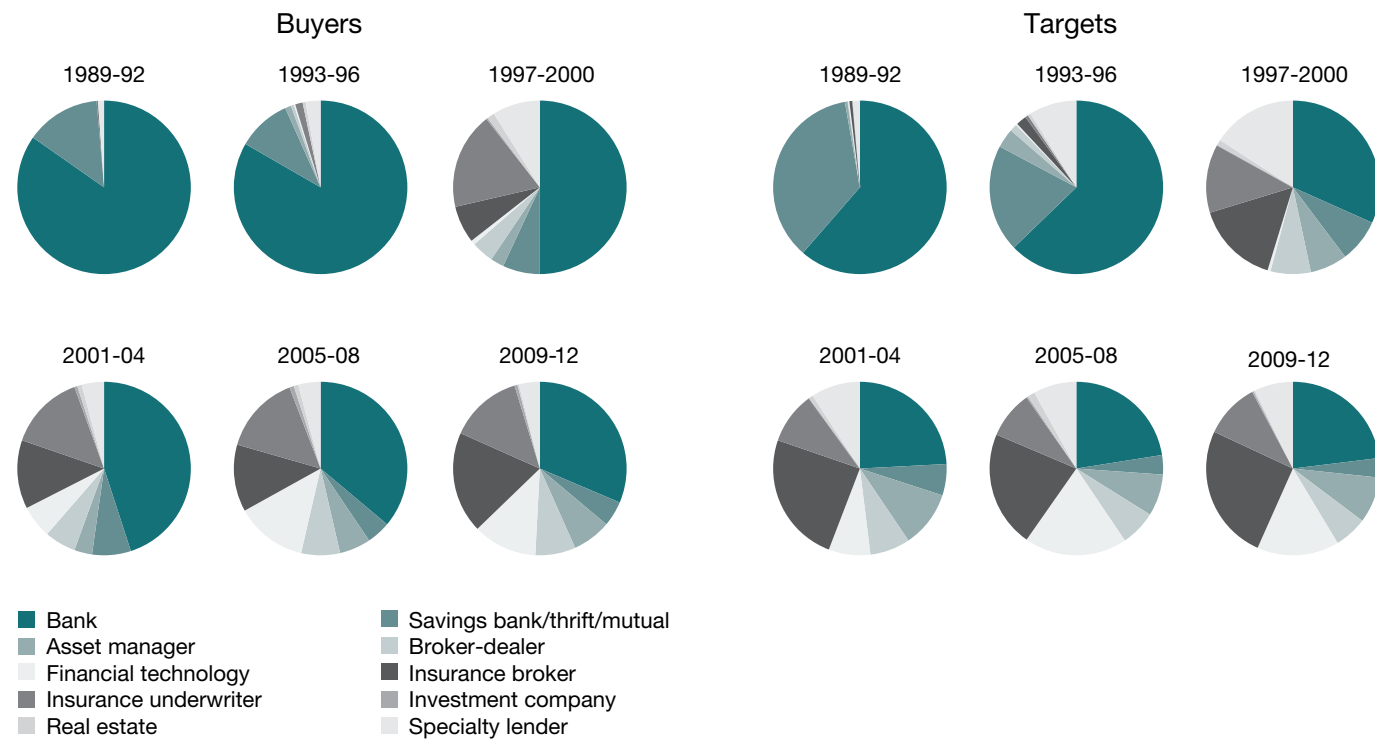
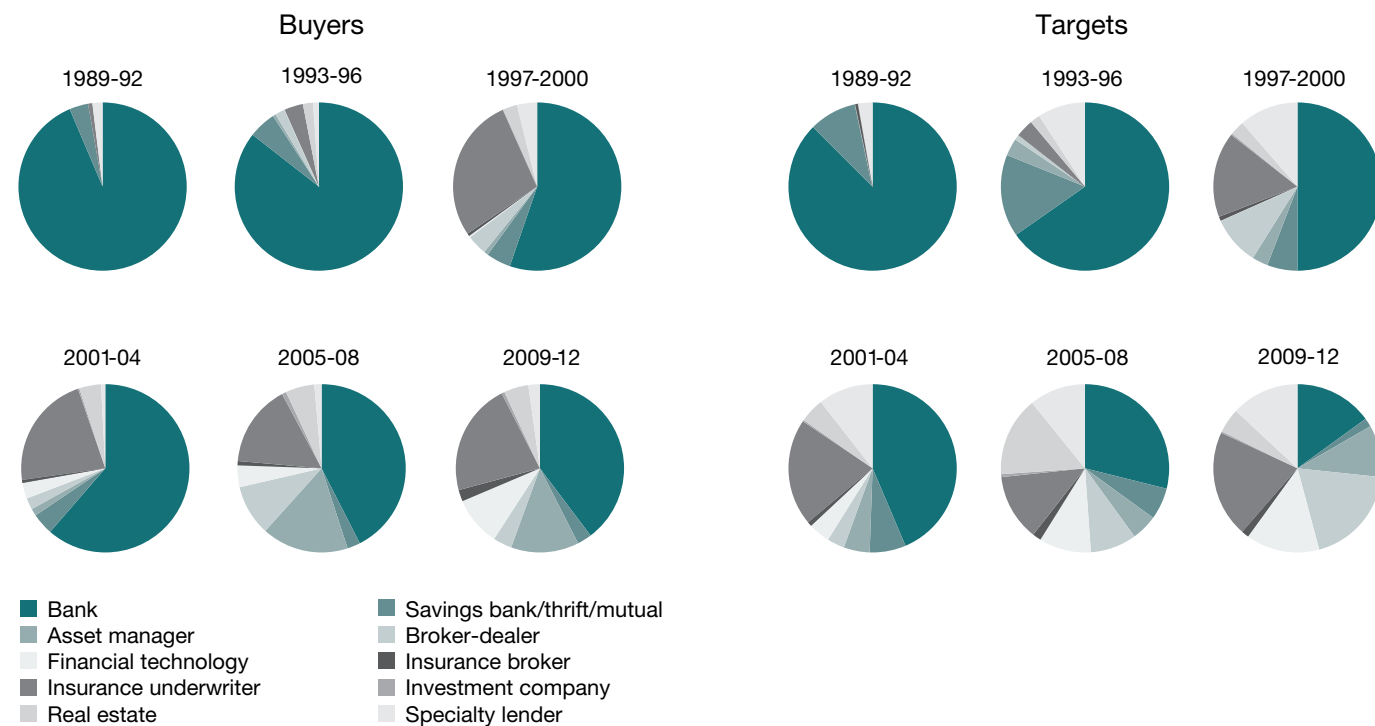


CHART 2
Types in All Acquisitions, by Number



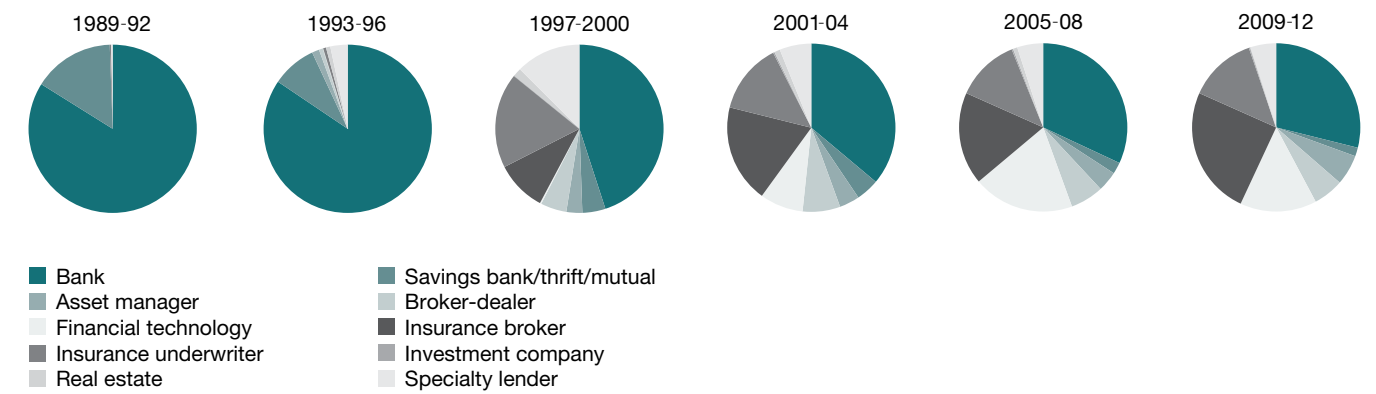
Source: Authors' calculations, based on data from SNL Financial.

CHART 3
Types in All Acquisitions, by Value



Source: Authors' calculations, based on data from SNL Financial.

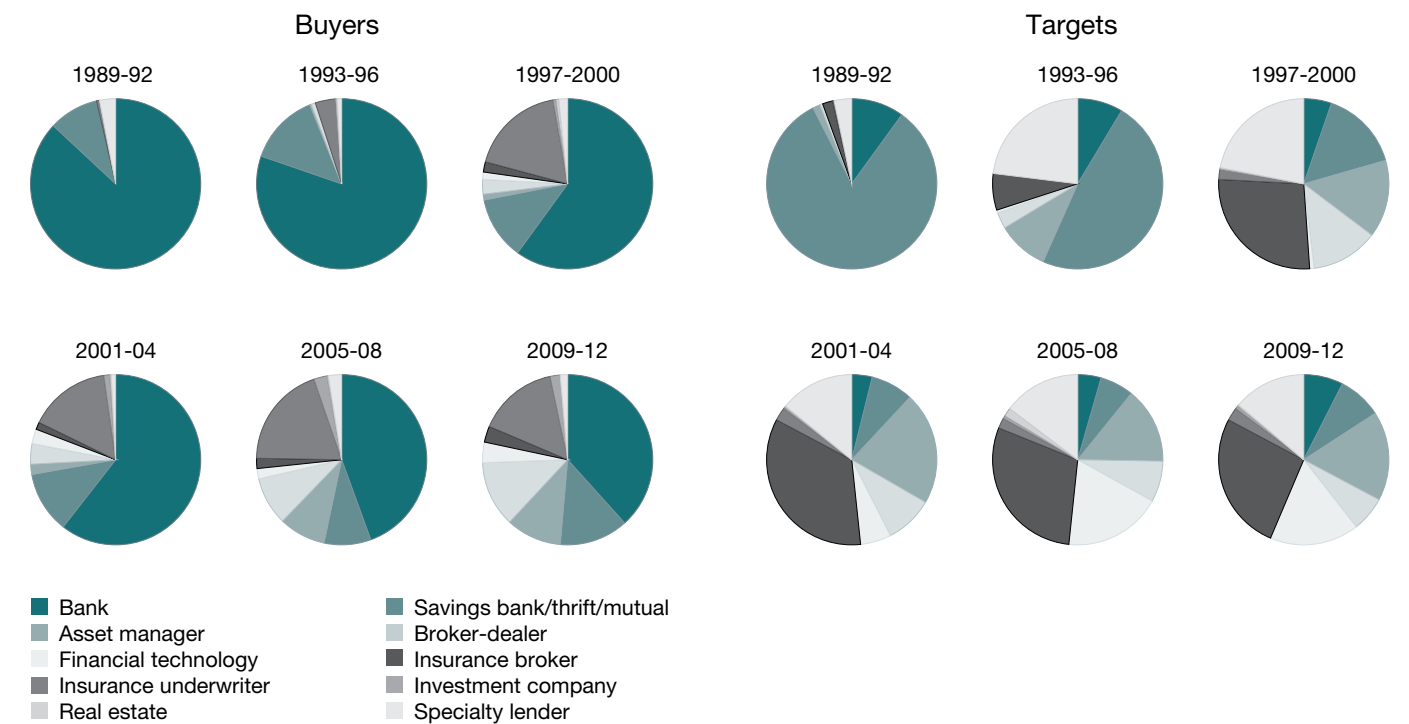
CHART 4
Types in Same-Industry Acquisitions, by Number



Source: Authors' calculations, based on data from SNL Financial.

Note: Same-industry acquisitions represent deals in which the buyer and target have the same type.

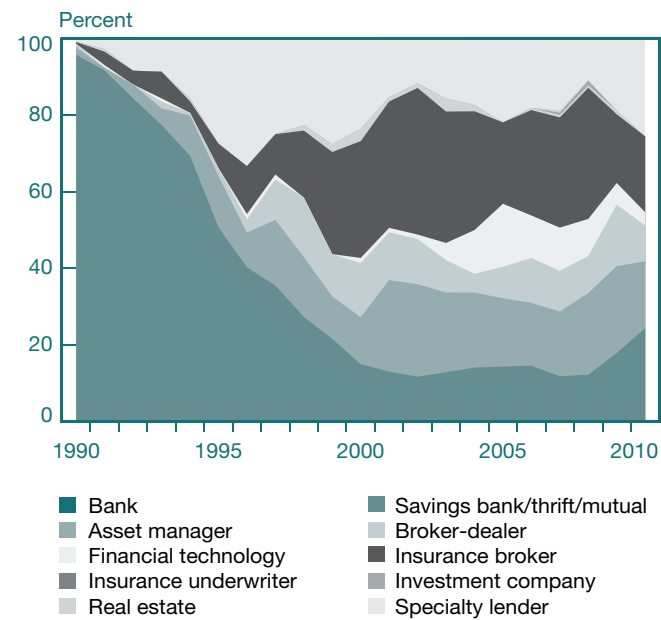
CHART 5
Types in Cross-Industry Acquisitions, by Number



Source: Authors' calculations, based on data from SNL Financial.

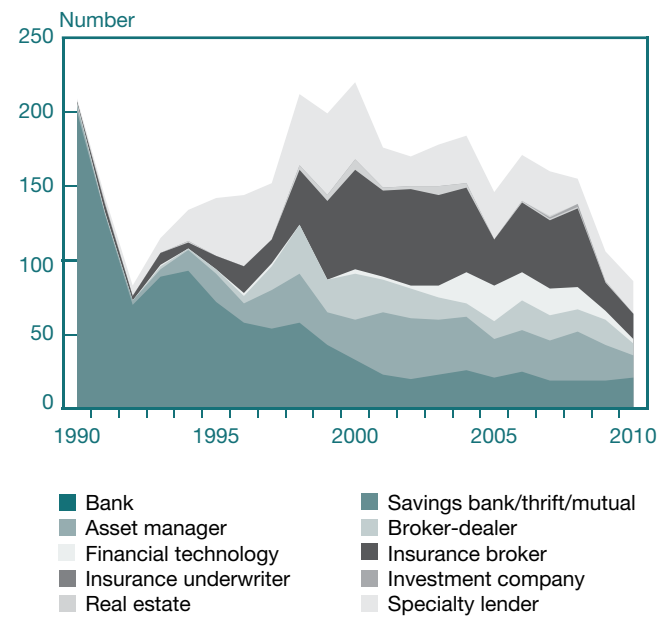
Note: Cross-industry acquisitions represent deals in which the buyer and target have different types.

CHART 6
Nonbank Targets of Bank Buyers (Share)



Source: Authors' calculations, based on data from SNL Financial.
Note: Vertical cross-sections illustrate the average share of targets by type in a given quarter.

CHART 7
Nonbank Targets of Bank Buyers (Number)



Source: Authors' calculations, based on data from SNL Financial.
Note: Vertical cross-sections illustrate the average number of targets by type in a given quarter.

Chart 7 instead displays the number, not the share, of acquisition types through time. It shows that the process of expansion remained active throughout the period, perhaps slowing down only in the post-crisis years.

5.3 Evolution in Bank Families, or Organizational Changes in BHCs

The entity-level analysis in the previous subsection already hints at the evolution in complexity of U.S. banking firms. However, maintaining the focus on individual entities actually understates the extent to which bank organizational boundaries really expanded. Entity-level analysis misses the process of merging, changes in names, and branching into multiple levels of affiliation. As a result, entity, rather than family, analysis leaves us blind to the actual size and composition of entity families. For example, in Table 4, Bank of America and NationsBank are the first- and second-highest ranked entities by acquisition value. However, these entities are truly the same; most of NationsBank's history folded into Bank of America upon creation. Within this new entity are many enti-

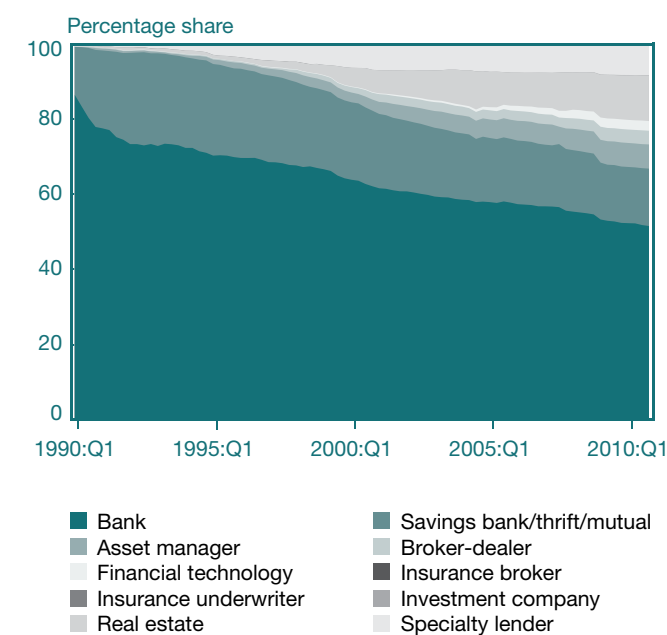
ties acquired along the way, perhaps representing a diversified portfolio or a focused industry giant. To track complexity accurately through time, we need a picture of the same entity's organization before and after the deal.

As explained in section 4, our methodology allows us to combine and track overall complexity, as captured by the amount and type of performed acquisitions (and sales). This buildup takes place within the walls of a banking family, defined by aggregating the information of individual entities under a common highest-holder identifier.

What does the typical BHC family look like? How does its structure evolve over time? Chart 8 addresses these questions by depicting the evolution of organizational profiles in our sample. The typical BHC changed appreciably over time. A BHC family was identified by having mostly commercial bank and thrift subsidiaries in the early 1990s. However, the organizational boundaries expanded significantly starting in the mid-1990s, as BHCs began adding an increasing number of nonbank subsidiaries.

The process that we are able to pick up through the data on acquisition matches well the data on total assets of BHCs, depicted earlier in Chart 1, which shows the increasing

CHART 8
Organizational Evolution

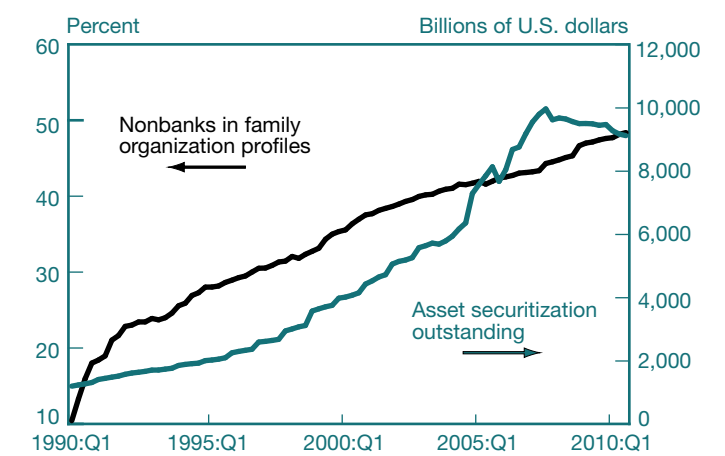


Source: Authors' calculations, based on data from SNL Financial.
Note: Vertical cross-sections illustrate the average share of types within a bank family in a given quarter.

contribution of nonbank subsidiaries to the total assets of their organizations. This evolution in BHCs' organizational footprint also coincides closely with the concurrent evolution in asset-securitization activity. Chart 9 shows the time series of the ratio of nonbank subsidiaries to total subsidiaries of all the BHCs in our sample, together with the time series of total asset securitization outstanding. As the chart suggests, the organizational expansion of BHCs tracks quite closely the rise in securitization activity observed from the mid-1990s up to the financial crisis.

Table 5 shows snapshots of family complexity taken in a given year, capturing the number of both bank and nonbank entities amassed through the acquisition channel by the top fifty BHC families (ranked by total assets) up to that year. BHCs in the early 1990s were relatively simple in organizational structure. Among the top ten in 1990, only BankAmerica Corporation, back then a holding company headquartered in San Francisco, California, had performed ten nonbank acquisitions, and Security Pacific Corporation had performed seven. Among the remaining top fifty, Bank One and Barnett had performed five nonbank acquisitions each. Five years later, the picture was already quite different. The number of acquisitions was much higher, both within and across industries. Some

CHART 9
Nonbanks and Securitization



Sources: Authors' calculations, based on data from SNL Financial; Securities Industry and Financial Markets Association.

Notes: The black line illustrates the share (by count) of nonbanks in family organizational profiles. The green line illustrates asset securitization outstanding in billions of U.S. dollars.

families from 1990 had disappeared from the subsequent list as surviving ones absorbed them (BankAmerica, for instance, acquired Security Pacific).

The BHC organizational profiles only increase in complexity as time goes by, with very large numbers of entities wrapped under common ownership and control. Moreover, the lists show that the process takes place across institutions, and it is not a phenomenon confined to just the largest entities.

Another way to capture the sector-wide transformation is to look at time-series metrics of BHC structures. Chart 10, for instance, displays the average number of commercial banks acquired and kept within a family in a given year. This number, not surprisingly, steadily increases, again reflecting the process of geographic deregulation and consequent consolidation.

The number of nonbank acquisitions in Chart 9 could still fail to show true expansion across industries. For instance, BHCs could have performed many acquisitions concentrated in just one nonbank industry. In order to capture the extent of broad horizontal expansion, we calculate a Herfindahl-Hirschman Index (HHI) of industrial concentration. This index is 1 if the BHC has only commercial banks and smaller than 1 if the BHC acquires nonbank subsidiaries. Furthermore, it progressively decreases as the acquisition profile among the ten industries becomes more "diverse." In the same chart, we report the average HHI of BHC families over time. The steady downward trend shows a push toward broad expansion in organizational boundaries.

TABLE 5
Top Fifty Families by Size and Time, 1990-2000

Rank	1990		1995		2000	
	Name	Banks Nonbanks	Name	Banks Nonbanks	Name	Banks Nonbanks
1	Citi	6 1	Citi	5 2	Citigroup	1 37
2	BankAmerica	3 10	BankAmerica	16 28	JPMorgan Chase	17 25
3	Chase Manhattan	1 0	NationsBank	17 3	Bank of America	104 77
4	J. P. Morgan	1 0	J. P. Morgan	1 1	Wells Fargo	194 80
5	Security Pacific Corporation	10 7	Chemical Banking	18 7	Bank One	74 20
6	Chemical Banking	18 2	First Chicago NBD	1 0	First Union	73 77
7	NCNB	5 0	Bankers Trust New York	1 0	FleetBoston Financial	45 47
8	Bankers Trust New York	1 0	First Union	22 25	SunTrust Banks	11 23
9	Manufacturers Hanover	1 0	Banc One	60 13	U. S. Bancorp	77 53
10	C&S/Sovran	1 0	Fleet Financial Group	25 21	Key	26 20
11	First Interstate Bancorp	7 0	PNC Bancorp	14 10	Firststar	0 1
12	First Chicago	3 0	Norwest	65 18	Bank of New York Company	5 32
13	PNC Financial	4 0	Key	26 12	PNC Financial Services Group	14 16
14	Bank of New York Company	3 0	First Interstate Bancorp	23 4	State Street	1 8
15	Banc One	16 5	Bank of New York Company	5 1	BB&T	55 89
16	First Union	15 1	National City	12 6	Mellon Financial	20 19
17	SunTrust Banks	1 0	Bank of Boston	11 9	Fifth Third Bancorp	27 39
18	Bank of Boston	2 1	SunTrust Banks	6 2	SouthTrust	47 12
19	Fleet/Norstar Financial	4 1	Barnett Banks	7 9	Regions Financial Corporation	83 28
20	Barnett Banks	4 5	Mellon Bancorp	5 8	Comerica	25 9
21	Norwest	10 2	Comerica	24 10	Summit Bancorp	6 7
22	First Fidelity Bancorp	2 1	First Bank System	27 10	AmSouth Bancorp	33 17
23	Mellon Bancorp	2 0	Boatmen's Bancshares	29 7	MBNA	0 3
24	Continental Bank	3 0	CoreStates Financial	6 5	Charles Schwab	3 14
25	NBD Bancorp	1 0	State Street Boston	1 2	Northern Trust	6 6
26	Society	2 0	First of America Bank	7 11	Union Planters Corporation	78 33
27	National City	2 1	SouthTrust	28 6	Charter One Financial	4 15
28	Shawmut National	3 3	Southern National	6 31	M&T Bank	14 18
29	CoreStates Financial	2 0	Huntington Bancshares	20 8	Huntington Bancshares	33 11
30	Midlantic	4 0	Northern Trust	4 3	Popular	14 5
31	Bank of New England	1 0	Firststar	1 1	Old Kent Financial	14 12
32	Key	8 1	Crestar Financial Corporation	4 16	Zions Bancorp	35 9
33	First Bank System	8 3	AmSouth Bancorp	10 8	Compass Bancshares	45 4
34	Boatmen's Bancshares	2 1	Fifth Third Bancorp	9 7	First Tennessee National	10 15
35	First of America Bank	5 3	Mercantile Banc	16 9	Banknorth Group	25 16
36	Comerica	13 4	UJB Financial	3 4	Hibernia	44 12
37	UJB Financial	2 0	BanPonce	4 2	National Commerce	18 25
38	Manufacturers National	5 1	Meridian Bancorp	9 4	GreenPoint Financial	0 6
39	Meridian Bancorp	2 1	GreenPoint Financial	0 3	Provident Financial	4 12
40	Crestar Financial Corporation	2 2	Integra Financial	2 3	North Fork Bancorp	5 15
41	Huntington Bancshares	4 1	Regions Financial	11 8	Pacific Century Financial	8 2
42	Northern Trust	1 1	MBNA	0 1	Associated Banc-Corp	14 1
43	State Street Boston	1 0	Bancorp Hawaii	3 2	Colonial BancGroup	26 11
44	Signet Banking	1 0	First Security	14 4	People's Mutual Holdings	2 5
45	Ameritrust	1 1	First Tennessee National	12 10	Centura Banks	18 17
46	Michigan National	4 1	BayBanks	5 2	TCF Financial Corporation	2 8
47	Bancorp Hawaii	3 1	Old Kent Financial	4 3	Commerce Bancshares	28 5
48	Valley National	1 0	First Empire State	3 4	First Citizens Bancshares	6 15
49	Dominion Bancshares	1 0	Union Planters Corporation	33 7	FirstMerit	3 9
50	BayBanks	2 0	Signet Banking	3 2	BOK Financial Corporation	13 2

TABLE 5 (CONTINUED)
Top Fifty Families by Size and Time, 2005-10

Bank	2005		2010	
	Name	Banks Nonbanks	Name	Banks Nonbanks
1	Citigroup	6 59	Bank of America	117 166
2	Bank of America	114 113	JPMorgan Chase	81 97
3	JPMorgan Chase	75 65	Citigroup	5 108
4	Wachovia	138 117	Wells Fargo	305 244
5	Wells Fargo	211 119	Goldman Sachs	0 89
6	MetLife	1 9	Morgan Stanley	0 25
7	U.S. Bancorp	116 83	MetLife	1 22
8	SunTrust Banks	12 34	U. S. Bancorp	126 96
9	Countrywide Financial Corporation	1 4	PNC Financial Services Group	69 117
10	National City	31 54	Bank of New York Mellon	6 98
11	BB&T	105 161	Capital One Financial Corporation	54 41
12	Fifth Third Bancorp	47 53	SunTrust Banks	25 41
13	Bank of New York Company	5 59	State Street	2 26
14	State Street	1 15	BB&T	112 190
15	Key	28 27	American Express Company	0 12
16	PNC Financial Services Group	21 26	Regions Financial Corporation	191 163
17	Capital One Financial Corporation	45 22	Fifth Third Bancorp	55 69
18	Regions Financial Corporation	158 70	Key	30 31
19	MBNA	0 6	Northern Trust	6 11
20	North Fork Bancorp	8 17	M&T Bank	27 34
21	Comerica	23 10	Discover Financial	0 3
22	Northern Trust	6 9	Comerica	23 10
23	AmSouth Bancorp	30 75	Huntington Bancshares	51 34
24	Popular	15 9	CIT Group	0 21
25	Charles Schwab	3 19	Zions Bancorp	55 17
26	Zions Bancorp	50 17	Marshall & Ilsley	32 34
27	Mellon Financial	23 36	New York Community	5 12
28	Commerce Bancorp	4 14	Popular	18 10
29	First Horizon National	9 28	Synovus Financial Corporation	29 15
30	Huntington Bancshares	34 13	First Horizon National	9 29
31	Compass Bancshares	45 14	BOK Financial Corporation	20 2
32	Synovus Financial Corporation	27 14	Associated Banc-Corp	25 7
33	New York Community	2 7	First Niagara Financial	8 34
34	Associated Banc-Corp	24 7	First Citizens Bancshares	14 16
35	Colonial BancGroup	31 13	East West Bancorp	10 3
36	First Bancorp	7 6	TCF Financial Corporation	2 11
37	Webster Financial	24 30	Webster Financial	21 32
38	Doral Financial	1 1	Cullen/Frost Bankers	19 12
39	Mercantile Bancshares	16 10	SVB Financial Group	2 4
40	BOK Financial Corporation	18 2	Fulton Financial	26 13
41	W Holding Company	2 1	First Bancorp	9 8
42	Sky Financial Group	12 17	Valley National Bancorp	16 14
43	First Citizens	9 16	FirstMerit	4 11
44	South Financial Group	25 15	Wintrust Financial Corporation	10 10
45	Commerce Bancshares	28 6	Susquehanna Bancshares	16 27
46	TCF Financial Corporation	2 10	BankSouth	29 18
47	Valley NBC	9 12	Bank of Hawaii	8 2
48	Fulton Financial	22 11	PrivateBancorp	5 2
49	Investors Financial	1 3	UMB Financial Corporation	19 14
50	Cullen/Frost Bankers	15 8	Franklin Resources	0 13

Source: Authors' calculations, based on data from SNL Financial; Federal Reserve System, Form FR Y-9C, Schedule HC.