California faces tremendous challenges as a result of the current economic downturn and the state budget crisis. Addressing these challenges will force the state to reopen politically difficult discussions about what level of services to provide to the public and how to pay for them. Infrastructure finance—essential to California’s long-run growth and development—must be part of these discussions. Meeting infrastructure needs will be expensive: The state administration estimates a $500 billion price tag for rebuilding California’s transportation, water, school, and other systems over the next 20 years. Moreover, California’s system for financing these investments is seriously flawed. Today’s fiscal challenges make it even more imperative to address these flaws. In this At Issue, we present the background and rationale for several infrastructure financing reforms.
CONRAINTS ON INFRASTRUCTURE INVESTMENT

In January 2006, Governor Arnold Schwarzenegger announced a Strategic Growth Plan for California. The governor’s plan sought to spur a new phase of state leadership in rebuilding and modernizing key services. It set ambitious goals, called for new spending, and proposed reforms for investing in the state’s infrastructure, to support economic growth and improve the quality of life for California residents. In making its case, the plan drew comparisons with the Golden Age of the 1950s and 1960s under Governor Pat Brown—a time when freeways, the State Water Project, and the university system were built to meet the needs of a growing state.

Over much of the time since then, California’s infrastructure investments have declined (Figure 1). The infrastructure backlog this decline created affects the daily lives of Californians in many ways: overcrowded classrooms, congested and poorly maintained roadways, and a deteriorated levee network that exposes residents to high flood risk and threatens the state’s water supply, to name a few.

Since the governor’s plan was announced, California voters have approved nearly $54 billion in state general obligation bonds for infrastructure projects. However, expanding financing options beyond such bonds has been more difficult. For example, California’s infrastructure finance system is hamstrung by strict supermajority voter approval requirements (two-thirds) on local revenue measures, a decline in user fees, and insufficient ability to engage in public-private partnerships. Indeed, in these key areas of local funding, user fees, and partnerships with the private sector, California appears to be backsliding.

Below, we discuss the opportunities these funding sources present, the constraints on their use, and some options for policy redesign. Augmenting these opportunities is important, because California’s needs far surpass the capacity of state bond funding.
The infrastructure backlog affects the daily lives of Californians in many ways.
Sources: Governor’s Budgets (spending), California Department of Finance (population), and U.S. Department of Labor (producer price index for materials and components for construction).

Note: Values for 2007 and 2008 are estimates.
California has a relatively decentralized system of government. Consequently, many investment decisions are made by cities and counties, school districts, water and wastewater districts, and county and regional transportation agencies. Overall, local and regional agencies account for around 80 percent of total capital spending. Although these agencies get most of the required funds locally, state contributions to local capital budgets have risen over time.

The workhorse of the state’s infrastructure budget is the general obligation (GO) bond. Since the late 1970s, bonds have significantly increased as a share of state capital spending, routinely accounting for more than half of the total since the mid-1990s. (Other sources include the state general fund, special funds—mainly for transportation—and the federal highway trust fund). Most state bonds are GO bonds, which allow the state to take out long-term loans (typically for 20 to 40 years) and pay back the capital and interest from the state’s general fund. Thanks to voter support for GO bonds, real per capita state capital spending has risen substantially over time.

State GO bonds are a mixed blessing. On the plus side, bond financing enables governments to undertake large projects that could not be paid for out of current revenues. Although interest payments can double the nominal cost of a project, the cost in real dollars will often be lower. Borrowing can also be equitable, because the various generations that will benefit from an infrastructure project contribute to its financing. State GO bonds have the added advantage of being relatively easy to pass. They require only simple majority approval, whereas most local infrastructure spending measures must meet supermajority thresholds.

On the minus side, state GO bonds raise several concerns. Because they are not tied to new revenue sources, they increase obligations on the state’s general fund. As long as the economy and state revenues are growing at a healthy pace, this is not necessarily a problem. But when the state’s debt-servicing obligations are a large share of total revenues (for example, more than 6 or 7 percent), financial markets become concerned. California has hovered at or near this range during most of the 2000s. In tight budget times, large debt-servicing obligations can require cuts to other spending programs.
It is not clear that voters recognize these tradeoffs. The “yes” campaigns for state GO bonds often tout them as not requiring tax increases. But a May 2007 PPIC Statewide Survey found that nearly two-thirds of residents knew very little (43 percent) or nothing (21 percent) about how state bonds are paid for.

One final tick on the minus side relates to the incentives set up by state GO bonds. For infrastructure of a public nature—such as schools and hospitals—it makes sense to ask the general public to pay through general fund revenues: The benefits are widespread and there are important equity considerations. But, for investments in such areas as water and transportation, there are good reasons to let users pay for the facilities instead of spending taxpayer dollars. As discussed further below, when users pay, they are likely to use the services more efficiently.

**LOCAL REVENUES**

**THE SUPERMAJORITY RULES.** Although California relies more heavily than most states on local and regional agencies to build and manage infrastructure, it has some of the strictest rules in the nation for raising local revenues. Proposition 13, passed in 1978, limited property assessments and mandated supermajority voter approval for the passage of special taxes. California is also one of only eight states with supermajority requirements on the passage of local GO bonds. In 1996, voters passed Proposition 218, a constitutional amendment that reduced the revenue-raising authority of locally elected governing boards by mandating majority votes for general taxes, assessments, and “property-related” fees. Subsequently, in 2006, the California Supreme Court extended the reach of Proposition 218’s restrictions to water and wastewater utilities. They are now barred from raising fees that exceed the “proportional cost” of providing service to the parcel—a potential obstacle to financing new facilities.

Given these constraints on local funding, it is not surprising that state bonds—which require a simple majority approval—seem like a good alternative. Of the seven state infrastructure bonds that passed in the November 2006 and 2008 elections, only one—for education—would have passed under local voter rules (Figure 3). As discussed below, this is only because local school bonds are held to a lower threshold—55 percent rather than two-thirds. In contrast, California is dotted
Figure 3. State Infrastructure Bond Pass Rates, 2006 and 2008 Elections

Sources: California Secretary of State: November 2008 ballot, high-speed rail and children’s hospitals; November 2006 ballot, all other bonds shown.

Note: Under local bond rules, only the school bond on the November 2006 ballot would have passed.

Sample size: 1,573 local measures to fund infrastructure projects.

Source: California Debt and Investment Advisory Commission.

with examples of local measures that failed despite high voter approval: transportation sales taxes in Stanislaus County (66 percent) and Monterey County (62 percent) in November 2008, and flood-control bonds in the cities of Burlingame (64 percent) and Orinda (62 percent) in November 2006, to name a few.

LEVELING THE PLAYING FIELD. Recent history suggests how loosening the supermajority rules can affect local infrastructure funding. In November 2000, passage of Proposition 39 lowered the voter threshold on local school bonds from two-thirds to 55 percent. After that, California witnessed a dramatic increase in local capital support for K–12 and community college facilities. Not only did this change result in significantly higher pass rates (Figure 4A), it also led to a more than doubling of measures put on the ballot, as more school districts felt they had a chance of gaining voter approval (Figure 4B). Meanwhile, pass rates and the number of ballot measures remained stagnant for other infrastructure measures—including GO bonds not related to education and assorted taxes—which generally require a two-thirds vote.12

The boon to California’s education facilities from this policy change cannot be overstated: Of the $56 billion passed for K–12 facilities between 2001 and November 2008, nearly half was approved with a vote of less than two-thirds. For community colleges, nearly three-quarters of the $21 billion in local bonds that passed would have failed under the old rules.13 But despite these successes, it has been difficult to extend this change to other local infrastructure measures. Each of the last two legislative sessions has included bills to extend the 55 percent threshold or otherwise relax voter requirements, but none has made it out of committee.14

It may be difficult to return to the world before Propositions 13 and 218, when Californians relied more heavily on representative government to raise local revenues. However, the experience with Proposition 39 suggests much room for improvement within a finance system that relies on direct voter approval of revenue measures. In particular, lowering the supermajority threshold for all local GO bonds and special taxes would maintain the safeguards of a supermajority vote for new fiscal obligations while improving Californians’ ability to fund essential local infrastructure. Such a change would require a constitutional amendment, which could originate in the legislature or a ballot initiative (as was the case with Proposition 39).
USER FEES: GETTING INCENTIVES RIGHT

For many services, financing investments through user fees makes good economic sense. When users pay for facilities directly—through higher water rates, surcharges on fuel, or road tolls—they have a built-in incentive to use the facilities efficiently. In turn, this can lower overall investment needs. It can also help California meet its greenhouse gas emission-reduction goals by reducing both vehicle miles traveled (VMT) and the use of energy-intensive resources such as water.

FUNDING TRANSPORTATION. Unfortunately, the tide has been turning away from this principle. The primary source of transportation infrastructure funding since the 1920s had been a per-gallon gas tax—a simple user fee that charges vehicles roughly in proportion to their road use. However, fuel taxes have declined in importance since the 1960s as a result of inflation and gains in fuel efficiency. Transportation agencies have made up the gap with other measures—notably, local sales taxes and state GO bonds—which do not create incentives to use transportation infrastructure more efficiently.

Many transportation experts foresee a future in which drivers are charged directly for their road use, with electronic toll collection (ETC) technology. Countries in Europe, as well as other states (Oregon, for example), are already experimenting with this new system. In the meantime, targeted tolls can help fund new roads or commuter lanes. Although there is still political resistance to expanding toll roads in California, the state has had some successes, particularly with the high-occupancy toll (HOT) formula whereby carpoolers use the lanes without charge. California should join the innovators in experimenting with ETC technology and should expand the use of tolls to fund new facilities. To generate revenue while maintaining the recent momentum in bringing down VMT, California should also raise the gas tax. Although raising the state gas tax has been seen as politically unpalatable—it has stood at $0.18 per gallon since 1994—California would benefit from revisiting this policy.
To generate revenue, California should also raise the gas tax.

Notes: Analysis controls for local weather conditions. Differences across rate types are statistically significant. Sample size: 265 water utilities.
FUNDING WATER SUPPLY. California has a jumbled history in regard to water user fees. Large federal subsidies helped build the Central Valley Project and supported wastewater treatment plant upgrades after the passage of the 1972 Clean Water Act. But there is also a long tradition of ratepayers financing local urban water-supply expansions, and the State Water Project is also being paid for by water users.21

In recent years, however, policy has moved toward extending taxpayer subsidies to water users through state GO bonds. Disagreements over funding new surface reservoirs have kept the legislature from putting a water bond on the ballot. However, several bonds proposed by initiative have provided billions of dollars to expand local supplies through investments in groundwater storage, wastewater purification, and water use efficiency.22 It makes more sense to use taxpayer dollars to fund public benefits—including aquatic ecosystem investments—and let water users pay to expand their supplies.23 If state bonds are used to pay for supply infrastructure, water users should be required to commit up front to pay back the loans. The State Water Project provides a useful model for such investments.

On a positive note, urban water pricing is receiving new attention. Spurred by two years of drought and the governor’s call for a 20 percent reduction in per capita use by 2020, many utilities want to give ratepayers better incentives to conserve. One method rising in popularity is “tiered” rates, which charge a higher per-gallon rate for higher use. These incentives can be very effective in reducing residential water use (Figure 5).24 Recent rule changes by the California Public Utilities Commission have made it possible for investor-owned water utilities (which serve about 20 percent of the state’s residents) to institute these rate reforms. As a result of recent state laws, communities that have not been using water meters (mainly in the Central Valley) are now required to install and use them—this is a prerequisite for effective conservation incentives.25
DEVELOPER FEES: MAKING GROWTH PAY FOR GROWTH

Another local finance tool has become increasingly popular in the wake of Proposition 13–related restrictions on taxes and fees: assessing new development for the incremental costs it incurs, such as widening roads, expanding water-treatment facilities, and building new classrooms. These “impact fees” are an up-front charge that gets rolled into new home prices or taken out of developer profits. In some years, impact fees provide up to one third of local contributions for school facilities. They have also become increasingly attractive as a way to pay for transportation projects. With new Proposition 218 restrictions on water and wastewater agencies, impact fees will also need to play a larger role in funding new capacity. Impact fees offer the advantage of not requiring voter approval. However, they can raise equity concerns by increasing the costs of low- and middle-income housing. They are also an unreliable source when market conditions weaken and construction slows.

PUBLIC-PRIVATE PARTNERSHIPS: EXPANDING OPPORTUNITIES

Public-private partnerships (often called P3s) refer to a wide array of private-sector involvement: operations and management (O&M) contracts to run public facilities, design-build contracts covering project design and construction (sometimes combined with an O&M contract), and private equity participation in project financing. Partnering with the private sector can speed up project delivery and save costs. However, private equity participation in and of itself generally does not generate new revenues, because the investors must be paid back. For this reason, projects with private-equity participation are often associated with tolls or other types of user fees. The alternative, when the investment is of a social nature—a hospital, school, or courthouse—is for the public agency to repay the private investor directly through leasing fees, or “availability payments” (with payment made on the basis of continued availability of the services). Private-equity participation can be useful when the public agency faces debt limits, and it creates the potential for risk-sharing.
Impact fees offer the advantage of not requiring voter approval.
Figure 6. States with enabling legislation for public-private partnership transportation projects.

Full-scale P3s (with equity participation) are much more common in Europe, Australia, and Canada than in the United States, where the public sector has been slow to seek out these opportunities. Domestically, California used to be an innovator, but it now seems to be lagging. Starting in the mid-1990s, California was one of the first to experiment with the use of such partnerships for new transportation projects—with several privately financed toll roads in Southern California. Today, 16 states have much broader enabling legislation (Figure 6). And whereas 28 states have authorized their departments of transportation to engage in design-build contracts, California has not. Although P3s are not a panacea, California would benefit from expanding its opportunities with these tools. California has learned some lessons from its own early experiments, and the rich experiences from elsewhere provide a useful basis for negotiating sound deals. Even if the potential for private-equity participation is limited by changes in global financial market conditions, increasing flexibility with design-build and O&M contracts will continue to be attractive.

**WHY FINANCE REFORM SHOULD BE ON TODAY’S AGENDA**

California could face massive state budget imbalances for at least another five years, likely requiring significant cuts in services and increases in revenues. The budget crisis, compounded by the broader economic crisis, will limit the potential for increased reliance on state GO bonds as a strategy for rebuilding California’s infrastructure. Troubles on the municipal bond market are also making it more difficult and costly to sell state bonds that are already authorized. In the near term, some help may come from Washington, where the incoming administration is considering funding state infrastructure programs as part of an economic stimulus package. For the longer term, as we have seen, there are sound prospects for improving the way Californians pay for these investments through greater local participation, more reliance on user fees, and judicious use of private-sector partnerships.
Political leadership from Sacramento will be essential to achieving reforms, but the discussion must involve leaders from across California’s society. The passage of Proposition 39—which dramatically improved California’s ability to pay for school and community college facilities—was made possible by the support of a broad-based coalition, including business leaders. To secure a sound future for California, similar action is needed to support the broad spectrum of infrastructure investment needs.
To achieve reforms, the discussion must involve leaders from across California’s society.
Notes


2 It is likely that California’s total infrastructure spending has declined since 2002, the last year shown in Figure 1. This was an unusually high year for state capital spending (see Figure 2), particularly for schools (Rueben and de Alth, 2005).


4 Rueben and de Alth (2005).

5 The state’s infrastructure budget also includes some “lease-revenue” bonds, typically for public buildings (for example, courthouses). Rents are used to repay these bonds, which do not require voter approval (Rueben and de Alth, 2005).

6 To be put on the ballot, state GO bonds require either a two-thirds vote of both houses of the legislature and the governor’s signature or the signatures of the equivalent of 5 percent of registered voters who cast votes for governor in the preceding gubernatorial election (that number is 433,971).


9 Missouri and North Dakota also require a two-thirds majority to pass local debt, and Idaho, Iowa, Oklahoma, Washington, and West Virginia require a three-fifths vote.

10 For assessments, the requirement is a weighted majority of property owners. For property-related fees (such as payments for local stormwater control), an alternative to a majority of property owners is a two-thirds majority of the general electorate. See Legislative Analyst’s Office, Understanding Proposition 218, Sacramento, California, December 1996; and Kim Rueben and Pedro Cerdán, Fiscal Effects of Voter Approval Requirements on Local Governments, Public Policy Institute of California, San Francisco, California, 2003.

11 In Bighorn-Desert View Water Agency v. Verjil (July 24, 2006), the court also ruled that rate increases cannot take effect if a majority of property owners protests in writing; to this end, utilities must provide written notices to all property owners. See Kevin Siegel, “Bighorn-Desert View Water Agency v. Verjil: Court Rules Water Rates Subject to Proposition 218,” Public Law Bulletin, McDonough, Holland and Allen, Sacramento, California, August 2006.

12 The data presented in Figures 4A and 4B are for measures that appear on ballots during statewide elections. Local agencies can also put measures before voters at other times, for example, in off-cycle mayoral elections.

13 The November 2008 election had an unusually high volume of bonds and pass rates: For K–12, $17.9 billion passed (98% of the total placed on the ballot); for community colleges, $5.4 billion passed (100% of bonds placed on the ballot). Under a two-thirds threshold, the pass rates would have been 77 percent for K–12 and 72 percent for community colleges.

14 Assembly Constitutional Amendment (ACA) 7 (2005–2006) would have lowered the threshold for all special taxes. ACA 10 (2007–2008) would have lowered the threshold for special taxes and GO bonds supporting transportation projects. In line with a recommendation by the Department of Water Resources, concerned about the poor condition of many levees, ACA 13 (2005–2006) proposed that flood-control agencies be exempt from the voter requirements altogether, to be put on par with water and wastewater agencies, which could generally rely on approval by their governing bodies to raise user fees. See Department of Water Resources, Flood Warnings: Responding to California’s Flood Crisis, Sacramento, California, 2005.


16 Martin Wachs and Brian Taylor, White Paper on Transportation Finance, American Automobile Association, September 6, 2005.

18 For a list of projects, see Hanak and Rueben (2006).

19 Beginning in November 2007, higher fuel prices spurred the first nationwide declines in VMT. In California, VMT were down over the preceding year in every month from December 2007 through August 2008 (the last month available) (www fhwa dot gov /policyinformation /travel /tvt /trends /data cfm).

20 Over the years, independent analysts have made numerous proposals to raise the gas tax and index it to inflation. Most recently, the nonpartisan Legislative Analyst made such a proposal, without specifying the percentage increase. See Mac Taylor, LAO Recommended Legislation, Legislative Analyst’s Office, Sacramento, California, December 2008.

21 Catherine Freeman, California’s Water: An LAO Primer, Legislative Analyst’s Office, Sacramento, California, 2008.

22 For a list, see Freeman (2008).

23 Water users should also be held responsible for some ecosystem investments, to compensate for the environmental damage caused by water projects. Although the principle of “the beneficiary pays” has permeated discussions of state water policy since the late 1990s, it has been difficult to impose in practice, as water users have tended to argue that someone else—notably the environment—is a beneficiary of most investments. See Hanak and Barbour (2005) and Dean Mischynski, Financing Delta Improvements and Environmental Mitigation, Report 08-011, California Research Bureau, Sacramento, California, 2008.


26 To the extent that these fees raise the level of services provided to homebuyers, economic theory predicts that the fees should be reflected in the sale price of the home. However, developers may bear some of the cost if the fees are used for general community benefits or if market conditions are weak. Empirical research shows that fees generally increase home prices, although not always dollar for dollar. For a California example, see Marla Dresch and Steven Sheffrin, Who Pays for Development Fees and Exactions? Public Policy Institute of California, San Francisco, California, 1997.


28 A review of design-build transportation projects finds that although they generally speed up delivery, they do not necessarily result in cost savings to the public agency. See Jan Whittington and David Dowall, “Transaction-Cost Economic Analysis of Institutional Change toward Design-Build Contracts for Public Transportation,” working paper 2006-09, Institute of Urban & Regional Development, University of California, Berkeley, Berkeley, California, 2006.

29 The exception is when a private operator pays up front to procure a long-term lease for existing infrastructure. The City of Chicago has amassed substantial investment funds by leasing the Chicago Skyway toll bridge, some parking structures, and, most recently, Midway Airport.

30 In California, the Administrative Office of the Courts was recently authorized to partner with the City of Long Beach and private bidders to build a new courthouse, which will be repaid in this manner. (www.courtinfo.ca.gov/programs/occ m/pbi.htm).

31 For more information on the examples here, see Hanak and Rueben (2006).


36 The Chamber of Commerce was a key supporter of the Proposition 39 reform, and co-signed the argument in favor of the proposition in the official voter materials. The California Business Roundtable also supported the measure. See California Business Roundtable, Building a Legacy for the Next Generation, Sacramento, California, 1998.
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