Citizens Special Ratings Considerations

Paul Kutter, Ph.D., FCAS, MAAA
CAS 2016 RPM
Concurrent Session 1

Antitrust Notice

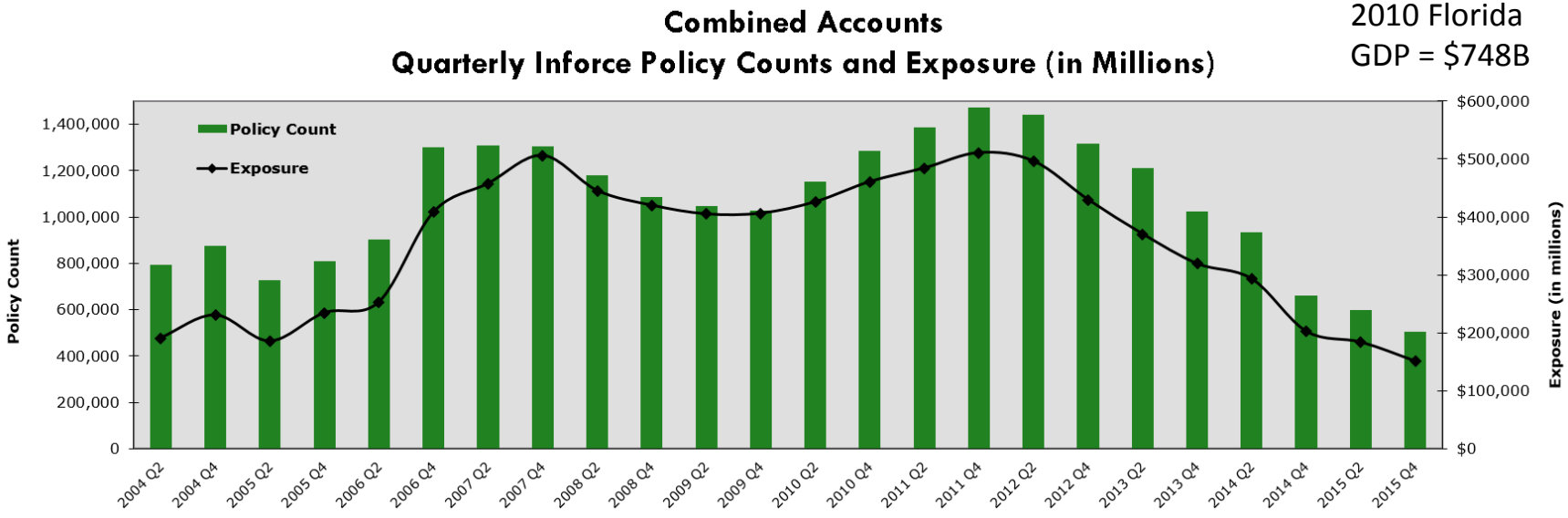
- The Casualty Actuarial Society is committed to adhering strictly to the letter and spirit of the antitrust laws. Seminars conducted under the auspices of the CAS are designed solely to provide a forum for the expression of various points of view on topics described in the programs or agendas for such meetings.
- Under no circumstances shall CAS seminars be used as a means for competing companies or firms to reach any understanding – expressed or implied – that restricts competition or in any way impairs the ability of members to exercise independent business judgment regarding matters affecting competition.
- It is the responsibility of all seminar participants to be aware of antitrust regulations, to prevent any written or verbal discussions that appear to violate these laws, and to adhere in every respect to the CAS antitrust compliance policy.

Introduction

Citizens is Florida's state-owned residual market property insurer

- Should Citizens have actuarially sound rates? When?
- How should Citizens estimate hurricane costs?
- What cost-of-capital should Citizens include in its rates?
- How much cash does Citizens need after a large storm?

2010 Florida GDP = $748B



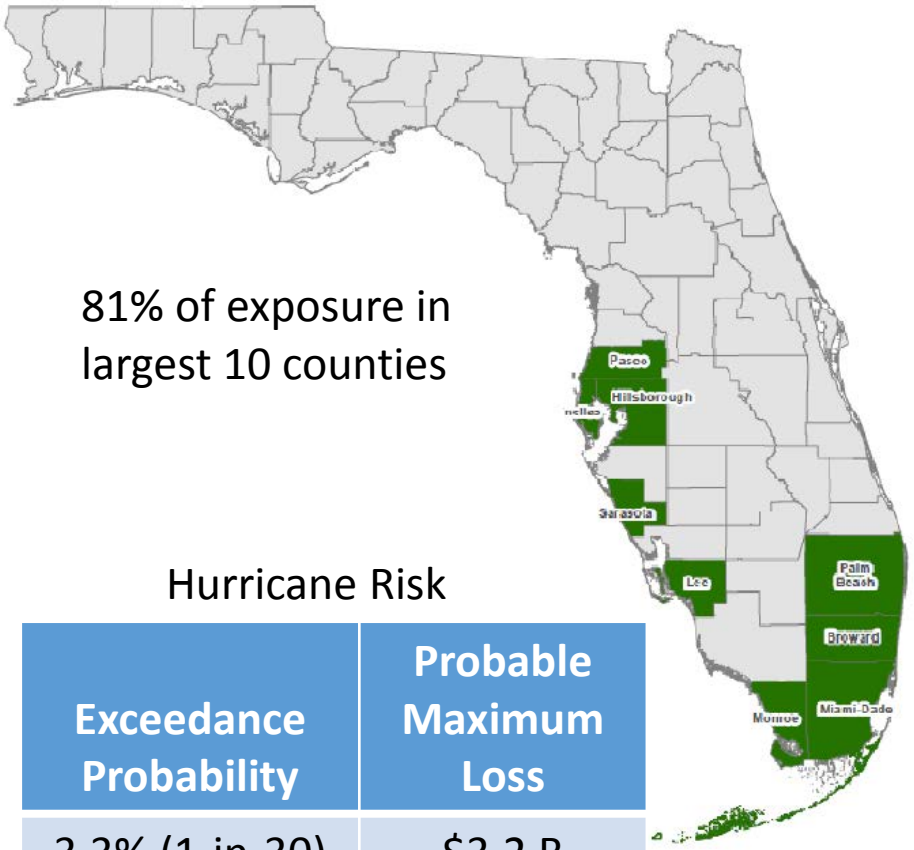
Citizens exposure based on policies insured on 12/31/2015

Exposure by policy type

Policy Type	Exposure ($M)	% of Total
Homeowners	70, 924	47%
Renters	250	0%
Condo	5,566	4%
Dwelling	27,708	18%
Mobile Home	1,965	1%
Commercial Residential	33,723	22%
Commercial Nonresidential	10, 359	7%
Total	150,495	100%

In coastal areas, Citizens offers policies that cover only wind, as well as more standard multi-peril policies.

Ten counties with most exposure

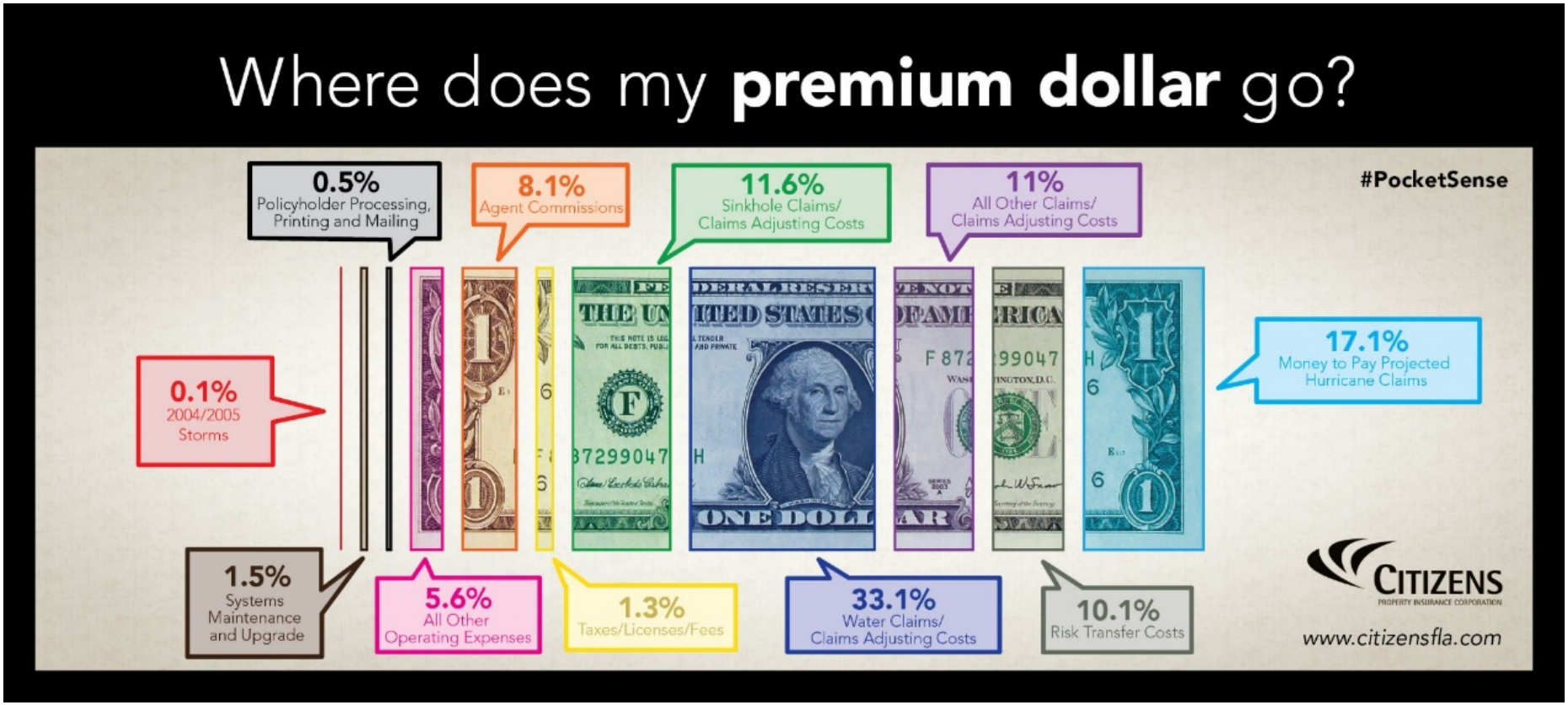


81% of exposure in largest 10 counties

Hurricane Risk

Exceedance Probability	Probable Maximum Loss
3.3% (1-in-30)	$3.2 B
2% (1-in-50)	$4.9 B
1% (1-in-100)	$7.8 B

Most premiums are spent on expected hurricane costs, water claims, other claims, risk transfer

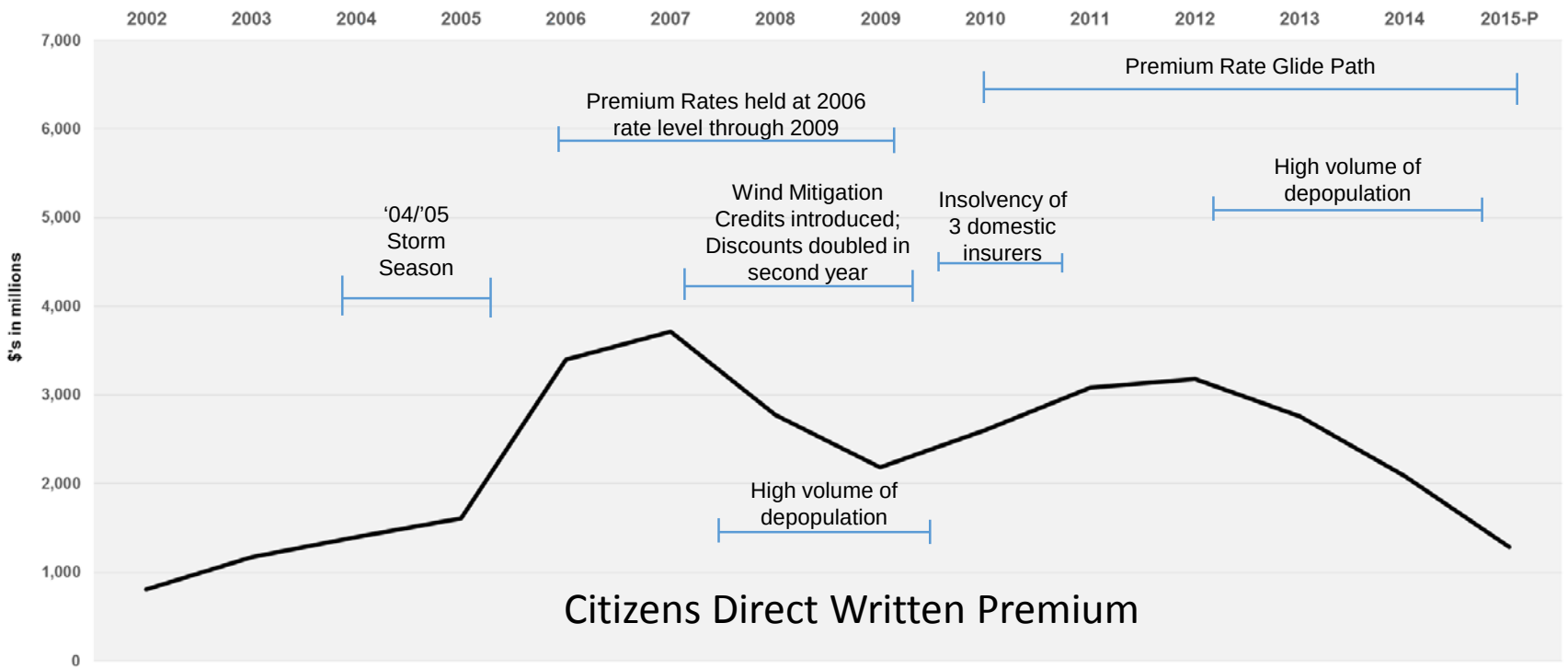


1) Based on all personal lines account homeowners multi-peril policies (PLA HO-3)

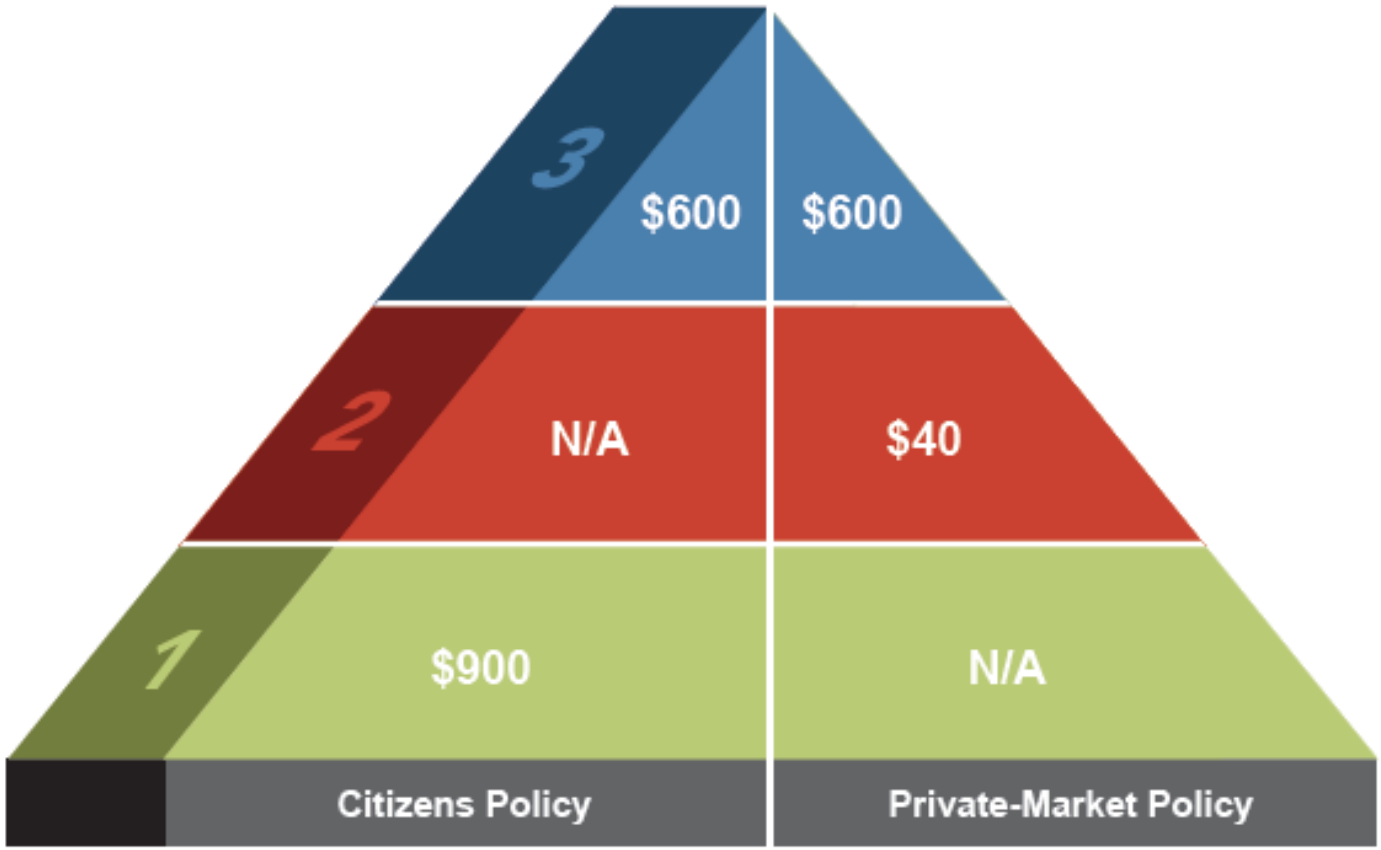
2) Uses calendar year 2014 losses and expenses

Citizens has experienced rapid change since its creation in 2002

	12/31/2011	12/31/2015
Insured Policy Count	1,472,391	503,865
Insured Exposure	$510 B	$150 B
Homeowners Policy Rate Indication	+51% (#11-12403)	+17.5% (#15-15843)
Unfunded losses after a 1-in-100 year severity hurricane	$11.61 B	$0 B



Citizens assessments on a $2000 policy after a very large storm



Total Assessments:	$1500	$640

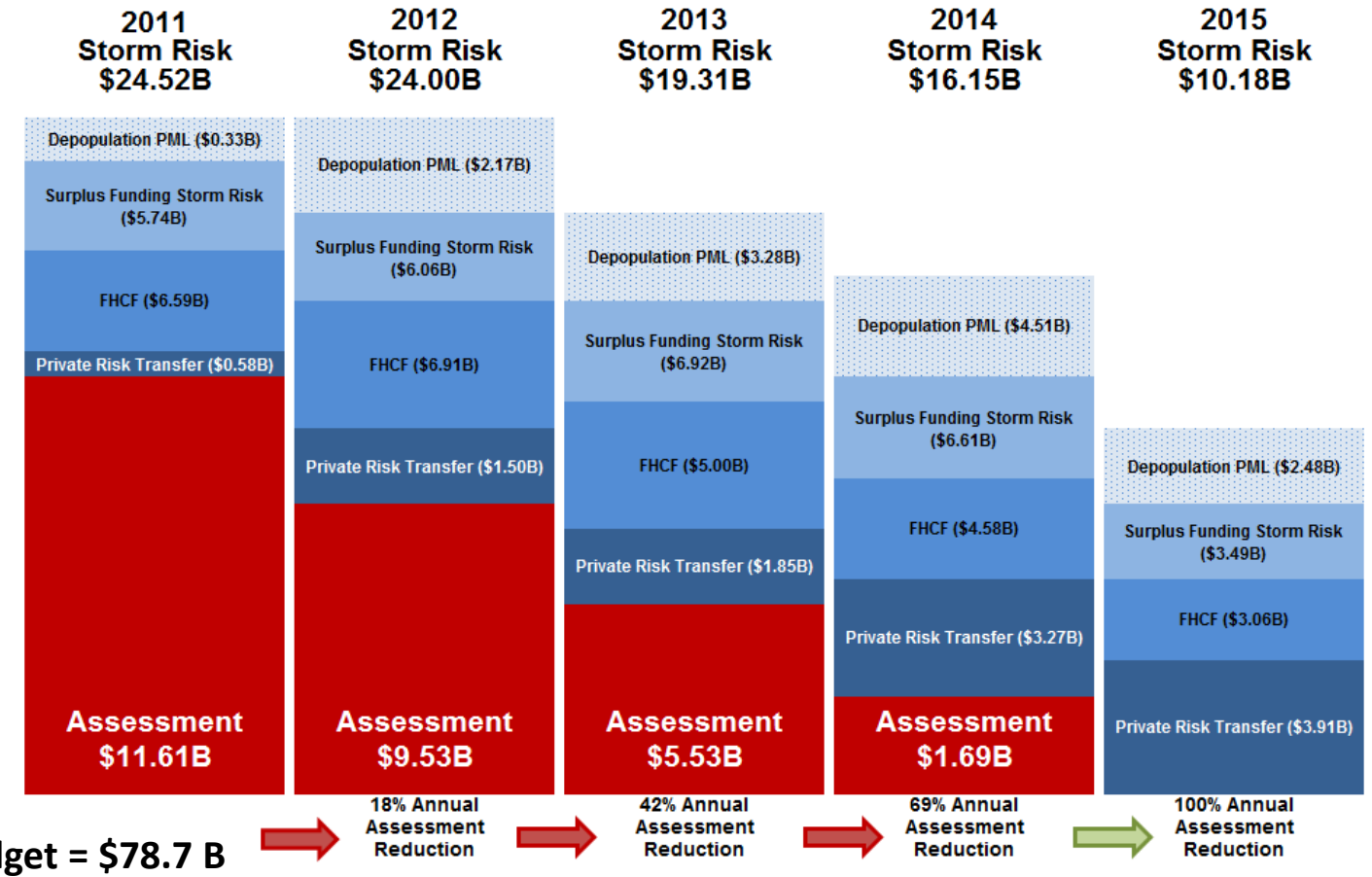
Assessment Tiers

1. **Citizens Policyholder Surcharge**
- One-time assessment
- Citizens policyholders only
- Up to 45 percent of premium

2. **Regular Assessment**
- One-time assessment
- Private-market policyholders, including, but not limited to homeowners, auto, and specialty and surplus lines policies
- Up to 2 percent of the remaining shortfall

3. **Emergency Assessment**
- Single- or multiyear assessment
- Citizens and private-market policyholders
- Up to 30 percent of premium per year until any remaining deficit is eliminated

Reconciliation of Storm Risk and Surplus



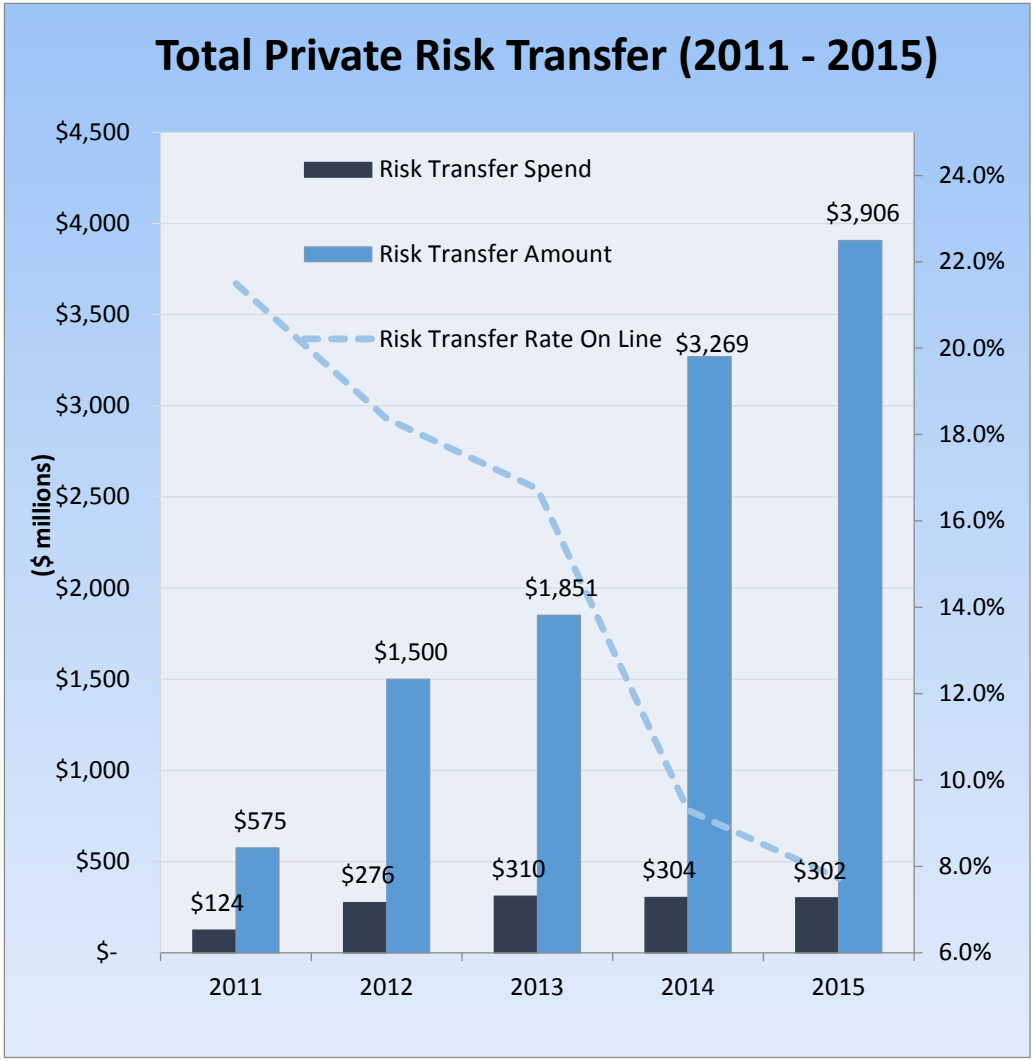
2016 Florida budget = $78.7 B

Notes:

1. Storm Risk is as measured by 1-in-100 year probable maximum loss (PML) plus estimated loss adjustment expenses using the Florida Hurricane Catastrophe Fund (FHCF) account allocation where PLA and CLA are combined. PLA/CLA combined PMLs are added to the Coastal PMLs to be consistent for surplus distribution.
2. Surplus, Florida Hurricane Catastrophe Fund (FHCF) & Assessments are as projected at beginning of storm season.
3. Not all Private Risk Transfer is needed to fund a 1-100 year event in 2015.
4. Depopulation PMLs are not included in storm risk totals.
5. PMLs from 2011-2014 use a weighted average of 1/3 Standard Sea Surface Temperature (SSST) and 2/3 Warm Sea Surface Temperature (WSST). 2015 PMLs reflect only SSST event catalog and are based on 6/30/2015 exposure.

Many factors have lead to Citizens' contraction in size

- Citizens rates have become more adequate
- No major hurricanes since 2005
- Reinsurance rates have dropped



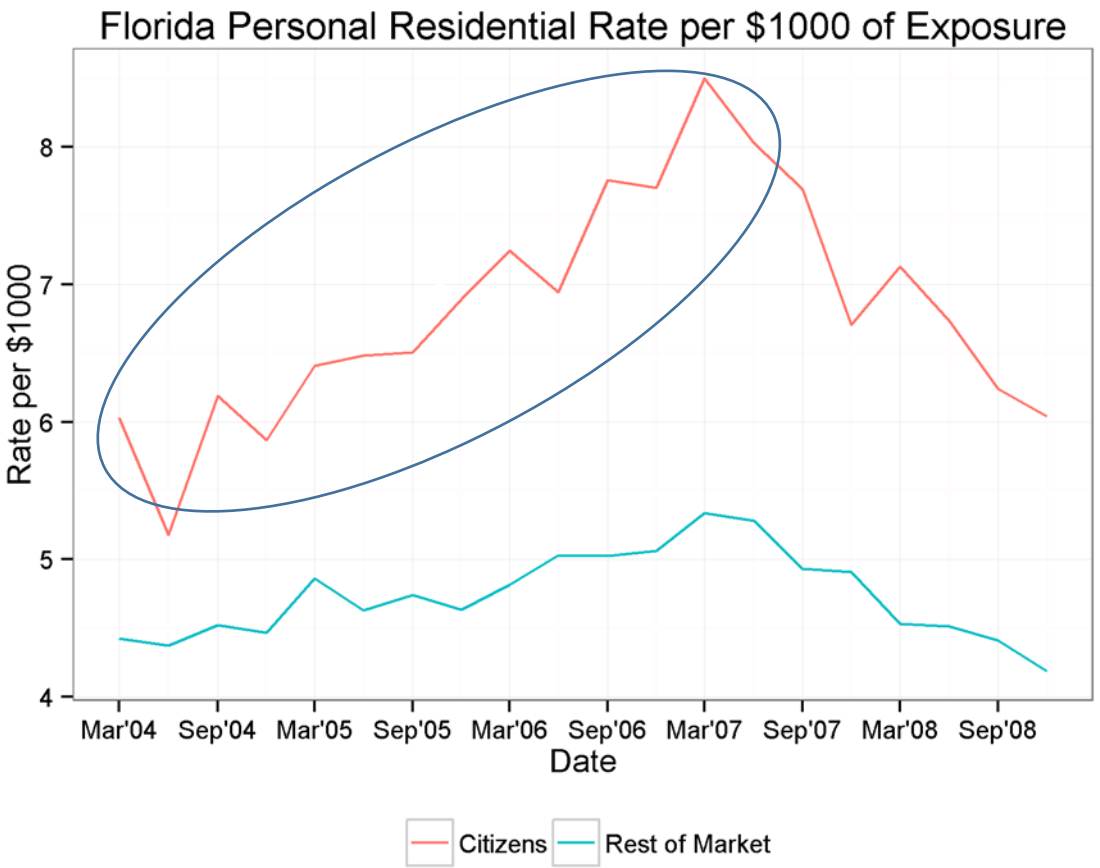
Size reduction from 2011-2015 really a reversal of size increase starting with 2004-2005 hurricanes

"$10 Down and $10 a Month. See how easy it is to own a bit of Florida Sunshine."
Endlessly repeated mantra of Florida's Second Great Land Boom

Land of Sunshine, State of Dreams: A Social History of Modern Florida, by Gary R. Mormino

Cost of 2004-2005 Hurricanes to Citizens

Earned Premium	$2.369 B
Number of Storms	8
Ultimate Incurred Losses	$6.018 B
Ultimate Claim Count	317,466
Years of Premium Lost	5



Rates based on Florida Office of Insurance Regulation QUASR data

Citizens has many diverse decision makers, reflecting its many stakeholders

Florida Public		
Legislature	Governor	Chief Financial Officer
Florida Statutes	Citizens Board of Governors	Office of Insurance Regulation
Citizens CEO/President		
Citizens Executive Leadership Team		
Citizens Staff		

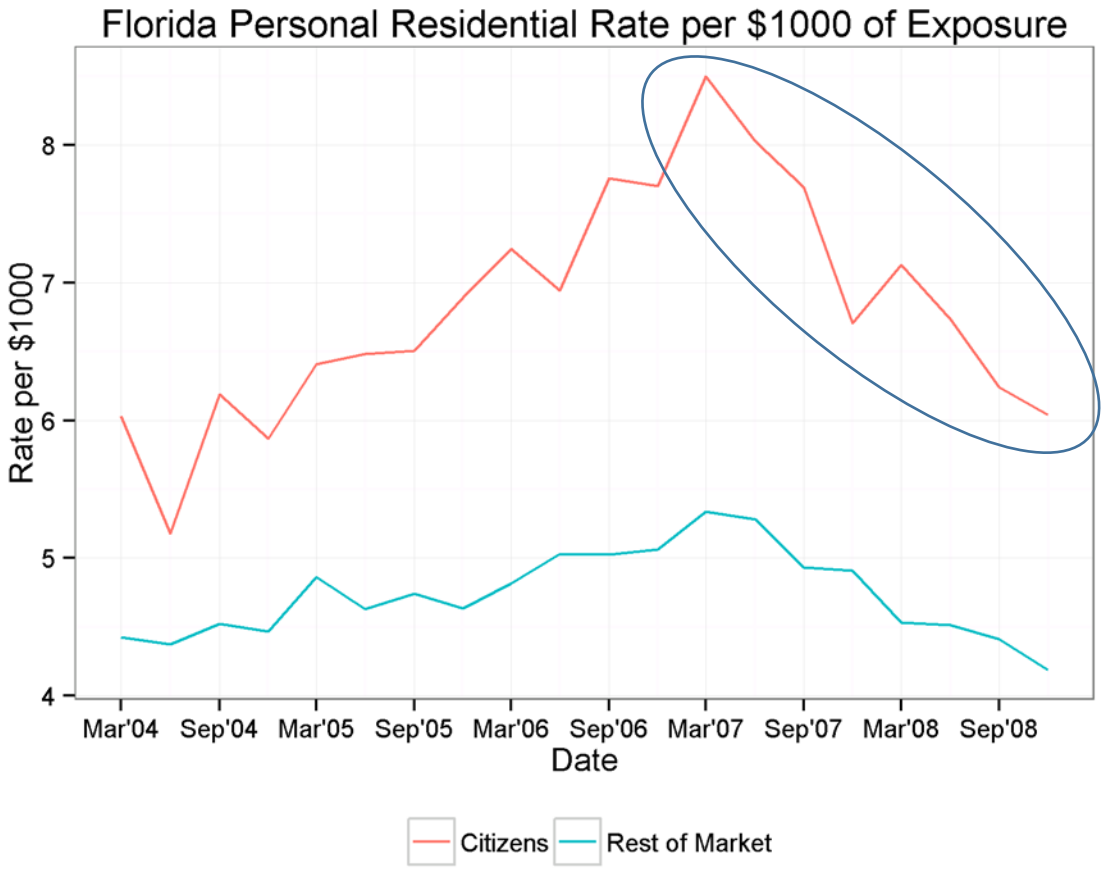
- Citizens is governed by a nine member board of Governors, two of whom are appointed by the following State leaders: Governor, Chief Financial Officer, Senate President, and Speaker of the House. The Governor appoints a ninth member to represent consumers.
- The Executive Leadership team is comprised of insurance professionals
- Florida Regulators set Citizens' rates

Decisions on Citizens rates require balancing different public policy goals

- Higher rates for Citizens policyholders:
  - Lower assessments because:
    - More premium per policy
    - Less competitive rates means fewer policies
  - May be unaffordable
  - May affect real estate and construction
- Citizens special rate considerations can be understood as balancing these effects

From 2006 – 2010, Citizens policyholders rates were frozen or reduced through regulatory action

- Legislation freezes Citizens rates at 2006 levels
- Regulatory action doubles wind mitigation credits
- 10% Glide Path starts in 2010
  - Rates could not increase by more than 10% for any individual policyholder



Rates based on Florida Office of Insurance Regulation QUASR data

More information: "The State of Florida's Property Insurance Market, 2013", by The Florida Catastrophic Storm Risk Management Center

Citizens had to balance its overall rate adequacy with its policyholders' individual rate equity

10% glide path created a 2-part rate standard for Citizens

1. **Actuarial Soundness**: Find the indicated actuarial rate using actuarial standards, presumably just like a private company (with a few caveats)
2. **10% Statutory Limit**: Raise rates to make Citizens more actuarially sound, but do so under the limitation that no individual policyholder can see a rate increase of more than 10%

Actuarial soundness has two components

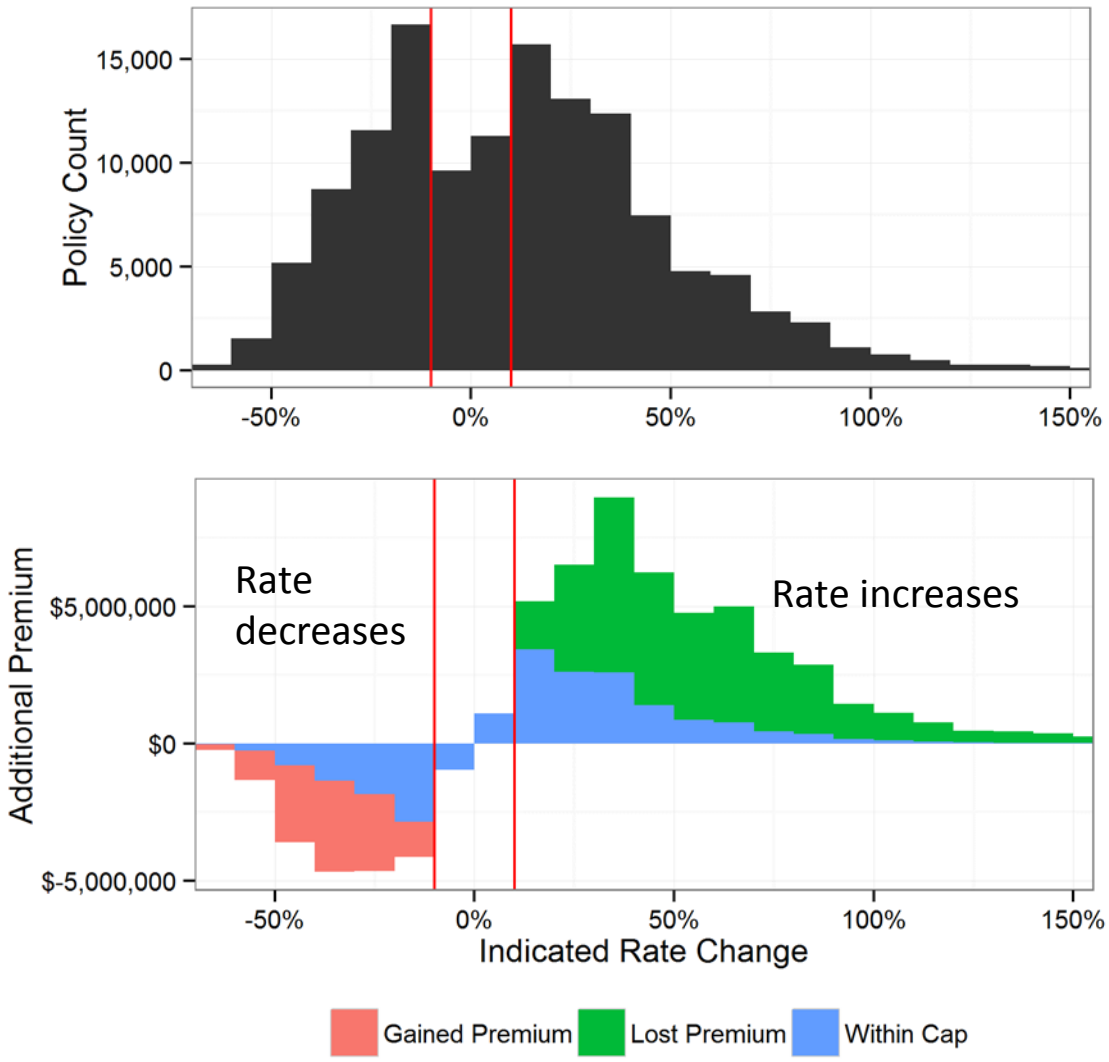
1. **Overall adequacy**: Citizens must collect enough premium to pay for its overall expected costs
2. **Individual equity**: Each individual policyholder's rate should be commensurate with the cost to provide that individual policyholder coverage

Extreme care is needed…

Skewed distribution of rate indications tends to lower rate change despite symmetric cap

Symmetric limit on rate changes to be +/- 10% seems fair. But this does not necessarily work as intended.

	Rate Change
Indicated Rate Change	+30%
Uniform +10%	+10%
Cap on +10%, no lower cap	-2.1%
Cap 10% increase and decrease	+2.6%



Illustrative example only

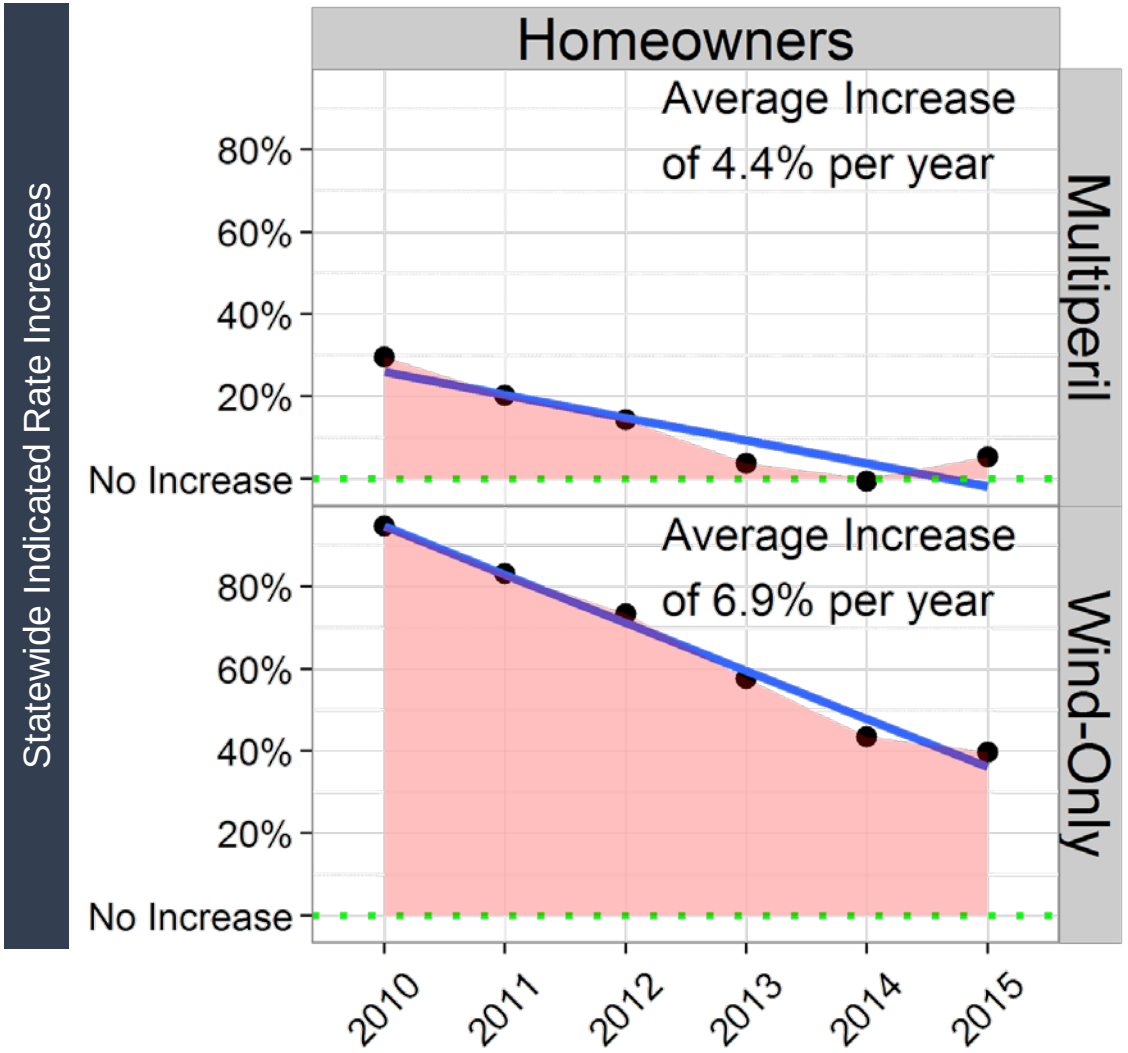
Citizens primarily used two solutions to carefully balance adequacy and equity

2012 - 2014

- Cap territorial indications symmetrically. Make some adjustments by peril.
- Cap individual policyholders symmetrically. Correct for skewed rate effect.

2015-2016

- Cap individual policyholders symmetrically. Make no other adjustments.
- Skewness effect is less. Adequacy and equity are in less tension.



Rate indications based on policies insured as of 12/31/2014, and 2016 rate indication

How should Citizens power to assess influence its rates?

- Citizens' assessment power gives it a unique, non-voluntary, contingent capital structure
- What is the cost of Citizens' capital?

Illustrative Capital for approximate 1-in-100 Year Hurricane Loss in 2015

	If No Private Risk Transfer	If Bought Private Risk Transfer like Private Company	Private Risk Transfer Actually Bought
Surplus	$5.00 B	$1.39 B	$3.49 B
Risk Transfer	$3.06 B	$9.07 B	$6.97 B
Assessments	$2.40 B	$0.00 B	$0.00 B
Exposed Surplus and Assessments	**$7.40 B**	**$1.39 B**	**$3.49 B**

"Exposed Surplus"- How much surplus is needed to pay for a 1-in-100 year storm loss. This is important relative to how many policies Citizens writes. Writing more reinsurance reduces the exposed surplus.

Florida regulatory rules provide for cost of capital in two ways

- Florida regulatory rules allows for cost-of-capital with:
  - Profit and contingencies provision: 4.1% of premium (variable expense provision) automatically allowed for HO3.
  - Provision for reinsurance: This includes the cost of the reinsurer's capital implicitly.

- Reasons Citizens should have a higher or lower "risk load" than the 4.1% allowed for private insurers, and presumably developed with them in mind
  - Citizens insurers risker policies than the private market, and cannot underwrite
  - Many wind pools in other states tend to have implicit or explicit wind loads in their rates
  - The 4.1% allowance is a fraction of premium, not exposed surplus. More exposed surplus should result in a higher cost-of-capital. (This probably isn't an issue for private insurers, which never expose as much surplus as Citizens.)
  - Citizens is a public entity, and not supposed to make a profit
  - Florida legislation used to prescribe a catastrophe loading for Citizens rates. This was removed. Adding an additional loading would violate intent of removal.

More information on residual markets and cost-of-capital in Charles Nyce's report for filing 13-13048

Florida regulators have set Citizens rates using standard provision

- Resolution is for Citizens to use standard provision or exposed surplus, which is 4.1% for homeowners
  - Citizens recommends rates based on the 4.1% allowance
  - Citizens also files an informational filing that estimates Citizens' rate need if it were to buy reinsurance like a private insurer.

	Fraction of Indicated 2016 Homeowners Rates
4.1% Provision for Cost-of-Capital of Exposed Surplus	4.1%
Provision for Private Risk Transfer included in 2016 Rates	7.0%
Additional Cost to make Personal Lines Exposed Surplus like a Private Insurer	6.0%

Based on state-wide indication relying in AIR hurricane model results

Citizens uses an approved hurricane model to estimate that component of its premium

- Like any Florida property insurer, Citizens bases the hurricane component of its premium on a hurricane catastrophe model approved by the Florida Commission on Hurricane Loss Projection Methodology

- Under Florida regulatory rules and Florida statute, insurers cannot average models in rate indications

- If all models are approved, it can be difficult to communicate to stakeholders why Citizens chose the model that it did

- Over last couple years- judgmentally recommend a rate between all 4 models. Citizens does not average.

2016 Rate Indication, All Perils, Using Different Hurricane Model

Model	Homeowners
AIR	+32.6%
RMS	+18.1%
EQE	+28.3%
FPM	+11.3%
Recommended	+17.5%

Florida statute requires that the Florida Public Model serve as the minimum benchmark for Citizens' rates

Citizens issues pre-event debt to make sure it can promptly pay claims

Illustrative cumulative paid losses and available funds in months after 1-in-100 year storm ($B)

	1	2	3	4	5	6	7	8	9	10	11	12
2012	7.0	12.0	15.5	18.0	19.8	21.0	21.9	22.5	22.9	23.3	23.5	23.6
2015	2.9	5.0	6.5	7.5	8.2	8.8	9.1	9.4	9.6	9.7	9.8	9.8

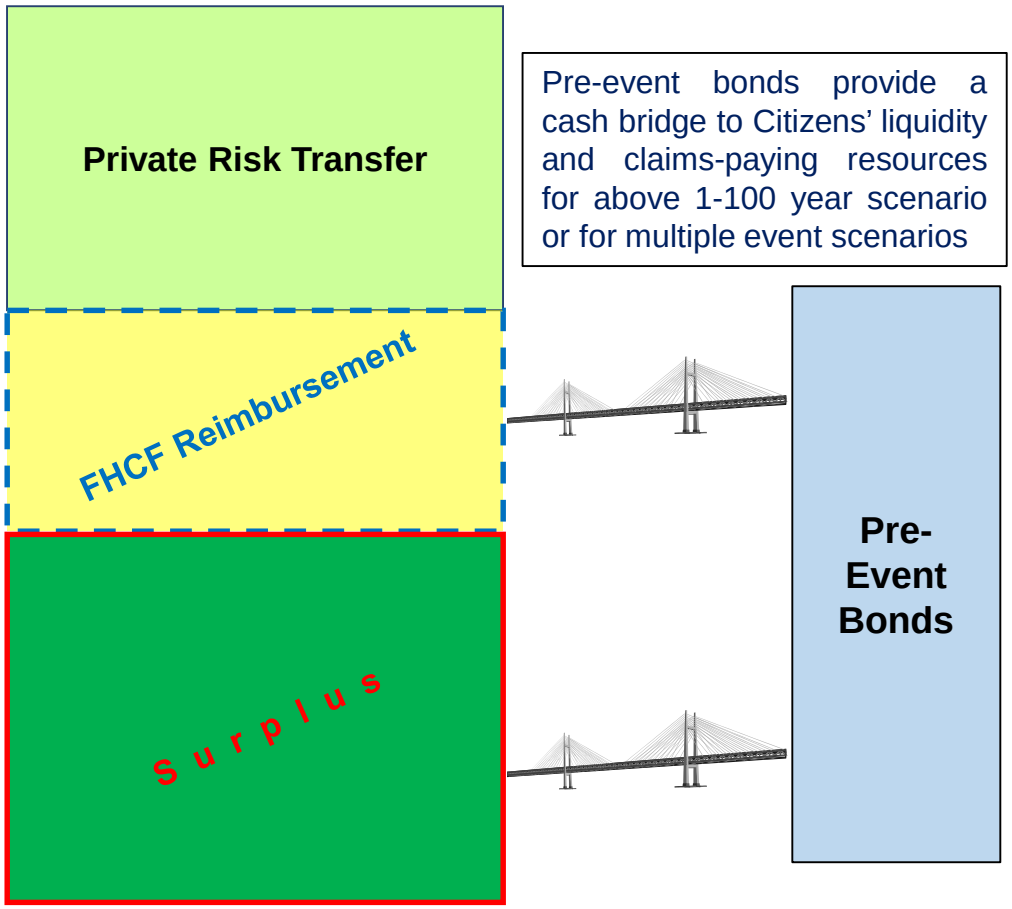
Funding Source	2012	2015	Liquid?
Surplus	$6.06 B	$7.47 B	Mostly
FHCF Reinsurance	$6.91 B	$3.07 B	No
Private Risk Transfer	$1.50 B	$3.91 B	Yes
Assessments	$9.53 B	$0.00 B	No
Pre-Event Bonds	$5.10 B	$4.17 B	Yes

Payout pattern is illustrative, and assumes that 75% of claims are paid within first 90 days after storm.
2015 amounts are projected; pre-event liquidity consists of proceeds from tax-exempt debt instruments issued by Citizens.
This combines funds from PLA, CLA and Coastal accounts, which in reality are separate.
For more information about Citizens' liquidity, see Citizens Update at Florida Insurance Conference on Financial Reporting, October 7, 2015.

Citizens has unique liquidity needs because it cannot become insolvent

- How much liquidity cost are reasonable to include in rates?
  - Actuarial standards say it should be included.
  - But how much is enough?
  - Bonds are multiyear, but ratemaking is single year
  - Must be able to communicate to public, who are used to hearing about assessments
- Still an open question. Was discussed at 2016 rate hearing

Citizens' Primary Claims-Paying Resources



End

Appendix: Storm Risk and Surplus Assumptions

ASSUMPTIONS

- Citizens' 2015 Budgeted DWP — $1.67 Billion (Coastal $0.84 Billion; PLA/CLA $0.83 Billion)
- Citizens' Policyholder Surcharge Maximum % Per Account — 15%
- 2015 Regular Assessment Base (projected) — $37.63 Billion
- Regular Assessment Maximum % Per Account — 2% for Coastal; 0% for PLA/CLA
- 2014 Emergency Assessment Base — $39.30 Billion
- PMLs based on modeled losses as of June 30, 2015 per AIR Touchstone, Version 1.5 reflecting the Standard Sea Surface Temperature (SSST) Event Catalog including Demand Surge, excluding Storm Surge, and include 10% of loss to account for loss adjustment expense (LAE).
- Interim Return Periods are derived by Linear Interpolation
- 2015 Projected Surplus = audited 2014 surplus + 2015 projected net income assuming no hurricanes.
- Citizens' 2015 FHCF coverage is based on preliminary retention estimates and payment multiples. Actual Citizens' FHCF attachment and limits of coverage could differ significantly from estimates.

NOTES

These charts are imperfect! They attempt to show projected claims-paying resources, but they are approximations only. Four significant complicating factors are described below:

1) Coastal PML vs. PLA/CLA PML: An actual 100-year PML event in Coastal Account may not be a 100-year PML event for PLA/CLA. The relative magnitude of actual losses for Coastal and PLA/CLA will depend on the storm size and path

2) Combining PLA and CLA: The PLA and CLA are separate accounts for deficit calculation and assessment purposes, but are combined for FHCF and credit purposes. It is impossible to accurately show the PML resources situation of these accounts on either separate or combined charts since simplifications must be made in either case that could prove materially inaccurate. Although we show the combined accounts, there is no guarantee that they will have deficits at the same time or of similar magnitude

3) Non-residential exposure: Commercial non-residential (CNR) exposures in the CLA and Coastal Account are not reinsured by FHCF. Actual deficits and assessments may be significantly different than an aggregated PML would otherwise indicate. The charts include a provisional estimate for CNR losses of 14.5% in the Coastal Account for all return times. CNR is a negligible portion of the PLA/CLA Accounts and so is not considered in that chart

4) Liquidity: These charts do not show the liquidity needs of the accounts. An account with ample PML resources may still require liquidity as many of the PML resources are not available immediately following a major hurricane. The timing and magnitude of receivables such as FHCF recoveries and assessments are unknown.