


GUY CARPENTER



Uncovering the Mysteries of the Insurance Cycle

Jessica Leong, FCAS, FIAA, MAAA
Lead Casualty Specialty Actuary

Guy Carpenter www.guycarp.com 0

GUY CARPENTER

Reserving Cycle:

1. What is the Reserving Cycle?
2. Do our estimates take it into account?
3. What can we do about it?

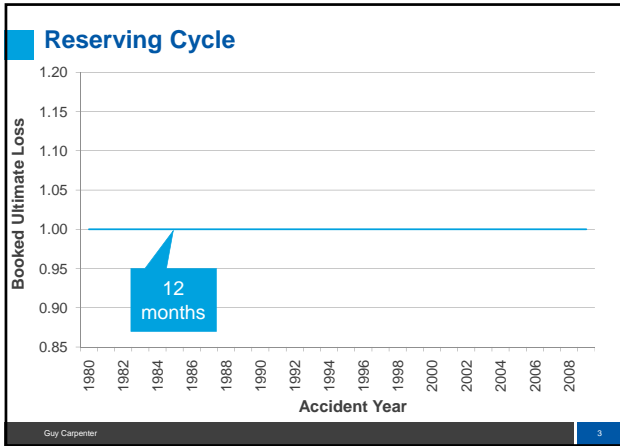
Guy Carpenter www.guycarp.com 1

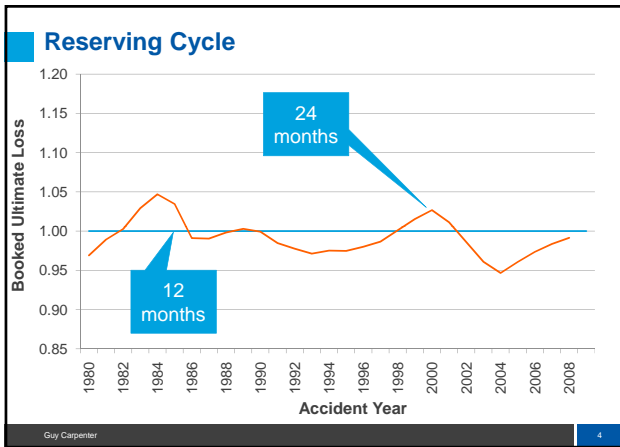
GUY CARPENTER

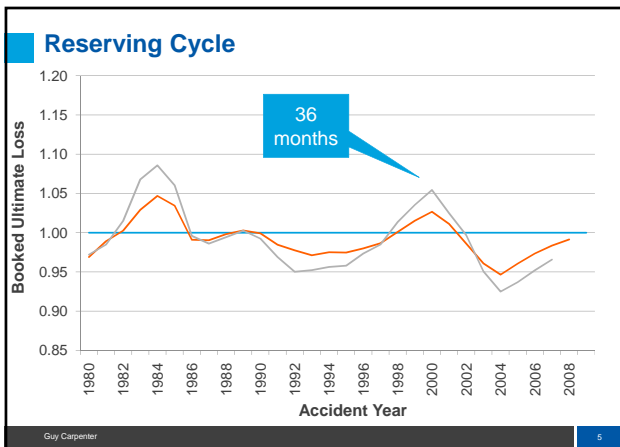
Reserving Cycle:

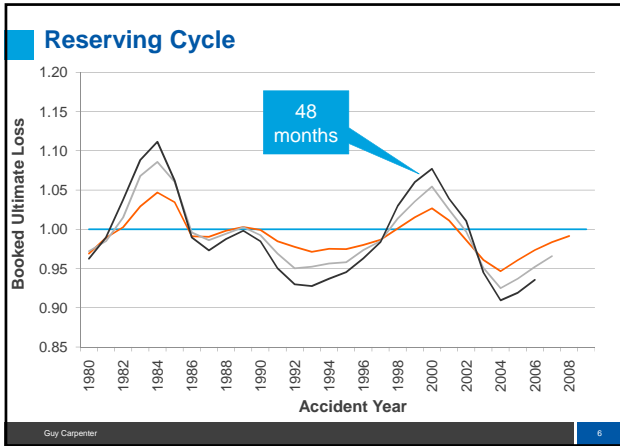
1. What is the Reserving Cycle?
2. Do our estimates take it into account?
3. What can we do about it?

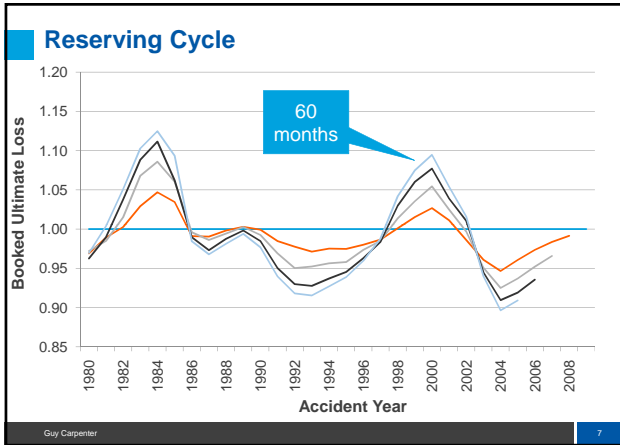
Guy Carpenter www.guycarp.com 2

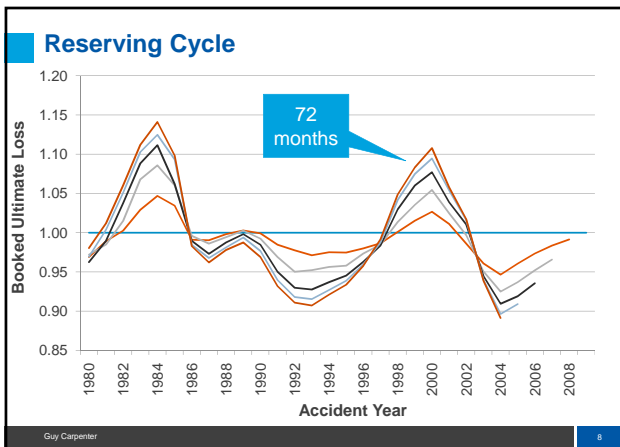


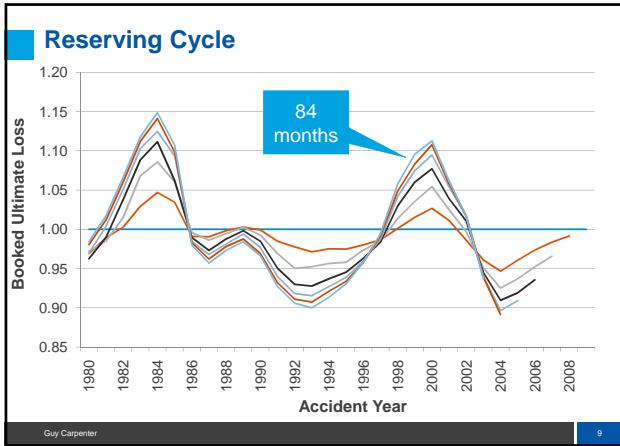


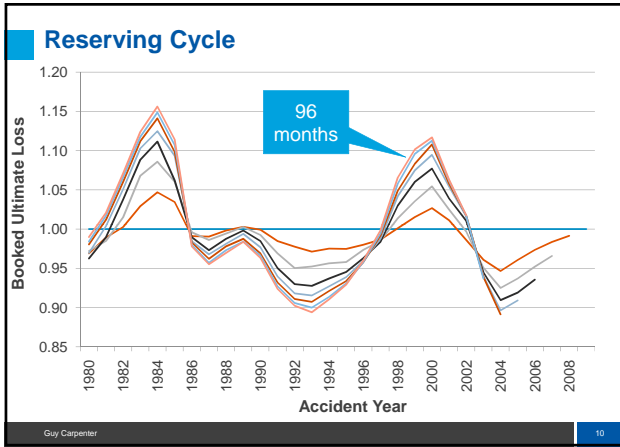


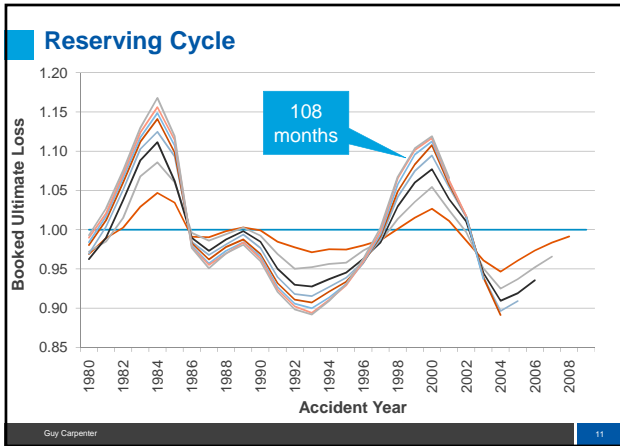


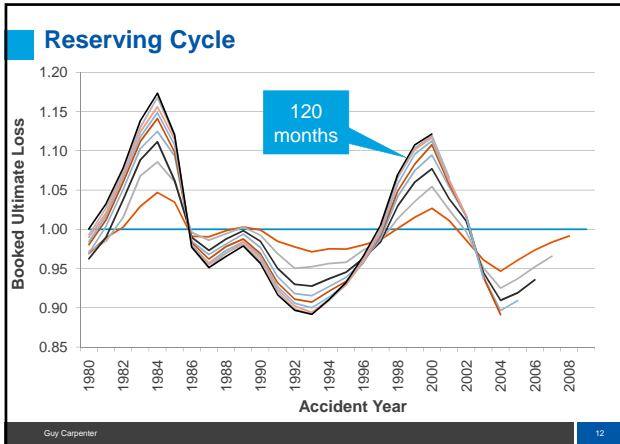


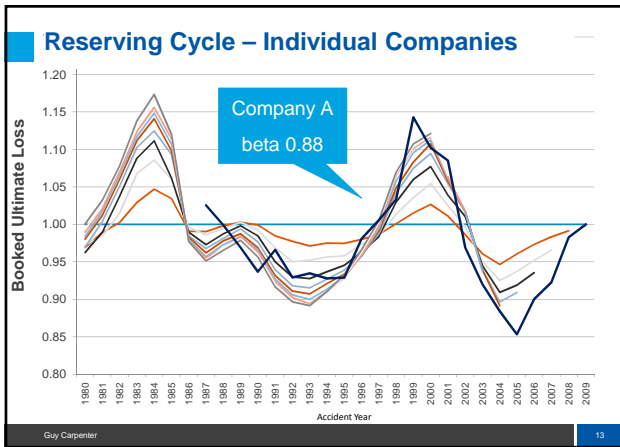


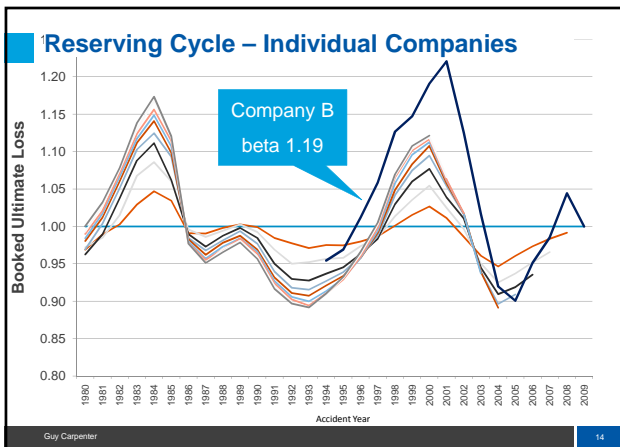


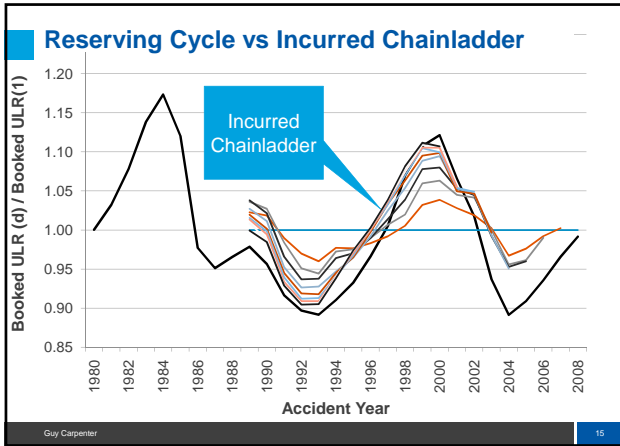


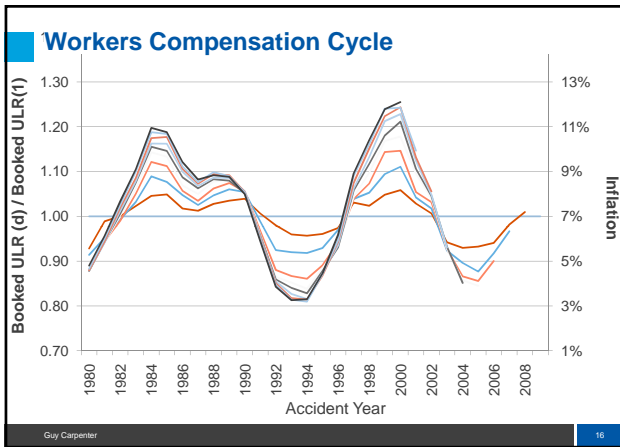


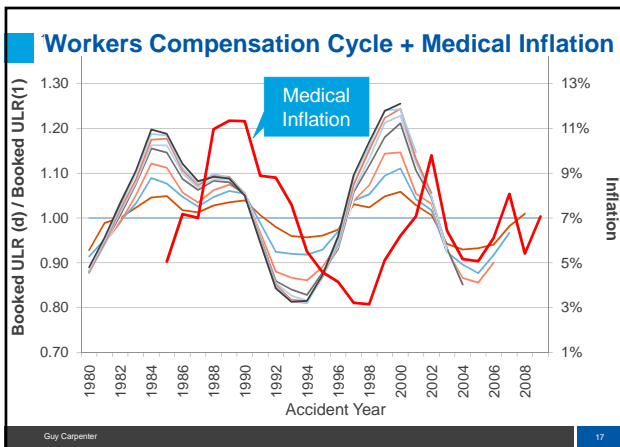












GUY CARPENTER

Reserving Cycle:

1. What is the Reserving Cycle?
2. Do our estimates take it into account?
3. What can we do about it?

www.guycarp.com

Guy Carpenter 18

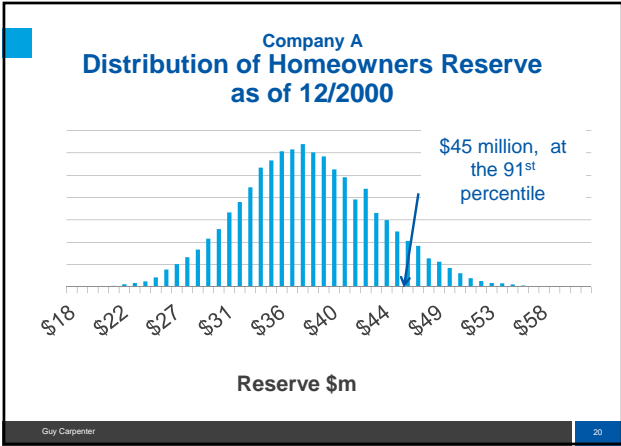
GUY CARPENTER

Reserving Cycle:

1. What is the Reserving Cycle?
2. Do our estimates take it into account?
3. What can we do about it?

www.guycarp.com

Guy Carpenter 19



51 Companies

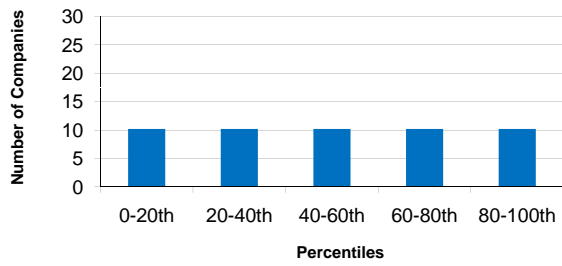
Percentiles

Company A	91%
Company B	10%
Company C	75%
....
....
Company AA	53%
Company AB	30%

Guy Carpenter

21

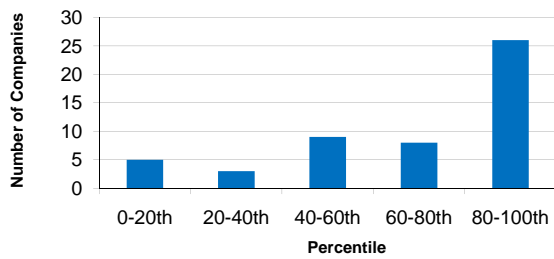
Ideal Histogram of the Percentiles



Guy Carpenter

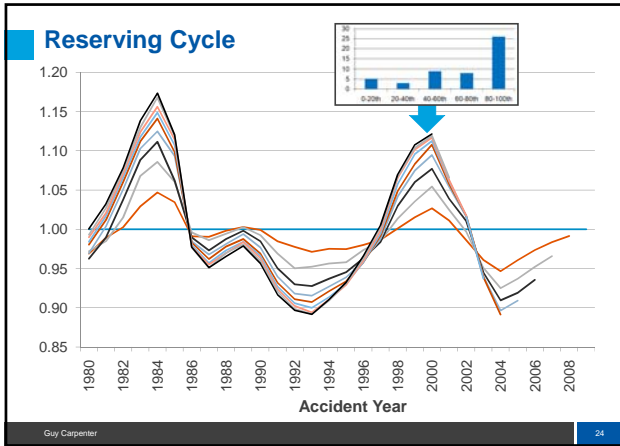
22

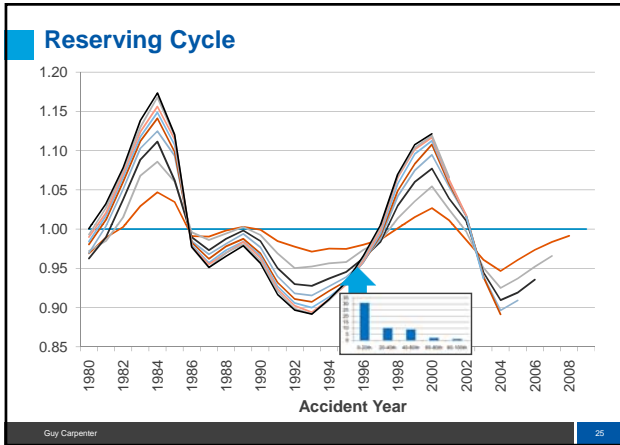
Homeowners as of 12/2000 Percentile Histogram

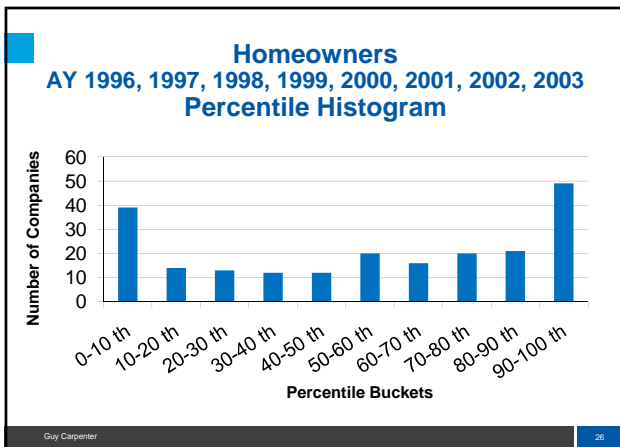


Guy Carpenter

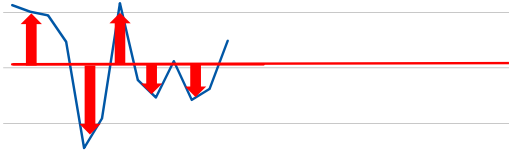
23







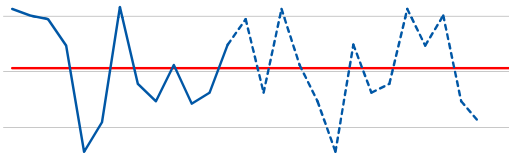
Measuring Independent Risk



Guy Carpenter

30

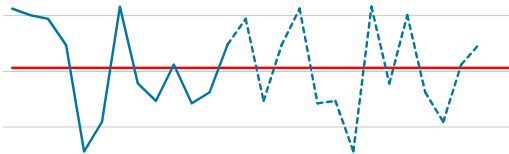
Measuring Independent Risk



Guy Carpenter

31

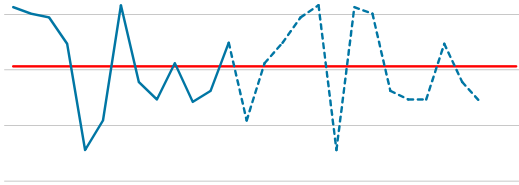
Measuring Independent Risk



Guy Carpenter

32

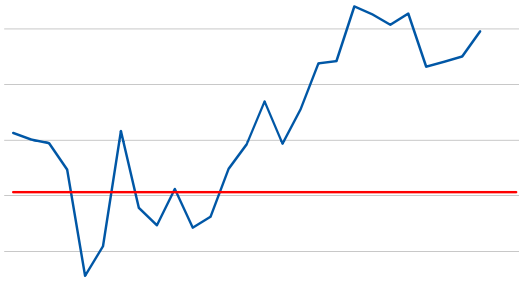
Measuring Independent Risk



Guy Carpenter

33

...but not Systemic Risk!



Guy Carpenter

34

GUY CARPENTER

Reserving Cycle:

1. What is the Reserving Cycle?
2. Do our estimates take it into account?
3. What can we do about it?

Guy Carpenter

www.guycarp.com

35

GUY CARPENTER

Reserving Cycle:

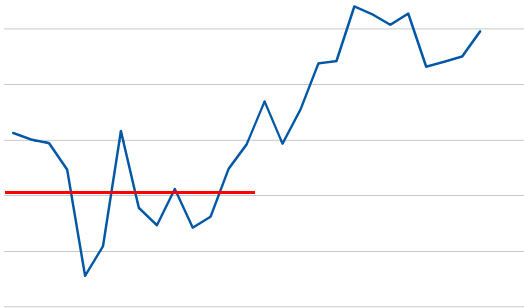
1. What is the Reserving Cycle?
2. Do our estimates take it into account?
3. What can we do about it?

www.guycarp.com

Guy Carpenter

36

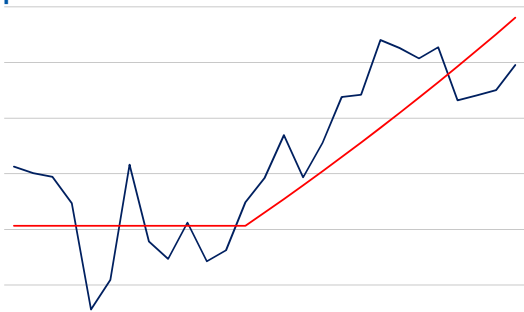
What can we do about this?



Guy Carpenter

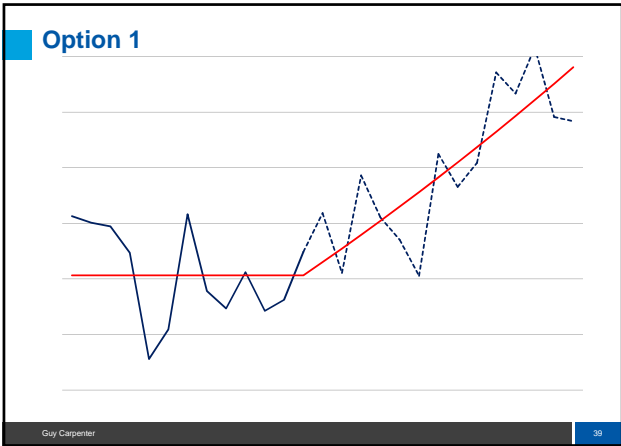
37

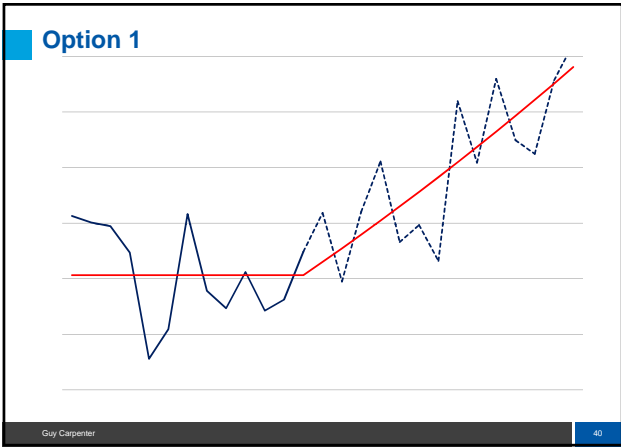
Option 1

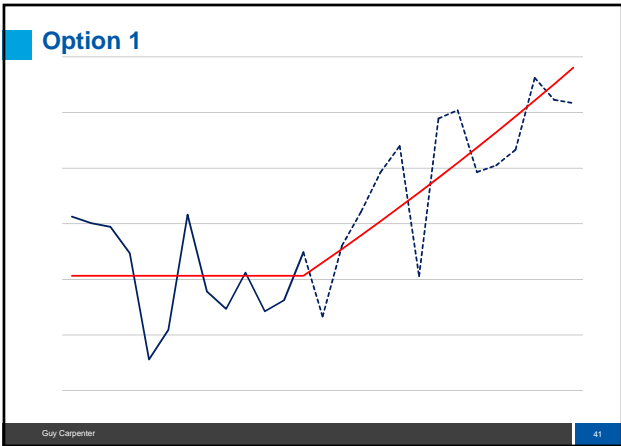


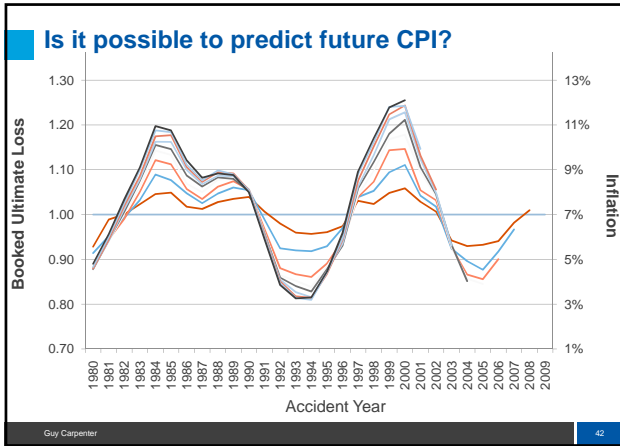
Guy Carpenter

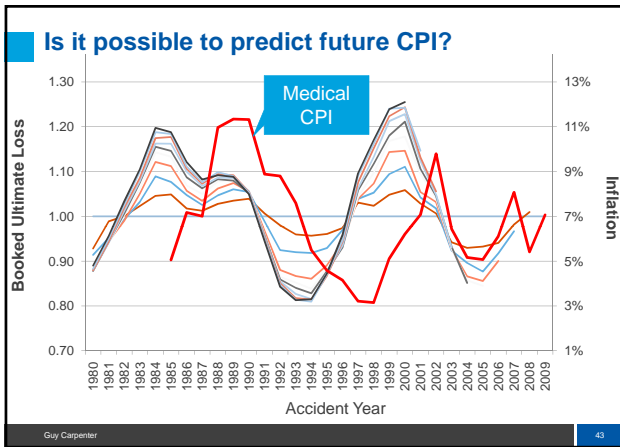
38

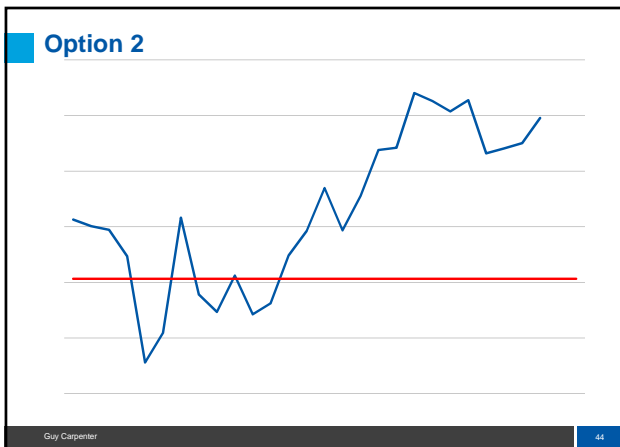




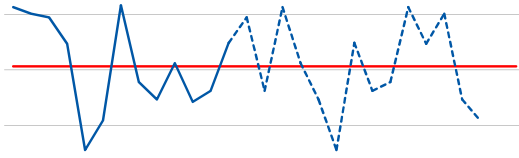








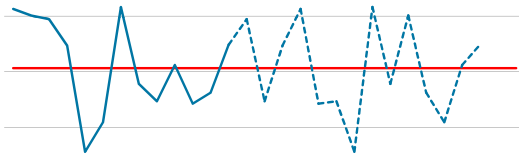
Measuring Independent Risk



Guy Carpenter

45

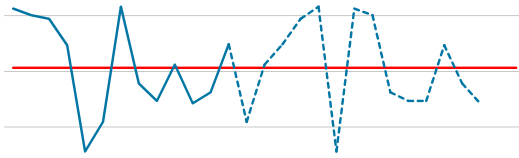
Measuring Independent Risk



Guy Carpenter

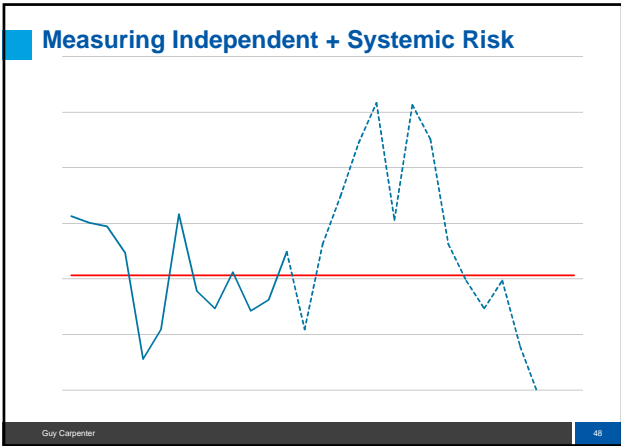
46

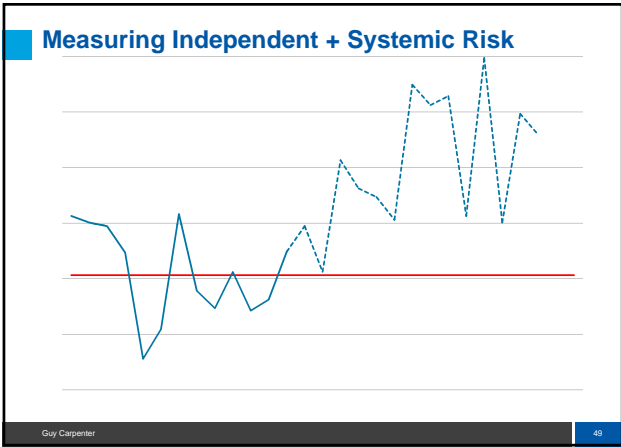
Measuring Independent Risk

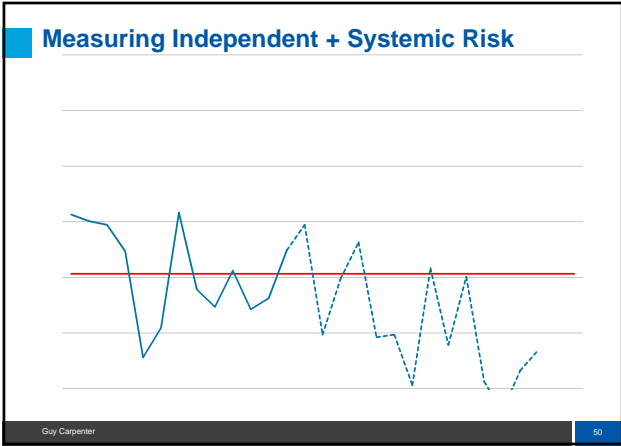


Guy Carpenter

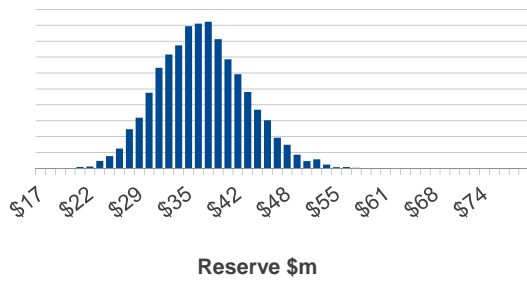
47







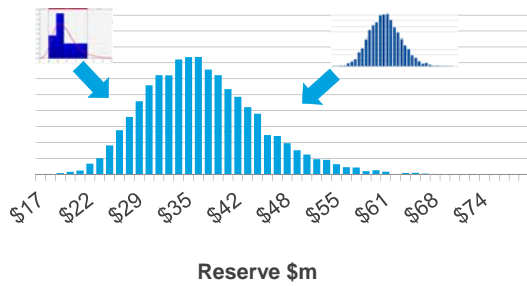
Reserve Risk –without Systemic Risk



Guy Carpenter

51

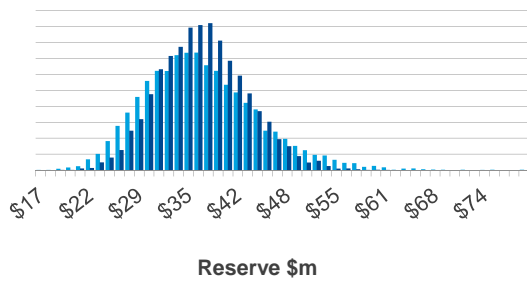
Reserve Risk – with Systemic Risk



Guy Carpenter

52

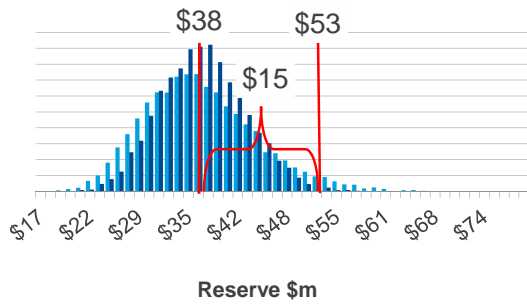
Reserve Risk – with and without Systemic Risk



Guy Carpenter

53

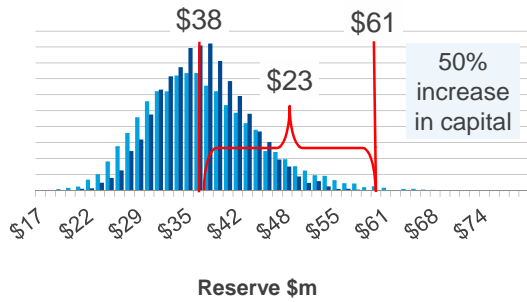
Indicated Capital without Systemic Risk



Guy Carpenter

54

Indicated Capital with Systemic Risk



Guy Carpenter

55

GUY CARPENTER

Reserving Cycle:

1. What is the Reserving Cycle?
2. Do our estimates take it into account?
3. What can we do about it?

Jessica Leong, FCAS, FIAA, MAAA
 Lead Casualty Specialty Actuary
 Jessica.Leong@guycarp.com

Guy Carpenter

www.guycarp.com

56
