



University of Pennsylvania
ScholarlyCommons

Wharton Pension Research Council Working
Papers

Wharton Pension Research Council

6-24-2020

Property Tax Deferral: Can a Public/Private Partnership Help Provide Lifetime Income?

Alicia H. Munnell

Wenliang Hou

Abigail N. Walters

Follow this and additional works at: https://repository.upenn.edu/prc_papers

 Part of the [Economics Commons](#)

Munnell, Alicia H.; Hou, Wenliang; and Walters, Abigail N., "Property Tax Deferral: Can a Public/Private Partnership Help Provide Lifetime Income?" (2020). *Wharton Pension Research Council Working Papers*. 679.

https://repository.upenn.edu/prc_papers/679

This paper is posted at ScholarlyCommons. https://repository.upenn.edu/prc_papers/679
For more information, please contact repository@pobox.upenn.edu.

Property Tax Deferral: Can a Public/Private Partnership Help Provide Lifetime Income?

Abstract

Many retirees will not have enough money from conventional retirement programs to maintain their standard of living once they stop working. To help support themselves, they will need to tap their home equity, the major asset for most middle-income older households. Yet tapping home equity is difficult: most people are reluctant to downsize and, even when they do, they rarely reduce their housing expenses. Reverse mortgages are an option, but most households are put off by the enormity of the decision, the complexity of the product, and the high up-front costs. A statewide property tax deferral program overcomes the hurdles to accessing home equity. Property tax deferral does not provide access to as much home equity as a reverse mortgage, but the offsetting advantage is that some of the house value after the repayment of the loan and interest will be available for a bequest. At the household level, the proposed program is revenue-neutral: all taxes owed by a participating household are paid back, with interest sufficient to cover borrowing costs and administrative expenses. But because loans are made well in advance of repayments, the sponsor of the plan must cover start-up costs. In Massachusetts, if the state government simply borrowed money to cover the annual outlays, the state's ratio of debt-to-GSP would rise from 14.0 percent to 15.1 percent. The alternative is to involve the private sector. This decision would raise the costs to homeowners, but nevertheless it may be necessary to get a broad-based program up and running.

Keywords

Retiree, homeowner, home equity, tapping home equity, property tax, property tax deferral, property tax relief, reverse mortgage

Disciplines

Economics

**Property Tax Deferral:
Can a Public/Private Partnership Help Provide Lifetime Income?**

Alicia H. Munnell, Wenliang Hou, and Abigail N. Walters

June 24, 2020

PRC WP2020-10
Pension Research Council Working Paper
Pension Research Council
The Wharton School, University of Pennsylvania
3620 Locust Walk, 3302 SH-DH
Philadelphia, PA 19104-6302
Tel.: 215.573.3414 Fax: 215.573.3418
Email: prc@wharton.upenn.edu
<http://www.pensionresearchcouncil.org>

The authors thank Joseph Craven (former Deputy Treasurer of the Massachusetts' Pension Investment Division and former Managing Director of Retirement Policy at BlackRock) for his detailed review of the draft and extremely helpful comments. His insights were an invaluable addition to the paper.

All findings, interpretations, and conclusions of this paper represent the views of the author and not those of the Wharton School or the Pension Research Council. © 2020 Pension Research Council of the Wharton School of the University of Pennsylvania. All rights reserved.

Property Tax Deferral: Can a Public/Private Partnership Help Provide Lifetime Income?

Alicia H. Munnell, Wenliang Hou, and Abigail N. Walters

Abstract

Many retirees will not have enough money from conventional retirement programs to maintain their standard of living once they stop working. To help support themselves, they will need to tap their home equity, the major asset for most middle-income older households. Yet tapping home equity is difficult: most people are reluctant to downsize and, even when they do, they rarely reduce their housing expenses. Reverse mortgages are an option, but most households are put off by the enormity of the decision, the complexity of the product, and the high up-front costs. A statewide property tax deferral program overcomes the hurdles to accessing home equity. Property tax deferral does not provide access to as much home equity as a reverse mortgage, but the offsetting advantage is that some of the house value after the repayment of the loan and interest will be available for a bequest. At the household level, the proposed program is revenue-neutral: all taxes owed by a participating household are paid back, with interest sufficient to cover borrowing costs and administrative expenses. But because loans are made well in advance of repayments, the sponsor of the plan must cover start-up costs. In Massachusetts, if the state government simply borrowed money to cover the annual outlays, the state's ratio of debt-to-GSP would rise from 14.0 percent to 15.1 percent. The alternative is to involve the private sector. This decision would raise the costs to homeowners, but nevertheless it may be necessary to get a broad-based program up and running.

Keywords: Retiree, homeowner, home equity, tapping home equity, property tax, property tax deferral, property tax relief, reverse mortgage

Alicia Munnell
Director
Center for Retirement Research
Boston College
258 Hammond Street
Chestnut Hill, MA 02467 USA

Wenliang Hou
Senior Research Advisor
Center for Retirement Research
Boston College
258 Hammond Street
Chestnut Hill, MA 02467 USA

Abigail N. Walters
Senior Research Associate
Center for Retirement Research
Boston College
258 Hammond Street
Chestnut Hill, MA 02467 USA

Property Tax Deferral: Can a Public/Private Partnership Help Provide Lifetime Income?

In many states, qualified senior homeowners can defer their property taxes for as long as they stay in their home. By reducing taxes upfront, such programs free up money that can be used for other purposes, providing a stream of income for life that is very similar to having an annuity. The deferred amounts are repaid with interest when the person sells the home or dies, so the programs have no long-run cost for states or localities. Despite these advantages, eligibility is limited and take-up is low. A proposed redesign to the tax deferral program in Massachusetts would (1) open up the program by removing income limits; (2) simplify sign-up; and (3) have the state – rather than the localities – finance the program. This proposal raises issues both with respect to the potential demand for the option, as well as the potential role for a public/private partnership to finance the start-up costs when loans far exceed repayments. This paper provides a case for property tax deferral, proposes some design elements, estimates potential costs, and calls for additional ideas to explore how such a broad-based program might work.

In what follows, we first describe the nation's retirement income challenge and the particular problem in states with high housing costs, using Massachusetts as an example. Next we describe the major existing programs for homeowner tax relief in Massachusetts: two that cost the government, and one that allows low-income homeowners to help themselves through limited property tax deferral. Our third section describes the proposal for a new statewide program of property tax deferral that would be open to all homeowners. A fourth section addresses likely utilization, including an assessment of whether people stay in their homes long enough to make property tax deferral a reasonable option. The fifth section discusses possible roles for the public and private sectors in the financing of such a program, particularly shortfalls in the early years.

The sixth section discusses the impact of a property tax deferral on homeowners by comparing outcomes under such a program with those available through reverse mortgages. Our final section concludes that a comprehensive property tax deferral program would provide retirees an efficient way to access their home equity and secure their retirement.

The Retirement Income Challenge

Many retirees are unlikely to have sufficient income to maintain their standards of living once they stop working. The National Retirement Risk Index (NRRI), which relies on data from the Federal Reserve's *Survey of Consumer Finances*, compares projected replacement rates – benefits as a percentage of pre-retirement earnings – to target replacement rates that permit households to enjoy the same consumption before and after retirement.¹ The current NRRI estimate shows that about half of today's working-age households are at risk – the risk is larger for the bottom third of households but is also substantial for those in the middle and top of the income distribution (Figure 1). Therefore, the problem is widespread.

Figure 1 here

The reasons for this shortfall are twofold: (1) Baby Boomers and generations that follow are going to need more retirement resources; and (2) traditional sources of retirement income are providing less support than in the past.

On the needs side, the drivers are longer life expectancies coupled with relatively early retirement ages, rising health care costs, and very low interest rates. These factors combined mean that people are going to need to accumulate substantially more retirement resources now than in the past. On the income side, social security will provide less relative to pre-retirement earnings because of the rise in the 'Full Retirement Age' from 65 to 67. In addition, higher Medicare

premiums and the taxation of social security benefits for more households will lower *net* benefits. Furthermore, the program faces a 75-year deficit, and additional benefit cuts could be part of a package to restore balance.

The other major source of retirement income, the private retirement system, is not working well for much of the population. Due to the lack of universal coverage, many households end up with no source of retirement income other than social security. And for those households that do have a retirement plan, balances are often modest. In 2016, the typical working household with a 401(k) plan approaching retirement (ages 55-64) had only \$135,000 in combined 401(k)/IRA assets (Munnell and Chen, 2017). That may sound like a lot to some, but it could provide only \$600 per month in retirement income.

However bleak the outlook for the nation as a whole, the situation in high property tax states is more serious. The Gerontology Institute at the University of Massachusetts-Boston calculates – for each state – the Elder Economic Insecurity Rate, which is the percentage of single individuals and couples with income below the level required to cover basic living expenses. The most recent report shows that, of the ten states with the highest Elder Economic Insecurity Rate, seven have high levels of property tax (Figure 2). The high property taxes mean that high-income states such as Massachusetts, New York, New Jersey, and California have about the same percentage of elderly at risk as low-income states such as Mississippi, Maine, and Louisiana. Policymakers in a number of states have recognized the problem created by high housing costs and have attempted to provide some relief.

Figure 2 here

Existing Provisions for Property Tax Relief

Twenty-four states currently offer some seniors the ability to defer all of their property taxes until their home is sold or the owners are deceased.² Eligibility depends on age, residence, on income (in most instances), and in some instances, on property value. Program parameters are usually set at the state level, but municipalities generally administer the programs and can often adjust their eligibility criteria and interest rates. Typically, eligible homeowners must be age 65 or older and have an annual household income under \$20,000. The typical interest rate charged on property tax deferrals is about six percent. But these key program parameters vary widely across states and municipalities. In nine states – Arizona, California, Colorado, Idaho, Illinois, Minnesota, Oregon, Washington, and Wisconsin – the state finances the program, sending money to the local governments to offset lost revenue.

Massachusetts provides an example of how states attempt to alleviate the burden of homeownership for older residents. The state currently has three programs for property tax relief.³ Two are transfer, or welfare, programs. The Circuit Breaker Tax Credit, administered at the state level, provides a credit against the state income tax to taxpayers age 65+ who own or rent residential property in Massachusetts. The credit equals the amount by which real estate tax payments and half of water and sewer bills exceed 10 percent of the taxpayer's income.⁴ The maximum credit is \$1,130. The amount of the credit is subject to limitations based on the taxpayer's total income and the assessed value of the real estate (Table 1). This program costs the state about \$80 million per year. The second program is Senior Property Tax Exemptions, administered at the local level; it provides a \$500 exemption on the property tax bill for those age 70+ who meet specific ownership, residency, income, and asset requirements. Cities and towns,

which bear the cost of this exemption, can increase the exempt amount to \$1,000 and reduce the age to 65. In 2019, cities and towns granted about \$10 million in property tax exemptions.

Table 1 here

The third program is the Senior Property Tax Deferral program, which allows local governments to permit some seniors to defer payment of their property taxes and to recoup those taxes plus interest when the homeowner sells the house or dies. The state sets the program parameters but allows localities some flexibility. For example, the state's maximum gross income for participants is \$20,000, but local governments can raise that limit to \$60,000 (the Circuit Breaker limit for a single non-head of household).⁵ Similarly, the state sets a maximum interest rate of eight percent, but localities can adopt a lower rate. The total value of liens against the property cannot exceed 50 percent of the assessed market value.⁶ Once the homeowner sells the home or dies, deferred taxes and accumulated interest must be paid back within six months, during which interest accrues at a rate of 16 percent.⁷

Figure 3 shows that participation in all three programs is limited. In the case of the Circuit Breaker Tax Credit and the Senior Property Tax Exemptions, participation clearly reflects income restrictions for eligibility. In the case of the local property tax deferral program, other factors appear to be at play as well. First, many homeowners are not aware of the program (since, given the potential financial burden, only wealthy communities tend to publicize their programs) and confuse it with other tax credit and exemption programs. Second, homeowners who are eligible and aware may not know how to apply, are concerned about a stigma attached to an income-tested program, view the interest rate as too high (especially during the pay-back period), or hesitate to place a lien on their home. A new statewide Property Tax Deferral Program could address many of these shortcomings.

Figure 3 here

A Proposal for a New Statewide Property Tax Deferral Program

The proposed program would not be based on income but rather would be open to all homeowners in Massachusetts age 65+. Deferrals would be based on the first \$1,000,000 of assessed value on a primary residence; this amount would be adjusted each year to keep pace with inflation. The rationales for this approach are fivefold. First, the problem of inadequate retirement income is not limited to low-income homeowners; the NRRI shows that many homeowners in the top and middle thirds of the income distribution also will be at risk in retirement. Second, the program is self-financing: homeowners repay the deferred property with interest when they move or die. Third, universal eligibility eliminates stigma associated with the program and would enhance its acceptability. Fourth, the absence of income limits simplifies the administration of the program and avoids people being denied access should they make a large 401(k) withdrawal in a given year. Finally, history suggests that programs for poor people often turn out to be poor programs, so universal participation enhances the chances for the program's success.

The program would function as follows (see Appendix A for further details):

- Individuals age 65+ with a primary residence in Massachusetts would be able to defer their property taxes until the sum of deferrals, accumulated interest, and mortgages reached 60 percent of the first million dollars of assessed value.
- Participation in the program would be triggered by simply checking a box on the city or town's first-quarter property tax bill (see Appendix B for a sample tax bill).
- The city or town would continue to have an automatic lien on the home for the unpaid municipal property taxes; this lien would still be senior to other liens such as mortgages.⁸

- When the city or town forwards the tax bill to the state, the state would send the city or town an amount equal to the deferred taxes.
- The interest rate each year would be set at the state's borrowing cost plus a buffer to cover administrative costs and defaults.
- Once notified that the homeowner has moved or died, the city or town would collect the deferred taxes plus interest upon the sale of the property and remit this amount to the state.
- The deferred taxes and interest would be due within one year, after which the interest rate penalty would begin.

This new program would achieve several important goals. First, an average older homeowner in Massachusetts (without a mortgage) would be able to defer about \$5,000 a year in property taxes (see Appendix C). This amount substantially exceeds the funds provided through the state's existing tax deferral, exemption, and credit programs, which could be phased out gradually for homeowners (retaining the Circuit Breaker for renters) as part of this initiative. The homeowner could choose to defer for a single year to cover, say, the cost of a new roof, or to defer on an annual basis to supplement social security and any other retirement income – although such flexibility raises some administrative issues.⁹

Second, property tax deferral would help seniors to age in their own homes. Survey after survey finds that people strongly prefer to stay in their own communities (AARP 2014; Age Wave 2015; Hodgson 2021). Moreover, enabling those with dementia to be cared for in their own home by a combination of family and outside support could help control future Medicaid costs. Aging in place also allows homeowners to enjoy appreciation in the market value of their homes. Reducing the costs associated with home ownership would increase the ability of older homeowners to achieve these outcomes.

Third, the program would alleviate the burden on Massachusetts' local governments. Under current provisions, widespread use of a tax deferral program would have a significant short-term impact on local budgets. The proposed program removes this burden by having the state advance to cities and towns the deferral amount and receive the money it is owed when houses are sold.

In 2019, Massachusetts legislators introduced two significant bills to enhance the ability of senior homeowners to defer their property taxes. The first bill – H.3617 ‘An Act relative to senior property tax deferral’ – would immediately improve the existing income-tested program by reducing residency tenure requirements, increasing income eligibility to the level of the Circuit Breaker Tax Credit, reducing the default interest rate, and delaying the interest rate penalty to a year after the homeowner's death. The second bill – S.1693 ‘A Resolve providing for an investigation and study by a special commission relative to a senior state property tax deferral program’ – proposed a three-year pilot to test a universal state-run program open to all households ages 65 and over, modeled after the proposal described above. Under this new program, local governments would still administer the program, while the state would handle the finances. A pilot program would help answer key questions like what percentage of people will participate, how much start-up funding is needed, and the program's effect on the economic security of homeowners. The following sections describe what is known currently about each of these topics.

Program Participation

The extent to which homeowners participate in a property tax deferral program depends, in part, on the stability of housing patterns: that is, does it make sense for people to tap their home equity to cover expenses in retirement, or will they need it for a subsequent move? Participation

also depends on how well the program is publicized and understood by potential participants, and on the ease of the application process.

The stability of housing patterns. A potential reason that homeowners may be reluctant to borrow against their houses is the concern that, if they did decide to move, they would have to pay back the loan with interest and could be left with inadequate resources at a vulnerable time in their lives.

A recent study examined the stability of homeownership, precisely to assess whether borrowing against home equity is a reasonable option (Munnell et al. 2020), using data from the 1992-2016 waves of the Health and Retirement Study (HRS). To describe the typical housing trajectories of people in their 50s until death required the creation of a synthetic cohort, ‘splicing’ together two cohorts to create a complete picture of late-life housing trajectories. Sequence analysis was used to group together common residential patterns among homeowners who move. The analysis uncovered four groups (Figure 4).

Figure 4 here

The first two groups could be characterized as ‘never movers’ and ‘stable movers.’ Group 1 (53%) are those who never move from the original home they owned in their early 50s. Group 2 (17%) moves around retirement into a new owner-occupied home and then generally stays in that new home until death. Both of these groups end up with substantially more housing wealth than the movers the last time they are observed. The movers consist of two distinct groups – ‘frequent movers’ (Group 3) and ‘late movers’ (Group 4). The ‘frequent movers’ (14%) end up with less combined housing and financial wealth than any other group at the end of the observation period. The ‘late movers’ (16%) stay in their original homes until their 80s and then move into either a rental or a long term services and support (LTSS) facility, likely due to a health impairment.

The overall conclusion is that most homeowners – the exception being the ‘frequent movers’ – experience enough residential stability to tap home equity through property tax deferrals. The question is whether they would choose to participate.

Participation rates in existing programs. To date, property tax deferral programs appear to be used infrequently. As noted above, one practical hurdle is awareness of their existence: the programs are generally administered locally and have limited budgets for outreach.¹⁰ In addition, the actual process of applying poses a barrier, as potential participants must often mail or deliver tax returns, deeds, and birth certificates with application forms. Despite these hurdles, over 10 percent of eligible homeowners in Oregon participated in its property tax deferral program from the mid-1980s to mid-1990s – a period of rising property tax rates and high interest rates for consumer loans.¹¹

One could expect participation in an improved Massachusetts program to exceed that of Oregon, since the property tax burden is substantial, the program would be well publicized, and participation would require homeowners simply to check a box on their tax bills. In that environment, one would expect that participation would be driven by need. The NRRI, based on data from the 2016 Survey of Consumer Finances (SCF), predicts that – without using their home equity – 61 percent of homeowners age 55-59 will be at risk in retirement, compared to just 33 percent of this group if home equity is used. A little over half of these homeowners report a strong bequest motive (34%) and are probably unlikely to participate in the program. But those with no bequest motive (11%) may well be willing to defer taxes, and perhaps half of those with a weak bequest motive (17%) as well. These assumptions yield the estimate of roughly a 20-percent participation rate with a well-publicized program.

Financing a Statewide Program

The proposed property tax deferral program would be revenue neutral at the household level; the state provides the cities and towns the money up front and recoups the outlay with interest when the home is sold. Two buffers in the proposal would reduce risks to the sponsor. First, a surcharge of 50 basis points could be added to the interest rate to cover administrative costs. Second, deferrals would be capped to protect the sponsor against a decline in home value below the amount owed due to a failure to maintain the home or a more general decline in housing prices.

While stopping deferrals once a homeowner owes more than a set percentage of the home's assessed value in deferred taxes, interest, and mortgage protects the sponsor, it could force some homeowners to start paying taxes again after years of deferrals. Thus, setting the appropriate cap involves striking a balance between protecting the sponsor and protecting homeowners. A cap at 60 percent appears to balance these interests. To reach this cap, a 65-year-old homeowner without a mortgage could defer taxes every year for over 40 years – a situation that few homeowners would experience (Table 2). From the sponsor's perspective, this cap would leave at least 40 percent of the first million dollars of home value as a buffer to ensure that proceeds from selling the house would be sufficient to repay the deferred taxes plus interest.¹² In a similar vein, the cap would limit the risk to the sponsor of falling property values, as the dollar amount of the cap would fluctuate with changes in the assessed value.

Table 2 here

While a cap and a buffer on the interest rate should protect the sponsor from losses, the program start-up would involve an extended period when deferred property tax payments exceed the amounts recouped from the sale of houses due to a move or the death of the homeowner. The

financial shortfall would need to be covered either by the state or some arrangement with the private sector.

To get a sense of the pattern of the shortfall during the start-up and to understand the factors that could affect its size, consider a world where the amount of property taxes collected did not increase and the population of homeowners over 65 is constant. In this simple model, the amount required to finance a property tax deferral program will be highest in the first year of the program, then decline each year thereafter as people exit the program and pay back the taxes they deferred. The total outstanding amount therefore grows quickly at first before stabilizing when taxes paid back equal new deferrals.

In reality, home prices do increase, the population over age 65 grows, and interest and administrative expenses accrue each year. So instead of reaching a steady state, the revolving debt account will grow. The cost projections presented below take all these factors into account. In addition, the assumption is that the 20 percent of homeowners age 65+ who are estimated to participate in the program defer taxes every year until the last homeowner dies. The results of the model show that – with a five-year phase-in – the program would require about \$100 million in new loans in the first year, with the amount rising to \$555 million in 2026 before declining (see Figure 5). The question is how to finance these shortfalls, particularly during the start-up period.

Figure 5 here

A public approach. In our view, the most efficient approach would be for the state of Massachusetts to cover the costs through borrowing. That is, when an age 65+ household in Natick, MA checks the box on its property tax bill indicating a decision to defer its \$5,000 in property taxes, Natick would automatically have a lien against the home for the deferred taxes. Natick

would notify the state and the state would then forward \$5,000 to Natick. The state then needs some way to cover the \$5,000 expenditure and associated interest costs in its budget.

Since general obligation bonds are typically utilized only for capital expenditures, and the terms of the bonds are typically tied to the projects that are being funded, the most logical vehicle would be debt based on anticipated revenues. This approach could involve Revenue Anticipation Notes (RANs) or Tax Anticipation Notes (TANs), which are general obligations of the state but are repaid with the revenues or taxes collected at some point in the future. Traditionally, these notes are shorter-term obligations (almost like commercial paper), typically repaid within the same fiscal year. But experts suggest that the proposed legislation could extend that term. For example, in the early 1990s, the state issued seven-year general obligation debt to fund the deficit, in anticipation of revenues to be collected in the future. Regardless of the specific approach taken, homeowners would only be charged the low interest rate that states pay on debt, which is exempt from federal and state personal income tax.

The bond deal would be much easier to structure if interest were paid to the bond holders each year. One option is for the state to front the interest out of its budget each year and get repaid when the property is sold. Some experts are skeptical, however, that the state would be willing to take on this responsibility – even though the interest would amount to only a tiny fraction of the budget. A second option is for the homeowner to pay the interest and administrative surcharge each year instead of including these costs in the deferred amount. While the latter approach would simplify the bond deal and substantially reduce borrowing amounts, it would also complicate the program and perhaps dissuade homeowners from participating. Of course, the alternative is not to pay the interest each year but rather issue zero-coupon bonds, which is a way to finance the interest

through borrowing. But zero-coupon bonds are more expensive and rarely used by state governments. In any event, financing the accruing interest would need to be addressed.

For calculating the cost of the program, we have assumed that the interest on the deferred taxes is financed by borrowing. The borrowed amounts would add to Massachusetts' outstanding debt, which currently equals about 14 percent of Gross State Product (GSP). At its peak, program borrowing would increase Massachusetts debt outstanding from 14.0 percent to 15.1 percent of GSP (Figure 6).¹³ Thereafter, the program's impact would decline steadily. The key question for the state is whether the additional borrowing would affect its credit rating. One would think that since the deferred taxes are secured by liens on the properties, rating agencies would conclude that the financial strength of the state had not been compromised.

Figure 6 here

In the end, the state must decide if it is willing to take on the financing of a broad-based property tax deferral program. If the state is reluctant to do so, the obvious question is whether private sources of funding would be available.

Relying on the private sector. It is possible that a private sector company might be interested in funding a property tax deferral program, providing it generated a meaningful volume of transactions. One approach might involve a private financial intermediary working directly with the cities and towns. That is, when a 65-year-old Natick homeowner checks the box that it would like to defer \$5,000 of property taxes, the private company would give the town of Natick \$5,000 and then take an assignment of the deferred tax amounts and the related lien on the homeowner's house. The company would repeat this process with other Massachusetts cities and towns. The attractiveness of such a proposition would depend in the first instance on the interest rate the company could charge the homeowner. But even with an interest rate noticeably above that

charged by the state, the company might have to wait 30 years or more to get its \$5,000 back plus interest. To get an immediate payment, the company could potentially package together a batch of these loans, securitize them, and sell the securitization instruments on the open market. The success of such transactions depends on how receptive investors are to the new security.

The costs of a private company dealing with 300+ cities and towns in Massachusetts at the local level could be prohibitively expensive. Alternatively, the private financial intermediary could work directly with the state, whereby the state would aggregate all the property tax deferrals and related tax liens. It would then sell these claims to the private financial intermediary, which would securitize them and sell the securities. This approach would require less private sector involvement, but the state would have to charge a rate higher than its general obligation borrowing rate to compensate the financial intermediary for liquidating these claims earlier in the process.

One option might be to have the state's portion of the program overseen by the Massachusetts Housing Finance Agency (MassHousing).¹⁴ This state agency offers numerous programs to facilitate home ownership, so a property tax deferral program might be a logical addition to its portfolio. The agency has the ability to issue tax-exempt debt, and it also issues mortgage debt which it then securitizes. Given its focus and expertise, Mass Housing might be able to facilitate the private financing of a state property tax deferral program.

These two approaches represent different options for how involved a private company could be in managing the program. In the first instance, the private financial intermediary could take on the task of providing educational materials for the local officials. In the second instance, the company could work directly with the state or Mass Housing to structure and manage the program. A question of sequencing also arises. The government could get the program up and

running by issuing government debt and then, if reluctant to increase its indebtedness further, invite a private financial intermediary to purchase and securitize these claims.

The involvement of the private sector involves a clear tradeoff. The costs to the homeowner would be higher with private sector involvement, but a less expensive publicly financed program is of no use to anyone if it is never enacted.

Effects on Homeowners

Tapping home equity would provide a way for many resource-strapped seniors to make ends meet or to maintain their pre-retirement standard of living. In fact, for many households, particularly those with less wealth, their home equity is larger than their financial assets. They could access their equity most directly by selling the house and purchasing a smaller, less expensive house for their retirement. Such a shift would not only produce a bundle of cash but also may reduce the expenses associated with homeownership. The problem is that most retirees are attached to their homes and want to age in place. For retirees who want to stay put, the only alternative is to borrow against their home. This borrowing could be done through a state property tax deferral program or a reverse mortgage.

Property tax deferrals and reverse mortgages are similar in three ways: (1) they require homeowners to occupy the home as their primary residence;¹⁵ (2) they allow older homeowners to tap their home equity while remaining in their home; and (3) they are repaid when the borrowers sell the home, no longer occupy it as a primary residence, or die. Yet these approaches also differ along three dimensions: complexity, cost, and access to funds.

Complexity. Relative to reverse mortgages, property tax deferrals are a simple way to tap home equity. Essentially all reverse mortgages are government-insured Home Equity Conversion Mortgages (HECMs), available to homeowners age 62+. The application process is daunting, and

borrowers need to meet many requirements before they can be approved for a reverse mortgage.

They need to:

- certify that at least one of the owners is over age 62;
- own the property free and clear or have paid down a considerable amount;
- verify their income, assets, monthly living expenses, and credit history;
- have a history of timely payment for real estate taxes and hazard and flood insurance;
- have no delinquency on any federal debt;
- ensure that the property meets all of the Federal Housing Authority's standards and flood requirements; and
- participate in a consumer information session given by a HUD-approved HECM counselor.

In comparison, homeowners applying for a property tax deferral would only need to certify that:

- at least one of the owners is over age 65; and
- they owe less than 60 percent of the property's assessed value in deferred taxes, accrued interest, and mortgages.

While mandatory counseling sessions would not be required for property tax deferral, a major educational initiative by cities and towns would be needed to ensure that applicants fully understood that deferring taxes – in the absence of appreciation in house prices – reduces the amount that could be left to their heirs. But property tax deferral – checking a box on the property tax bill – is an infinitely easier way to access home equity than taking out a reverse mortgage.

Costs. Two types of costs can be involved in accessing home equity: up-front costs to gain access to the product and interest costs associated with the loan (to be repaid in both cases when the homeowner moves or dies).

Reverse mortgages have both up-front costs and an interest charge on funds borrowed. In the case of a \$500,000 house, the upfront cost would total about \$19,000 – a \$6,000 origination fee, a \$10,000 insurance premium, and \$2,500 in other closing costs.¹⁶ In terms of costs of borrowed funds, the interest rate is set at 2.5 percentage points over LIBOR, which in January 2020 was two percent.¹⁷ Another 0.5 percentage point is added to the rate for ongoing insurance costs to bring the total to five percent.

In contrast, borrowing through a property tax deferral program would involve no up-front costs and most likely a lower interest rate. If, as discussed above, the government funded the program by issuing longer term TANs or RANs, the interest rate plus buffer could be as low as 2.5 percent as of January 2020.¹⁸ In short, the costs for a homeowner to tap home equity would be substantially lower through property tax deferral than taking out a reverse mortgage.

Access to funds. Access to funds has two dimensions: the amount that can be borrowed against the house and flexibility in accessing those funds.

In terms of the maximum amount the homeowner can borrow, a comparison between reverse mortgages and property tax deferrals requires some assumptions. The amount available via a reverse mortgage depends on the age of the youngest borrower or eligible non-borrowing spouse; the current interest rate; and the lesser of the appraised value, the HECM FHA mortgage limit of \$765,000, or the sale price. Reverse mortgage borrowers can choose equal monthly payments, a line of credit, a combination of monthly payments and a line of credit, or a single disbursement lump sum. Typically, HECM loans are set up as a line of credit (Pinnacle Actuarial Resources 2019). Assume for purposes of comparison, however, that homeowners wanted their money up front. In early 2020, the 65-year-old owner of a \$500,000 house could receive \$230,000 through a reverse mortgage.¹⁹ If the owner accessed that money and used the four-percent rule of thumb (the

withdrawal rate that should allow the homeowner not to exhaust the principal), the \$230,000 would provide \$9,200 in additional annual income for as long as the homeowner was alive.²⁰

For the same \$500,000 house, property tax deferral would reduce the average homeowner's expenses – and thereby increase income available for items – by \$5,000 annually. Thus, the reverse mortgage offers the homeowner the ability to borrow more against home equity than a property tax deferral program. This relationship holds until the house value exceeds the FHA limit of \$765,000, after which the gap between the two sources narrows a bit as property tax deferral (as proposed) would be applied to the first \$1,000,000 of assessed value. In no case, however, could a property tax deferral program offer a homeowner hundreds of thousands of dollars up front.

On the flexibility side, both approaches offer the homeowner some leeway. One advantage of property tax deferral is that homeowners can choose to use the program to cover only unusual expenditures, such as a new roof, or to use it year after year to supplement their other sources of retirement income – although, as noted above, this option raises some administrative issues. Reverse mortgages also offer flexibility in that borrowers can (and do) take their money as a line of credit. Under the HECM program, any unused balance of the line of credit grows over time at the same interest rate used for the loan. So, borrowers selecting this option see an increase over time in the amount available to them. The downside of not borrowing all the money available through the line of credit is that the homeowner will have paid substantially more in up-front cost than necessary.

The bottom line from the perspective of the household is that the property tax is far less complicated and less costly than a reverse mortgage, but for most homeowners the reverse mortgage offers the opportunity to access more home equity. Of course, accessing more home

equity is not costless; the more that must be repaid with interest at moving or death, the less is left for homeowners or their heirs.

Conclusion

Many retirees will have insufficient money from conventional retirement programs to maintain their standards of living when they stop working. To help support themselves, they will need to tap their home equity, which is the major asset for most middle-income households. But tapping home equity is difficult. Most people are reluctant to downsize and, even when they do, they rarely reduce their housing expenses. Reverse mortgages are an option, but most households are put off by the enormity of the decision, the complexity of the product, and the high up-front costs.

A statewide property tax deferral program overcomes the hurdles to accessing home equity. Property tax deferral does not provide access to as much home equity as a reverse mortgage, but the offsetting advantage is that some of the house value after the repayment of the loan and interest will be available for a bequest.

At the household level, the proposed program is revenue-neutral: all taxes owed by a participating household are paid back, with interest sufficient to cover the cost of borrowing and to cover administrative expenses. Nevertheless, because loans are made well in advance of repayments, the sponsor of the plan must cover start-up costs. If the state government simply borrowed money to cover the annual outlays, Massachusetts' ratio of debt-to-GSP would rise from 14.0 percent to 15.1 percent. The alternative is to involve the private sector. This decision would raise the costs to homeowners, but nevertheless may be a necessary step to get a broad-based program up and running.

References

- AARP Public Policy Institute (1998). 'Awareness and Popularity of Property Tax Relief Programs,' Report No. 9803. Washington, DC.
- AARP Public Policy Institute (2014). 'What is Livable? Community Preferences of Older Adults,' Report No. 2014-01. Washington, DC.
- Age Wave (2015). 'Home in Retirement: More Freedom, New Choices.' Emeryville, CA.
- Commonwealth of Massachusetts (2002-2019). *Comprehensive Annual Financial Reports, Fiscal Years 2001-2018*. Boston, MA.
- Electronic Municipal Market Access (2005-2019). 'Massachusetts General Obligation Bond Rates.' <https://emma.msrb.org/IssuerHomePage/State?state=MA>.
- Federal Reserve Bank of St. Louis (1979-2019). '30-Year Treasury Constant Maturity Rate.' St. Louis, MO: US Bureau of Economic Analysis.
- Federal Reserve Bank of St. Louis (1980-2018). 'All-Transactions House Price Index for the United States.' St. Louis, MO: US Bureau of Economic Analysis.
- Federal Reserve Bank of St. Louis (2018). 'Total Gross Domestic Product for Massachusetts.' St. Louis, MO: US Bureau of Economic Analysis.
- General Court of the Commonwealth of Massachusetts (2020). *An Act Relative to Senior Property Tax Deferral*. H.3617. Boston, MA: The 191st General Court of the Commonwealth of Massachusetts.
- General Court of the Commonwealth of Massachusetts (2020). *Resolve Providing for an Investigation and Study by a Special Commission Relative to A Senior State Property Tax Deferral Program* S.1693. Boston, MA: The 191st General Court of the Commonwealth of Massachusetts.

- Hodgson, N. (2021). 'Aging-in-Place: The Role of Public/Private Partnerships.' In S. Kolluri and O.S. Mitchell (eds.), *Managing Longevity Risk: New Roles for Public/Private Engagement*. Oxford, UK: Oxford University Press.
- J.P. Morgan Asset Management. (2019). 'Long-Term Capital Market Assumptions Executive Summary.' New York, NY.
- Lincoln Institute of Land Policy (2019). 'Residential Property Tax Relief Programs.' Cambridge, MA. <https://www.lincolnst.edu/research-data/data-toolkits/significant-features-property-tax/access-property-tax-database/residential-property-tax-relief-programs>.
- Massachusetts Acts of 2016 (2016). Chapter 59, Section 5: Property; Exemptions. Boston, MA: The 190th General Court of the Commonwealth of Massachusetts.
- Massachusetts Housing Finance Agency (MassHousing) (2020). 'Home Ownership.' Boston, MA: <https://www.masshousing.com/en/home-ownership>.
- Massachusetts Department of Revenue, Division of Local Services (2019). 'Municipal Databank/Local Aid Section: Exemptions Granted and Dollars Abated.' Boston, MA. <https://dlsgateway.dor.state.ma.us/DLSReports/DLSReportViewer.aspx?ReportName=ExemptionsGrantedandDollarsAbated&ReportTitle=Exemptions%20Granted%20and%20Dollars%20Abated>.
- Massachusetts Department of Revenue, Division of Local Services (2019a). 'Real Estate Tax Credit for Persons Age 65 and Older.' Boston, MA. <http://www.mass.gov/dor/individuals/filing-and-payment-information/guide-to-personal-income-tax/credits/real-estate-tax-credit.html>.

- Massachusetts Department of Revenue, Division of Local Services (2019b). 'Senior Circuit Breaker Credit Usage Report by Community.' Boston, MA. <https://www.mass.gov/service-details/local-options-relating-to-property-taxation-cpa-meals-and-room-occupancy>.
- Munnell, A. H., A. N. Walters, A. Belbase, and W. Hou. (2020). 'Are Homeownership Patterns Stable Enough to Tap Home Equity?' Working Paper 2020-7. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Munnell, A. H., W. Hou, and G. T. Sanzenbacher. (2018). 'National Retirement Risk Index Shows Modest Improvement in 2016,' *Issue in Brief* 18-1. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Munnell, A. H. and A. Chen (2017). '401(k)/IRA Holdings in 2016: An Update from the SCF,' *Issue in Brief* 17-18. Chestnut Hill, MA: Center for Retirement Research at Boston College.
- Mutchler, J. E., Y. Li, and P. Xu. (2019). 'Living Below the Line: Economic Insecurity and Older Americans' Insecurity in the States: 2019,' Working Paper 2019-11. Boston, MA: University of Massachusetts Boston, Center for Social and Demographic Research on Aging.
- Oregon Department of Revenue. (2009). 'Property Tax Deferral Programs Annual Report,' 150-490-475. Salem, OR.
- Oregon Legislative Revenue Office. (2001). 'Oregon's Senior Population Growth and Property Tax Relief Programs,' Report No. 7-01. Salem, OR.
- Pinnacle Actuarial Resources. (2019). 'Fiscal Year 2019 Independent Actuarial Review of the Mutual Mortgage Insurance Fund: Economic Net Worth from Home Equity Conversion Mortgage Insurance-In-Force.' Bloomington, IL.
- University of Massachusetts Donahue Institute. (2015). 'Long-term Population Projections for Massachusetts Regions and Municipalities.' Amherst, MA.

US Census Bureau. (1960-2008, 2018). *American Community Survey*. Washington, DC.

WebAnnuities Insurance Agency, Inc (US) (1996-2020). 'Immediate Annuities.'

<https://www.immediateannuities.com/>.

Endnotes

¹ For details on the NRRI methodology, see Munnell, Hou, and Sanzenbacher (2018).

² For detailed information on each state's program, see Lincoln Institute of Land Policy (2019).

³ In addition, qualified senior homeowners can work off *up to* \$1,500 on their property tax bill by volunteering for their city or town. The city or town administers the program, keeping track of hours worked, and credits for each hour worked an amount not to exceed the minimum wage (\$12.75). Each city or town can change the income limits and benefit amounts up to the maximum. The tax work-off credit cannot exceed the total tax due after any other exemptions. An approved representative may do the volunteer work for people physically unable to provide such services. See Massachusetts Acts of 2016 (2016).

⁴ Renters are also eligible for the Circuit Breaker Credit, if one quarter of their annual rent exceeds 10 percent of their income.

⁵ In Massachusetts, localities may petition the state for permission to set the income limit even higher than the Circuit Breaker limit for single head of households. For instance, Newton set their income requirement at \$86,000, well above the \$60,000 Circuit Breaker limit.

⁶ Any mortgage lender must agree that the locality's interest in the property would take priority over all other interests (Massachusetts Acts of 2016).

⁷ After six months, the Treasurer may petition to foreclose the lien on the property.

⁸ The legislation enacting the deferral program will need to provide that the lien continues during the deferral period. Under existing law, the lien disappears if foreclosure proceedings are not commenced within a specific period after the tax is due.

⁹ The ability to turn the deferral on and off would have to be carefully delineated. At a minimum, the election should properly be done on an annual – as opposed to a quarterly – basis. In addition, for the homeowner who defers in 2020, but pays full taxes in 2021, does the 2021 payment go to pay off the 2020 deferral or to cover the current year? A simpler, but less flexible, approach would have the election carry forward unless the homeowner revokes the deferral and repays the deferral in full.

¹⁰ For example, a 1998 AARP report found that just 20 percent of people who were eligible for property tax relief programs knew they existed. But even of those who knew of the programs, just 1.4 percent participated.

¹¹ This estimate was derived using Oregon Department of Revenue (2009); Oregon Legislative Revenue Office (2001); and authors' calculations from US Census Bureau, *American Community Survey* (1960-2008).

¹² Almost 60 percent of Massachusetts homeowners ages 65+ own their home free and clear (US Census Bureau, *American Community Survey*, 2018).

¹³ The projection assumes a population growth pattern that follows the UMass Donahue Institute Massachusetts Population Projections (2015) for the short term and the SSA Trustees Report (2019) for the long term; a home-appreciation rate of 0.5 percent in real terms; a 1.2-percent state borrowing rate in real terms; a 14-percent debt-to-GSP ratio (a stable ratio from 2011 to 2018) in the absence of the program, and a 2.1-percent growth rate for GSP. See Appendix D for details on model assumptions.

¹⁴ For information on the agency's role in encouraging homeownership, see Massachusetts Department of Housing (2020).

¹⁵ Ensuring that the property is owner-occupied raises an administrative issue for property tax deferral programs. Even though prohibited, a 65-year-old could defer property taxes and then rent out the home. Cities and towns do not currently provide any oversight in this area. On the other hand, Mass Housing does have this obligation for some of its programs, which offers another reason for considering embedding the program within the agency.

¹⁶ In this example, the origination fee used is the maximum allowed (the greater of \$2,500 or 2% of the first \$200,000 of the home's value plus 1% of the amount over \$200,000); the insurance premium is calculated as 2 percent of the home value for all borrowers (based on data since late 2017); and the estimate for other closing costs (which include appraisal and legal fees) relies on the calculator from the National Reverse Mortgage Lenders Association (NRMLA 2020).

¹⁷ The interest rate in this example is an adjustable rate, like most reverse mortgage loans taken out by homeowners. The lender's margin of 2.5 percent comes from NRMLA. For historical statistics, such as adjustable rates and fixed rates on all HECM originations, see the monthly publications by the US Department of Housing and Urban Development. Interest rates may have declined as a result of the COVID-19 pandemic, but this paper relies on rates from a less atypical period.

¹⁸ The estimate used here reflects the most recent data available. Given the COVID-19 pandemic, the rate may have declined since January 2020.

¹⁹ HECM Principal Limit Factors (PLFs) provide the percentage of the Maximum Claim Amount (MCA) allowable in total cash draws, given the age of the borrower(s) and the ‘expected’ interest rate of the loan. Based on the HECM Principal Limit Factor Tables (effective October 2, 2017), the factor for a homeowner at age 65 with the assumed interest rate (1-year LIBOR rate plus lender’s margin only) is 0.459, which yields \$230,000 for a \$500,000 house.

²⁰ Regarding the 4-percent rule, some investment experts have suggested it is outdated and that individuals would be safer using a lower withdrawal given the prolonged environment of low returns on fixed-income portfolios.

Alternatively, if instead of using any such rule of thumb the homeowner purchased an annuity, the annual income would be greater – \$14,450 for a single life and \$12,200 if the homeowner selected a joint-and survivor product. But few people actually purchase annuities. The annuity amount is calculated using market quotes as of January 22, 2020 from WebAnnuities Insurance Agency, Inc. for a 65-year old male in Massachusetts.

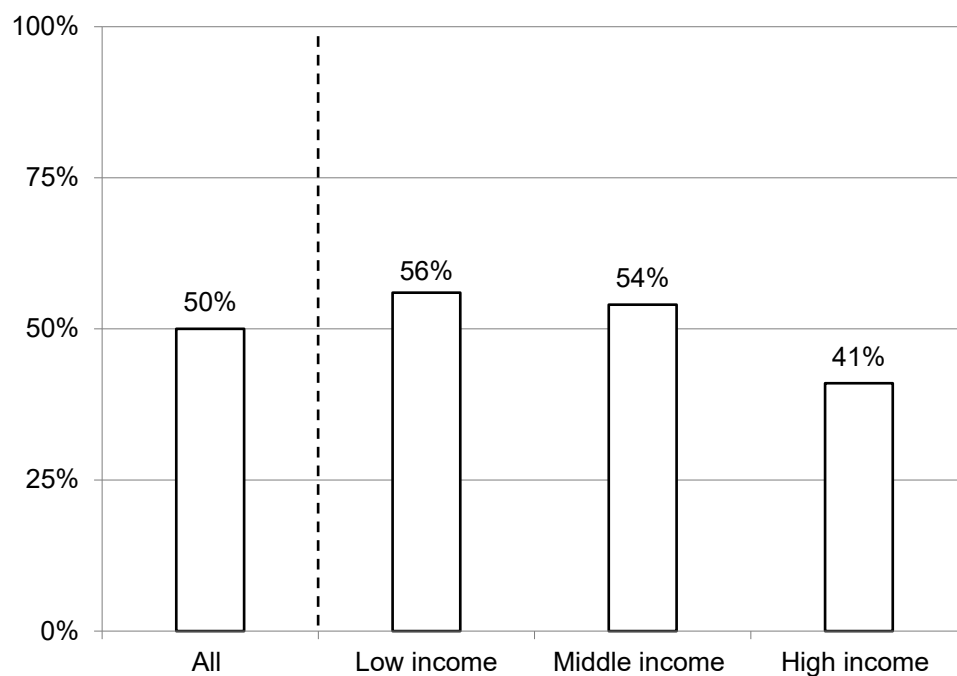


Figure 1. Percentage of households ‘at risk’ at age 65 by income group, 2016.

Note: Households are defined as ‘at risk’ if they are unable to maintain their pre-retirement standard of living in retirement.

Source: Munnell et al. (2018).

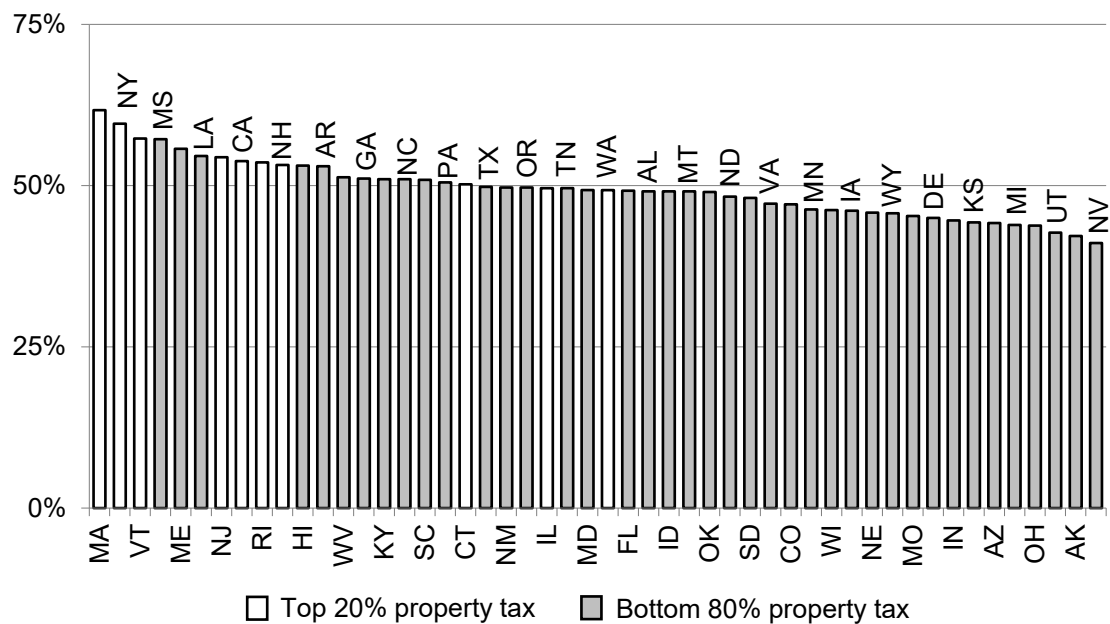


Figure 2. Percentage of state single population age 65+ below the Elder Index by property tax level, 2019.

Notes: The Elder Index measures the cost of living for older adults by county and state; households that fall below the Index lack sufficient income to meet their basic needs. The property tax level is for homeowners age 65+.

Sources: Mutchler et al. (2019); and U.S. Census Bureau, *American Community Survey* (2018).

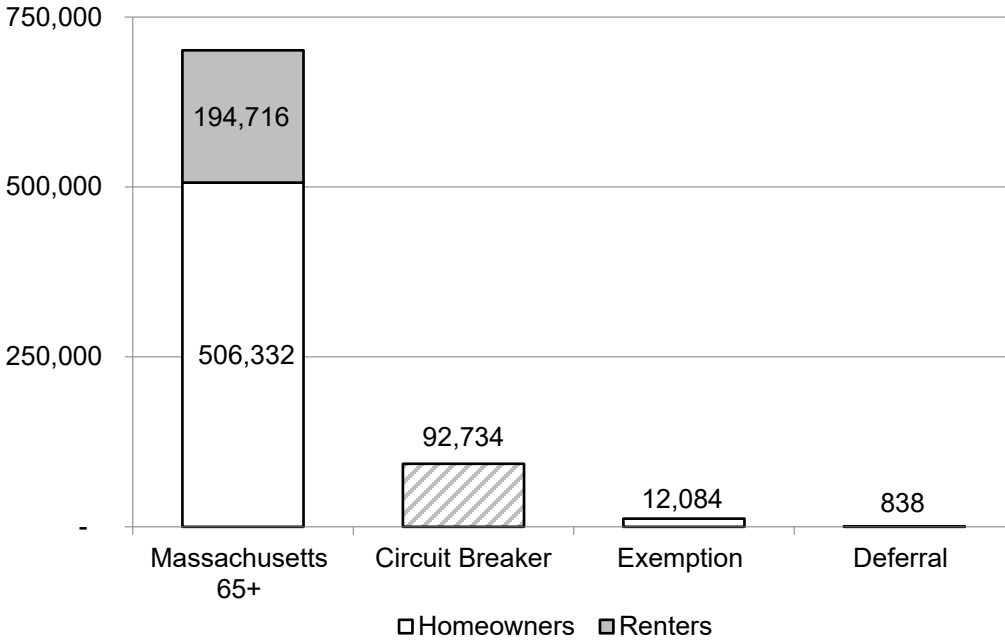


Figure 3. Massachusetts property tax payers age 65+ and participants in senior tax relief programs, FY2019.

Notes: Circuit Breaker figure is for FY2017 participants. Exemption and deferral data are for FY2019 participants.

Sources: U.S. Census Bureau, *American Community Survey* (2018); MA Department of Revenue (2019b); and MA Department of Revenue, Division of Local Services (2019).

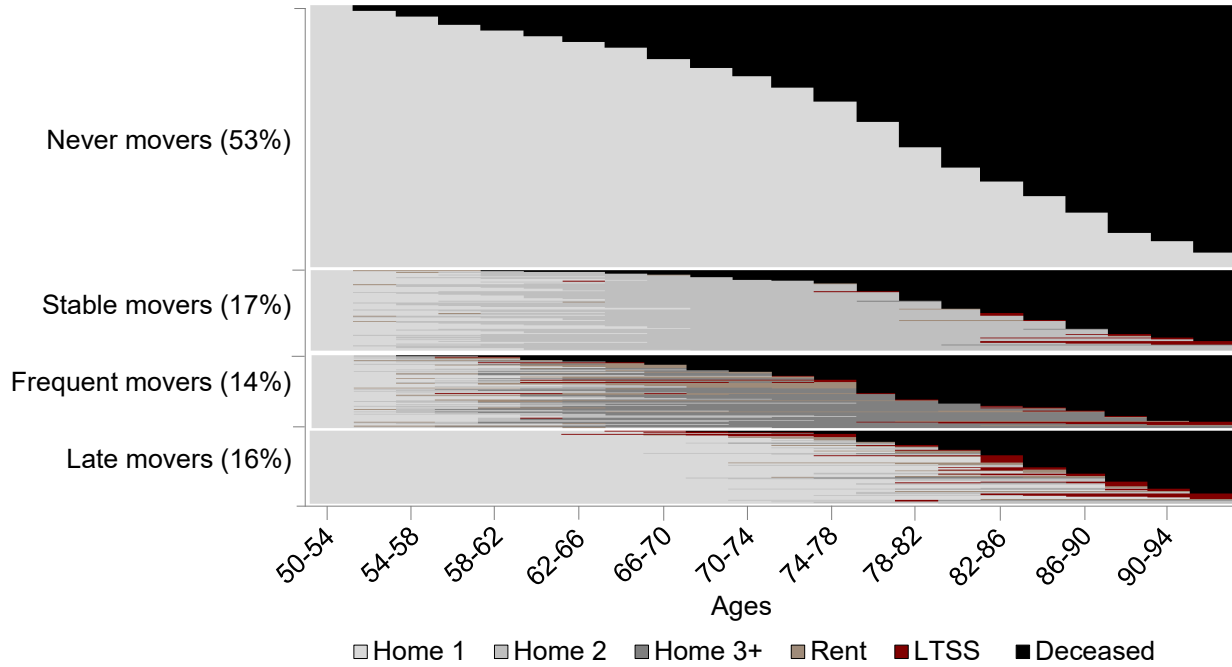


Figure 4. Sequence groups for home-owning households in the synthetic cohort, 1992-2016.

Source: Munnell et al. (2020).

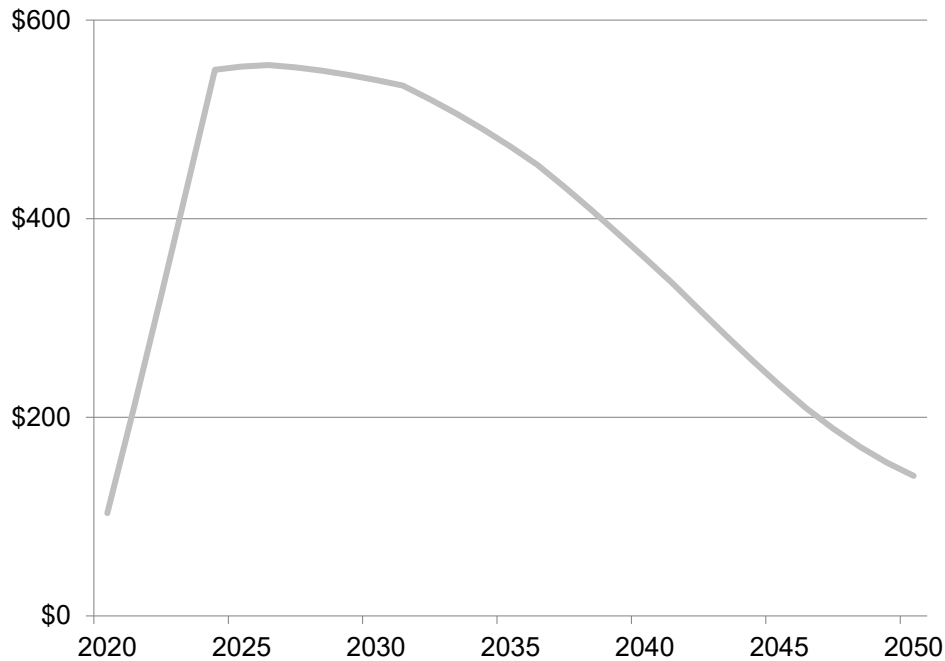


Figure 5. Annual net property tax deferral program cost, millions of 2019 dollars, 2020-2050.

Source: Authors' projections of proposed Massachusetts program.

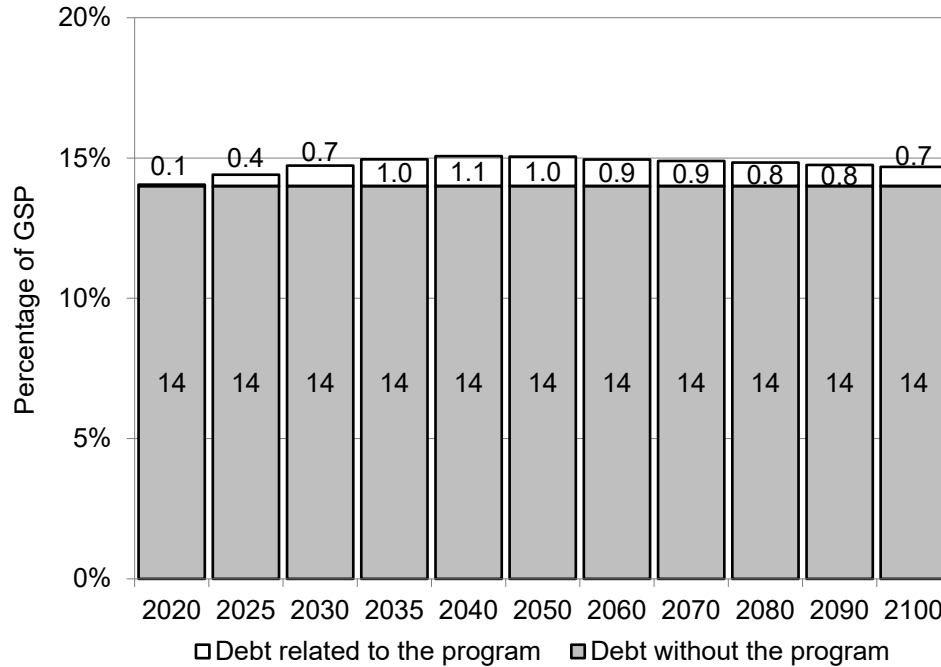


Figure 6. Massachusetts debt relative to gross state product with and without the program, assuming 20-percent participation rate, 2020-2100.

Sources: Commonwealth of Massachusetts, *Comprehensive Annual Financial Reports* (2002-2019); Federal Reserve Bank of St. Louis (2018); and authors' projections.

Table 1. MA property tax relief provisions for seniors, 2019

Parameter	Provision		
	Circuit breaker	Exemptions	Deferral
Age	65+	70+ ^a	65+
Income limit	\$60,000 single \$75,000 head of household \$90,000 joint filers	\$13,000 single \$15,000 married ^b	\$20,000 single or married ^c
Asset limit	\$808,000 assessed property value	\$28,000 single ^d \$30,000 married	None
Exemption	Tax credit up to \$1,130	\$500 ^e	Deferral up to 50% of fair cash value ^f
Interest rate	N/A	N/A	8%
Payment due	N/A	N/A	When homeowner sells property or dies

Notes:

^a Locality may reduce to age 65.

^b Locality may raise to \$20,000 for single or \$30,000 for married.

^c Locality may raise to \$60,000. Localities may petition the state to raise the level even higher (above the Circuit Breaker limit for single head of households).

^d Locality may raise up to \$40,000 for single and up to \$55,000 for married.

^e Locality may raise to \$1,000.

^f Homeowners with a mortgage must get permission from their lender to participate in the program.

Sources: MA Department of Revenue (2019a); and Massachusetts Acts of 2016 (2016).

Table 2. Home value remaining and survival probability at selected ages for a household starting deferrals at age 65

Age	Home value used plus interest (%)	Home value remaining (%)	Survival probability (%)
95	37	63	29
100	45	55	8
105	52	48	1

Note: The calculations assume no mortgage on the property and use the same assumptions as the model (see Appendix D).

Source: Authors' calculations.

Appendix A. Outline of Proposed Massachusetts Property Tax Deferral Program

Individuals age 65 or older who have owned a home in MA and occupied it as their principal residence for at least five years would be eligible to defer their property taxes.

The state's new Property Tax Deferral Program procedure would work as follows:

1. The first-quarter property tax bill for all cities and towns will include a check-box where homeowners certify their eligibility for the program and indicate their desire to participate on an annual basis.
2. Under Chapter 60 Section 37 of the Massachusetts General Laws, unpaid municipal property taxes are automatically secured by a lien on the home. The city or town would continue to retain the lien for deferred taxes and interest; and this lien would still be prior to other liens, such as mortgages.¹
3. For those choosing to participate, the city or town will forward a copy of the property tax bill to the MA Department of Revenue.
4. The MA Department of Revenue will send the town an amount equal to the deferred taxes.
5. The legislation would provide that the state will be repaid the principal plus interest when the homeowner sells the home or dies. In the case of property owned jointly, the state will be repaid when the surviving owner sells or dies. The deferral amount can also be repaid earlier at the homeowner's discretion.
6. The homeowner can defer property taxes until the sum of deferrals, accumulated interest, and mortgages reaches 60 percent of the first million dollars of assessed value.
7. The interest rate each year will be set at the state's borrowing cost plus a buffer of 50 basis points to cover administrative costs and defaults.
8. The state will borrow the funds each year to transfer an amount equal to the deferred taxes for that year to the city or town.
9. Once notified that the home has been sold, the city or town will collect the deferred taxes plus interest and remit this amount to the state.
10. The deferred taxes and interest would be due within one year, after which the interest rate penalty would begin.

Appendix B. Sample Property Tax Bill

This form is approved by Commission of Revenue

COMMONWEALTH OF MASSACHUSETTS
 CITY OF BOSTON
 OFFICE OF THE COLLECTOR-TREASURER
 ONE CITY HALL SQUARE, BOSTON, MA 02201



FY 2020 CITY OF BOSTON REAL ESTATE TAX

Office of the Assessor 617-635-4287

Office of the Collector 617-635-4131

Office Hours: Monday - Friday 9:00 AM – 5:00 PM

JANE DOE
 123 MAIN STREET
 BOSTON MA 02201

PAYMENTS CAN BE MADE ONLINE AT:
www.boston.gov/taxpayments
 credit/debit card payments are subject to fees

If you are using a payment service to pay this bill, you MUST indicate the **TAXYEAR** and **BILL NUMBER** on the check.

MAKE CHECKS PAYABLE TO:
THE CITY OF BOSTON

MAIL CHECKS TO:
BOX 55808
BOSTON, MA 02205

Do not send cash

WARD	PARCEL NO.	BILL NUMBER	BANK NO.	
1	12345-123	123456	123	
LOCATION			AREA	
123 MAIN STREET				
Tax Rate	RESIDENTIAL	OPEN SPACE	COMMERCIAL	INDUSTRIAL
Per \$1,000	10.00	10.00	25.00	25.00
CLASS	DESCRIPTION	ASSESSED OWNER		
CD	Building	JANE DOE		

IMPORTANT: SEE REVERSE SIDE FOR IMPORTANT INFORMATION

You may be eligible to defer your tax payment on the assessed value of your property up to \$1 million.

You are eligible to defer paying your property taxes if you are over the age of 65, own and occupy your home solely for residential purposes, and the sum of your deferrals, accumulated interest, and mortgages are less than 60 percent of the total full valuation of your house.

If you defer paying your property taxes, deferred taxes will accrue 2.5 percent interest each year. But you will not have to pay back the taxes or interest until you sell your home or you and your spouse pass away and leave the house to an heir.

To defer your taxes this year, check the box under your total due.

TAXPAYER'S COPY 1st Quarter

TOTAL FULL VALUATION	500,000
RESIDENTIAL EXEMPTION	.00
TOTAL TAXABLE VALUATION	.00
PRELIMINARY OVERDUE	.00
SPECIAL ASSESSMENTS	.00
CODE VIOLATIONS	.00
TOTAL TAX & SPEC. ASSMNT. DUE	.00
PERSONAL EXEMPTIONS	.00
PAYMENTS TO DATE/CREDITS	.00
NET TAX & SPEC. ASSMNT. DUE	.00
TAX PAYMENTS DUE BY 08/01/2020	1,250.00
TAXES DEFERRED	.00
FEES	.00
INTEREST	.00
TOTAL DUE	\$1,250.00
Pay by 08/01/2020	➔
OR defer paying this amount by checking the following box:	
I wish to defer my taxes for this quarter and the rest of this fiscal year. I certify that I am eligible and that the sum of my deferrals, accumulated interest, and mortgages are less than 60 percent of the total full valuation of my house as stated above.	<input type="checkbox"/>

Source: Authors' illustration.

Appendix C. Effect of Property Tax Deferral Program on Homeowners in MA

On average, homeowners age 65+ in MA will be able to defer about \$5,000 per year in tax expenditures through the proposed program. This average deferral amount varies by county, from a low of \$3,614 in Bristol County to a high of \$5,963 in Middlesex County (see Table C1).

Table C1. Average property value and tax for households age 65+, 2017

County	Property value (\$)	Property tax (\$)	Median income (before taxes, \$)
Statewide average	475,754	4,745	63,050
Barnstable	562,732	4,068	62,460
Berkshire	326,970	3,378	45,500
Bristol	332,937	3,614	58,000
Dukes	652,153	3,525	58,000
Essex	469,248	5,138	67,070
Franklin	315,913	4,707	69,700
Hampden	240,417	3,862	53,700
Hampshire	294,059	4,325	66,200
Middlesex	654,093	5,963	71,090
Nantucket	652,153	3,525	58,000
Norfolk	590,009	5,644	74,200
Plymouth	404,798	4,539	62,100
Suffolk	702,768	3,898	71,900
Worcester	357,330	4,847	59,250

Note: ACS PUMS is used to calculate county-level statistics; PUMS is a subsample of the full ACS IPUMS sample.

Source: US Census Bureau, *American Community Survey* (2018).

Appendix D. Modeling Massachusetts Property Tax Deferral Program

Table D1. Modeling assumptions and sources for statewide Massachusetts deferral program

Variable	Assumption	Sources
Economic Variables		
Housing price appreciation	0.5 percent real	<i>All-Transactions House Price Index for the United States (1980-2018).</i>
State borrowing cost	1.2 percent real	See note a.
<i>Demographic Variables</i>		
Homeowners age 65+ in MA	506,332	US Census Bureau, 2018 <i>American Community Survey</i>
Average MA home value	\$475,754	US Census Bureau, 2018 <i>American Community Survey</i>
Average MA property tax rate	1 percent	US Census Bureau, 2018 <i>American Community Survey</i>
Mortality	Age-based period life table	SSA Period Life Table, 2019
Population growth	Based on UMass (2019-2035); and SSA (2035-2100).	UMass Donahue Institute Population Projections (2015); <i>2019 SS Trustees Report</i>
Program Variables		
Borrowing cap	60 percent of home value assuming no mortgage	Program assumption
Interest charged to household	State borrowing cost + 50 basis points for administration	Program assumption
When deferral and interest paid back for married Households	When last member of a couple dies	Assumption for estimate

Participation rate	20 percent	NRRI ^b
Phase-in period for the program	5 years	Program assumption

Notes:

^a Massachusetts assumed borrowing rate is based on a 10-year general obligation bond rate, which historically tracks closely to the 10-year Treasury bond rate. The 10-year Treasury yield over the past two decades averaged 1.2 percent in real terms. Financial institutions such as J.P. Morgan use the same long-run projection for 10-year Treasury bonds. See Electronic Municipal Market Access, *Massachusetts General Obligation Bond Rates (2003-2019)*; J.P. Morgan (2019); and FRED *10-Year Treasury Constant Maturity Rate (1962-2019)*.

^b Share of NRRI home-owning households ages 55-59 who are at risk of being unable to maintain pre-retirement standard of living with no bequest motive plus half of at risk households with a moderate bequest motive.

Endnote

¹ The legislation enacting the deferral program will need to provide that the lien continues during the deferral period. Under existing law, the lien disappears if foreclosure proceedings are not commenced within a specific period after the tax is due.