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Low-Income Housing Tax Credit

Costly, Complex, and Corruption-Prone

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The federal government subsidizes housing through numerous tax and spending programs. One of the more inefficient programs is the Low Income Housing Tax Credit (LIHTC). The program provides $9 billion a year in tax credits to support housing construction. The federal government distributes the credits to the states, which in turn award them to developers to cover part of the costs of constructing apartment buildings and other projects. In return, developers must cap rents for the units they set aside for low-income tenants.

The benefits of the LIHTC are supposed to flow through to tenants in the form of lower rents, but studies suggest that investors, developers, and financial companies gain most of the benefits. The program has complex administration, is prone to abuse, and produces costly low-income housing.

The Trump administration and Republicans in Congress are considering major tax reforms aimed at reducing tax rates and ending unjustified tax breaks. They should consider repealing the LIHTC. It complicates the tax code and is a poorly targeted solution to housing affordability problems.

Instead of federal subsidies, a better way to reduce housing costs would be through state and local policy reforms. The states should reduce the burden of building and zoning regulations to increase the supply of housing, including multifamily housing for low-income tenants.

HOW THE LIHTC WORKS

Congress enacted the Low-Income Housing Tax Credit as part of the Tax Reform Act of 1986. That law aimed at simplifying the tax code and eliminating special breaks, but creating the LIHTC did the opposite.[1]

Under the program, the federal government allots $9 billion a year in tax credits to state housing agencies based on state populations.[2] Then the agencies distribute credits to selected housing developers based on a complex and bureaucratic process. Developers who receive credits nearly always sell them to large banks and other investors, often using syndication firms as intermediaries. This provides cash to developers for construction and gives investors equity in the projects, as well as credits to use on their tax returns over a 10-year period.

The LIHTC program includes two credits: a 4 percent credit for housing projects that use tax-exempt bonds, and a 9 percent credit for projects that do not use tax-exempt bonds. The former projects are generally renovations, while the latter are generally new construction. About 70 percent of LIHTC projects use the 9 percent credit.[3]

The 4 percent credit provides a 30 percent subsidy, while the 9 percent credit provides a 70 percent subsidy.[4] Consider a housing project that costs $10 million to build and receives the 9 percent credit. Investors would get tax credits of $900,000 a year for 10 years, totaling $9 million. Those

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credits would be worth about $7 million on a present-value basis, or about 70 percent of construction costs.[5] The government essentially covers 70 percent of the costs of the project by allowing the investors to reduce their income taxes by a present value of $7 million.

About 95 percent of the credits are taken on corporate income tax returns, and 5 percent are taken on individual returns.[6] Thus, the LIHTC is a special-interest tax break mainly for corporations.

COMPLEX AND COSTLY PROCESS

The Congressional Research Service says that the "process of allocating, awarding, and then claiming the LIHTC is complex and lengthy."[7] The credit is so complex that it has spawned state bureaucracies and an industry of law and accounting firms to administer it. It is so complex that the Novogradac accounting firm's annual guide to the credit spans more than 1,400 pages.[8] The firm also publishes an 80-page monthly *Journal of Tax Credits* that focuses on the LIHTC and a few other credits.

Let's look more closely at the LIHTC process. The first step is for state housing agencies to prepare annual plans for using their credits, called Qualified Allocation Plans (QAPs), which they submit to the federal government. QAPs can run more than 80 pages of dense rules that micromanage LIHTC projects regarding tenant mix, project locations, environmental and historic preservation features, and other criteria. Virginia's QAP specifies such items as "ceramic floor tiling required for bathrooms with roll-in showers" and "composite material required at some portions of exterior doors."[9] It also includes detailed rules on how community rooms in LIHTC buildings may be used.

The second step is for developers to submit proposals to the states to receive credits that conform to both state QAPs and federal tax rules. Developers must set aside a certain share of housing units that are rent-capped and are for tenants below certain income levels. Income and rent limits are calculated using formulas that vary by specific location, family size, and other parameters.

Developers must meet either a 20–50 test or a 40–60 test. Under the first test, at least 20 percent of units must be rent-capped and have tenants with incomes below 50 percent of the area's median. Under the second test, at least 40 percent of units must be rent-capped and have tenants with income below 60 percent of the area's median.[10]

The third step is for developers to finance and construct LIHTC projects. These processes are more costly than for market-based housing projects. The financial structures of LIHTC deals are usually more complex than for market-based deals, and they often receive subsidies from numerous federal and state programs, each of which has different regulations. Fifteen states have their own LIHTCs on top of the federal credits.[11]

Experts agree that these LIHTC complexities increase project costs and delays.[12] A study on the costs of affordable housing projects by the state of Washington found, for example, that "it generally takes twice as long to assemble the financing as market-rate projects, and contributes to increased legal and other transaction costs."[13] A Government Accountability Office (GAO) study found that the syndication process consumes 10 to 27 percent of the equity on LIHTC projects.[14]

Smart Growth Seattle noted that "affordable housing projects have many unique costs, and often cost more because of financing, construction, and labor requirements. Affordable housing projects can be more expensive than market-rate due to some of these unique costs."[15] The head of that group, who is an expert on affordable housing, estimates that the per unit costs of LIHTC projects "can be more than double that of market rate housing."[16] He points to a 112-unit LIHTC complex in Seattle completed last year that cost $45 million, or $400,000 per unit.

Minnesota is a rare state that is trying to tackle the cost-bloat problem in LIHTC housing. It models the elements of proposed projects to find the excesses. Recent LIHTC projects in the Twin Cities cost $253,136 per unit, which was 29 percent more than for non-LIHTC projects in the cities.[17] Both the "hard" costs (construction) and the "soft" costs (financing, services, etc.) of projects are higher in LIHTC projects, according to the Minnesota data.

One of the problems in LIHTC development is that "many affordable housing deals are financed on a 'cost-plus' basis . . . which reduces the direct incentive to lower costs."[18] Instead, there are incentives to increase costs because LIHTC allocations to developers are based on estimated costs. Developers have an incentive to inflate their estimates, and then as projects proceed there is little reason to revise costs downward.[19] After all, the higher the reported costs, the more tax credits are received.

The study by the state of Washington found that "because of the way the federal program is structured, once a federal Low-Income Housing Tax Credit allocation and investor has been secured, there are limited incentives to reduce development costs because doing so would mean not using the full appropriated federal Low-Income Housing Tax Credits issued for the project."[20]

A statistical analysis by economist Michael Eriksen suggests that LIHTC construction costs are about 20 percent more per square foot than for medium-quality market-based projects.[21] He thinks that developers using tax credits "substitute away . . . from land acquisition and future maintenance expenditures" in favor of higher construction costs.[22]

Governments are also a source of high costs. State QAP requirements raise LIHTC construction costs and "may prohibit innovative building techniques."[23] Local design requirements may also raise costs. Another issue is that state agencies overseeing LIHTC projects have some discretion over the cost items that are eligible for tax credits, and those agencies have little incentive to reduce costs.[24] To state officials, these are federal subsidies that do not burden state budgets.

The fourth step in the LIHTC process comes after housing projects are completed. Building owners must generally adhere to rent caps and tenant-income limits for 30 years. Owners are required to perform extensive recordkeeping on the residents of each unit for such items as income, assets, family composition, and other characteristics. The LIHTC requires annual income recertification of tenants for some types of projects.[25]

Failure of project owners to comply with program regulations during the first 15 years can result in the recapture or retraction of tax-credit benefits, while failure during the second 15 years can result in legal action by state governments.[26]

The extensive construction and occupancy rules and regulations of LIHTC properties require substantial administrative, auditing, and compliance efforts. State compliance manuals for LIHTC building owners can run more than 100 pages.[27]

State governments have bureaucracies dedicated to the LIHTC. California spends $8.2 million a year on its LIHTC administration.[28] Kansas spends $1.5 million.[29] Oregon spends $1.7 million.[30] Based on budget data from a sample of states, we estimate that LIHTC administration costs state governments more than $100 million a year.

The Internal Revenue Service (IRS) also has a complex job administering the credit. The agency's guide for examiners of LIHTC projects is 350 pages long.[31]

The largest administrative costs for the LIHTC are likely in the private sector—for building owners and for all the accountants, lawyers, lobbyists, and consultants that specialize in the LIHTC. Consider the Novogradac firm. The LIHTC has fueled its growth to become the 30th-largest accounting firm in the nation, with more than 500 employees.[32]

For the U.S. economy, the excessive construction and administration costs of LIHTC projects are deadweight losses. The program is aimed at helping needy people, but the salaries of the lawyers, accountants, and administrators handling LIHTC activities are overhead costs for that help.

BENEFITS TO INVESTORS AND MIDDLEMEN

State housing agencies award the federal tax credits to selected developers, who then nearly always sell them to investors either directly or through syndication. Investors receive equity in the projects and can use the tax credits for 10 years. Syndication diversifies risks for investors across multiple projects and provides opportunities for smaller investors.[33]

As noted, the 4 and 9 percent credits offset about 30 and 70 percent of project costs, respectively. However, the LIHTC can be boosted in value by 30 percent for projects in areas that are distressed or particularly costly. So on some projects, LIHTC developers can receive a subsidy equal in present-value terms to up to 91 percent of construction costs.[34]

State housing agencies have some discretion in choosing the projects that receive the 30 percent boost. That is a problem: GAO data suggest that numerous states are abusing the boost by providing it to too many projects.[35] To state officials, the 30 percent boost affects the federal budget, not their state budget, so they try to maximize its use.

Note that investors receive benefits from LIHTC deals other than the tax credits. The projects typically generate operating losses, which flow through to investors' tax returns and offset their taxes on other income. Also, investors may gain on the disposition on their ownership shares, usually after year 15.

Major banks are the largest investors in LIHTC projects. That is partly because the projects help them fulfill requirements of the Community Reinvestment Act (CRA).[36] In one recent year, 85 percent of total LIHTC equity investment was by banks, with the five largest U.S. banks accounting for half of the total.[37] The CRA is a major driver of LIHTC investment.

So does the LIHTC mainly benefit investors and businesses or low-income tenants? In a report on the LIHTC, the Congressional Budget Office (CBO) said, "the tax credit may allow investors to capture much of the benefits for themselves rather than their tenants."[38] Similarly, economists Edward Glaeser and Joseph Gyourko have argued that the "LIHTC is not very effective along any important dimension—other than to benefit developers and their investors."[39]

Some statistical studies support that view. A study by Gregory Burge found that "the LIHTC program may significantly benefit project developers and owners, with approximately one-third of the programs' cost going to low-income households in the form of rent savings."[40] Thus, "the LIHTC

program is an inefficient mechanism for generating benefits to low-income households."[41] Economist Ed Olsen notes that LIHTC projects often receive other government aid, and so tenants may only capture about 24 percent of overall project subsidies.[42]

An analysis by Missouri's state auditor of the state's own LIHTC found that it was "costly and inefficient."[43] The auditor estimated that "only $0.35 of every tax credit dollar issued is actually used to build low income housing."[44]

All the subsidies might be useful if it meant major improvements in housing affordability. But rents in LIHTC units can sometimes be no lower than rents in nearby market-based housing. One study analyzed 330 Metropolitan Statistical Areas and found that maximum LIHTC rents were often more than, or similar to, unsubsidized rents.[45]

PRONE TO FRAUD AND ABUSE

The LIHTC is a ripe target for fraud and abuse, which is perpetrated by tenants, developers, and government officials. Tenants abuse the program by occupying housing units to which they are not eligible, often by claiming a false income level on disclosure forms.

Developers abuse the program by inflating their reported construction costs to receive excess tax credits. National Public Radio (NPR) profiled a Miami business, Biscayne Housing, which partnered with one of the nation's top affordable-housing developers.[46] The companies stole $34 million from 14 LIHTC projects by submitting inflated construction cost data to the state.

Another Miami company, which was owned by the major developer Pinnacle Housing, stole $4 million from four LIHTC projects by the same method.[47] Similarly, partners in an Oklahoma housing company were convicted of using "millions of dollars of false construction invoices to inflate federal low-income housing tax credits."[48]

Los Angeles was hit by a major LIHTC scandal last year. Describing the federal indictment, the *Los Angeles Times* said, "Advanced Development and Investment Inc. [ADI] engaged in a conspiracy to fraudulently obtain more than $50 million in loan proceeds for affordable housing projects . . . others submitted fraudulent invoices that 'significantly overstated' the true costs of framing, plumbing, drywall and other construction work at affordable-housing projects built with taxpayer support."[49]

As with the Miami cases, the corrupt Los Angeles developer was not a fly-by-night outfit, but a long-time player in government housing programs. The *Times* noted, "ADI built 50 affordable-housing projects across California over nearly two decades."[50]

Government officials abuse the LIHTC program for personal gain. Because the states receive a limited amount of valued credits that are handed out in a discretionary manner to developers, it creates an open invitation to corruption. In the California ADI scandal, the state treasurer helped steer millions of dollars in tax credits to multiple chosen developers that donated tens of thousands of dollars to his campaign for governor.[51]

The scale of the abuse was huge. The *Los Angeles Times* found that "ADI subcontractors provided more than $400,000 in campaign contributions to politicians across the state, including at least $165,000 in Los Angeles. Four subcontractors told the *Times* they felt pressured to donate by ADI. In Glendale's 2009 City Council election, nearly one of every four dollars received by the top four candidates—more than $100,000—came from ADI subcontractors, those subcontractors' employees and the employees' relatives . . . Glendale provided ADI more than $33 million to help build four affordable-housing projects. Officials there believe roughly half that amount was lost because of fraud."[52]

In 2010, the LIHTC was at the center of the largest public corruption case ever broken in Dallas.[53] Fourteen people were convicted of bribery, extortion, and related crimes, including developers, a state representative, the Dallas mayor pro tem (a senior city councilor), and the city planning commissioner.[54] It is a complex story, but the core corruption involved the mayor pro tem and the planning commissioner shaking down developers for bribes in return for approving housing tax credits and zoning changes. The mayor pro tem, Don Hill, was sentenced to 18 years in prison, while the planning commissioner, D'Angelo Lee, received 14 years.

The Dallas LIHTC program ". . . required city council approval of all projects, awarded points based on letters of support from politicians and community groups and prohibited building more than one housing project within one mile of another in the same calendar year. In practice, the rules meant that if two developers wound up competing on the same turf, the guy with a good friend at City Hall would have a huge advantage."[55] Low-income housing tax credits have a high value, there is a limited quantity of them, and they are handed out in a discretionary manner—those features of the program attract corruption.

Lack of oversight has also made the LIHTC program susceptible to abuse. The NPR investigation found that "little public accounting of the costs exists, even among government officials and regulators charged with monitoring the

program."[56] The IRS hands out the LIHTC benefits, but its oversight "has been minimal," said the GAO in 2015.[57] The IRS has audited just 13 percent of the state housing agencies that hand out the tax credits.[58]

The IRS seems to do little auditing of the LIHTC, and its limited efforts are disorganized, as suggested by the GAO.[59] Indeed, the IRS appears to be overwhelmed by the effort that would be needed to properly enforce all the complex rules of the LIHTC. As one example, the states seem to be abusing their discretionary authority to deliver 30 percent boosts to the credits, as noted, but there seems to be little IRS oversight of this provision.[60]

Economist Len Burman notes the Catch-22 in overseeing the complex LIHTC: "Adequate monitoring by state housing agencies and the IRS would be expensive, but without such monitoring, credits might be allocated to fraudulent claimants, to those who do not comply with the income or rent restrictions of the law, or to investors who earn above-normal rates of return."[61]

NPR interviewed Assistant U.S. Attorney Michael Sherwin, who has spent years investigating LIHTC. "It's really a program of trust," he said.[62] He has prosecuted LIHTC scams in Florida, but he believes that the problems are nationwide. "This program has been described as a subterranean ATM, and only the developers know the PIN," Sherwin noted.[63]

LIHTC VERSUS OTHER HOUSING AID

Politically, the LIHTC has been a successful program, even though economists and government watchdog agencies have found that it is less efficient than other housing subsidy approaches. The LIHTC attempts to boost housing supply, but experts find that demand-side housing aid, such as vouchers, is superior.

From a tenant's perspective, LIHTC housing benefits are tied to one location, whereas demand-side aid such as housing vouchers allow choices about where to live. Also, the LIHTC projects have tended to serve more higher-income tenants than other housing programs, and are thus less targeted to the most needy families.[64]

Perhaps the largest disadvantage of the LIHTC compared to other housing programs is the high cost. The GAO found that LIHTC units cost 19 to 44 percent more than units subsidized using housing vouchers.[65]

Other federal analyses have come to similar conclusions. The CBO found that "the government can provide assistance of equal value to tenants through housing vouchers at a fraction of the cost of credits."[66] The agency noted, "overhead and administrative costs appear to be much greater if a low-income housing unit is subsidized with tax credits than if it is subsidized with a voucher, thereby exacerbating the inefficiency."[67]

Academic studies support these conclusions. In a study of six metropolitan areas, Lan Deng found that LIHTC aid was more expensive than housing vouchers in all locations.[68] In Miami, for example, tax credit housing units were 66 percent more expensive than units aided with housing vouchers.

An indicator of the LIHTC's inefficiency is that the projects often need other federal and state subsidies to achieve the affordable rents policymakers are seeking. The CBO said, "people with very low income often cannot afford even the reduced rents in the set-aside units of LIHTC projects without additional subsidies."[69] The GAO has found that 40 percent of tenants in LIHTC buildings received housing vouchers. One study found that when all the subsidies for LIHTC projects are added up, it amounts to an average 96 percent of the costs per unit.[70]

Given the inefficiency of the LIHTC compared to other aid programs, why do policymakers support it? One reason is that because it is in the tax code, it escapes the scrutiny that appropriated spending gets. The efforts to restrain discretionary spending in recent years have bypassed the LIHTC because it is a tax credit enacted in permanent law.

In general, the LIHTC receives support from Republicans because it is a tax break, and it receives support from Democrats because it is a welfare program. A study by Len Burman and Marvin Phaup noted that the LIHTC gains support because of the "obfuscation of its provenance and funding," meaning that "both taxes and spending appear lower, which offers obvious political advantages."[71]

The LIHTC's political popularity also rests on its large coalition of beneficiaries, which include real estate developers, financial intermediaries, law and consulting firms, and state and local housing agencies. Anti-poverty groups also support the LIHTC, even though demand-side housing aid is superior.

This broad coalition keeps the pressure on Congress to support and expand the program. A Senate Finance Committee hearing in August on the LIHTC, for example, was not focused on cutting or repealing the program, but rather on a bipartisan proposal to expand it.

LIHTC HOUSING VERSUS MARKET HOUSING

Affordable housing proponents say that the LIHTC is needed because markets would fail to supply low-income

housing. However, in past decades markets did supply vast quantities of housing for people with moderate incomes.[72] Meanwhile, governments often undermine the provision of low-cost housing with excessive regulations that block projects and raise costs.

Since 1986, many housing projects have been built using the LIHTC subsidy, but that does not prove that the program has been effective. The government provision of subsidized housing has likely displaced some market-based housing, an effect called "crowding out."

A number of statistical studies have found substantial crowding out of market-based housing from the LIHTC. A 2005 study by Todd Sinai and Joel Waldfogel estimated that 30 to 70 percent of housing produced under LIHTC and other housing subsidy programs would have been produced even without the programs.[73]

A 2002 study by Stephen Malpezzi and Kerry Vandell found "no significant relationship between the number of LIHTC units . . . built in a given state and the size of the current housing stock" in the state.[74] That suggests "a high rate of substitution" between LIHTC units and market-rate units, according to the authors.[75]

A 2010 study by Michael Eriksen and Stuart Rosenthal found that "displacement of private rental housing construction as a result of the LIHTC program is substantial."[76] Their most robust estimate found that "nearly 100 percent of LIHTC development is offset by a reduction in the number of newly built unsubsidized rental units."[77]

The CBO has said, "the low-income housing credit, like other supply subsidy mechanisms, is unlikely to increase substantially the supply of affordable housing. Subsidized housing largely replaces other housing that would have been available through the private, unsubsidized housing market."[78]

It is unfortunate that LIHTC housing does appear to be crowding out market-based housing. LIHTC housing is excessively costly to finance and build, and it generates bureaucracy and fraud, which undermine economic growth and good governance.

Another disadvantage of LIHTC housing is that it creates long-term problems regarding maintenance. The LIHTC subsidizes housing construction, but all housing needs ongoing maintenance and capital upgrades down the road. In market-based housing, owners can raise rents to cover the costs of upgrades and fix-ups. But LIHTC properties have rent caps and income limits in place for 30 years, which constrains owners' ability to make needed investments, and it reduces their incentive to do so.[79] Regarding the LIHTC, the CBO said, "rent controls remove the incentive to keep units in good repair because there is an excess supply of tenants at the restricted rent levels."[80]

A related issue is that LIHTC properties face regulatory hurdles to the refinancing that is often needed to raise cash for upgrades.[81] One "solution" to the problem is more subsidies: building owners that used the LIHTC for construction can apply for aid down the road for rehabilitation. They double-dip on subsidies, using the 9 percent credit for construction and then the 4 percent credit later on for rehabilitation.

The maintenance and upgrade problem is becoming more of a concern because the LIHTC has existed long enough for many properties to have degraded with age. The bottom line is that because LIHTC properties are not in the regular marketplace, normal market solutions to maintenance and upgrades are not available.

POLICY OPTIONS

President Trump and Republicans in Congress are considering legislation to cut tax rates and trim unneeded tax breaks. They should put the LIHTC on the chopping block, as it is a complex and inefficient way of promoting affordable housing. The evidence suggests that the LIHTC benefits businesses and investors more than the low-income population it is aimed at serving.

The LIHTC is supposed to increase the supply of affordable housing. But a better way for policymakers to pursue that goal is to reduce government-imposed barriers to construction. They should reassess zoning rules, land-use regulations, and permitting requirements that may act as a barrier to housing construction and raise costs. It does not make sense for the federal government to subsidize housing affordability while local governments neutralize their efforts with artificial barriers to housing supply.

Regulations on urban land use often stem from well-meaning efforts to promote safety, environmental, and aesthetic goals. But a side effect of the growing web of rules in some cities has been to deter the construction of multifamily and low-income housing. Local regulations may also stymie the development of innovative housing options suitable for low-income tenants, such as tiny homes and microhousing.[82] With reduced housing supply, many cities suffer from housing affordability problems.

Land-use and zoning rules are mainly the purview of local governments, so affordability can be tackled locally without federal subsidies. Edward Glaeser and Joseph Gyuorko argue, "building small numbers of subsidized housing units is likely to have a trivial impact on average housing prices . . . However,

reducing the implied zoning tax on new construction could well have a massive impact on housing prices."[83] By "zoning tax" they mean unneeded rules that raise the costs of projects.

Numerous studies have examined the impact of local regulations on housing supplies and costs.[84] A 2009 study by Jenny Schuetz found that communities in Massachusetts "with more restrictive zoning issue significantly fewer building permits for multifamily housing."[85] Edward Glaeser and coauthors estimated that restrictive regulations roughly double the price of one-bedroom apartments in some high-cost cities such as San Jose, San Francisco, and Manhattan.[86] As housing expert Edward Pinto argues, affordable housing resulting from reductions in regulatory barriers "is economical by design, making it naturally affordable, not expensive housing made affordable by subsidy."[87]

In sum, the LIHTC program is a corporate tax break that is ripe for repeal as federal policymakers look to simplify the tax code. LIHTC projects are complex, expensive, and they encourage local government corruption.

Housing affordability is a serious problem in many cities, but regulatory reform is a better way to address the challenge. Such reforms can be pursued by state and local governments without federal tax subsidies.

NOTES

1. The 1986 tax law eliminated some special tax breaks for low-income housing but adopted similar incentives through the LIHTC.

2. To be precise, the federal government allots the 9 percent credits to the states based on population, but the 4 percent credits are separately limited based on tax-exempt bond availability.

3. Cohn Reznick, "The Low-Income Housing Tax Credit Program at Year 25: An Expanded Look at Its Performance," December 2012, p. 68. To be more specific, the 9 percent projects account for about 70 percent of the net equity.

4. The U.S. Treasury regularly adjusts the specific amount of the 4 percent credit to deliver a 30 percent subsidy. The 9 percent credit now has a floor on the subsidy amount.

5. Mark P. Keightley, "An Introduction to the Low-Income Housing Tax Credit," Congressional Research Service, May 31, 2017, p. 2.

6. *Budget of the U.S. Government, Fiscal Year 2018, Analytical Perspectives* (Washington: Government Printing Office, 2017). One reason why most LIHTC investors are corporations and not individuals is that the latter are restricted in their ability to use the passive losses on their tax returns.

7. Mark P. Keightley, "An Introduction to the Low-Income Housing Tax Credit," Congressional Research Service, May 31, 2017, p. 2.

8. Novogradac and Company, "Low-Income Housing Tax Credit Handbook," 2017.

9. Virginia Housing Development Authority, "Q.A.P. Workshop," 2017.

10. For the rent-capped units, the rents are capped at 30 percent of either the 50 or 60 percent median income levels.

11. Novogradac and Company, "State Tax Credit Information," 2017.

12. Joint Center for Housing Studies of Harvard University, "Long-Term Low Income Housing Tax Credit Policy Questions," November 2010, p. 13. For discussion of how affordable housing supply "is shaped by a number of procedures, regulations, and policies instituted at all levels of the system and at all points in the development process—each with associated costs," see Urban Land Institute, "Bending the Cost Curve on Affordable Rental Development: Understanding the Drivers of Cost," 2013, p. 3.

13. State of Washington, Department of Commerce, "Affordable Housing Cost Study," September 2009, p. iii.

14. Government Accountability Office, "Tax Credits: Opportunities to Improve Oversight of the Low-Income Housing Program," GAO/GGD/RCED-97-55, March 1997, p. 82.

15. Quoted in Roger Valdez, "How Trump Might Drain the Low Income Housing Tax Credit Swamp," *Forbes*, November 29, 2016.

16. Roger Valdez, "How Trump Might Drain the Low Income Housing Tax Credit Swamp," *Forbes*, November 29, 2016.

17. Minnesota Housing, "2017 Cost Containment Report," September 15, 2016.

18. Urban Land Institute, "Bending the Cost Curve on Affordable Rental Development: Understanding the Drivers of Cost," 2013, p. 6.

19. Urban Land Institute, "Bending the Cost Curve on Affordable Rental Development: Understanding the Drivers of Cost," 2013, p. 6.

20. State of Washington, Department of Commerce, "Affordable Housing Cost Study," September 2009, p. 13.

21. Michael Eriksen, "The Market Price of Low-Income Housing Tax Credits," *Journal of Urban Economics* 66, no. 2 (2009): 141–49.

22. Michael Eriksen, "The Market Price of Low-Income Housing Tax Credits," *Journal of Urban Economics* 66, no. 2 (2009): 141–42.

23. Urban Land Institute, "Bending the Cost Curve on Affordable Rental Development: Understanding the Drivers of Cost," 2013, p. 5.

24. That is the message we get from Government Accountability Project, "Low-Income Housing Tax Credit," GAO-17-784T, August 1, 2017.

25. Projects that have 100 percent low-income units may not need to do annual income checks on their tenants.

26. Office of the Comptroller of the Currency, "Low-Income Housing Tax Credits: Affordable Housing Investment Opportunities for Banks," April 2014. After 15 years, the IRS no longer monitors compliance on LIHTC projects, and compliance duties shift fully to the states.

27. The California Tax Credit Allocation Committee's Compliance Online Reference Manual is 109 pages. See www.treasurer.ca.gov/ctcac/compliance/manual/manual.pdf.

28. State of California, "Enacted Budget 2017–2018," Section 0968, California Tax Credit Allocation Committee.

29. Kansas Housing Resources Corporation, "Financial Statements for Year Ended June 30, 2016," p. 58.

30. State of Oregon, "Summary of 2017-19 Governor's Budget," Oregon Housing and Community Services, p. 23.

31. Internal Revenue Service, IRC Section 42, "Audit Technique Guide," August 11, 2015.

32. Novogradac and Company, "Novogradac and Company LLP Earns another 'Best of the Best' Honor from *Inside Public Accounting*," August 26, 2016.

33. For background on syndicators, see Government Accountability Office, "Low-Income Housing Tax Credit: The Role of Syndicators," GAO-17-285R, February 16, 2017.

34. Michael Eriksen, "The Market Price of Low-Income Housing Tax Credits," *Journal of Urban Economics* 66, no. 2 (2009): 144.

35. Government Accountability Project, "Low-Income Housing Tax Credit," GAO-17-784T, August 1, 2017, pp. 7, 8.

36. A survey of banks found that the CRA was the main reason for LIHTC investment. Cohn Reznick, "The Community Reinvestment Act and Its Effect on Housing Tax Credit Pricing," 2013, p. 3.

37. Cohn Reznick, "The Community Reinvestment Act and Its Effect on Housing Tax Credit Pricing," 2013, pp. 3, 15.

38. Congressional Budget Office, "The Cost Effectiveness of the Low-Income Housing Tax Credit Compared with Housing Vouchers," April 1992, p. 2. This report is dated, but the program works basically the same way now as it did then.

39. Edward L. Glaeser and Joseph Gyourko, *Rethinking Federal Housing Policy* (Washington: AEI Press, 2008), p. 11.

40. Gregory S. Burge, "Do Tenants Capture the Benefits from the Low-Income Housing Tax Credit Program?" in *Real Estate Economics* (Blackwell Publishing Inc., December 2010), p. 95.

41. Gregory S. Burge, "Do Tenants Capture the Benefits from the Low-Income Housing Tax Credit Program?" in *Real Estate Economics* (Blackwell Publishing Inc., December 2010), p. 95.

42. Ed Olsen, "Does Housing Affordability Argue for Subsidizing the Construction of Tax Credit Projects?" 2017. Presented at a conference at the American Enterprise Institute, April 6, 2017.

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