority" vote been required.⁵⁹ In comparison, only 43 percent of all local general obligation bonds and special tax measures, and 56 percent of local education bonds and special tax measures received the required two-thirds "super-majority" vote currently required. Indeed, in last November's general election, 27 measures received greater than 60 percent approval but still did not pass due to the two-thirds vote requirement.

Since 1994, in six statewide primary or general elections, 71 local general obligation bond measures failed despite receiving greater than 50 percent approval. These electoral defeats represent up to \$5.1 billion in foregone local bonding authority for schools, colleges, parks, open space, flood control systems, and other public facilities. In these same elections, 89 special tax measures failed with greater than 50 percent approval, denying local governments access to reliable, long-term funding for critical items such as emergency and life support services, hospitals, educational programs, recreation centers, libraries, public transit, and fire protection.⁶⁰

These election results demonstrate that majorities in many California communities are committed to making investments to improve their schools and their neighborhoods. They need to be empowered to do so.

At the same time that local communities have substantial needs and should have the opportunity to address those needs, current sources of local financing are in jeopardy. For example, a key source of

Empowering local communities to invest in their futures also will free-up precious state resources for statewide investment priorities.

local and regional transportation funding over the past decade has been the countywide sales tax. In 16 of California's largest counties, voterapproved local sales tax measures will fund approximately \$18.5 billion in critical improvements to local streets and roads, rail and transit systems between 1984 and 2012.⁶¹ The future availability of this important source of local revenue has been curtailed by super-majority voting requirements. Of the 16 counties that currently fund transportation improvements through local sales taxes, only one would have passed the two-thirds super-majority threshold.⁶²

Local empowerment recognizes that an already strained state budget cannot adequately finance local needs. Empowering local communities to invest in their futures also will free-up precious state resources for statewide investment priorities. The Legislative Analyst's Office reported

in December 1998, that approximately one-third of the State's existing debt payments are for local K-12 school projects, among a total of about 60 percent of the State's debt payments which are for non-state owned facilities, including local water, transportation and clean air projects.⁶³ Approximately 47 percent, or \$6.9 billion, of the \$14.7 billion of already authorized future debt is earmarked for local school construction.

Majority vote, coupled with strong regional planning and the State's infrastructure investments focused on sustainable economic growth goals, represents an important opportunity for California communities to meet their infrastructure investment needs into the 21st Century.

¹ Center for Continuing Study of the California Economy, California Economic Growth—1999 Edition.

² Ibid.

- ³ State Allocation Board, Office of Public School Construction, *School Facility Program Enrollment Certification/Projection Form SAB 50-01*, December 1998 (indicating a yield factor ratio of 0.7 K-12 students per dwelling). This ratio was applied to above household estimates by State Treasurer's Office to calculate estimate of additional schoolchildren through 2020.
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INTRODUCTION TO DEBT AFFORDABILITY

Traditional debt affordability analysis helps answer the question "how much can we afford?" – which is an important tool in meeting the infrastructure investment challenges discussed in the Executive Summary and Chapter 1. Debt affordability analysis helps us set realistic parameters against which to judge our needs and priorities.

Because debt-financing of capital assets helps distribute a portion of the costs of those assets to the future, using debt affordability analysis to guide our bond issuance practices also helps in striking the balance of responsibility between current and future generations. This balance is essential to the continued fiscal and economic health of the State. It is unacceptable for future Californians to be forced to live with either substandard infrastructure or a high burden of debt.

Pay as you go capital financing places the responsibility on the current generation, reduces funding for immediate needs and forces the timing of capital projects to match current cash flows. Debt financing spreads the responsibility across time, has lower annual funding impacts and allows faster completion of projects at today's prices (rather than inflated prices in the future), but also redirects some revenues to the payment of interest expenses. Ideally, the best balance would permit California to fund its highest priority infrastructure needs quickly, borrow at the lowest possible cost of funds, improve its flexibility in responding to future economic and fiscal uncertainties, and maintain or improve its credit ratings.

Recognizing the value of debt affordability analysis prompted legislation to require the State Treasurer to prepare a debt affordability report to be presented to the Governor and the Legislature annually. The legislation formalized the need for an annual assessment of General Fund debt as a tool in making funding decisions for future capital projects. State law currently requires the State Treasurer to prepare this report by October 1 of each year.¹ This statutory requirement was met most recently with the publication of the October 1998 report.

This chapter introduces a new approach, using sensitivity analyses, that should assist in providing a more realistic and consistent view of our long-term debt capacity. It begins with a presentation of the State's current debt position, including comparisons to other states using widely-recognized debt burden benchmarks. It then provides a synopsis of the State's projected debt capacity over the next ten years given current long-term economic and fiscal forecasts. It continues with sensitivity analyses to illustrate the effects of alternative revenue scenarios, before concluding with a brief discussion of current need projections and the implications of current capacity limitations.

THE STATE'S CURRENT DEBT POSITION

Any assessment of the State's debt affordability, or debt capacity, must include an evaluation of its current debt position. The State's current debt position consists of the amount of debt already issued by the State and the resulting annual principal and interest payments or "debt service." These debt service obligations create long-running costs within the State's budget, in effect constraining the State's future financial flexibility. As explained further below, this report focuses on the debt supported directly by the State's General Fund.

In order to issue additional debt, the State must have the ability to make future debt service payments without jeopardizing payments for prior debt obligations or critical state operations and services. To maintain or improve its bond ratings and promote the market's acceptance of its bonds, the State also must assure the rating agencies and potential investors that additional capacity exists to ensure timely payment of all existing and future debt service. That additional capacity can arise from increased revenues, reductions in non-debt expenditures, refunding of existing debt, or retirement of previously outstanding debt.

Rating agencies and the investor community calculate the State's current debt position based on "net tax-supported debt." This is the amount of debt that must be repaid by the State General Fund net of bonds with final maturities of less than one year or self-supporting forms of repayment. This definition of net tax-supported debt, excludes, for example, commercial paper and revenue anticipation notes, which both always mature in less than one year. It also excludes bonds repaid from special (non-General Fund) revenues, such as State Water Project revenues, Department of Veterans Affairs home mortgage payments, and Department of Transportation bridge tolls.

These types of non-General Fund revenues and any related project expenditures or debt issues are not included in this report because the revenues are designated for special purposes and any related bonds are considered "self-supporting." Likewise, the revenues and debt issues of thousands of California's local governments for local projects such as schools, roadways, water treatment plants or jails, are excluded, since these debts are not obligations of the State. However, state bonds specifically issued to finance local projects, such as general obligation bonds for local school facilities, are included when projecting the State's debt position, as the bonds are paid directly by the State from General Fund revenues.

Composition of Net Tax-Supported Debt

As of May 1, 1999, the State's net tax-supported debt totals \$22.5 billion. In addition, there is authorized but unissued net tax-supported debt of \$14.7 billion.² Approximately 70 percent of the State's outstanding net tax-supported debt consists of general obligation bonds authorized by the State's voters. The remaining 30 percent represents lease-purchase revenue bonds authorized by the Legislature.



As shown at left, almost one-third of the State's net taxsupported debt has been issued to construct local school facilities. The next highest uses are corrections and higher education.

General Fund debt supports only a portion of the State's total infrastructure spending. For example, the State has made large-scale investments in transportation projects through the State Highway Fund on a pay as you go basis from gas tax and other revenues. In addition, the Department of Water Resources financed the State Water Project and other critical water projects through the issuance of bonds supported by users of the projects. As noted above, because these types of projects are "self-supporting" – that is without General Fund revenues – they are not included in this report. Nonetheless, they are critical to the State's infrastructure fabric and their funding must be a part of any long-term, comprehensive plan.

AUTHORIZED BUT UNISSUED BONDS

As of May 1, 1999, California had \$14.7 billion in net tax-supported debt authorized by the voters or Legislature but not yet issued. The lion's share consists of \$13.1 billion in general obligation bonds. The remaining share is \$1.6 billion in lease-purchase revenue bonds. These additional bonds will be issued by the Treasurer when the designated projects are ready to be started, assuming the state budget at that time can support the debt service on these additional bonds. Almost one-half of the State's authorized but unissued net tax-supported debt is for local school construction. The next highest use is higher education, at 21 percent of authorized but unissued bonds. The chart below shows additional details on the authorized uses of these future bonds.



DEBT SERVICE PAYMENT OBLIGATIONS

The State's current General Fund net tax-supported debt service payments (both principal and interest) total approximately \$2.51 billion for 1998-99, or about 4.33 percent of the expected General Fund revenues of \$57.927 billion. The Governor's proposed budget (as of May 14, 1999) includes net-tax supported debt service payments of approximately \$2.627 billion in 1999-00, or 4.17 percent of projected General Fund revenues of \$62.985 billion.

The amount of total debt service on this net tax-supported debt does not appear as a single line item in the state budget, but rather is comprised of debt service on general obligation bonds and lease payments on lease revenue bonds. The lease payments, in particular, are

distributed throughout the budget in the various agencies and departments utilizing the projects financed by the bonds. As discussed previously, the debt capacity analyses of net-tax supported debt do not include debt service payments on General Obligation Commercial Paper Notes or on the State's annual Revenue Anticipation Notes because of their short-term nature.

Over the next 30 years, debt service on existing outstanding bonds will decline as the older bond issues reach final maturity. As a result, the portion of the State's budget committed to current outstanding bonds will decline, providing capacity for debt service on additional bonds within current budgeted levels. Issuing additional authorized but unissued bonds would offset the capacity created through retirement of prior debt and growth in General Fund revenues, depending on the times and amounts at which these additional bonds were issued.

We examined the implications if the State issued all \$14.7 billion of the currently authorized but unissued bonds while keeping total net tax-supported debt service at or below 4.17 percent of General Fund revenues, as is the case with the proposed budget for 1999-00. We project that these bonds can be issued from fiscal year 1999-00 through fiscal year 2004-05, assuming an average interest cost of 6 percent for 30-year bonds. The resulting annual General Fund debt service on

these additional bonds over the repayment period would escalate from \$144.8 million in fiscal year 2000-01 to \$1.3 billion in fiscal year 2005-06 as additional debt is issued, with total net tax-supported debt service not exceeding 4.17 percent of projected General Fund revenues in each year.

The chart which follows shows the State's existing debt service on its general obligation bonds and lease revenue bonds, together with the estimated debt service for the \$14.7 billion in authorized but unissued bonds, given the assumptions discussed above.



THE STATE'S CURRENT DEBT RATIOS

INTRODUCTION TO DEBT RATIOS

Debt ratios are one type of a broad category of financial ratios that can be applied to evaluate the performance and financial condition of entities from as small as an individual home or business owner to as large as the top Fortune 500 company. The purpose of evaluating debt ratios is to provide a reasonable and convenient way to compare relative debt burdens across a wide variety of borrowers. In the public finance arena, the most commonly used debt ratios applied to state issuers are: (1) debt to statewide personal income; (2) debt per capita; and (3) debt service to general fund revenues. Rating agencies and potential investors use these ratios to measure California's debt position relative to other states.

The ratio of a state's debt to the total personal income of its residents reflects the potential resources available for repayment of an issuer's debt. The ability of a state government to transform the income of its residents into revenues through taxation makes personal income a strong indicator of a borrower's ability to repay its obligations. The ratio of debt per capita represents each resident's share of the State's debt and illustrates the magnitude of debt supported by a state's citizens. The ratio of debt service to general fund revenues is an indicator of the amount of flexibility that a state has within its budget to pay debt service. Together, these common ratios are used as indicators, but not sole determinants, of debt levels that may be considered affordable.

COMPARING CALIFORNIA TO OTHER STATES

One way to evaluate a state's credit-worthiness is by comparison to other states. Moody's Investors Service, one of the leading rating agencies in public finance, calculates median debt ratios for the 50 states. It is common practice to compare California to both the Moody's median for the 50 states and to a subset comprised of the ten most populous states.

California's debt ratios have changed dramatically in the past ten years. In 1988, the State's debt ratios were roughly one-half of Moody's medians for the 50 states. During the early 1990s, however, the amount of net tax-supported debt grew at a much faster rate than statewide personal income, population, and General Fund revenue — as the State experienced a prolonged economic recession — causing the State's debt ratios to rise sharply. The Appendices include additional information regarding trends in California's debt ratios.

The table below presents California's latest ratios for the three common debt indicators discussed above, based on fiscal year 1998-99 data. It also includes the most recently published Moody's median ratios of the 50 states.

Debt Ratios for Existin	g General Fund Net	Tax - Supported Deb	t
	California Ratios (FY 2000-2001)	Moody's Median Ratios (1)	California Ranking out of 50 States ^{(2) (3)}
Debt per Capita	\$658	\$446	36th
Debt to Personal Income	2.3%	1.9%	29th
Debt Service to General Fund Revenues	4.3%	3.5%	N/A

¹ Reflects most recent Moody's medians (i.e., Debt per Capita and Debt to Personal Income are for 1998; Debt Service to General Fund Revenues is for 1996, the last year this median was published.)

² States with the lowest debt ratios are ranked ahead of states with higher debt ratios. The lowest numerical ranking corresponds with the lowest debt ratio.
 ³ For illustration purposes only, due to limitations on available data. California's rankings are based on 1998-99 ratios, compared to 1996-97 data for the other states which is the most recent available on a nationwide basis.

Most market participants recognize that it is impractical to expect that California's debt ratios would mimic nationwide medians due to the disproportionately large geographic size and population of our State, and the resulting diversity and complexity of our capital facilities needs. Therefore, credit analysts also compare California to its "peer group" of the ten largest states.

As shown on the following page, the debt ratios of the ten largest states are, on average, higher than the Moody's medians. All ratios shown for other states are based on 1996-97 data (the most recently available nationwide). California's debt ratios for 1996-97 were approximately equal to the ten-state medians for debt to personal income and debt per capita, and were above the median for debt service to General Fund revenue. Since then, California's key debt ratios of debt service to General Fund revenues and debt to personal income have improved, even after the issuance of additional debt.

Based on this two-pronged comparison, we conclude that California's current debt ratios are moderate as compared to its closest peers, especially in light of its unique geographic, economic and demographic characteristics.

Debt Ratios & Ratings of Ten Most Populous States

Ranked by Ratio of Debt Service to General Fund Revenue

State	Debt Service to General Fund Revenue ⁽¹⁾	Debt to Personal Income ⁽²⁾	Debt Per Capita ⁽²⁾	General Obligation Ratings Moody's/ S&P/Fitch (3)
Texas	1.5%	1.4%	\$ 300	Aa2 / AA+ / AA+
Michigan	2.1	1.6	381	Aa1 / AA+ / AA+
Pennsylvania	2.8	2.0	501	Aa3 / AA / AA
Georgia	3.5	2.9	647	Aaa / AAA / AAA
New Jersey	3.8	5.1	1,576	Aa1 / AA+ / AA+
Illinois	4.4	2.7	728	Aa2 / AA / AA
Ohio	4.5	2.5	591	Aa1 / AA+ / AA+
California (1996-97)	5.0	2.4	620	Aa3 / A+ / AA-
Florida	5.2	3.4	798	Aa2 / AA+ / AA
New York	9.4	6.5	1,914	A2 / A / A+
Moody's Median (4)	3.5%	1.9%	\$ 446	
Ten-State Median	4.1	2.6	634	
California Rank (5)	8th	4th	5th	
California (1997-98) ⁽⁶⁾	4.50%	2.4%	\$ 645	Aa3 / A+ / AA-
California (1998-99) ⁽⁶⁾	4.33	2.3	658	Aa3 / A+ / AA-
California (1999-00) ⁽⁶⁾	4.17	2.1	608	Aa3 / A+ / AA-

⁽¹⁾ Computed using 1996-97 comprehensive annual financial reports of each of the respective states. Subsequent fiscal year computations for California based on annual financial reports for the respective years.

⁽²⁾ Reflects most recent available data compiled by Moody's Investors Service from 1996-97 data.

⁽³⁾ Sources: Moody's Investors Service, Standard & Poor's Ratings Group, and Fitch IBCA as of May 1, 1999.

⁽⁴⁾ Reflects most recent Moody's medians (i.e., Debt per Capita and Debt to Personal Income are for 1997-98; Debt Service to General Fund Revenues is for 1995-96, the last year this median was published.)

⁽⁵⁾ Lowest debt ratios are ranked 1st according to 1996-97 data.

⁽⁶⁾ California ratios based on debt service, personal income and population for the respective fiscal year; since comparable data for the other states is not available, no ranking is shown.

SUMMARY OF STATE DEBT CAPACITY

DEBT PROJECTIONS BASED ON STATE REVENUE FORECASTS

Of the three debt ratios, the rating agencies view California's ratio of debt service to General Fund revenues as the most important factor in evaluating the State's capacity for additional debt. This reflects, in part, the unique characteristics of California's Constitution, which provides voters with far-reaching initiative powers to limit the fiscal discretion of elected state officials.

The State's current General Fund debt capacity is approximately \$32.5 billion over the next ten years, based on the most recent Department of Finance long-range revenue forecasts and the proposed fiscal year 1999-00 budget structure. This amount includes the \$14.7 billion in bonds already authorized but not yet issued.

This projected debt capacity is based on the State maintaining in each of the next ten years its fiscal year 1999-00 proposed commitment of 4.17 percent of General Fund revenues to debt service. This fiscal year 1999-00 ratio derives from approximately \$2.627 billion of General Fund spending on net long-term debt (including capital leases)³ and \$62.985 billion in General Fund revenues in the Governor's latest proposed budget.⁴

Inherent in maintaining the ratio of 4.17 percent is the assumption that long-term growth rates in expenditures on state services will track long-term revenue growth rates. Increasing the percentage of the state budget committed to debt financing will require either new revenues, revenue growth that outpaces expenditure increases, or reductions in other program expenditure levels. To maintain the current 4.17 percent will require expenditure containment consistent with revenue growth, given that a higher rate of spending on other state goods and services will constrain the dollars available for debt service.

LONG-RANGE PROJECTIONS SUBJECT TO LIMITING CONDITIONS

The State's actual debt capacity at any given time is strongly affected by General Fund revenue volatility and limited spending flexibility in the State's budget. The State derives its General Fund revenue primarily from sales and income taxes. Both of these revenue sources are tied closely to the health of the State's economy, which is subject to economic cycles. This volatility in General Fund revenue makes it difficult to project future debt ratios and debt capacity with precision.

An example that illustrates this point is the increase in debt capacity that was reported between 1997 and 1998 in the prior debt affordability reports. Due primarily to an 11.7 percent change – from \$49.2 billion to \$54.9 billion — in General Fund revenues from one year to the next, the State's debt capacity for a ten-year period was calculated to have grown from \$34.4 billion in the 1997 report to \$49.0 billion in the 1998 report, a dramatic increase of \$14.6 billion, or 42 percent. Of course, under this approach, any future one-year *decline* in General Fund revenue would have a similarly large, although constraining, effect on estimated debt capacity. This swing was magnified by using a calculation based on an assumed 6 percent ratio of debt service to General Fund revenues – far higher than existed under the budget structure in effect at the time.

The limitations of this approach to debt affordability analysis are clear when considering the State's expenditure demands for non-debt goods and services. The State's ability to devote budgetary resources to debt service is limited due to competing expenditure priorities for the same dollars. For example, about 54 percent of the Governor's proposed state budget is expected to be spent on K-12 education and higher education, areas that are high priority to Californians. Another 35 percent of the budget is expected to be spent on either health and welfare programs or prisons. Together, these key programs constitute 89 percent of the State's projected General Fund expenditures (based on the May 14, 1999 revisions). Furthermore, discretion to control spending on these and many other state programs is limited due to voter-approved initiatives, federal requirements and caseload growth.

For example, the Governor's proposed 1999-00 state budget includes approximately \$2.627 billion for debt service, which represents 4.17 percent of estimated General Fund revenue of \$62.985 billion. This ratio is well below the 6 percent ceiling discussed in prior debt affordability reports; so it is easy to see how such an increased commitment to debt service would require major reductions in

current state programs, new revenues or revenue increases in excess of expenditure growth. For example, the \$1.15 billion in additional annual debt service associated with reaching a 6 percent ceiling is more than the entire budget augmentation for the Governor's proposed Education Initiatives for K-12 and Community Colleges; nearly all the projected General Fund costs of instruction in the entire California State University System; or approximately 13 percent of the General Fund money being spent on higher education.

Absent greater available revenue, and the political will to direct that revenue to infrastructure spending, it is probably unrealistic in the foreseeable future to expect the State to come close to spending 6 percent of the General Fund budget on debt service. In light of these constraints, the State should consider directing at least a portion of any unanticipated revenues each year toward one-time capital investments.

To address the inherent variability of both long-range forecasts and expenditure policies, this report uses "sensitivity" analyses – based on differing revenue scenarios – to illustrate a range of estimated debt capacity under varying economic and fiscal circumstances. These sensitivity analyses result in an expanded range of debt affordability, encompassing both higher and lower alternative projections of additional capacity for new General Fund debt over the next ten years, as discussed in depth below.

SENSITIVITY ANALYSES

State General Fund Revenues

Fiscal Year Ending June 30	DOF Revenue Forecasts ¹ (\$Billions)	Annual Percent Change	
1999	\$57,927	5.37%	
2000	62,985	8.73%	
2001	64,579	2.53%	
2002	67,830	5.03%	
2003	71,866	5.95%	
2004	75,754	5.41%	
2005	80,086	5.72%	
2006	84,523	5.54%	
2007	88,991	5.29%	
2008	93,709	5.30%	
2009 ²	98,676	5.30%	
2010 ²	103,905	5.30%	
Average Change	N.A.	5.46%	

¹Department of Finance (DOF), 1999-00 State Budget, May 14, 1999 revisions.

² The DOF latest revenue projections forecast General Fund Revenue through FY 2007-08 only. In order to calculate the bond issuance capacity for a 10-year period from FY 1999-00 through FY 2008-09, we needed General Fund revenues for the 2008-09 and 2009-10 fiscal years. As a result, we calculated revenues for these final two years by assuming the same growth rate as DOF's FY 2007-08 revenue growth.

THE BASE CASE REFLECTS CURRENT DEPARTMENT OF FINANCE LONG-RANGE REVENUE FORECAST

Any credible and useful analysis of state debt affordability should account for the volatility in General Fund revenues and the limited flexibility in the state budget. With these factors in mind, we have developed a new debt affordability model, which uses a sensitivity analysis of General Fund revenues to develop a range of debt capacity estimates over time.

The "base case" analysis estimates additional debt capacity of approximately \$32.5 billion. This figure is derived from the most recent ten-year revenue forecasts from the Department of Finance (DOF), based on the May revisions to the Governor's proposed 1999-00 budget. This capacity also assumes that the State continues to devote 4.17 percent of General Fund revenues to debt service and sells its previously authorized but unissued debt as quickly as possible, consistent with this constraint. The chart below illustrates historic and projected trends in both General Fund debt service and General Fund revenues, consistent with the base case scenario discussed above. The bar chart data measured against the left axis shows annual debt service rising from an historic \$598 million in fiscal year 1987-88 to an estimated \$4.1 billion in fiscal year 2008-09. The line chart data measured against the right axis shows annual General Fund revenues rising from an historic \$33 billion in fiscal year 1987-88 to an estimated \$98.7 billion in fiscal year 2008-09.



The actual amount of debt the State can afford to issue will depend on the performance of the economy, thus underscoring the importance of infrastructure investment strategies which sustain economic growth. Debt capacity also will be affected by any changes in expenditure demands on the State's revenues. Each of these factors is difficult to predict, as the Department of Finance notes: "Estimating revenues and expenditures is an art, not a science. The actual revenues collected invariably change from the projections upon which a state budget is based. Likewise, the number of people who receive state services invariably changes from the projection. A 1.0 percent increase in expenditures or reduction in revenues could put the budget out of balance by more than \$600 million."⁵

ALTERNATIVE SCENARIOS AND CONSIDERATIONS

To account for potential changes in the State's economy and the resulting inherent variability in long-range forecasts of General Fund revenues, we perform "sensitivity analyses" on our base case estimates of debt capacity by adjusting the projected annual rate of growth in General Fund revenues and maintaining parallel expenditure growth.

The sensitivity analyses project a range of possible variances in the event revenues increase or decrease from forecasts by 1.0 percent, compounded annually. These analyses assume that the

State continues to devote 4.17 percent of General Fund revenues to debt service and sells its previously authorized but unissued debt as quickly as possible, consistent with this constraint.

These sensitivity analyses result in an expanded range of debt affordability, encompassing both higher and lower alternative projections of additional General Fund debt capacity over the next ten years.

Total Additional D	ebt Capaci	ity Under A	Iternative	Revenue Sce	enarios [*] (\$	Billions)
	FY 200 Annual Debt Service	0-2001 Cumulative Additional Debt Capacity	FY 200 Annual Debt Service	04-2005 Cumulative Additional Debt Capacity	FY 20 Annual Debt Service	008-2009 Cumulative Additional Debt Capacity
DOF Forecast + 1%	\$0.17	\$4.30	\$1.42	\$19.92	\$2.81	\$38.03
DOF Forecast (base)	0.11	3.43	1.22	17.16	2.41	32.53
DOF Forecast – 1%	0.06	2.57	1.04	14.57	2.03	27.46

* "Base Case" based on Department of Finance 10-year Revenue Forecast, as of May 14, 1999. Alternative scenarios reflect a +/- 1% change in revenue growth, compounded annually.

¹ Annual Debt Service above reflects only the incremental annual debt service on projected additional bond issues, exclusive of debt service on existing bonds. See Appendices for additional details on existing and projected debt service.

² Total additional debt capacity includes \$14.7 billion of authorized but unissued bonds.

³ All scenarios maintain a maximum annual ratio of debt service to General Fund revenue at 4.17%. All scenarios assume bonds are sold at an average interest rate of 6.0% with final maturities of 30 years following date of issuance. Annual debt service is assumed to begin in the fiscal year following issuance.

The full range of additional debt capacity over the next ten years spans from a low of \$27.46 billion to a high of \$38.03 billion, including the future issuance of \$14.7 billion in debt already authorized by the voters or the Legislature but not yet issued. This additional capacity – by whatever measure – is only available incrementally over the ten-year span.

As previously mentioned, assumptions regarding the relative share of future state budgets committed to debt service will impact the estimate of debt capacity. To demonstrate the sensitivity of estimated debt capacity to this assumption, we have calculated debt capacity that would result if the State committed a higher percentage of its budget to debt service than the 4.17 percent commitment in the 1999-00 budget. For illustration purposes only, we measured the impact on debt capacity if the State increased the amount it expects to spend on debt service gradually over the next five years to accommodate expenditure of 5 percent of General Fund revenues on debt service by fiscal year 2004-05.

In this case, the amount of debt we could support would increase by approximately \$10 billion to \$42.9 billion over the next ten years. If the State increased this ratio to 6 percent over the same period, the debt capacity would reach \$58.6 billion over the next ten years. While it may not be practical to increase debt service's share of the State's General Fund budget to either of these levels on either a near-term or sustained basis, given the other spending priorities of the State, these additional sensitivity analyses reveal the potential implications of doing so.

The alternative scenarios used in this report do not represent the full range of possibilities, nor are they intended to *predict* any particular budgetary response to changes in California's economy or the State's financial condition. Policy decisions made at the time will determine, for instance, the proportion of

future revenue growth that will be allocated toward operating expenditures, direct services, pay as you go infrastructure projects or long-term debt service. In fact, it is unlikely that any future growth in revenues would be allocated such that precisely 4.17 percent would accrue toward supporting additional debt. However, the current debt ratio is a valid assumption, as any variation from it would reflect a change in underlying budgetary or fiscal policy. By using the current ratio, the sensitivity analyses have a means of "holding constant" the underlying budgetary policy so that we can examine solely the potential impacts of the alternative revenue growth scenarios – "all other things being equal.".

Maintaining this minimum commitment may be difficult, depending on the actual circumstances in the future. Conversely, it is possible that additional capacity may arise from future growth in excess of projections. As discussed previously, in the case of unexpected revenue increases, any future "surplus" could be earmarked, at least in part, for "one-time" or "pay as you go" capital expenditures — to increase the State's infrastructure investments without increasing its indebtedness. These pay as you go expenditures do not increase current debt capacity, but can be used to fund priority projects, preserve future debt capacity, and provide a "cushion" against subsequent fiscal downturns.

CONCLUSION

The State's General Fund debt capacity is in addition to the \$35.6 billion in non-debt resources identified by the Department of Finance as available for infrastructure investment.⁶ However, these

While our growth and infrastructure needs undoubtedly will be substantial, California must first adopt visionary investment principles and strategies before focusing solely on dollars needed for an undefined task.

combined resources might not all be available if the economy were to significantly under-perform current estimates.

While these combined resources most likely fall short of expected needs, current needs assessments are not based on a comprehensive plan of investment, nor are they centered around achieving the goals of sustained economic growth, environmental preservation, equality of opportunity and livability. These resources, however constrained, constitute a significant level of expenditure which must be invested wisely. While our growth and infrastructure needs undoubtedly will be substantial, California must first adopt visionary investment principles and strategies before focusing solely on dollars needed for an undefined task.

In fact, the very prospect of a shortfall underscores the need for smart investments that benefit our economic growth, protect the environment, maintain our high quality of life and reduce the incidence of poverty, joblessness and other social ills that place high demands on the State's budget.

¹ SB 2009, Chapter 1146, Statues of 1996.

² State Treasurer's Office; Based on debt outstanding as of May 1, 1999.

³ See prior section of Chapter 2 for discussion regarding net-tax supported General Fund debt.

⁴ General Fund Revenues based on May 14, 1999 revisions to the 1999-00 State Budget.

⁵ Govenor's Budget Summary, 1999-2000, January 1999.

⁶ Department of Finance, State of California, *Capital Outlay and Infrastructure Report 1999*, plus \$1 billion additional funding as of May 14, 1999 revisions to the 1999-00 State Budget.

The following table presents underlying historic and projected population, personal income and General Fund revenue information utilized in this report.

F)//F		0/	Derre		Constant E		Constant 5	A /	Committee i	
FYE June 30 th	Population	% Change	Personal Income	% Change	General Fund Revenues	% Change	General Fund Revenues ⁽¹⁾	% Change	General Fund Revenues ⁽²⁾	% Change
1988	28,393	n/a	\$530,968,000	n/a	\$33,041,398	n/a				
1989	29,142	2.64%	590,962,575	11.30%	37,651,878	13.95%				
1990	29,944	2.75	639,298,493	8.18	38,546,178	2.38				
1991	30,563	2.07	653,173,910	2.17	40,563,041	5.23				
1992	31,187	2.04	684,675,848	4.82	42,925,671	5.82				
1993	31,516	1.05	697,942,194	1.94	42,757,910	-0.39				
1994	31,791	0.87	718,099,835	2.89	40,527,732	-5.22				
1995	32,063	0.86	754,269,373	5.04	42,690,000	5.34				
1996	32,384	1.00	798,019,676	5.80	46,296,000	8.45				
1997	32,957	1.77	846,017,338	6.01	49,210,000	6.29				
1998	33,506	1.67	901,981,738	6.62	54,973,000	11.71				
1999	34,072	1.69%	\$961,615,007	6.61%	\$57,927,000	5.37%	\$57,927,000	5.38%	\$57,927,000	5.38%
2000	34,653	1.71	1,013,393,082	5.38	62,985,000	8.73	62,405,730	7.77	63,564,270	9.77
2001	35,233	1.67	1,060,910,669	4.69	64,579,000	2.53	63,361,013	1.58	65,808,573	3.58
2002	35,802	1.61	1,117,751,612	5.36	67,830,000	5.03	65,917,087	4.03	69,779,557	6.03
2003	36,364	1.57	1,186,809,309	6.18	71,866,000	5.95	69,180,095	4.94	74,629,354	6.94
2004	36,900	1.47	1,260,094,876	6.18	75,754,000	5.41	72,230,985	4.41	79,413,147	6.41
2005	37,372	1.28	1,338,102,084	6.19	80,086,000	5.72	75,639,211	4.76	84,748,527	6.76
2006	37,838	1.25	1,421,700,798	6.25	84,523,000	5.54	79,073,454	4.54	90,291,330	6.54
2007	38,364	1.39	1,510,832,550	6.27	88,991,000	5.29	82,462,649	4.29	95,967,165	6.29
2008	38,894	1.38	1,606,101,512	6.31	93,709,000	5.30	86,009,911	4.30	102,014,690	6.30
2009	39,426	1.37	1,707,728,584	6.33	98,675,577	5.30	89,708,337	4.30	108,441,615	6.30
2010	39,966	1.37	1,815,827,803	6.33	103,905,383	5.30	93,565,796	4.30	115,273,437	6.30
Annual (FY 199	Average 9-00 to FY 3	1.48% 2009-10)		6.00%		5.46%		4.55%		6.38%

Sources:

Population -Personal Income -

State of California Department of Finance (FY 1987-88 to FY 2008-09)

me - State of California, Department of Finance (Calendar Year 1988 to Calendar Year 2009; 2010 extrapolated from 2009)

GF Revenues - State of California, Office of the State Controller (FY 1987-88 to FY 1997-98);

State of California, Dept. of Finance (FY 1998-99 to FY 2007-08; FY 2008-09 & 2009-10 extrapolated from FY 2007-08)

⁽¹⁾ State of California, Dept. of Finance (FY 1998-99 to FY 2009-10) projected annual growth rates minus 1.0%, compounded annually.

⁽²⁾ State of California, Dept. of Finance (FY 1998-99 to FY 2009-10) projected annual growth rates plus 1.0%, compounded annually.

The assumptions found below are incorporated into the calculations of bond financing capacity contained in this report. Please see the table on the previous page for historical and projected figures for population, personal income and General Fund revenues.

- 1. Projected annual growth rates in General Fund revenues rates are from the Department of Finance (DOF) forecast.
- 2. To determine a range of bond financing capacity for the General fund over the next ten fiscal years, the projected annual growth rates of General Fund revenues produced by the DOF (and extended two years by the State Treasurer's Office) have been subjected to a sensitivity analysis. The DOF projected annual growth rates for the General Fund revenues from FY 1999-00 through 2009-10 have been increased and decreased, in turn, by 1 percent from forecast, compounded annually, to produce two additional scenarios of bond financing capacity.
- 3. Population projections are from the DOF with annual average growth rate of 1.46 percent per annum.
- 4. Personal income projections are from the DOF with average annual growth rate of 5.95 percent.
- 5. Interest cost of 6 percent on all projected bond issues.
- 6. 30-year final maturity.
- 7. Level annual repayment of principal.
- 8. Annual bond issuances from FY 1999-00 through FY 2008-09 produce a constant ratio of debt service to general fund revenues of 4.17 percent from FY 2000-01 through FY 2009-10.

The following table shows the annual General Fund obligations for payments on lease-purchase debt outstanding as of May 1, 1999.

SCHEDULE OF DEBT SERVICE REQUIREMENTS FOR LEASE-PURCHASE DEBT AS OF MAY 1, 1999

Fiscal Year Ending		Current Debt	
June 30	Interest	Principal ^(a)	Total
2000	349,828,924.93	283,639,962.79	633,468,887.72
2001	335,845,889.81	313,099,019.75	648,944,909.56
2002	321,232,461.71	293,125,773.02	614,358,234.73
2003	309,530,376.76	294,341,118.58	603,871,495.34
2004	294,135,987.74	301,961,386.24	596,097,373.98
2005	280,062,194.05	315,419,507.20	595,481,701.25
2006	261,411,383.43	333,942,554.60	595,353,938.03
2007	249,199,745.09	285,853,920.44	535,053,665.53
2008	231,548,380.79	292,546,787.98	524,095,168.77
2009	220,282,485.68	313,052,732.44	533,335,218.12
2010	198,355,587.72	299,986,633.76	498,342,221.48
2011	171,338,105.99	311,020,000.00	482,358,105.99
2012	154,735,553.84	292,530,000.00	447,265,553.84
2013	139,000,461.20	298,765,000.00	437,765,461.20
2014	123,070,904.73	299,190,000.00	422,260,904.73
2015	106,802,934.73	314,885,000.00	421,687,934.73
2016	89,940,824.58	293,365,000.00	383,305,824.58
2017	73,886,405.95	295,275,000.00	369,161,405.95
2018	58,299,665.97	306,565,000.00	364,864,665.97
2019	42,589,626.04	261,775,000.00	304,364,626.04
2020	28,976,661.23	228,175,000.00	257,151,661.23
2021	18,292,074.27	167,645,000.00	185,937,074.27
2022	9,449,946.23	141,345,000.00	150,794,946.23
2023	3,794,375.65	83,125,000.00	86,919,375.65
2024	271,065.63	2,515,000.00	2,786,065.63
2025	93,267.50	2,730,000.00	2,823,267.50
Total	\$ 4,071,975,291.25	\$ 6,625,874,396.80	\$10,697,849,688.05

^(a) Includes scheduled mandatory sinking fund payments as well as serial maturities. Source: State of California, Office of the Treasurer.

The following table shows the annual General Fund requirements for debt service payments on general obligation bonds outstanding as of May 1, 1999.

SCHEDULE OF GENERAL FUND DEBT SERVICE FOR GENERAL OBLIGATION BONDS^(a)

(Non-Self Liquidating)

AS OF MAY 1, 1999

Fiscal Year Ending		Current Debt	
June 30	Interest	Principal ^(b)	Total
2000	910,942,752.50	1,082,595,000.00	1,993,537,752.50
2001	850,916,688.00	1,076,483,068.25	1,927,399,756.25
2002	778,291,787.57	1,120,455,000.00	1,898,746,787.57
2003	712,324,980.14	1,069,776,391.80	1,782,101,371.94
2004	645,280,948.75	995,830,000.00	1,641,110,948.75
2005	587,592,388.84	932,769,388.71	1,520,361,777.55
2006	527,833,168.75	869,415,000.00	1,397,248,168.75
2007	473,105,853.02	824,815,000.00	1,297,920,853.02
2008	424,810,352.94	807,813,078.31	1,232,623,431.25
2009	74,275,343.75	798,600,000.00	1,172,875,343.75
2010	324,860,482.50	729,500,000.00	1,054,360,482.50
2011	281,734,566.09	654,779,045.16	936,513,611.25
2012	38,838,755.05	512,185,000.00	751,023,755.05
2013	211,483,387.10	401,290,000.00	612,773,387.10
2014	192,361,004.64	325,850,000.00	518,211,004.64
2015	176,704,862.19	314,425,000.00	491,129,862.19
2016	160,815,893.49	312,140,000.00	472,955,893.49
2017	144,235,027.81	312,215,000.00	456,450,027.81
2018	128,459,027.48	311,495,000.00	439,954,027.48
2019	112,572,113.75	310,460,000.00	423,032,113.75
2020	96,849,520.00	306,760,000.00	403,609,520.00
2021	82,227,540.00	305,435,000.00	387,662,540.00
2022	67,367,817.50	289,165,000.00	356,532,817.50
2023	51,993,350.45	291,485,000.00	343,478,350.45
2024	38,557,579.34	221,745,000.00	260,302,579.34
2025	27,918,164.33	182,395,000.00	210,313,164.33
2026	19,048,796.09	144,615,000.00	163,663,796.09
2027	11,842,302.34	127,975,000.00	139,817,302.34
2028	6,000,497.34	110,475,000.00	116,475,497.34
2029	1,929,181.25	59,270,000.00	61,199,181.25
Total	8,661,174,133.00	15,802,210,972.23	24,463,385,105.23

^(a) Does not include commercial paper outstanding.

^(b) Includes scheduled mandatory sinking fund payments as well as serial maturities.

Source: State of California, Office of the Treasurer.



The following charts show California's trends for selected debt ratios, as compared to historic nationwide medians.



SMART INVESTMENTS



THE STATE OF CALIFORNIA Special Edition Debt Affordability Report - Ju	ine 1999												
Computation of Debt Ratios for Total Net General Fund Revenue Growth © DOF 1	t Tax-Supported De Forecast	bt as of May 1, 19	99 plus \$32.530 B	illion in Projecteo	l Bond Financing (000's)							
FYE June 30	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010 - 2039	TOTAL
General Fund Debt - Existing General Obligation Bonds \$ Lease Purchase Financings Sub-Total	15,802,211 \$ 6,625,874 22,428,085	14,719,616 \$ 6.342,234 21.061.850	13,643,133 \$ 6,029,135 _ 19,672,268	12,522,678 5,736,010 18,258,688	\$ 11,452,902 5,441,669 16,894,571	\$ 10,457,072 \$ 5,139,707	9,524,302 \$ 4,824,288 14.348,590	8,654,887 \$ 4,490,345 13,145,232	7,830,072 5 4,204,491	\$ 7,022,259 \$ 3,911,944	6,223,659 <u>3,598,892</u> 9,822,551		
General Fund Debt - Projected General Obligation Bonds Lease Purchase Financings		1,230,000	3,389,000	6,464,665	9,758,995	12,846,160	15,994,160	19,532,160	22,158,160	24,632,995	28,332,995		
Sub-Total TOTAL	- 22,428,085	1,230,000 22,291,850	3,389,000 23,061,268	6,464,665 24,723,353	9,758,995 26,653,566	12,846,160 28,442,939	15,994,160 30,342,750	19,532,160 32,677,392	22,158,160 34,192,723	24,632,995 35,567,198	28,332,995 38,155,546		
Principal Repayments - Existing Debt General Obligation Bonds Lease Purchase Financings	1,025,205 241.385	1,082,595 283,640	1,076,483 313,099	1,120,455 293,126	1,069,776 294.341	995,830 301,961	932,769 315,420	869,415 333,943	824,815 285,854	807,813 292,547	798,600 313,053	\$ 6,223,659 3,598,892	\$ 16,827,415 6,867,261
Sub-Total	1,266,590	1,366,235	1,389,582	1,413,581	1,364,117	1,297,791	1,248,189	1,203,358	1,110,669	1,100,360	1,111,653	9,822,551	23,694,676
Principal Repayments - Projected Debt General Obligation Bonds Lease Purchase Financings			41,000	114,335	220,670	337,835	452,000	572,000 -	709,000	820,165	930,000 -	28,332,995	32,530,000
Sub-Total TOTAL	- 1,266,590	- 1,366,235	41,000 1,430,582	114,335 1,527,916	220,670 1,584,787	337,835 1,635,626	452,000 1,700,189	572,000 1,775,358	709,000 1,819,669	820,165 1,920,525	930,000 2,041,653	28,332,995 38,155,546	32,530,000 56,224,676
Interest Payments - Existing Debt General Obligation Bonds Losse Purchase Financines	884,922 355 078	910,943 349 879	850,917 335 846	778,292 321 232	712,325 309 530	645,281 294 136	587,592 280.062	527,833 261 411	473,106 249 200	424,810 231 548	374,275 220,282	2,375,800	9,546,096 4 4 7 051
Sub-Total	1,240,000	1,260,772	1,186,763	1,099,524	1,021,855	939,417	867,654	789,244	722,306	656,358	594,557	3,594,697	13,973,147
Interest Payments - Projected Debt General Obligation Bonds Losso Durchase Francings			73,800	203,340	387,880	585,540	770,770	959,650	1,171,930	1,329,490	1,477,980	23,292,479	30,252,859
Sub-Total Total Total	1 240 000		73,800	203,340	387,880	585,540	770,770	959,650	1,171,930	1,329,490	1,477,980	23,292,479	30,252,859
	000,014,1	71,007,1	00,007,1	100,400,1	CC1/COL-11	10/1-40/1-	t7t'000'T		00010001	010(00/11	10.110.11	0/11/200107	000,077,11
Debt Service Payments - Existing Debt General Obligation Bonds Lease Purchase Financings	1,910,127 596,464	1,993,538 633,469	1,927,400 648,945	1,898,747 614,358	1,782,101 603,871	1,641,111 596,097	1,520,362 595,482	1,397,248 595,354	1,297,921 535,054	1,232,623 524,095	1,172,875 533,335	8,599,459 4,817,789	26,373,512 11,294,313
Sub-Total Deht Service Payments - Projected Deht	2,506,591	2,627,007	2,576,345	2,513,105	2,385,972	2,237,208	2,115,844	1,992,602	1,832,975	1,756,718	1,706,210	13,417,248	37,667,825
General Obligation Bonds Lease Purchase Financings			114,800	317,675	608,550	923,375	1,222,770	1,531,650	1,880,930	2,149,655	2,407,980	51,625,474	62,782,859
Sub-Total TOTAL	2,506,591	2,627,007	114,800 2,691,145	317,675 2,830,780	608,550 2,994,522	923,375 3,160,583	1,222,770 3,338,614	1,531,650 3,524,252	1,880,930 3,713,905	2,149,655 $3,906,373$	2,407,980 4,114,190	51,625,474 65,042,722	62,782,859 100,450,684
Projected Bond Financings General Obligation Bonds Lease Purchase Financines		1,230,000	2,200,000	3,190,000	3,515,000	3,425,000	3,600,000	4,110,000	3,335,000	3,295,000	4,630,000		32,530,000
TOTAL	 '	1,230,000	2,200,000	3,190,000	3,515,000	3,425,000	3,600,000	4,110,000	3,335,000	3,295,000	4,630,000	1	32,530,000
Computation of Debt Ratios FYE June 30	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Population Population Personal Income \$ General Fund Revenues \$ Growth Rate of General Fund Revenues	34,072 961,615,007 \$ 57,927,000 \$ 5.37%	34,653 1,013,393,082 \$ 62,985,000 \$ 8.73%	35,233 35,233 1,060,910,669 64,579,000 2.53%	35,802 35,802 1,117,751,612 67,830,000 5.03%	36,364 \$ 1,186,809,309 \$ 71,866,000 5.95%	36,900 \$ 1,260,094,876 \$ \$ 75,754,000 \$ 5.41%	37,372 1,338,102,084 \$ 80,086,000 \$ 5.72%	37,838 1,421,700,798 \$ 84,523,000 \$ 5.54%	38,364 38,364 1,510,832,550 88,991,000 5.29%	38,894 5 1,606,101,512 \$ 5 93,709,000 \$ 5.30%	39,426 1,707,728,584 98,675,577 5.30%	39,966 \$ 1,815,827,803 \$ 103,905,383 5.30%	
Debt per Capita Debt to Personal Income Debt Service to General Fund Revenues	\$658 2.33% 4.33%	\$643 2.20% 4.17%	\$655 2.17% 4.17%	\$691 2.21% 4.17%	\$733 2.25% 4.17%	\$771 2.26% 4.17%	\$812 2.27% 4.17%	\$864 2.30% 4.17%	\$891 2.26% 4.17%	\$914 2.21% 4.17%	\$968 2.23% 4.17%	\$902 1.98% 4.17%	

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Prepared by Public Resources Advisory Group

sings: Level annual repayment of principal, 30 year final maturity and true interest cost of 6.0%

Assumptions Regarding Projected Bond Financings:

Computation of Debt Ratios for Total Ne General Fund Revenue Growth © DOF	t Tax-Supported Do Forecast - 1%	bt as of May 1, 19	99 plus \$27.455 Bi	illion in Projected	Bond Financing ((<i>s</i> ,000							
FYE June 30	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010 - 2039	TOTAL
General Fund Debt - Existing General Obligation Bonds Lease Purchase Financings	15,802,211 \$ 6,625,874	14,719,616 \$ 6,342,234	13,643,133 \$ 6,029,135	12,522,678 \$ 5,736,010	11,452,902 \$ 5,441,669	; 10,457,072 \$ 5,139,707	9,524,302 \$ 4,824,288	8,654,887 \$ 4,490,345	7,830,072 \$ 4,204,491	7,022,259 \$ 3,911,944	6,223,659 3,598,892		
Sub-Total General Fund Debt - Projected General Obligation Bonds	22,428,085	21,061,850 690,000	19,672,268 2,542,000	18,258,688 5,301,500	16,894,571 8,191,165	15,596,779 10,938,495	14,348,590 13,609,825	13,145,232 16,704,320	12,034,563 18,879,480	10,934,203 20,791,975	9,822,551 23,927,470		
Lease Purchase Financings	22,428,085	690,000 21,751,850	2,542,000 22,214,268	5,301,500 23,560,188	8,191,165 25,085,735	10,938,495 26,535,274	13,609,825 27,958,415	16,704,320 29,849,552	18,879,480 30,914,043	20,791,975 31,726,178	23,927,470 33,750,021		
Principal Repayments - Existing Debt General Obligation Bonds Lease Purchase Financings	1,025,205 241,385	1,082,595 283,640	1,076,483 313,099	1,120,455 293,126	1,069,776 294,341	995,830 301,961	932,769 315,420	869,415 333,943	824,815 285,854	807,813 292,547	798,600 313,053	\$ 6,223,659 3,598,892	\$ 16,827,415 6,867,261
Sub-Total Principal Repayments - Projected Debt General Obligation Bonds I Asse Purchase Financines	1,266,590 -	1,366,235 -	1,389,582 23,000	1,413,581 85,500 -	1,364,118 180,335	1,297,791 282,670 _	1,248,189 383,670 -	1,203,358 485,505 -	1,110,669 604,840 -	1,100,360 697,505 -	1,111,653 784,505 -	9,822,551 23,927,470 -	23,694,676 27,455,000
Sub-Total TOTAL	1,266,590		23,000 1,412,582	85,500 1,499,081	180,335 1,544,453	282,670 1,580,461	383,670 1,631,859	485,505 1,688,863	604,840 1,715,509	697,505 1,797,865	784,505 1,896,158	23,927,470 33,750,021	27,455,000 51,149,676
Interest Payments - Existing Debt General Obligation Bonds Lease Purchase Financings Sub-Total	884,922 355.078 1.240.001	910,943 349,829 1.260,772	850,917 335,846 1.186.763	778,292 321,232 1.099,524	712,325 309,530 1.021,855	645,281 294,136 939,417	587,592 280,062 867,655	527,833 261,411 789,245	473,106 249,200 722,306	424,810 231,548 656.359	374,275 220,282 594,558	2,375,800 1,218,897 3,594,697	9,546,096 4,427,051 13,973,147
Interest Payments - Projected Debt General Obligation Bonds Lease Purchase Financings Sub-Total TOTAL	1,240,001	1,260,772	41,400 41,400 1,228,163	152,520 152,520 1,222,044	318,090 318,090 318,090 1,339,945	491,470 491,470 1,430,887	656,310 656,310 656,310 1,523,965	816,590 816,590 816,590 1,605,835	1,002,259 1,002,259 1,724,565	1,132,769 1,132,769 1,132,769 1,789,128	1,247,519 1,247,519 1,842,077	19,674,137 19,674,137 23,268,835	25,533,064 25,533,064 25,533,064 39,506,211
Debt Service Payments - Existing Debt General Obligation Bonds Lease Purchase Financings contronal	1,910,127 596,464 2 506 501	1,993,538 633,469 2,627,007	1,927,400 648,945 2 576 345	1,898,747 614,358 2 513 105	1,782,101 603,871 2 385 077	1,641,111 596,097 2087 525	1,520,362 595,482 2.115,844	1,397,248 <u>595,354</u> 1 002 602	1,297,921 535,054 1 822 075	1,232,623 524,095 1 756 718	1,172,875 533,335 1706.210	8,599,459 4,817,789 13,117,248	26,373,512 11,294,313 37 667 875
Debt Service Payments - Projected Debt General Obligation Bonds Lease Purchase Financings Losse Purchase Financings			64,400 	238,020 - 238,020 - 238,020	498,425	774,140	1,039,980	1,302,095		1,830,274 1,830,274 1,830,274	2,032,024	43,601,607 9,386,457	52,988,064
TOTAL Projected Bond Financings General Obligation Bonds Lease Purchase Financings	2,506,591 -	2,627,007 690,000 -	2,640,745 1,875,000	2,751,125 2,845,000	2,884,397 3,070,000	3,011,348 3,030,000 -	3,155,824 3,055,000	3,294,697 3,580,000	3,440,074 2,780,000	3,586,992 2,610,000	3,738,234 3,920,000	57,018,855	90,655,889 27,455,000
TOTAL Computation of Debt Ratios EVE have 20	' 1000	690,000	1,875,000	2,845,000	3,070,000	3,030,000	3,055,000	3,580,000	2,780,000	2,610,000	3,920,000	' ()	27,455,000
Personal from 20 Population Personal Income 5 General Fund Revenues 5 Growth Rate of General Fund Revenues	34,072 961,615,007 57,927,000 5.37%	34,653 34,653 1,013,393,082 62,405,730 7.73%	35,233 35,233 1,060,910,669 63,361,013 1.53%	35,802 35,802 1,117,751,612 65,917,087 4.03%	36,364 36,364 1,186,809,309 69,180,095 4,95%	36,900 1,260,094,876 1,72,230,985 4,41%	37,372 1,338,102,084 \$ 75,639,211 \$ 4.72%	2000 37,838 1,421,700,798 \$ 79,073,454 \$ 4.54%	2007 38,364 1,510,832,550 \$ 82,462,649 \$ 4.29%	38,894 38,894 1,606,101,512 86,009,911 4.30%	39,426 1,707,728,584 89,708,337 4.30%	2010 39,966 \$ 1,815,827,803 \$ 93,565,796 4.30%	
Debt per Capita Debt to Personal Income Debt Service to General Fund Revenues	\$658 2.33% 4.33%	\$628 2.15% 4.21%	\$630 2.09% 4.17%	\$658 2.11% 4.17%	\$690 2.11% 4.17%	\$719 2.11% 4.17%	\$748 2.09% 4.17%	\$789 2.10% 4.17%	\$806 2.05% 4.17%	\$816 1.98% 4.17%	\$856 1.98% 4.17%	\$796 1.75% 4.17%	

THE STATE OF CALIFORNIA Special Edition Debt Affordability Report - June 1999 Prepared by Public Resources Advisory Group

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THE STATE OF CALJFORNIA Special Edition Debt Affordability Report - Ju	une 1999												
Computation of Debt Ratios for Total Ne General Fund Revenue Growth © DOF 1	rt Tax-Supported D Forecast + 1%	oebt as of May I,	1999 plus \$38.030	Billion in Projecte.	d Bond Financing	(000's)							
FYE June 30	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010 - 2039	TOTAL
General Fund Debt - Existing General Obligation Bonds \$ Lease Purchase Financings Sub-Total	15,802,211 \$ 6.625,874	14,719,616 6,342,234 21.061.850	\$ 13,643,133 6,029,135 19,672,268	\$ 12,522,678 5,736,010 18,258,688	\$ 11,452,902 5,441,669 16,894,571	\$ 10,457,072 \$ 5,139,707 15,596,779	9,524,302 § 4,824,288 14,348,590	\$ 8,654,887 \$ 4,490,345 13,145,232	7,830,072 \$ 4,204,491 12,034,563	7,022,259 \$ 3,911,944 10,934,203	6,223,659 3,598,892 9.822,551		
General Fund Debt - Projected General Obligation Bonds Lease Purchase Financings Sub-Total		1,820,000	4,239,335	7,686,005	11,348,010	14,899,180 - - 14,899,180	18,528,850 18,528,850 18,528,850	22,515,020	25,701,190 25,701,190 	28,783,860 28,783,860 28,783,860	33,122,030 33,122,030		
Principal Repayments - Existing Deht General Obligation Bonds Lease Purchase Financings	241,385	22,001,000 1,082,595 283,640	200,117,22 1,076,483 313,099	1,120,455 293,126	1,069,776	995,830 301,961	932,769 315,420	869,415 333,943	24,815 285,854	807,813 292,547	798,600	\$ 6,223,659 3,598,892	\$ 16,827,415 6,867,261
Sub-Total Principal Repayments - Projected Debt General Obligation Bonds Lease Purchase Financinss	1,266,590 -	1,366,235 -	1,389,582 60,665 -	1,413,581 143,330 -	1,364,117 262,995 -	1,297,791 393,830 -	1,248,189 525,330 -	1,203,358 663,830 -	1,110,669 818,830	1,100,360 952,330 -	1,111,653 1,086,830 -	9,822,551 33,122,030 -	23,694,676 38,030,000
Sub-Total TOTAL	1,266,590	- 1,366,235	60,665 1,450,247	143,330 1,556,911	262,995 1,627,112	393,830 1,691,621	525,330 1,773,519	663,830 1,867,188	818,830 1,929,499	952,330 2,052,690	1,086,830 2,198,483	33,122,030 42,944,581	38,030,000 61,724,676
Interest Payments - Existing Debt General Obligation Bonds Lease Purchase Financings	884,922 355,078	910,943 349,829	850,917 335,846	778,292 321,232	712,325 309.530	645,281 294,136	587,592 280,062	527,833 261,411	473,106 249,200	424,810 231,548	374,275 220,282	2,375,800 1,218,897	9,546,096 4,427,051
Sub-Total Interest Payments - Projected Debt General Obligation Bonds Lease Purchase Financings	1,240,000	1,260,772 - -	1,186,763 109,200 -	1,099,524 254,360 -	1,021,855 461,160 -	939,417 680,881 -	867,654 893,951 -	789,244 1,111,731 -	722,306 1,350,901 -	656,358 1,542,071 -	594,557 1,727,032 -	3,594,697 27,236,657 -	13,973,147 35,367,944 -
Sub-Total TOTAL	1,240,000	- 1,260,772	109,200 1,295,963	254,360 1,353,884	461,160 1,483,015	680,881 1,620,298	893,951 1,761,605	1,111,731 1,900,975	1,350,901 2,073,207	1,542,071 2,198,429	1,727,032 2,321,589	27,236,657 30,831,354	35,367,944 49,341,091
Debt Service Payments - Existing Debt General Obligation Bonds Lease Purchase Financings Sub-Total	1,910,127 596,464 2,506,591	1,993,538 633,469 2,627,007	1,927,400 648,945 2,576,345	1,898,747 614,358 2,513,105	1,782,101 603,871 2,385,972	1,641,111 596,097 2,237,208	1,520,362 595,482 2,115,844	1,397,248 <u>595,354</u> 1,992,602	1,297,921 <u>535,054</u> 1,832,975	1,232,623 <u>524,095</u> 1,756,718	1,172,875 533,335 1,706,210	8,599,459 4,817,789 13,417,248	26,373,512 11,294,313 37,667,825
Debt Service Payments - Projected Debt General Obligation Bonds Lease Purchase Financings		, ,	169,865	397,690 -	724,155 -	1,074,711	1,419,281 -	1,775,561	2,169,731 -	2,494,401 -	2,813,862 -	60,358,687 -	73,397,944 -
Sub-Total TOTAL	2,506,591	2,627,007	169,865 2,746,210	397,690 2,910,795	724,155 3,110,127	1,074,711 3,311,919	1,419,281 3,535,125	1,775,561 3,768,163	2,169,731 4,002,706	2,494,401 4,251,119	2,813,862 4,520,072	60,358,687 73,775,935	73,397,944 111,065,769
Projected Bond Financings General Obligation Bonds Lease Purchase Financings		1,820,000	2,480,000	3,590,000	3,925,000	3,945,000 -	4,155,000	4,650,000	4,005,000	4,035,000	5,425,000		38,030,000 -
TOTAL Computation of Debt Ratios		1,820,000	2,480,000	3,590,000	3,925,000	3,945,000	4,155,000	4,650,000	4,005,000	4,035,000	5,425,000	· (38,030,000
FYE June 30 Population Personal Income 5 General Fund Revenues 5 Growth Rate of General Fund Revenues	1999 34,072 961,615,007 \$ 57,927,000 \$ 5.37%	2000 34,653 1,013,393,082 63,564,270 9.73%	2001 35,233 \$ 1,060,910,669 \$ 65,808,573 3.53%	2002 35,802 \$ 1,117,751,612 \$ 69,779,557 6.03%	2003 36,364 \$ 1,186,809,309 \$ 74,629,354 6.95%	2004 36,900 \$ 1,260,094,876 \$ \$ 79,413,147 \$ 6.41%	2005 37,372 1,338,102,084 84,748,527 6.72%	2006 37,838 1,421,700,798 90,291,330 6.54%	2007 38,364 1,510,832,550 \$ 95,967,165 \$ 6.29%	2008 38,894 38,894 1,606,101,512 5,30% 6.30%	2009 39,426 1,707,728,584 108,441,615 6.30%	2010 39,966 \$ 1,815,827,803 \$ 115,273,437 6.30%	
Debt per Capita Debt to Personal Income Debt Service to General Fund Revenues	\$658 2.33% 4.33%	\$660 2.26% 4.13%	\$679 2.25% 4.17%	\$725 2.32% 4.17%	\$777 2.38% 4.17%	\$826 2.42% 4.17%	\$880 2.46% 4.17%	\$942 2.51% 4.17%	\$984 2.50% 4.17%	\$1,021 2.47% 4.17%	\$1,089 2.51% 4.17%	\$1,017 2.24% 4.17%	

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THE STATE OF CALIFORNIA Special Edition Debt Affordability Report - June	1999												
Computation of Debt Ratios for Total Net 1 General Fund Revenue Growth © DOF Fo	'ax-Supported Debi recast Assuming	t as of May I, 1999 _i Gradual Increase o	plus \$42.935 Billion of Debt Service to 5	ı in Projected Bond .0% of General Fun	Financing (000's) d Revenues								
FYE June 30	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010 - 203	TOTAL
General Fund Debt - Existing General Obligation Bonds Lease Purchase Financings	8 15,802,211 8 6,625,874	\$ 14,719,616 \$ 6,342,234	13,643,133 \$ 6,029,135	12,522,678 \$ 5,736,010	11,452,902 \$ 5,441,669	10,457,072 \$ 5,139,707	9,524,302 \$ 4,824,288	8,654,887 \$ 4,490,345	7,830,072 \$ 4,204,491	7,022,259 \$ 3,911,944	6,223,659 3,598,892		
Sub-Jotal General Fund Debt - Projected General Obligation Bonds I acco Durchase Finanzines		2,425,000	5,839,165	16,226,088	15,176,330	19,844,330	14,348,390 23,259,165	27,071,835	12,034,305 30,069,505	10,934,203 32,824,175	36,864,510		
Lease Furchase Furchase Sub-Total TOTAL	22,428,085	2,425,000 23,486,850	5,839,165 25,511,433	- 10,386,830 28,645,518	15,176,330 32,070,901	- 19,844,330 35,441,109	23,259,165 37,607,755	27,071,835 40,217,067	30,069,505 42,104,068	32,824,175 43,758,378	36,864,510 46,687,061		
Principal Repayments - Existing Debt General Obligation Bonds Lease Purchase Financings	1,025,205 241,385	1,082,595 283,640	1,076,483 313,09 <u>9</u>	1,120,455 293,126	1,069,776 294,341	995,830 301,961	932,769 315,420	869,415 333,943	824,815 285,854	807,813 292,547	798,600 313,053	\$ 6,223,659 3,598,892	\$ 16,827,415 6,867,261
Sub-Total	1,266,590	1,366,235	1,389,582	1,413,581	1,364,117	1,297,791	1,248,189	1,203,358	1,110,669	1,100,360	1,111,653	9,822,551	23,694,676
Principal Repayments - Projected Debt General Obligation Bonds Lease Purchase Financines			80,835	197,335 -	355,500	527,000	700,165	837,330	992,330 -	1,125,330	1,254,665	36,864,510	42,935,000
Sub-Total TOTAL	1,266,590	1,366,235	80,835 1,470,417	197,335 1,610,916	355,500 1,719,617	527,000 1,824,791	700,165 1,948,354	837,330 2,040,688	992,330 2,102,999	1,125,330 2,225,690	1,254,665 2,366,318	36,864,51(46,687,061	42,935,000 66,629,676
Interest Payments - Existing Debt General Obligation Bonds Lease Purchase Financings _	884,922 <u>355,078</u>	910,943 349,829	850,917 335,846	778,292 321,232	712,325 309,530	645,281 294,136	587,592 280.062	527,833 261,411	473,106 249.200	424,810 231,548	374,275 220,282	2,375,800 1,218,897	9,546,096 4,427,051
Sub-Total	1,240,000	1,260,772	1,186,763	1,099,524	1,021,855	939,417	867,654	789,244	722,306	656,358	594,557	3,594,697	13,973,147
Interest Payments - Projected Debt General Obligation Bonds Lease Purchase Financings		· · ·	145,500	350,350	623,210 	910,580	1,190,660	1,395,550	1,624,310	1,804,170	1,969,451	29,915,813	39,929,594 -
Sub-Total TOTAL	- 1,240,000	- 1,260,772	145,500 1,332,263	350,350 $1,449,874$	623,210 1,645,065	910,580 1,849,997	1,190,660 2,058,314	1,395,550 2,184,794	1,624,310 2,346,616	1,804,170 2,460,528	1,969,451 2,564,008	29,915,813 33,510,511	39,929,594 53,902,741
Debt Service Payments - Existing Debt General Obligation Bonds Lease Purchase Financings _ 6.hr.Toval	1,910,127 <u>596,464</u> 2 506 501	1,993,538 633,469 2,637,007	1,927,400 648,945 2,576,345	1,898,747 614,358 2 513 105	1,782,101 603.871 2 385 072	1,641,111 596,097 2,237,208	1,520,362 595,482 2115 844	1,397,248 595,354 1 002 602	1,297,921 535,054 1 832 075	1,232,623 524,095 1746718	1,172,875 533,335 1 706 210	8,599,459 4,817,789 13,417,785	26,373,512 11,294,313 37.667 875
Debt Service Payments - Projected Debt General Obligation Bonds Lesse Purchase Financines			226,335	547,685 -	- 978,710 -	1,437,580	1,890,825	2,232,880	2,616,640	2,929,500	3,224,116	66,780,323	82,864,594
Sub-Total TOTAL	2,506,591	2,627,007	226,335 2,802,680	547,685 3,060,790	978,710 3,364,682	1,437,580 3,674,788	1,890,825 4,006,669	2,232,880 4,225,482	2,616,640 4,449,615	2,929,500 4,686,218	3,224,116 4,930,326	66,780,323 80,197,571	82,864,594 120,532,419
Projected Bond Financings General Obligation Bonds Lease Purchase Financings		2,425,000	3,495,000	4,745,000	5,145,000	5,195,000	4,115,000	4,650,000	3,990,000	3,880,000	5,295,000		42,935,000
TOTAL		2,425,000	3,495,000	4,745,000	5,145,000	5,195,000	4,115,000	4,650,000	3,990,000	3,880,000	5,295,000		42,935,000
Computation of Debt Katios FYE June 30	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	201	(1)
Population Personal Income 5 General Fund Revenues 5 Growth Rate of General Fund Revenues	34,072 \$ 961,615,007 \$ 57,927,000 5.37%	34,653 1,013,393,082 \$ 5 62,985,000 \$ 8.73%	35,233 1,060,910,669 \$ 64,579,000 \$ 2.53%	35,802 1,117,751,612 \$ 67,830,000 \$ 5.03%	36,364 1,186,809,309 \$ 71,866,000 \$ 5.95%	36,900 1,260,094,876 75,754,000 5.41%	37,372 1,338,102,084 80,086,000 5.72%	37,838 1,421,700,798 \$ 84,523,000 \$ 5.54%	38,364 1,510,832,550 \$ 88,991,000 \$ 5.29%	38,894 1,606,101,512 \$ 93,709,000 \$ 5.30%	39,426 1,707,728,584 98,675,577 5.30%	39,966 \$ 1,815,827,803 \$ 103,905,383 5.305	
Debt per Capita Debt to Personal Income Debt Service to General Fund Revenues	\$658 2.33% 4.33%	\$678 2.32% 4.17%	\$724 2.40% 4.34%	\$800 2.56% 4.51%	\$882 2.70% 4.68%	\$960 2.81% 4.85%	\$1,006 2.81% 5.00%	\$1,063 2.83% 5.00%	\$1,097 2.79% 5.00%	\$1,125 2.72% 5.00%	\$1,184 2.73% 5.00%	\$1,107 2.449 5.009	

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Computation of Debt Ratios for Total Net T. General Fund Revenue Growth © DOF For	tx-Supported Debt ecast Assuming	as of May 1, 1999 , Gradual Increase ,	plus \$58.595 Billio of Debt Service to 6	n in Projected Bon .0% of General Fu	d Financing (000' tnd Revenues	(s)							
FYE June 30	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010 - 2039	TOTAL
General Fund Debt - Existing General Obligation Bonds \$ Lease Purchase Financines	15,802,211 \$ 6,625,874	14,719,616 \$ 6.342,234	13,643,133 \$ 6.029,135	12,522,678 \$ 5,736,010	11,452,902 \$ 5,441,669	\$ 10,457,072 \$ 5.139.707	9,524,302 \$ 4,824,288	8,654,887 \$ 4,490.345	7,830,072 \$ 4,204,491	7,022,259 \$ 3.911.944	6,223,659 3.598,892		
Sub-Total	22,428,085	21,061,850	19,672,268	18,258,688	16,894,571	15,596,779	14,348,590	13,145,232	12,034,563	10,934,203	9,822,551		
General Fund Debt - Frojected General Obligation Bonds Lease Purchase Financinos		5,795,000	10,526,835	16,649,505	23,096,175	29,708,845 -	33,724,180 -	38,120,515	41,639,515	44,979,180	49,660,010		
Sub-Total TOTAL	22,428,085	5,795,000 26,856,850	10,526,835 30,199,103	16,649,505 34,908,193	23,096,175 39,990,746	29,708,845 45,305,624	33,724,180 48,072,770	38,120,515 51,265,747	41,639,515 53,674,078	44,979,180 55,913,383	49,660,010 59,482,561		
Principal Repayments - Existing Debt General Obligation Bonds	1,025,205	1,082,595	1,076,483	1,120,455	1,069,776	995,830	932,769	869,415	824,815	807,813	798,600	\$ 6,223,659	\$ 16,827,415
Lease Purchase FinancingsSub-Total	241.385 1.266.590	283,640 1,366,235	313,099 1.389,582	293,126 1,413,581	294,341	301,961	315,420	333,943 1.203.358	285,854	1.100.360	313,053 1.111.653	3,598,892 9,822,551	6,867,261 23,694,676
Principal Repayments - Projected Debt General Obligation Bonds Lasse Durybose Financiane			193,165	357,330	573,330	807,330	1,054,665	1,223,665	1,411,000	1,575,335	1,739,170	49,660,010	58,595,000
	1,266,590	1,366,235	193,165 1,582,747	357,330 1,770,911	573,330 1,937,447	807,330 2,105,121	1,054,665 2,302,854	1,223,665 2,427,023	1,411,000 2,521,669	1,575,335 2,675,695	1,739,170 2,850,823	49,660,010 59,482,561	58,595,000 82,289,676
Interest Payments - Existing Debt General Obligation Bonds I esse Princhase Financinos	884,922 355 078	910,943 349 829	850,917 335 846	778,292	712,325 309 530	645,281 294 136	587,592 280.062	527,833 261 411	473,106 249.200	424,810 231 548	374,275 220.282	2,375,800 1 218 897	9,546,096 4.427.051
Sub-Total	1,240,000	1,260,772	1,186,763	1,099,524	1,021,855	939,417	867,654	789,244	722,306	656,358	594,557	3,594,697	13,973,147
Interest Payments - Projected Debt General Obligation Bonds Lesse Purchase Financines			318,725	578,976 -	915,723	1,270,290	1,633,986	1,854,830	2,096,628 -	2,290,173	2,473,855	36,518,972 -	49,952,158
Sub-Total TOTAL	1,240,000	1,260,772	318,725 1,505,488	578,976 1,678,500	915,723 1,937,578	1,270,290 2,209,707	1,633,986 2,501,640	1,854,830 2,644,074	2,096,628 2,818,934	2,290,173 2,946,531	2,473,855 3,068,412	36,518,972 40,113,669	49,952,158 63,925,305
Debt Service Payments - Existing Debt General Obligation Bonds Lease Purchase Financings	1,910,127 596,464	1,993,538 633,469	1,927,400 648,945	1,898,747 614.358	1,782,101 603,871	1,641,111 596,097	1,520,362 595,482	1,397,248 595,354	1,297,921 535,054	1,232,623 524,095	1,172,875 533,335	8,599,459 4,817,789	26,373,512 11,294,313
Sub-Total Date Comitor Documents Devicated Date	2,506,591	2,627,007	2,576,345	2,513,105	2,385,972	2,237,208	2,115,844	1,992,602	1,832,975	1,756,718	1,706,210	13,417,248	37,667,825
Debt Service Fayments - trojected Debt General Obligation Bonds Lease Purchase Financings			511,890	936,306 	1,489,053	2,077,620 	2,688,651	3,078,495 	3,507,628	3,865,508 -	4,213,025	86,178,982	108,547,158
Sub-Total TOTAL	- 2,506,591	- 2,627,007	511,890 3,088,235	936,306 3,449,411	1,489,053 3,875,025	2,077,620 4,314,828	2,688,651 4,804,495	3,078,495 5,071,097	3,507,628 5,340,603	3,865,508 5,622,226	4,213,025 5,919,235	86,178,982 99,596,230	108,547,158 146,214,983
Projected Bond Financings General Obligation Bonds Lease Purchase Financings		5,795,000	4,925,000	6,480,000	7,020,000	7,420,000	5,070,000	5,620,000	4,930,000	4,915,000	6,420,000 -	' '	58,595,000
TOTAL		5,795,000	4,925,000	6,480,000	7,020,000	7,420,000	5,070,000	5,620,000	4,930,000	4,915,000	6,420,000		58,595,000
Computation of Debt Ratios FYE Inne 30	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Population Personal Income \$ General Fund Revenues \$ Growth Rate of General Fund Revenues	34,072 961,615,007 57,927,000 5.37%	34,653 1,013,393,082 62,985,000 8,73%	35,233 1,060,910,669 64,579,000 2.53%	35,802 1,117,751,612 67,830,000 5.03%	36,364 1,186,809,309 \$ 71,866,000 \$ 5.95%	36,900 31,260,094,876 75,754,000 5,41%	37,372 1,338,102,084 80,086,000 5.72%	37,838 1,421,700,798 84,523,000 5,54%	38,364 1,510,832,550 88,991,000 5,29%	38,894 1,606,101,512 93,709,000 5,30%	39,426 1,707,728,584 98,675,577 5,30%	39,966 \$ 1,815,827,803 \$ 103,905,383 5.30%	
Debt to Personal Income	\$658 2.33%	\$775 2.65%	\$857 2.85%	\$975 3.12%	\$1,100 3.37%	\$1,228 3.60%	\$1,286 3.59%	\$1,355 3.61%	\$1,399 3.55%	\$1,438 3.48%	\$1,509 3.48%	\$1,414 3.11%	
Detto Service to Centeral Fund Revenues Assumptions Regarding Projected Bond Financings:	%cc.+ Lev	4.1170 vel amual repayment c	4.10% If principal, 30-year fin	o.20.6 al maturity and true in	5.39% terest cost of 6.0%.	0%D/.C	0.00%	90000 9	0.00%	0.00%	0.00%	0.00%	

Prepared by Public Resources Advisory Group

APPENDIX 6.5