Qualified Zone Academy Bond Issuance and Investment: Evidence from 2004 Form 8860 Data

by Thornton Matheson

The Qualified Zone Academy Bond (QZAB) program was established in 1998 in order to promote public school rehabilitation and public-private partnership in education in areas with constrained public resources. In contrast to existing Federal subsidies for State and local debt issuance, which exempted subnational government bond interest from Federal income taxation, the QZAB program was uniquely structured as a tax credit bond: Instead of receiving a nontaxable cash coupon, QZAB investors receive a Federal income tax credit [1]. The economic literature on tax-credit bonds shows that, from a fiscal policy perspective, tax-credit bonds provide a more efficient subsidy than tax-exempt bonds, because the entire subsidy from tax credit bond issuance accrues to the issuers, whereas part of the subsidy from tax-exempt bonds accrues to high-tax-bracket investors [2].

The QZAB program has become the model for two additional tax credit bond programs—Clean Renewable Energy Bonds (CREBs) and Gulf Opportunity Zone tax credit bonds, both authorized in 2005—and legislation for numerous other tax credit bond programs has been proposed. However, there has to date been no general evaluation of the QZAB program's performance because of the lack of comprehensive data on QZAB issuance and investment. This article, which evaluates data from Forms 8860, *Qualified Zone Academy Bond Credit*, filed by financial institutions in Tax Year 2004, represents the first systematic gathering of data on the QZAB program. Its goal is to provide a general description of QZAB issuance and investment activity that will be of use in evaluating the performance of the QZAB program.

Description of the QZAB Program

The QZAB program was established by the Taxpayer Relief Act of 1997 in order to promote investment in primary and secondary public education with private-sector involvement in areas with scarce public resources. The program has authorized the issuance in each year from 1998 through 2007 of $400 million in principal amount of tax credit bonds by the United States and its territories.

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In contrast to tax-exempt bonds, whose interest is exempt from Federal income taxation, tax credit bonds pay "interest" in the form of Federal income tax credits. Investors in QZABs include the amount of the tax credit in their taxable incomes and deduct the same amount from their income tax liabilities. Their income tax is thus reduced by the amount of the credit multiplied by one minus their marginal tax rate, so that the after-tax yield on a tax credit bond is identical to that of a taxable bond. Allowing subnational governments to issue tax credit bonds is equivalent to the Federal Government's paying the interest on their issuance of fully taxable bonds.

The public finance literature shows that tax credit bonds are a more efficient form of subsidy to subnational governments than tax-exempt bonds because tax credit bonds do not provide a windfall to high-bracket investors [3]. This windfall occurs because the "tax wedge" between the taxable bond yield and the tax-exempt bond yield,

(taxable bond yield – tax-exempt bond yield)/ taxable bond yield,

is frequently less than the marginal tax rate of many tax-exempt bond investors. Investors with marginal tax rates below the tax-exempt wedge are better off owning taxable bonds, while investors with marginal tax rates above the wedge receive more tax-exempt interest than necessary to make them willing to hold tax-exempt debt. As a result, part of the Federal Government's revenue cost of allowing subnational governments to issue tax-exempt debt subsidizes high-bracket investors rather than local government investment. With tax-credit bonds, the Federal Government's revenue cost is limited to an amount just sufficient to induce each investor to hold tax-credit bonds.

The proceeds of QZAB issuance may be used to renovate school buildings, purchase equipment, develop curricula, and train school personnel; QZABs may not be used for new construction. Eligible beneficiaries of QZAB issuance are public schools that are either located in an Empowerment Zone or Enterprise Community or in which at least 35 percent of the school's students are eligible for free or reduced-price lunch under the Federal lunch program. At least 95 percent of the bond proceeds must be used for an eligible purpose. At least 10 percent of the net present value of the proceeds of the bond must be contributed by private entities in the form of property or services.

Investment in QZABs is restricted to qualified financial institutions, including banks, insurance companies, and corporations actively engaged in the business of lending money. In addition to their value as tax credits, QZABs are also used to meet depository institutions' obligations to serve low-income areas under the Community Reinvestment Act of 1977.

Maximum QZAB maturities and credit rates are set daily by the Treasury Department and published on the Bureau of Public Debt's Web site [4]. The maximum QZAB maturity is set to equate the present value of total principal repayment with one half of bond principal, with the applicable discount rate equal to the current long-term adjusted applicable Federal rate (AAFR). Under prevailing interest rates, the maximum QZAB maturity has fluctuated between 12 years and 16 years since the program's inception. The QZAB credit rate, which is intended to permit the issuance of the bonds without discount or interest cost to the issuer, is based on the yield on outstanding AA-rated corporate bonds of a similar maturity for the business day immediately prior to the date of QZAB issuance. Because not all QZAB issuers have the same credit quality, however, some QZAB issues are brought to market with premium or discount, which does not affect the tax credit allowed to investors.

The $400 million in annual QZAB credits are allocated among the United States and territories according to the percentage of the total US population in poverty living in that State or territory. States are responsible for apportioning their federally allocated QZAB issuance authority among their eligible school districts. Unused QZAB allocations could originally be carried forward by issuers for 3 years; this carryover period was shortened to 2 years for bonds issued after 1999.

Total allocations for each State and year from 1998 through 2007 are shown in Figure A. The five States and territories with the largest populations in poverty as measured by the U.S. Census Bureau—California, Florida, New York, Texas, and Puerto Rico—account for more than 40 percent of total QZAB allocations, with a total combined allocation of $1.6 billion. An additional five States—Illinois, Michigan, North Carolina, Ohio, and Pennsylvania—have each received more than $100 million in total allocations. Seven States (Alaska, Delaware, New Hampshire, North Dakota, South Dakota, Vermont, and Wyoming), as well as the remaining territories have each received less than $10 million in total allocations over the course of the decade.

QZAB credits may be used to offset both corporate income tax and corporate alternative minimum tax (AMT) liability. QZABs are legally transferable, so that a financial institution anticipating insufficient taxable income to benefit from a tax credit could sell its QZAB holdings to another financial institution that is expecting a positive tax liability. Alternatively, unused QZAB tax credits may be carried forward (but not backward) by investors for one year without interest.

There have been several legislative changes in the QZAB program since its inception. Initially authorized to run for 2 years, 1998 and 1999, the program has since been extended every 2 years through 2007. Delayed reauthorization in 2004 and 2006 resulted in retroactive QZAB allocations for those 2 years, such that allocations from those years could only be issued in subsequent years due to the carryover provision. In 1999, the QZAB credit rate was switched in mid-year from 110 percent of the long-term AFR to that of a corresponding maturity AA-rated corporate bond. The Tax Relief and Health Care Act of 2006 imposed greater restrictions on QZAB issuers, subjecting them to the same arbitrage regulations as tax-exempt bonds and requiring them to file 8038-type information returns.

Other tax credit bond programs recently authorized by the Federal Government include Clean Renewable Energy Bonds (CREBs), intended to promote investment in alternative energy sources, and Gulf Opportunity (GO) Zone Tax Credit Bonds, intended to support reconstruction in the Gulf Coast States after Hurricanes Katrina and Rita. Like QZABs, the credit rates on these tax-credit bonds must be administratively set by the Department of the Treasury. Unlike QZABs, investment in CREBs and GO Zone Tax Credit Bonds is not limited to financial institutions. In addition to the three tax-credit bond programs passed into law, numerous legislative proposals have recently emerged that would create additional tax-credit bond programs, despite the lack of data demonstrating the extent to which the original QZAB program is used. Sound evaluation of the performance of the QZAB and other tax-credit

Figure A

State Allocations of Qualified Zone Academy Bonds, 1998-2007

[Money amounts are in thousands of dollars]

State	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Alabama	6,128	7,015	6,612	7,641	7,683	7,975	7,004	7,004	7,698	7,698	72,459
Alaska	556	591	651	545	634	619	613	655	677	677	6,219
Arizona	10,094	8,408	8,816	6,640	7,061	8,914	8,044	7,913	9,412	9,412	84,714
Arkansas	4,625	5,433	4,093	4,343	5,589	5,408	5,822	5,008	3,921	3,921	48,163
California	56,360	57,598	55,570	52,969	53,149	49,511	50,399	48,956	48,404	48,404	521,319
Colorado	4,243	3,376	3,941	3,899	4,105	4,388	4,772	4,606	5,440	5,440	44,210
Connecticut	4,037	2,975	3,360	2,699	2,621	2,853	3,054	2,937	3,346	3,346	31,227
Delaware	649	760	869	908	862	607	799	634	801	801	7,689
District of Columbia	1,339	1,192	1,238	896	898	1,157	1,062	972	1,180	1,180	11,113
Florida	20,981	21,689	20,879	21,699	19,196	23,799	22,524	22,693	20,271	20,271	214,002
Georgia	11,299	11,699	11,227	11,635	10,400	12,249	10,277	10,713	13,322	13,322	116,143
Hawaii	1,463	1,730	1,422	1,496	1,376	1,581	1,510	1,236	1,129	1,129	14,073
Idaho	1,442	1,931	1,792	2,015	1,927	1,730	1,609	1,458	1,468	1,468	16,840
Illinois	14,718	14,231	13,398	13,905	16,827	14,311	17,445	16,819	14,790	14,790	151,233
Indiana	4,408	5,433	5,939	4,611	6,032	5,855	6,041	6,444	7,944	7,944	60,651
Iowa	2,874	2,848	2,790	2,492	2,465	2,429	2,922	2,747	3,356	3,356	28,280
Kansas	2,956	2,637	2,714	3,750	3,004	3,059	2,944	3,043	3,459	3,459	31,025
Kentucky	6,777	6,572	5,657	5,550	5,637	5,763	6,249	6,223	6,148	6,148	60,724
Louisiana	8,992	7,290	8,914	9,721	8,736	8,124	8,504	7,923	7,677	7,677	83,558
Maine	1,390	1,308	1,422	1,538	1,269	1,512	1,861	1,574	1,704	1,704	15,282
Maryland	5,376	4,452	3,898	4,372	4,632	4,411	4,378	4,986	5,563	5,563	47,630
Massachusetts	6,406	7,722	5,733	8,367	7,528	6,428	7,092	6,888	6,579	6,579	69,321
Michigan	11,000	10,613	11,911	11,080	11,884	10,622	12,608	11,885	12,275	12,275	116,153
Minnesota	4,717	4,821	5,407	3,982	3,411	4,136	3,557	3,972	4,229	4,229	42,461
Mississippi	5,922	4,800	5,277	5,162	4,284	6,176	5,615	4,817	5,861	5,861	53,775
Missouri	5,150	6,614	5,765	7,346	5,266	6,153	6,030	6,360	6,764	6,764	62,212
Montana	1,596	1,466	1,661	1,595	1,628	1,364	1,335	1,468	1,314	1,314	14,740
Nebraska	1,741	1,720	2,291	2,103	1,771	1,810	1,981	1,775	1,714	1,714	18,620
Nevada	1,370	2,004	2,117	2,368	2,035	1,742	2,058	2,578	2,669	2,669	21,609
New Hampshire	752	1,150	1,292	1,071	766	928	799	771	749	749	9,027
New Jersey	7,478	7,775	7,524	7,356	7,970	7,826	7,453	7,828	6,076	6,076	73,362
New Mexico	4,861	4,083	4,028	4,171	3,578	3,701	3,590	3,571	3,562	3,562	38,707
New York	31,497	31,426	33,311	29,712	29,441	30,524	29,441	28,598	28,328	28,328	300,606
North Carolina	9,115	8,851	11,281	11,961	10,903	11,607	12,750	13,618	11,444	11,444	112,973
North Dakota	711	918	1,053	954	730	985	799	644	718	718	8,230
Ohio	14,667	12,986	13,605	15,643	13,847	13,452	12,028	12,952	14,287	14,287	137,753
Oklahoma	5,727	4,810	4,973	4,939	6,032	5,821	5,352	4,648	5,573	5,573	53,447
Oregon	3,934	4,030	5,461	4,839	4,572	4,675	4,159	4,712	4,475	4,475	45,331
Pennsylvania	14,152	14,104	14,528	13,056	12,710	13,269	12,608	13,512	14,082	14,082	136,103
Rhode Island	1,071	1,266	1,216	1,136	1,017	1,146	1,270	1,278	1,304	1,304	12,008
South Carolina	4,964	5,275	5,722	5,265	4,787	6,909	6,216	5,451	6,425	6,425	57,439
South Dakota	845	1,234	836	654	802	710	930	1,004	924	924	8,863
Tennessee	9,043	8,345	8,132	7,557	9,814	9,189	9,182	8,758	8,950	8,950	87,919
Texas	32,753	34,781	32,508	34,818	36,059	35,853	36,795	39,142	37,781	37,781	358,270
Utah	1,576	1,952	2,063	1,406	2,537	2,727	2,495	2,250	2,381	2,381	21,768
Vermont	762	570	630	667	850	676	668	549	482	482	6,336
Virginia	8,188	9,051	6,395	6,288	6,391	6,462	7,683	7,818	7,020	7,020	72,315
Washington	6,860	5,581	5,559	6,333	7,097	7,264	7,191	8,092	6,528	6,528	67,033
West Virginia	3,327	3,017	3,388	3,285	2,968	3,334	3,207	3,275	2,833	2,833	31,467
Wisconsin	4,738	4,452	4,875	5,229	6,199	4,847	5,111	5,578	5,676	5,676	52,381
Wyoming	597	696	554	644	646	481	482	507	554	554	5,716
Territory:											
American Samoa	350	367	389	350	418	470	385	373	363	363	3,828
Guam	227	217	229	251	426	412	405	403	397	397	3,364
N. Marianas	268	337	360	408	381	390	373	381	380	380	3,658
Puerto Rico	22,659	23,484	24,378	26,308	26,731	21,209	20,132	19,627	19,230	19,230	222,988
Virgin Islands	268	323	337	372	422	447	387	373	363	363	3,655

Figure B

Qualified Zone Academy Bonds (QZAB) Holdings, by Financial Institution Asset Class, 2004

[Money amounts are in thousands of dollars]

Item	All Form 8860 filers	Financial institution asset class					
		Under $100 million	$100 million under $500 million	$500 million under $1 billion	$1 billion under $10 billion	$10 billion under $100 billion	$100 billion or more
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Number of institutions	115	15	36	14	26	14	10
Total QZAB issues	561	21	59	28	52	66	335
Total QZAB principal	1,553,036	11,472	33,954	28,796	128,509	166,622	1,183,684
Total QZAB credits, Form 8860, Part 1, line 1	104,335	759	2,308	1,965	6,477	10,869	81,956
Total QZAB credits, Form 8860, Part 1, line 3	117,491	759	2,308	1,965	6,508	10,732	95,217
Total QZAB credits, Form 8860, Part 2, line 9 [1]	116,980	662	2,308	1,547	6,515	10,732	95,217
Average QZAB credit rate (percent)	6.72	6.62	6.80	6.82	5.04	6.52	6.92

[1] QZAB credits reported on Form 8860, Part 2, line 9 reflect any reduction in current-year QZAB credits from line 3 due to insufficient taxable income. This amount is also reported on Form 1120, Schedule J, line 6f.

bond programs is critical to gauging the effectiveness of tax-credit bonds for subsidizing particular types of economic activity.

Analysis of the Data

A total of 115 financial institutions sampled in the Statistics of Income (SOI) Corporate File filed Form 8860 in 2004. Of these 115 financial institutions, 97 filed consolidated Form 1120 returns, 4 filed non-consolidated Form 1120 returns, 12 filed Form 1120 Section 594/1504c returns for mutual banks and life insurance companies, and 2 filed Form 1120-PC returns for property and casualty insurance companies.

All of the financial institutions have more than $10 million in total assets and were therefore sampled with a probability of one. It is possible that, in 2004, some QZAB credits were claimed by financial institutions with less than $10 million in assets and $2.5 million in "proceeds" [5] that were not sampled by SOI; however, it is unlikely that QZAB investment by such financial institutions is common, given that no such instances were included in the 2004 sample. Because all Form 8860 filers in the Corporate Database were sampled with a probability of one, the data captured on Form 8860 likely represent most QZAB tax credit claims.

The data on some QZAB issues listed on Form 8860, however, appear to be incomplete. Figure B shows the analysis of QZAB principal and credits claimed on Form 8860 for Tax Year 2004 by financial institution asset size class. Form 8860 filers provided detailed information on a total of $104.3 million in QZAB credits in Part 1, columns (a)-(e) of Form 8860. However, they reported a larger amount, $117.5 million, on line 3 of Form 8860. Thus, $13.2 million in QZAB credits are not identified with particular QZAB issues. There were no nonzero entries on line 2a of Form 8860 ("QZAB credit from Schedule K-1") in 2004, so that these $13.2 million in extra QZAB credits appear to be from QZAB holdings not detailed in Part 1 of Form 8860, or from QZAB credits accrued but not used in 2003 because they exceeded the taxpayers' 2003 tax liabilities. The total amount entered on line 9 of Form 8860 (and on line 6f of Form 1120 Schedule J) was $117 million. Thus, $511 thousand in QZAB credits were not used in 2004 because they exceeded taxable income [6]. Figures B-D are based on data from Form 8860, while Figure E is based on data from Form 1120.

QZAB holdings appear to be highly concentrated. Of the 115 financial institutions that filed Form 8860 in 2004, some 68 reported holding only a single QZAB issue. Another 39 financial institutions reported holding between two and five QZAB issues. Eight financial institutions held six or more QZAB issues, and three financial institutions held 30 or more QZAB issues. Sixty percent of all QZAB issues included in the sample are owned by ten financial institutions with at least $100 billion in assets each.

The total principal value of all outstanding QZABs reported was $1.55 billion—approximately 65 percent of the $2.4 billion in total QZAB issuance authorized by the Federal Government between 1998 and 2003. The total QZAB credits claimed on those bonds equaled $104.3 million, indicating a weighted average QZAB credit rate of 6.7 percent. Of these totals, 76 percent of the total principal and 79 percent of the total credits were claimed by the ten largest

Figure C

Qualified Zone Academy Bond (QZAB) Principal and Credits from 2004, by Year of Issue, 1998-2004

[Money amounts are in thousands of dollars]

Item	1998-1999	2000	2001	2002	2003-2004	Total
	(1)	(2)	(3)	(4)	(5)	(6)
Total QZAB issues	37	85	197	166	62	547
Total QZAB principal	90,714	294,127	766,276	279,313	91,026	1,521,456
Total QZAB credits, Form 8860, Part 1	6,578	22,587	51,704	17,575	5,003	103,447
Average QZAB credit rate (percent)	7.25	7.68	6.75	6.29	5.50	6.80

financial institutions with more than $100 billion in assets, which received a weighted average credit rate of 6.9 percent.

The average QZAB principal amount per credit claimed—a proxy for QZAB issue size, given that most QZAB issues are private placements bought by a single investor—was $2.8 million. This average issue size varies directly with investor asset size, from $546,000 for financial institutions with less than $100 million in assets to $3.5 million for financial institutions with more than $100 billion in assets.

The QZAB program's effectiveness as a means of supporting local investment in education depends on the extent to which the States use their QZAB issuance authority. It is, therefore, of interest how much of each State's QZAB allocation results in the issuance of tax credit bonds. Unfortunately, reporting on specific QZAB issues by Form 8860 filers is frequently incomplete: Out of a total of 561 individual QZAB issues listed by filers in 2004, some 14 issues lacked data on the year of issuance, and 110 issues could not be identified with a particular state [7].

The total amounts of QZAB principal and credits for the 547 issues that could be identified with a particular year are listed in Figure C. To comply with disclosure constraints that prohibit publication of data describing less than three taxpayers or tax credit bond issuers, data for 1998 were consolidated with data for 1999, and data for 2003 with data for 2004. The total principal of QZAB issues rose from $90.7 million in 1998-1999 to a peak of $766.3 million in 2001, after which it fell again to $91 million in 2003-2004. The slow pace of initial issuance is consistent with the existence of a "learning curve" in the establishment of a market for a new financial product. The expiration and retroactive reauthorization of the program in 2004 likely account for low issuance in that year, since the only QZAB issues that could be brought were allocations carried over from previous years. It is not clear, however, why issuance began declining during 2002 and 2003. As Belmonte (2006) shows, state and local government issuance of public-purpose tax-exempt bonds more than doubled from 2001 to 2004 as tax-exempt bond yields fell, so state and local governments appear to have had strong demand for funds.

Figure D shows the analysis of reported QZAB principal by State and year for the 441 reported issues where both State and year could be identified. These 441 issues, which have a total principal amount of $1.3 billion, account for 84 percent of the total $1.55 billion in QZAB principal detailed on 2004 Form 8860. The $104.3 million in credits associated with that $1.55 billion in principal account for 89 percent of the total QZAB credits claimed on Form 1120, Schedule J, in 2004. Therefore, the State/year data describe the QZAB principal associated with approximately three quarters (0.75 = 0.84*0.89) of the QZAB credits claimed in 2004.

There were no reported QZAB issues for three States—Alaska, Hawaii, and Wyoming—or from the four U.S. territories of American Samoa, Guam, the Northern Marianas, and the U.S. Virgin Islands. All other States had at least some reported issues, although the Form 8860 data do not show that any State fully used its 1998-2003 QZAB allocation through 2004. (Because of the retroactive authorization of 2004 QZAB authority, the total reported principal for each State is compared with its total 1998-2003 allocation, rather than its total 1998-2004 allocation.) The two States with the smallest percentages of surplus allocations were Michigan (4 percent) and Vermont (6 percent).

QZABs are frequently issued as private placement debt to a local or regional financial institution. As might be expected, there is a high correlation between the home States of QZAB investors and the issuing States of the QZABs they hold. Of the

Figure D

Qualified Zone Academy Bond (QZAB) Principal Outstanding from 2004, by State and Year, 1998-2004

[Money amounts in thousands of dollars]

State	1998-1999	2000	2001	2002	2003-2004	Total principal outstanding, 1998-2004	Total allocation 1998-2003
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Alabama	0	0	25,364	5,683	0	31,047	43,055
Alaska	0	0	0	0	0	0	3,597
Arizona	0	0	8,034	11,984	344	20,362	29,491
Arkansas	0	2,617	1,126	5,170	1,000	9,912	49,933
California	12,500	100,325	72,491	39,907	8,700	233,923	325,156
Colorado	0	0	10,208	1,026	1,214	12,448	23,952
Connecticut	0	0	3,366	2,696	2,121	8,183	18,544
Delaware	0	0	649	760	908	2,317	4,654
District of Columbia	0	0	4,665	0	0	4,665	6,719
Florida	0	30,889	24,564	950	9,744	66,147	128,243
Georgia	0	0	29,615	10,035	0	39,650	68,509
Hawaii	0	0	0	0	0	0	9,069
Idaho	0	0	2,600	0	2,500	5,100	10,837
Illinois	14,000	17,515	14,828	0	846	47,189	87,389
Indiana	0	0	4,960	8,975	1,700	15,635	32,278
Iowa	0	0	2,000	2,300	0	4,300	15,899
Kansas	688	2,714	919	0	500	4,821	18,120
Kentucky	0	5,500	1,693	1,766	3,500	12,459	35,956
Louisiana	0	0	22,356	0	0	22,356	51,777
Maine	0	0	820	4,000	0	4,820	8,439
Maryland	0	0	18,098	0	0	18,098	27,140
Massachusetts	0	0	5,605	7,170	12,177	24,952	42,183
Michigan	0	814	50,615	8,781	4,275	64,485	67,110
Minnesota	0	0	8,861	5,386	0	14,247	26,474
Mississippi	0	14,144	2,956	0	0	17,100	31,621
Missouri	0	1,170	7,850	3,000	0	12,020	36,294
Montana	0	0	0	0	375	375	9,309
Nebraska	0	0	0	487	187	674	11,436
Nevada	0	940	3,100	2,387	0	6,427	11,635
New Hampshire	0	2,100	400	0	500	3,000	5,959
New Jersey	0	0	8,600	29,400	0	38,000	45,929
New Mexico	0	0	0	14,930	0	14,930	24,422
New York	0	0	62,800	1,550	0	64,350	185,911
North Carolina	0	0	0	14,840	0	14,840	63,717
North Dakota	128	619	81	0	0	827	5,351
Ohio	0	0	21,250	5,000	0	26,250	84,199
Oklahoma	0	0	0	10,079	0	10,079	32,301
Oregon	0	11,118	718	920	0	12,756	27,510
Pennsylvania	0	14,060	36,668	5,104	2,025	57,858	81,819
Rhode Island	0	0	0	1,216	0	1,216	6,852
South Carolina	0	0	3,756	2,800	0	6,556	32,922
South Dakota	0	0	2,075	0	0	2,075	5,081
Tennessee	10,900	0	10,720	8,320	1,945	31,885	52,079
Texas	29,004	34,538	57,993	12,742	20,506	154,784	206,771
Utah	0	0	4,743	0	0	4,743	12,261
Vermont	0	0	2,374	0	1,521	3,895	4,155
Virginia	8,051	0	1,819	2,033	0	11,903	42,774
Washington	8,443	5,387	5,988	1,300	4,672	25,790	38,694
West Virginia	0	1,206	3,500	4,288	926	9,920	19,319
Wisconsin	0	600	0	3,650	427	4,677	30,340
Wyoming	0	0	0	0	0	0	3,619
Territory:							
American Samoa	0	0	0	0	0	0	2,344
Guam	0	0	0	0	0	0	1,762
Northern Marianas	0	0	0	0	0	0	2,144
Puerto Rico	0	0	96,835	0	0	96,835	144,769
Virgin Islands	0	0	0	0	0	0	2,169
Total	**83,714**	**246,257**	**647,663**	**240,635**	**82,613**	**1,300,881**	**2,399,993**

Figure E

Selected Corporate (Form 1120) Items for Form 8860 Filers, by Financial Institution Asset Class, 2004

[Money amounts are in thousands of dollars]

Item	All Form 8860 filers	Financial institution asset class					
		Under $100 million	$100 million under $500 million	$500 million under $1 billion	$1 billion under $10 billion	$10 billion under $100 billion	$100 billion or more
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Total assets	8,645,782,282	1,151,082	9,358,355	10,363,832	92,598,107	554,580,211	7,977,730,694
Total income	420,469,117	117,348	562,979	675,401	5,392,025	37,448,283	376,273,079
Total net income	56,700,124	12,330	104,034	83,882	1,194,872	7,044,936	48,260,071
Total taxable income	55,093,400	11,328	103,644	84,232	1,174,650	6,552,641	47,166,905
Total income tax	19,281,368	3,833	35,239	28,695	410,430	2,293,424	16,509,747
Total AMT	27,671	520	98	29	377	8,112	18,535
Total Schedule J credits	5,465,392	680	2,584	2,138	15,183	192,008	5,252,798
Total QZAB credits	116,980	662	2,308	1,547	6,514	10,732	95,217
General business tax credits	1,417,558	18	190	564	8,192	118,246	1,290,346
Foreign tax credits	3,377,459	0	1	0	11	62,775	3,314,672
Total taxes less credits	13,845,334	3,676	32,753	26,586	395,623	2,109,528	11,277,170

441 issues for which issuing States could be identified, 174 were issued by the State in which the reporting financial institution was headquartered. This relationship predictably varies inversely with the size of the financial institution, since larger institutions are more likely to serve a wider geographic area: For financial institutions with less than $10 billion in assets, the investor's home State is identical with the QZAB-issuing State for more than 90 percent of listed issues; for financial institutions with at least $10 billion in assets, the States are identical for less than 10 percent of listed issues.

Because the benefit of investing in QZABs depends on a financial institution's expected marginal tax rate, the tax status of QZAB holders is of interest. Six of the 115 financial institutions that filed Form 8860 in 2004 reported zero taxable income. Of these, three had positive AMT liabilities and were thus able to utilize their QZAB credits. A total of nine QZAB holders reported positive AMT liability, indicating that they faced a 20-percent marginal tax rate. As noted above, 2004 QZAB credits were reduced by approximately $511 thousand because they exceeded investors' taxable incomes by that amount (Figure B).

Figure E shows tax statistics for the 115 financial institutions that filed Form 8860 in 2004 by asset size class. QZABs account for a much larger share of total tax credits for financial institutions in the lower asset classes than for larger financial institutions. For Form 8860 filers with less than $1 billion in assets, QZABs accounted for more than 70 percent of all Schedule J tax credits. For Form 8860 filers with more than $1 billion in assets, general business credits were a larger component of total tax credits than QZABs, and, for financial institutions with more than $100 billion in assets, foreign tax credits were a more important source of total tax credits than either QZABs or general business credits.

Conclusions and Areas for Further Research

In 2004, some 115 financial institutions filed Form 8860 to claim approximately $117 million in QZAB credits. Analysis of these credits reveals that QZAB ownership is highly concentrated. The ten largest financial institutions with more than $100 billion in assets accounted for 79 percent of the credits claimed. QZAB ownership is also narrowly based relative to the total population of financial institutions eligible to invest in QZABs. The 2004 SOI Corporate File classifies 19,412 corporations with at least $10 million in total assets as financial institutions [8], and another 5,244 corporations as bank holding companies. Thus, 2004 Form 8860 filers represent less than one-half of 1 percent of all financial institutions.

Although full data on QZAB issuance are not available, analysis of detailed data describing three-quarters of the total QZAB credits claimed in 2004 indicates that most States likely did not issue their full allocations of QZABs. Nonusage of allocations raises the question of why States and territories did not take advantage of the offered debt subsidy. Is the subsidized investment cost still higher than State and local governments' perceived benefit from education investment; is the risk-adjusted return on QZABs too low to stimulate demand from financial institutions; or are other factors, such as procuring private sector participation, prohibitive?

Analysis of the temporal pattern of QZAB issuance suggests other possible sources of friction within the QZAB program. Over the first 4 years of the program, known issuance of QZABs grew from less than $90 million to more than $700 million per year. This pattern is consistent with the existence of a "learning curve" for issuers and investors with regard to the creation of a new type of financial product, the tax-credit bond. The difficulty of developing a financial market for a new investment product argues for conforming any future tax credit bond programs to existing programs, and for eliminating discrepancies between existing programs (such as the restriction of QZAB investment to financial institutions, which was not imposed on CREBs or GO Zone tax credit bonds).

Existence of a learning curve cannot, however, account for the subsequent steep decline in the issuance of QZABs over 2002-2004. One factor behind the apparent dearth of QZAB issues in 2004 is likely the retroactive reauthorization of the QZAB program for that year. The uncertainty that biannual program reauthorization introduces into the tax-credit bond market likely disrupts financial planning by issuers and investors.

Notes and References

[1] Section 25 of the Internal Revenue Code allows State and local mortgage revenue bond issuers to elect to issue mortgage tax credit certificates to qualified home buyers in lieu of issuing tax-exempt mortgage revenue bonds.

[2] See, for example, Davie (1998) and Zimmerman (2004).

[3] Ibid.

[4] See https://www.treasurydirect gov/SZ/SPESQZABRate.

[5] See SOI Corporation Income Tax Returns.

[6] The data in Figure B present two anomalous cases. For taxpayers with $1 billion-$10 billion in total assets, the amount on line 9 of Form 8860 exceeded the amount on line 3, and, for taxpayers with $10 billion to $100 billion in assets, the amount on line 3 of Form 8860 was less than the amount in Part 1 of Form 8860. In the former case, QZAB rollovers appear to be allocated to either line 3 or line 9 by different taxpayers. In the latter case, it appears the reduction in QZAB credits due to insufficient taxable income is reflected on line 3.

[7] In 222 instances, the issuer's State was not entered on Form 8860. Where possible, the issuer's State was identified using the issuer's name listed on the form. This resulted in a reduction of the number of missing States of issuers from 222 to 110.

[8] These firms have an SOI sector code of 52, which covers finance and insurance.

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