

The Perfect Storm: Hurricanes, Insurance and Regulation

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Interaction of Economics & Politics

- Insurers have had to respond to loss shocks & reassessment of hurricane risk.
- Market responses vary among insurers and states-coastal areas.
- Risk & market adjustments greatest in Florida.
- Legislative & regulatory responses have varied but Florida has been “extreme”.
- Strong interest group pressure to push risk burden from coastal dwellers to others.

Topics and Issues

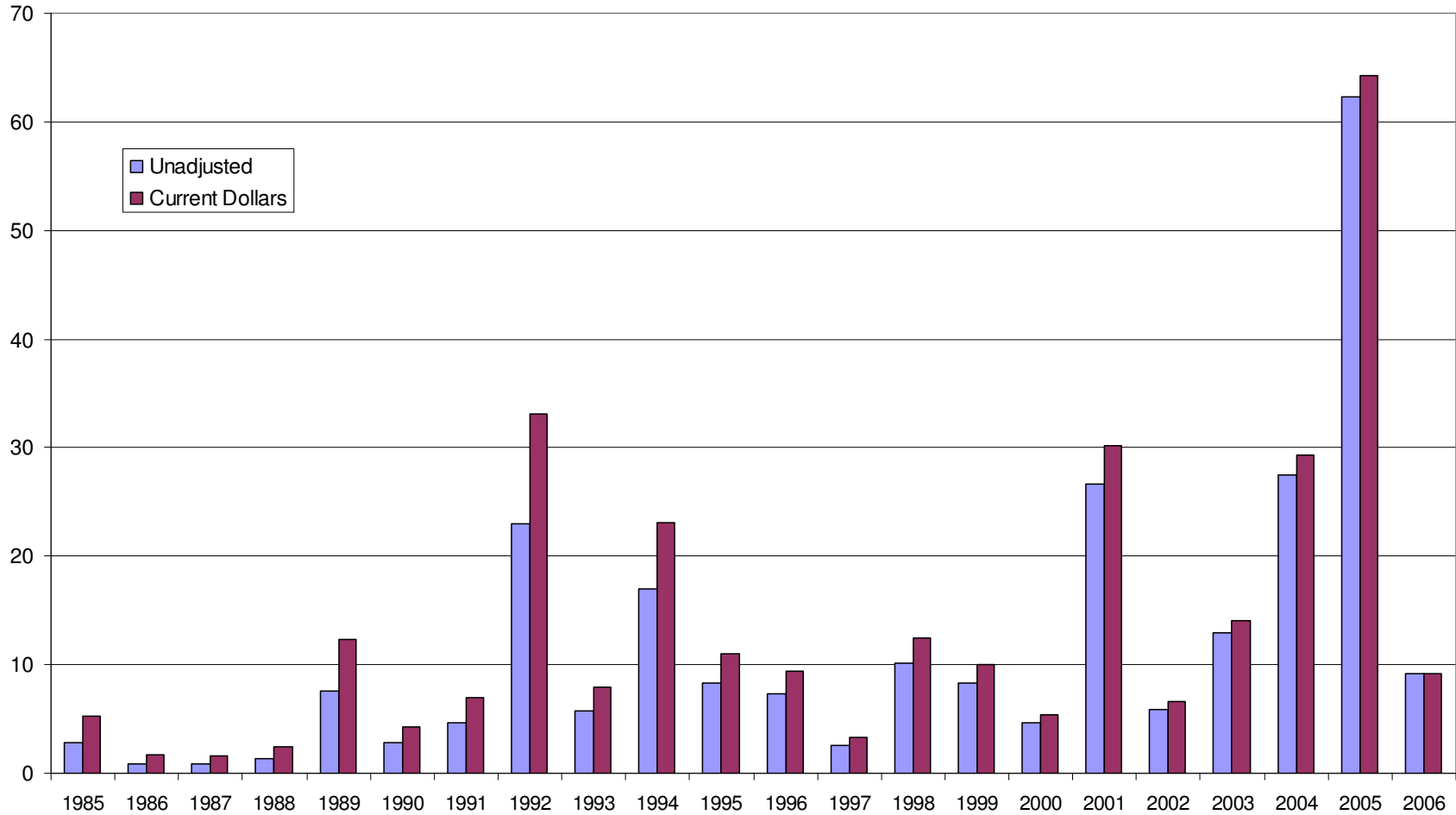
- How are insurers/reinsurers responding to increased cat risk in terms of management of exposures, rates, coverage terms, etc.?
- “Where” might markets “settle” in a new equilibrium depending on regulatory policies?
- How are regulatory policies affecting insurance markets and what is motivating these policies?
- What are the advantages/disadvantages of different policies?
- Can private markets continue to finance cat risk under “good” government policies?
- **Political-economic insights from hurricane risk?**

Conditions for the Perfect Storm

- Heavy coastal growth & economic development.
- Increased risk of hurricanes striking US.
- Higher hurricane losses, loss shocks, earnings volatility, and uncertainty.
- Insurers raise rates & cut exposures for many reasons → supply tightens as demand increases.
- Market responses have clashed with substantial economic interests of groups vested in coastal development.
- Cost of insurance began to “bite” in 2006.
- Interest groups press for regulatory constraints & subsidies that worsen market problems.

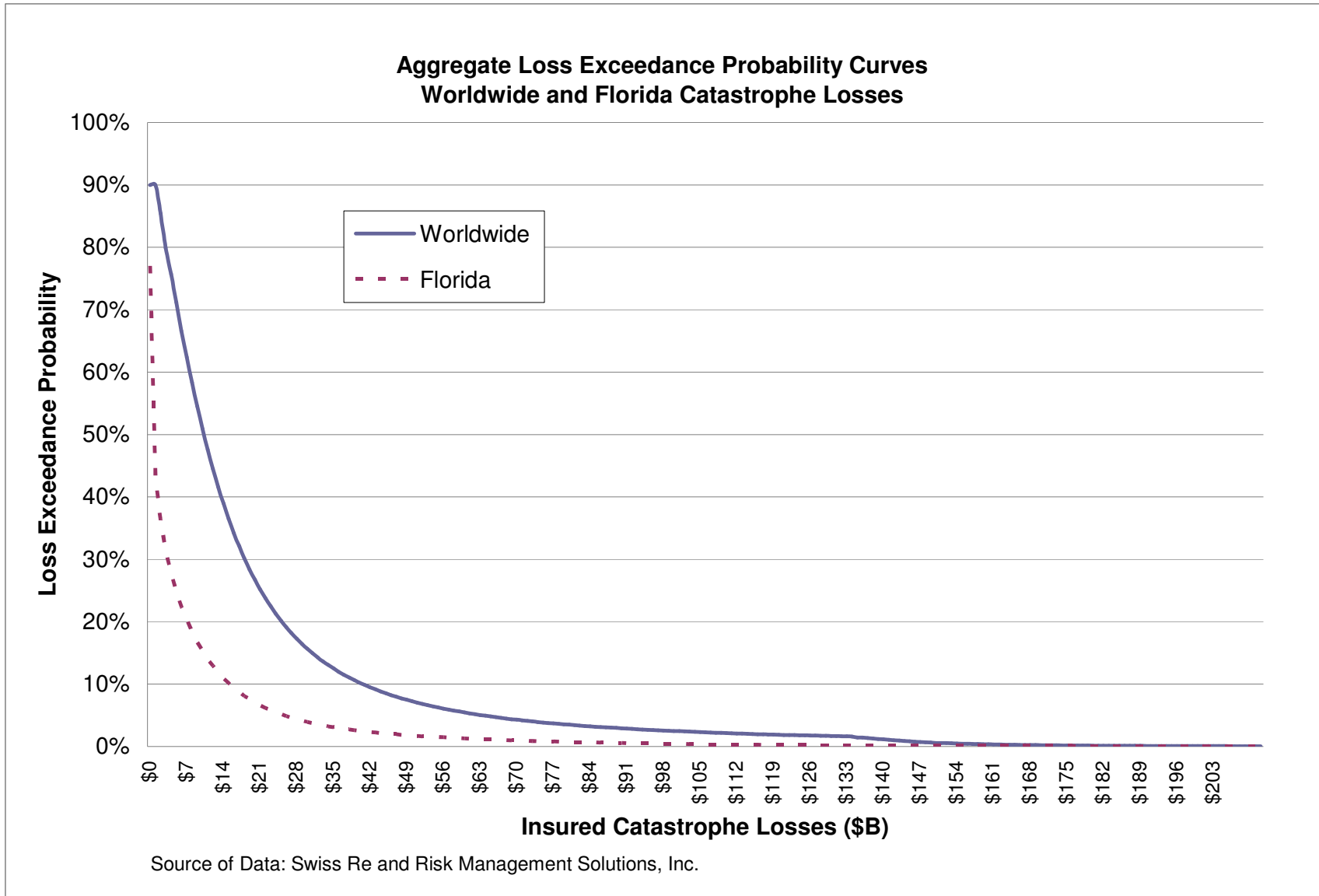
Cat Risk Losses – No Surprises?

Insured Losses for US Catastrophes (\$B)
1985-2005



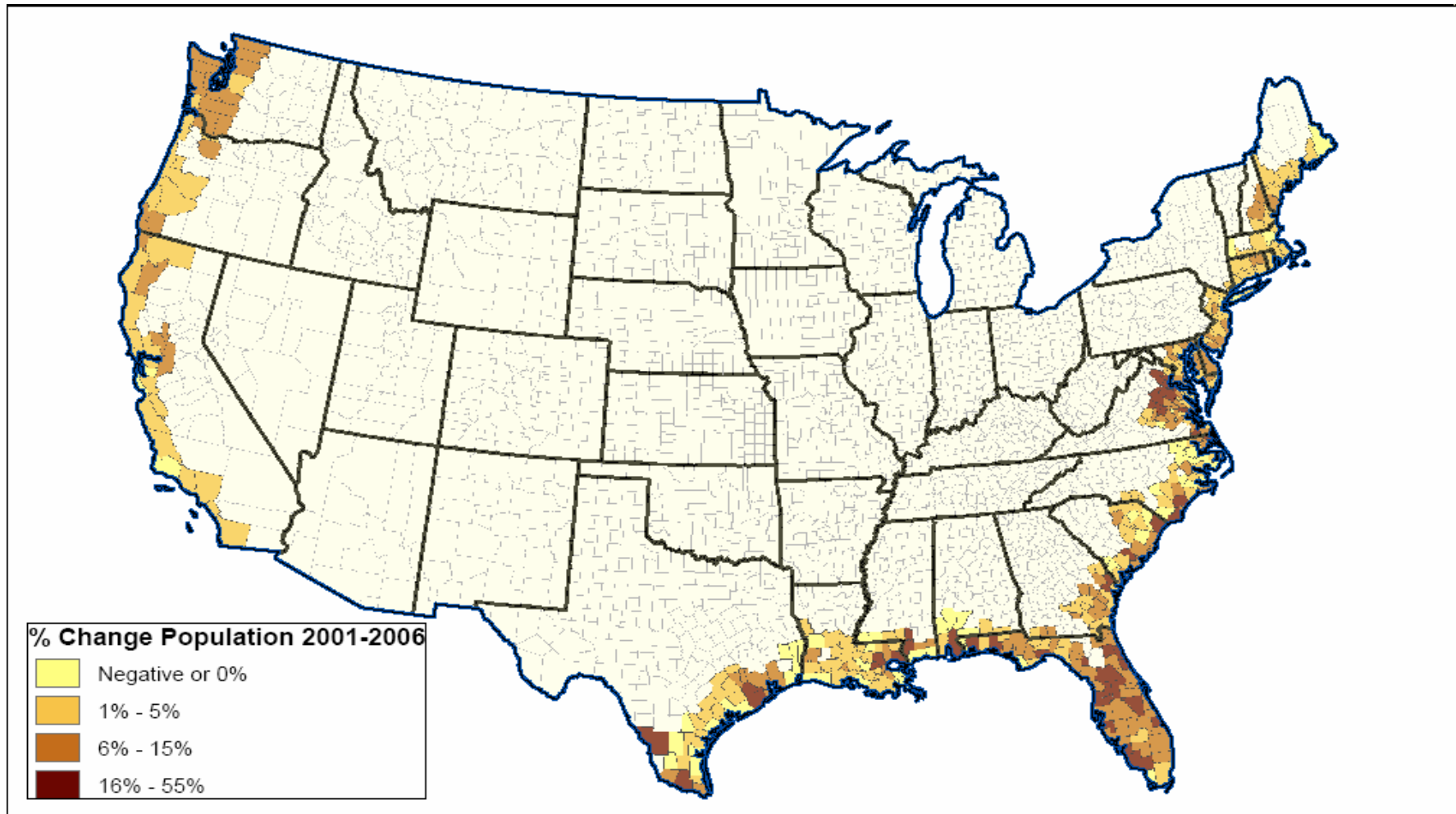
Source: Insurance Information Institute

Waiting for the “Big One”?



Coastal Development

U.S. Coastal Population Change: 2001-2006



Source: NOAA

Significant Market Restructuring

Changes in Leading Insurers' Market Share												
Florida - 1992, 2000, 2005-2006												
Name	2006			2005			2000			1992		
	R	DPW	MS	R	DPW	MS	R	DPW	MS	R	DPW	MS
State Farm Group	1	1,444,281,352	21.4%	1	1,175,850,317	20.7%	1	583,296,400	20.1%	1	653,427,313	30.5%
Allstate Ins Group	2	524,702,881	7.8%	2	495,663,212	8.7%	3	325,641,465	11.2%	2	436,329,616	20.4%
Tower Hill Ins Group	3	342,029,077	5.1%	4	285,914,090	5.0%						
Universal Prop & Cas Ins	4	338,419,633	5.0%	8	159,161,458	2.8%	26	25,611,814	0.9%			
USAA Group	5	316,536,807	4.7%	6	253,944,356	4.5%	4	152,088,271	5.2%	3	95,171,018	4.4%
Nationwide Corporation	6	297,439,102	4.4%	5	274,919,617	4.8%	5	144,675,744	5.0%	5	88,595,495	4.1%
Liberty Mutual Group	7	221,726,692	3.3%	7	172,197,758	3.0%	10	51,714,570	1.8%	12	32,534,992	1.5%
ARX Holding Corp Group	8	216,582,227	3.2%	13	116,834,632	2.1%	25	27,120,693	0.9%			
Universal Insurance Group	9	186,151,076	5.0%	18	81,510,111	1.4%						
American International Group	10	161,500,150	2.4%	11	119,271,708	2.1%	15	38,442,829	1.3%	53	3,771,785	0.2%
Chubb & Son Inc	11	155,699,694	2.3%	10	124,290,363	2.2%	8	68,324,921	2.4%	6	62,874,910	2.9%
St Johns Ins Co Inc	12	146,404,816	2.2%	25	64,285,117	1.1%						
United Prop & Cas Ins Co.	13	138,913,586	2.1%	16	104,987,215	1.8%	36	14,473,319	0.5%			
Hartford Fire & Casualty Group	14	136,457,181	2.0%	12	117,479,131	2.1%	7	76,738,521	2.6%	9	49,288,247	2.3%
St Paul Travelers Group	15	131,197,512	1.9%	9	124,905,507	2.2%	6	92,445,712	3.2%	4	89,664,452	4.2%
Gulfstream Prop & Cas Ins Co	16	118,088,454	1.7%	17	93,418,769	1.6%						
21st Century Holding Group	17	115,574,807	1.7%	20	77,513,454	1.4%						
Florida Peninsula Ins Co	18	114,706,859	1.7%	42	20,290,645	0.4%						
GeoVera Holdings Inc Group	19	110,034,616	1.6%	14	111,695,287	2.0%						
First Protective Ins Co	20	89,864,708	1.3%	32	37,847,420	0.7%	43	10,928,140	0.4%			

Source: NAIC Financial Database; authors' calculations.

Note: Table does not include Citizens Property Insurance Co or its predecessors.

Intra-State Changes

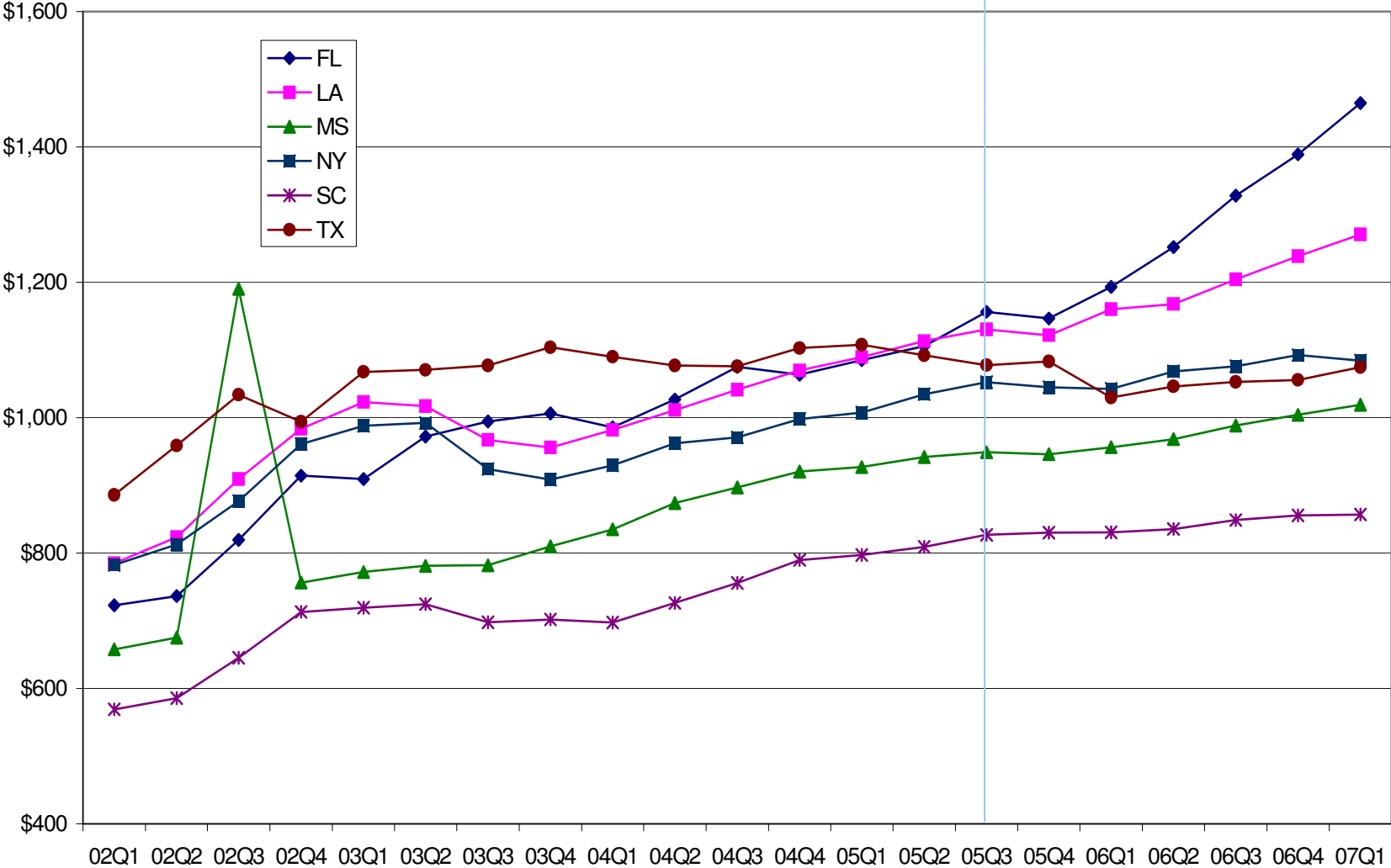
Leading Insurance Groups in Dade County: 1997Q1 & 2006Q4				
	1997		2006	
Rank	Company	Mkt. Share	Company	Mkt. Share
1	State Farm Group	38.0%	Citizens Property Ins. Corp.	24.5%
2	FL Residential P&C JUA	29.5%	State Farm Group	19.8%
3	Allstate Insurance Group	6.6%	Liberty Mutual Insurance Companies	7.4%
4	Liberty Mutual Insurance Companies	4.8%	United Property & Casualty Ins. Co.	5.7%
5	USAA Group	3.3%	Gulfstream Property & Casualty Ins. Co.	5.6%
6	St. Paul Travelers Group	3.0%	Universal Property & Casualty Ins. Co.	3.7%
7	Hartford Insurance Group	2.1%	Tower Hill Group	3.4%
8	MetLife Auto & Home Group	2.0%	Federated National Ins. Co.	3.4%
9	Chubb Group of Insurance Companies	1.8%	Coral Ins. Co.	2.4%
10	Bankers Insurance Group	1.4%	USAA Group	2.2%
	Top Ten	92.7%	Top Ten	78.2%
Source of Data: FLOIR; Authors' calculations.				

Nature of Structural Changes

- Market leaders have significantly retrenched to varying degrees.
- Mid-tier national insurers have tended to “stay the course” with some adjustments.
- **Smaller state/regional insurers have moved in to underwrite substantial coastal exposures.**
- Florida’s state insurer (CPIC) has assumed many exposures; ~20% market share.
- Structural changes in other states’ markets much less severe for several reasons.

Prices

Average Homeowners Premium Trends: 2002Q1-2007Q1



Source: PCIAA/ISO Fast Track Monitoring System; authors' calculations.

Katrina

Intra-State Price Variation I

Homeowners (HO3) Average Premiums in Florida: 2001-2005					
Territory	2001	2002	2003	2004	2005
Indian River/Martin/St. Lucie	\$890	\$1,042	\$1,311	\$1,674	\$2,051
Miami	\$1,059	\$1,207	\$1,444	\$1,653	\$1,799
Palm Beach County	\$923	\$1,054	\$1,261	\$1,461	\$1,643
Miami Beach	\$856	\$754	\$881	\$1,404	\$1,589
Broward County	\$985	\$1,043	\$1,171	\$1,320	\$1,491
Broward/Palm Beach	\$715	\$828	\$958	\$1,170	\$1,373
Dade County II	\$1,104	\$1,088	\$1,137	\$1,258	\$1,366
Martin County	\$886	\$1,021	\$1,133	\$1,213	\$1,364
Fort Lauderdale/Hollywood	\$802	\$838	\$920	\$1,023	\$1,146
Tampa	\$631	\$683	\$773	\$916	\$1,108
Hillsborough/Pinellas	\$558	\$625	\$715	\$850	\$1,047
Bay "et al" I	\$634	\$725	\$821	\$912	\$1,039
Key West	\$351	\$216	\$290	\$844	\$1,016
Hialeah	\$1,091	\$1,117	\$979	\$935	\$984
St. Petersburg	\$473	\$554	\$655	\$776	\$976
Pinellas County	\$470	\$451	\$517	\$729	\$881
Bay "et al" II	\$516	\$593	\$654	\$709	\$807
Escambia County	\$510	\$607	\$664	\$693	\$787
Polk County	\$533	\$610	\$680	\$704	\$776
Orange	\$540	\$570	\$609	\$670	\$769
Dade County I	\$944	\$832	\$887	\$1,003	\$756
Monroe County	\$379	\$228	\$290	\$664	\$689
Osceola/Seminole	\$561	\$578	\$564	\$567	\$640
Brevard/Volusia	\$455	\$498	\$522	\$545	\$616
Duval County II	\$425	\$451	\$465	\$507	\$612
Duval County I	\$453	\$482	\$519	\$530	\$544
Alachua "et al"	\$511	\$511	\$477	\$469	\$523
Jacksonville	\$446	\$468	\$469	\$465	\$509
Mean	\$668	\$703	\$777	\$917	\$1,032
Median	\$560	\$618	\$697	\$847	\$980
Source of Data: PCIAA; authors' calculations					



Intra-State Price Variation II, 2006

Homeowners' Premium Comparisons in Florida

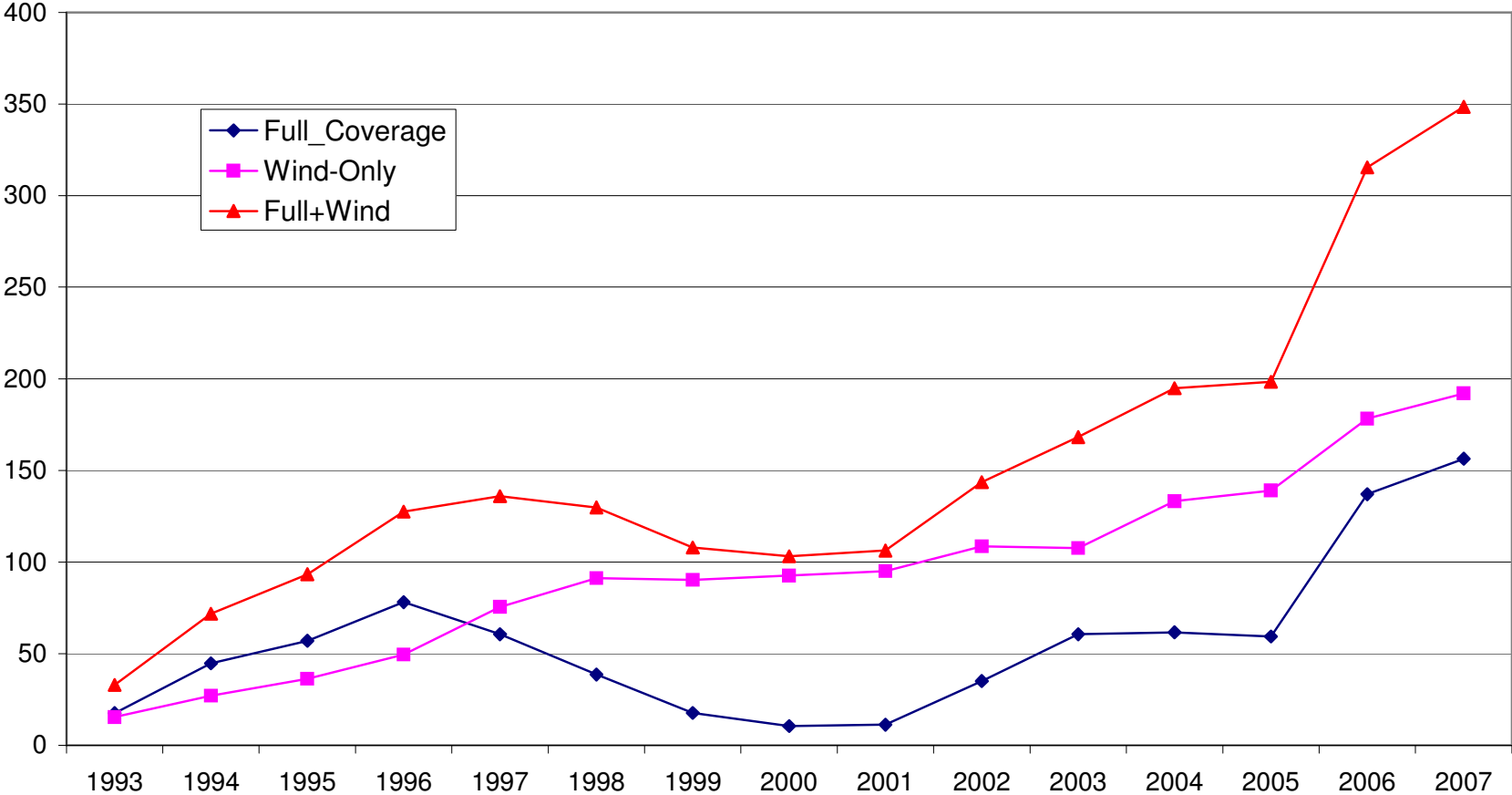
County	Max	Min	Mean	Median	County	Max	Min	Mean	Median
Monroe	\$13,973	\$1,780	\$4,531	\$3,658	Holmes	\$1,709	\$720	\$1,122	\$1,079
Dade	\$7,600	\$1,949	\$3,609	\$3,380	Gilchrist	\$1,617	\$854	\$1,181	\$1,071
Broward	\$7,545	\$1,731	\$3,182	\$3,043	Lafayette	\$1,763	\$845	\$1,197	\$1,071
Hendry	\$8,391	\$1,562	\$3,012	\$2,805	Gadsden	\$1,716	\$720	\$1,109	\$1,066
St. Lucie	\$5,425	\$1,365	\$2,537	\$2,390	Madison	\$1,743	\$757	\$1,163	\$1,054
Collier	\$6,279	\$1,385	\$2,455	\$2,320	Desoto	\$1,626	\$735	\$1,114	\$1,038
Palm Beach	\$6,279	\$1,385	\$2,455	\$2,320	Wakulla	\$1,983	\$807	\$1,140	\$1,036
Okeechobee	\$5,728	\$1,212	\$2,397	\$2,299	Suwannee	\$1,532	\$739	\$1,049	\$1,030
Osceola	\$6,342	\$1,284	\$2,479	\$2,236	Jefferson	\$1,511	\$621	\$1,014	\$1,022
Pasco	\$4,223	\$1,351	\$2,005	\$1,882	Walton	\$1,511	\$697	\$1,007	\$1,021
Glades	\$4,651	\$1,220	\$1,990	\$1,853	Gulf	\$1,511	\$697	\$988	\$1,019
Sarasota	\$4,000	\$1,075	\$1,890	\$1,827	Hamilton	\$1,842	\$664	\$1,090	\$1,019
Hernando	\$4,201	\$1,124	\$1,900	\$1,818	Bay	\$1,511	\$697	\$982	\$1,009
Liberty	\$5,176	\$1,224	\$2,093	\$1,786	Putnam	\$1,569	\$758	\$1,069	\$1,009
Indian River	\$4,835	\$1,128	\$1,931	\$1,785	Clay	\$1,429	\$760	\$1,004	\$999
Santa Rosa	\$5,176	\$1,105	\$1,944	\$1,757	Dixie	\$1,340	\$684	\$982	\$980
Escambia	\$5,176	\$1,107	\$1,954	\$1,748	Polk	\$1,527	\$772	\$1,036	\$980
Martin	\$3,873	\$1,027	\$1,843	\$1,714	Taylor	\$1,667	\$649	\$1,034	\$968
Orange	\$3,755	\$1,030	\$1,721	\$1,611	Baker	\$1,529	\$684	\$975	\$967
Washington	\$5,176	\$987	\$1,833	\$1,602	Levy	\$1,533	\$673	\$1,025	\$967
Calhoun	\$5,176	\$1,002	\$1,871	\$1,583	Marion	\$1,459	\$683	\$990	\$961
Pinellas	\$2,313	\$940	\$1,601	\$1,535	Columbia	\$1,234	\$709	\$958	\$958
Brevard	\$4,671	\$1,047	\$1,678	\$1,532	Seminole	\$1,638	\$661	\$995	\$956
Okaloosa	\$5,176	\$974	\$1,839	\$1,505	Lake	\$1,650	\$733	\$1,025	\$944
Volusia	\$1,918	\$863	\$1,391	\$1,474	Union	\$1,529	\$724	\$982	\$923
Hillsborough	\$1,778	\$889	\$1,279	\$1,304	Nassau	\$1,191	\$693	\$920	\$918
Charlotte	\$2,022	\$934	\$1,352	\$1,296	Citrus	\$1,466	\$625	\$924	\$910
Lee	\$2,022	\$934	\$1,358	\$1,296	Sumter	\$1,680	\$625	\$933	\$900
Flagler	\$2,200	\$968	\$1,321	\$1,290	Alachua	\$1,364	\$586	\$877	\$888
Leon	\$3,869	\$845	\$1,519	\$1,276	Bradford	\$1,370	\$556	\$880	\$858
Highlands	\$1,723	\$921	\$1,310	\$1,263	St. Johns	\$1,340	\$555	\$850	\$854
Hardee	\$1,691	\$780	\$1,201	\$1,156	Franklin	\$1,293	\$627	\$846	\$833
Manatee	\$1,626	\$764	\$1,173	\$1,123	Duval	\$1,293	\$555	\$837	\$801
Jackson	\$1,535	\$720	\$1,075	\$1,083	Mean	\$3,078	\$918	\$1,508	\$1,413

Source: FLOIR



Residual Market Growth: FL

Florida Residual Market Full + Wind Exposures (\$B)

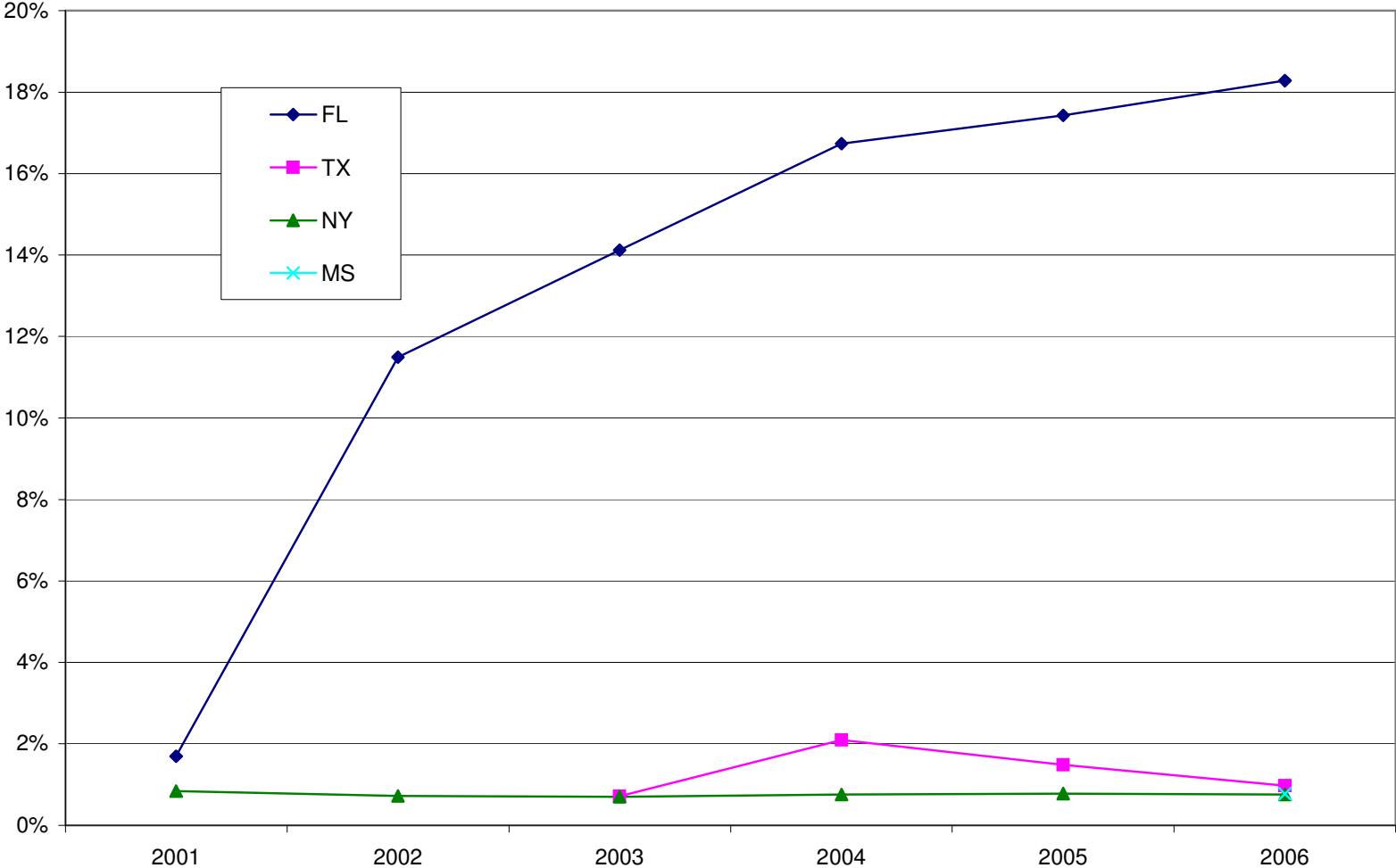


Note: 2007 figures are as of March 31, 2007

Source: FRPCJUA & CPIC

Residual Market Growth: Other States

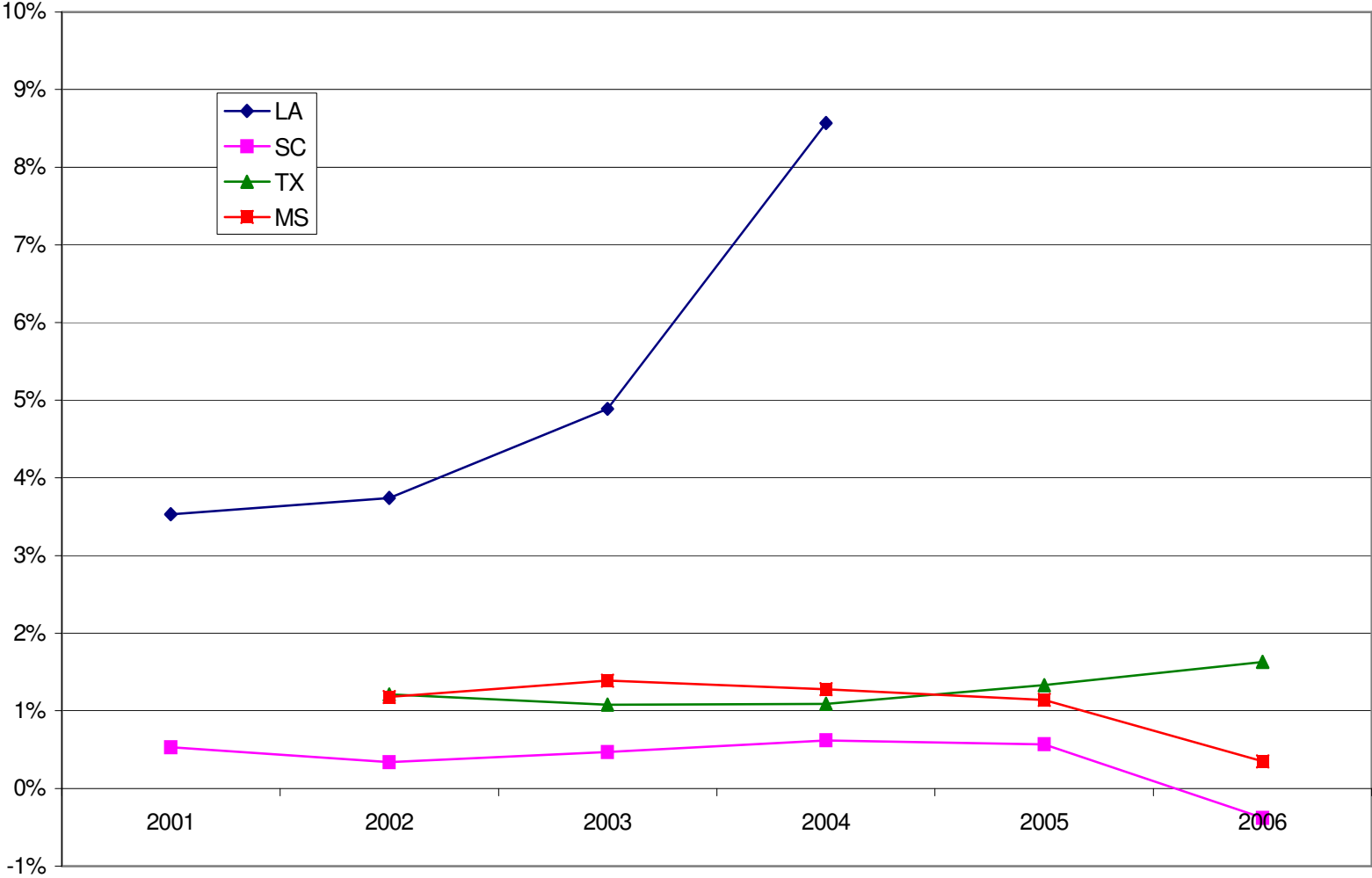
FAIR Plan Penetration (% of Total Statewide Premiums)



Source: PIPSO

Wind/Beach Plans

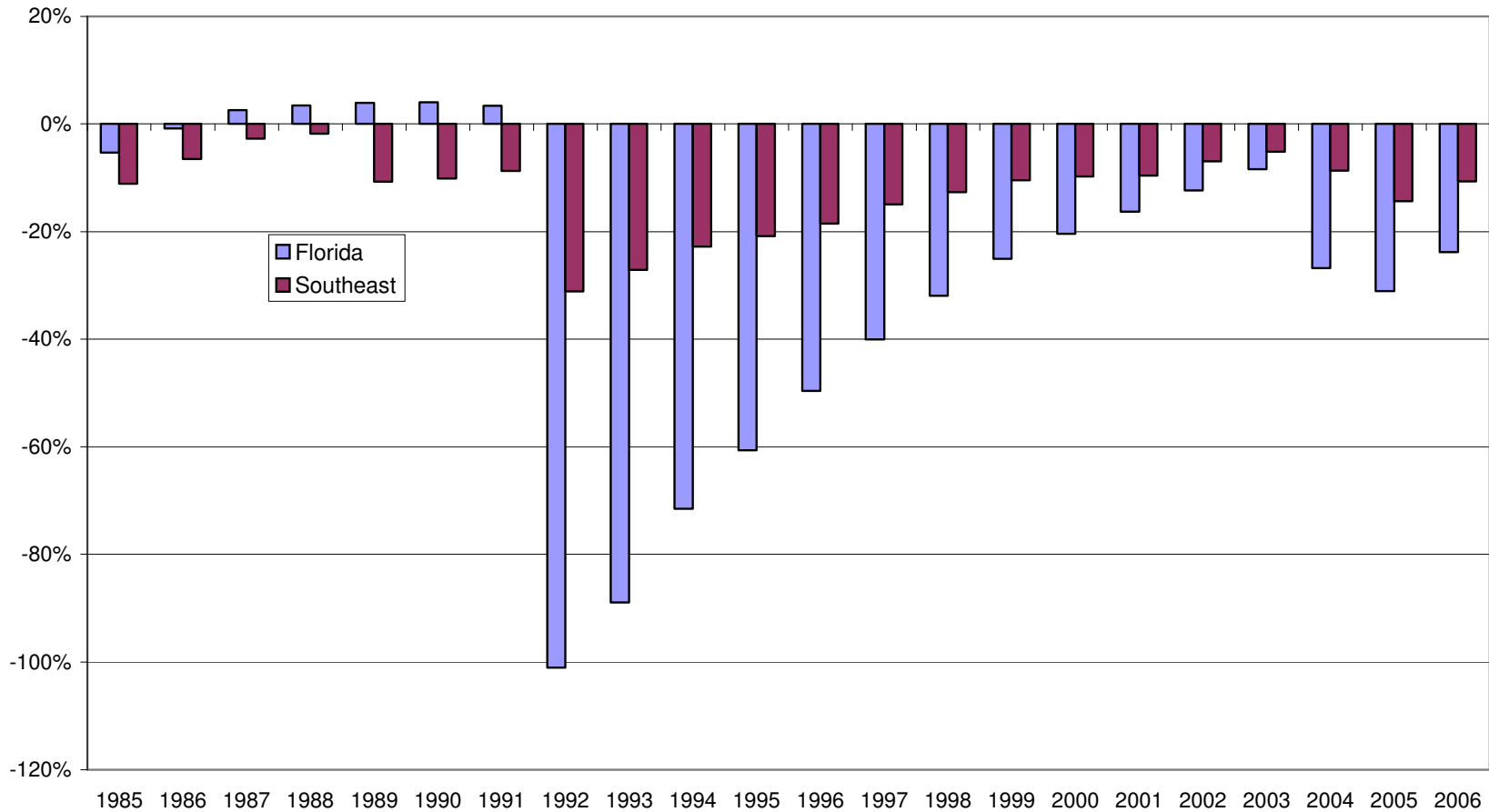
Wind/Beach Plan Penetration (% of Total Statewide Premiums)



Source: PIPSO

Profitability (or lack of it)

Homeowners Insurance Cumulative Profit Rates (% of Direct Premiums Earned)
Florida & Southeast States - 1985-2006



Source: NAIC and authors' calculations.

Regulatory Issues

- Rate “suppression” & “compression”
- Catastrophe models
- Constraints on underwriting
- Pressures/litigation on claims settlement
- Expansion of residual markets
 - E.g., Florida changes to Citizens
- Government insurance/reinsurance mechanisms
- Use (misuse) of “Start-Up” Insurers

Florida “Scheme”

- Use small insurers to write excessive concentrations of coastal exposures.
- Regulators pretend that risk is being privatized but is that really the case?
- Florida recently transferred 173,000 CPIC policies to 4 insurers with combined capital of \$25 million.
- Poe, et. al. insolvencies & resulting guaranty association assessments illustrate problem.
- New FL legislation (2008) will worsen already bad policies.

Coastal Politician's Dream

- Their hope → get the federal government to assume hurricane risk.
- Many FL politicians probably recognize that their state schemes will collapse when next hurricane hits.
- This could “hurt” their political support & futures.
- Other coastal politicians (ex-FL) also looking for federal help.
- Their problem:
 - Risk shift opaque but not invisible.
 - Non-coastal politicians resistant to shifting burden to their constituents.

Government Insurance Mechanisms

- Is there a gap in supply of insurance/ reinsurance that government needs to fill?
- Problem with using government schemes to under-price and subsidize risk taking.
- Under-pricing and subsidization exacerbates moral hazard and worsens catastrophe risk exposure.
- Schemes' burdens and cost-shifting are opaque to the public.

A Federal Role?

- Federal reinsurance program getting the most attention.
- Expansion of flood insurance program unlikely.
- Fed loans to state funds possible but will not satisfy coastal states.
- Tax policies (potentially helpful but ...)
 - Catastrophe reserves
 - Catastrophe bonds
 - Tax-deferred homeowners savings accounts
 - Inclusion of all-peril insurance premium in property taxes

Looking Forward

- Cat risk problems not going away.
- Will they worsen, stabilize, diminish?
- How will markets and government policies evolve given conditions?
- How can we encourage “good” policies and efficient risk management given political realities?
- How can we expose and suppress the “subsidy game”?

