



**The Actuarial Profession**

making financial sense of the future

# GIRO XXX 2003 Convention

14-17 October 2003

City Hall, Cardiff



# Coping with Domestic Problems

## Household Help

### GIRO 2003 Workshop

Presented by  
Cheryl Russell, Uma Baska  
and Susan Ley

With input from  
Martyn Green and Graham Oswald

# What will this workshop cover?

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- Answers to quiz! Plus...
- Benchmark claim development patterns and ultimate loss ratios
- How rates have changed over time – for direct and catastrophe reinsurance
- Trends for troublesome perils e.g. subsidence, floods
- Household rating factors

# Benchmark collection

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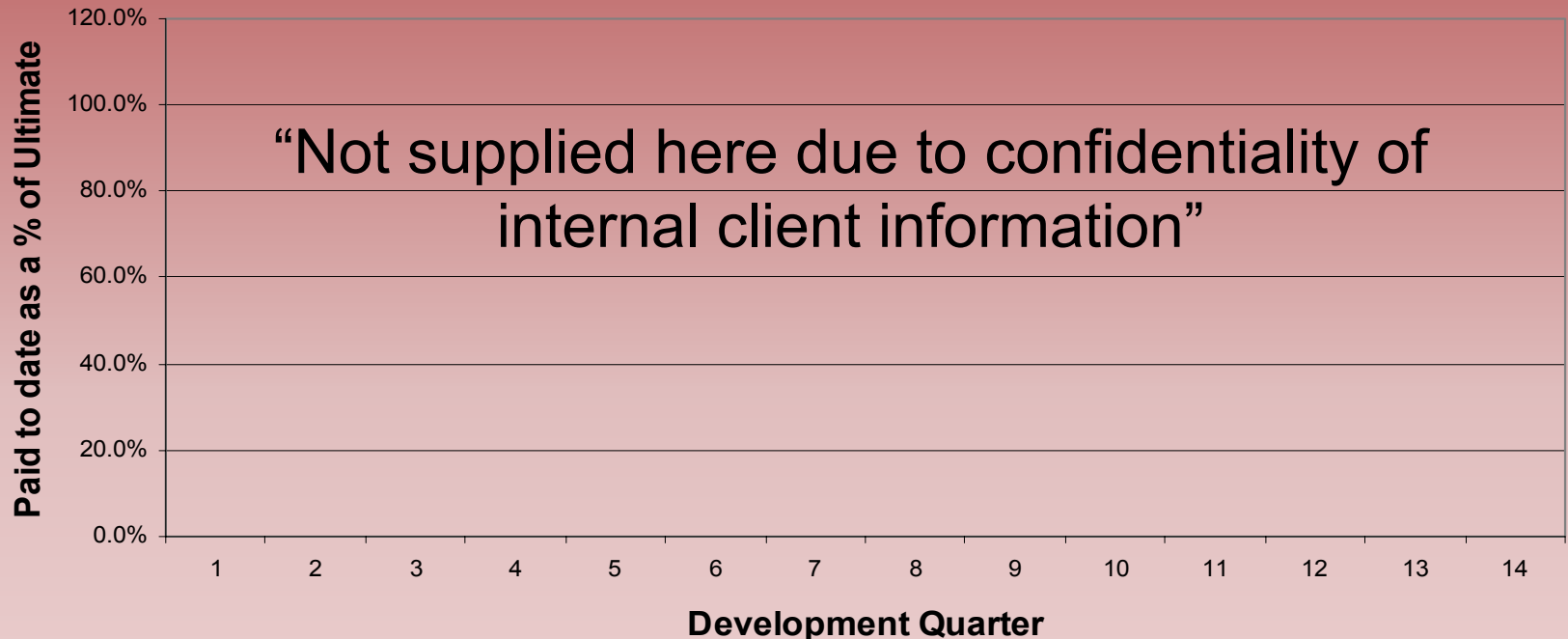
## Information sources

- UK Household covers perils such as:
  - *Fire & theft, structural damage, weather damage (flood, storm, burst pipes), escape of water, 'add-on' cover (accidental damage)*
- Therefore generally short-tail
- Collated paid and incurred claim development pattern and ULRs
- Used internal PwC data covering approximately 50% of the 10 largest UK insurers
- Use of FSA Returns limited as Household classifications not “clean”

# Benchmark collection

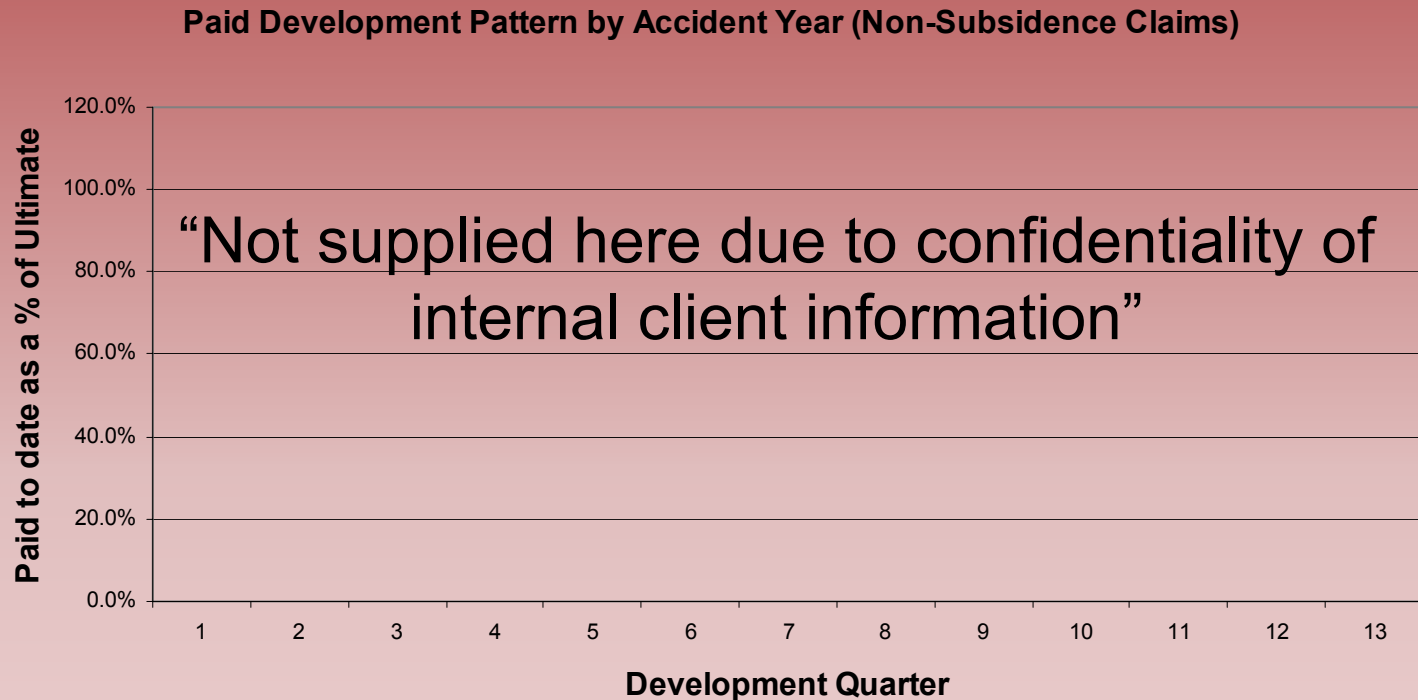
## Subsidence claims - Paid development patterns

**Paid Development Pattern by Accident Year (Subsidence Claims)**



# Benchmark collection

## Non subsidence claims - Paid development patterns

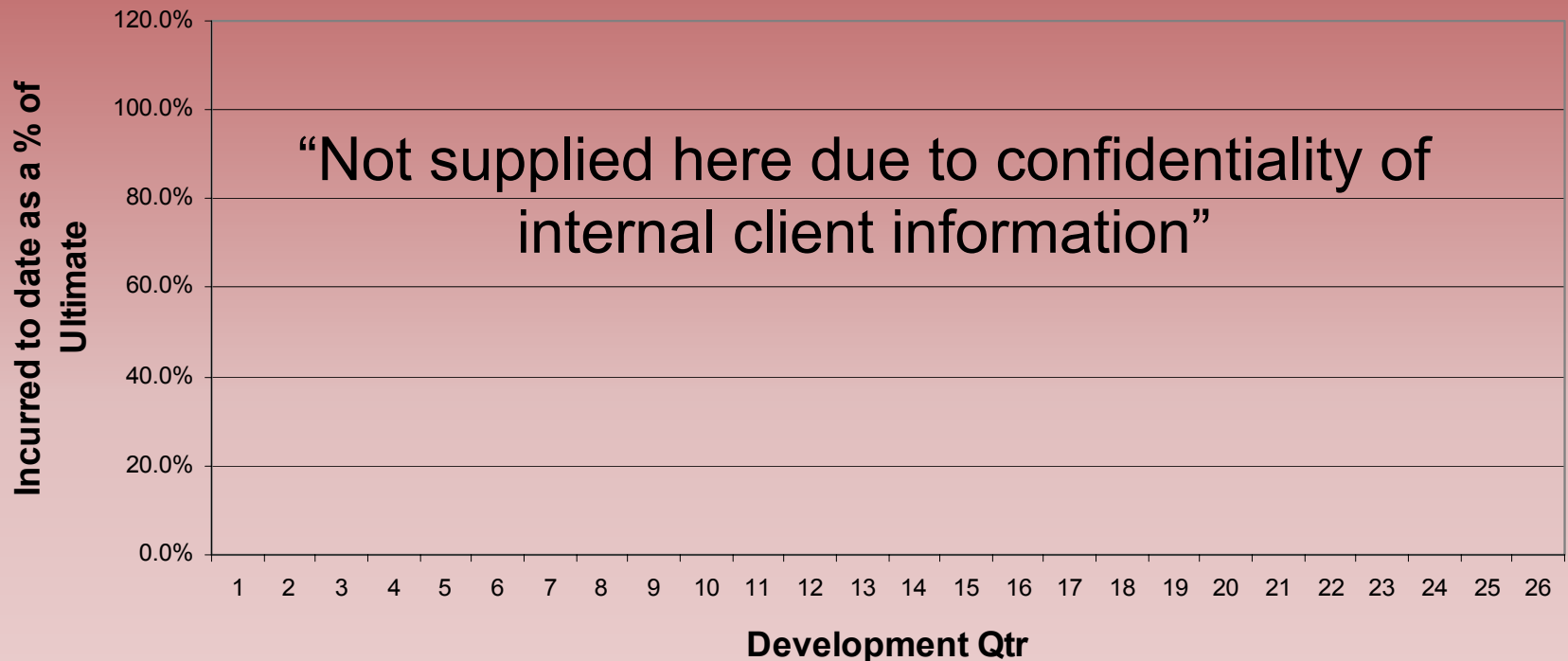


Source: PwC market data

# Benchmark collection

## Subsidence claims – Incurred development patterns

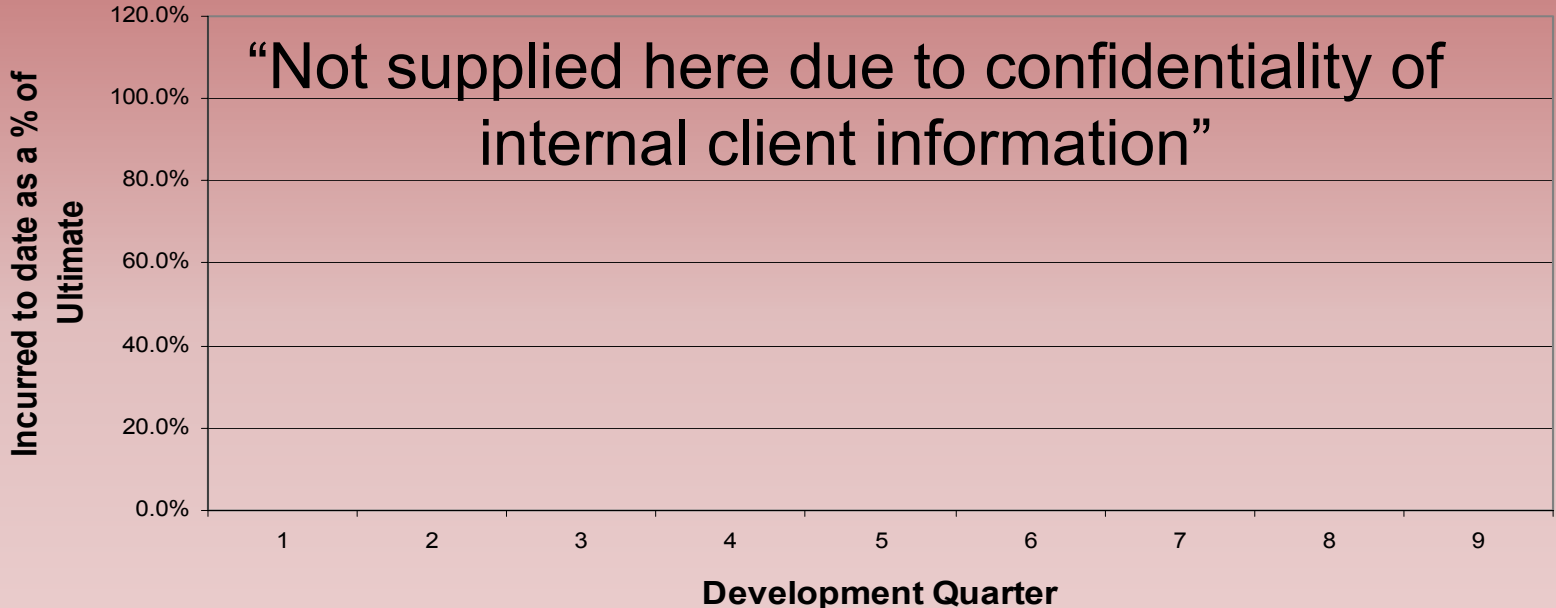
Incurred Development Pattern by Accident Year (Subsidence Claims)



# Benchmark collection

## Non subsidence claims - Incurred development patterns

Incurred Development Pattern by Accident Year (Non-Subsidence Claims)



Source: PwC market data



# Benchmark collection

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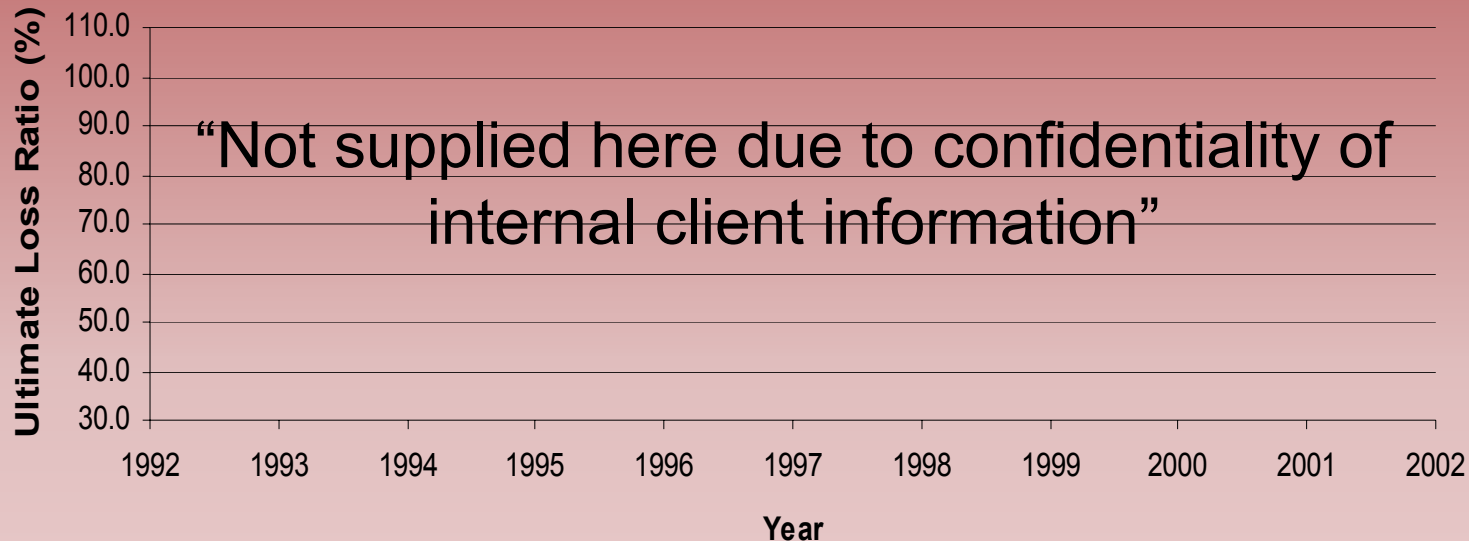
## Ultimate loss ratio

- Comparison of ULRs can be difficult:
  - Premiums net or gross of acquisition costs?
  - Gross or net of reinsurance?
  - Different evaluation dates
  - Different mix of business
  - Gross or net of commission / brokerage?
  - Gross or net of claims handling expenses?
  - Gross or net of third party recoveries?
  - Different case estimation methodologies
  - Quality and quantity of data available

# Benchmark collection

## Ultimate loss ratio

Ultimate Loss Ratio (Ultimate Claims / Earned Premium) for Household Insurance (1993 - 2002)



# Quiz question 3

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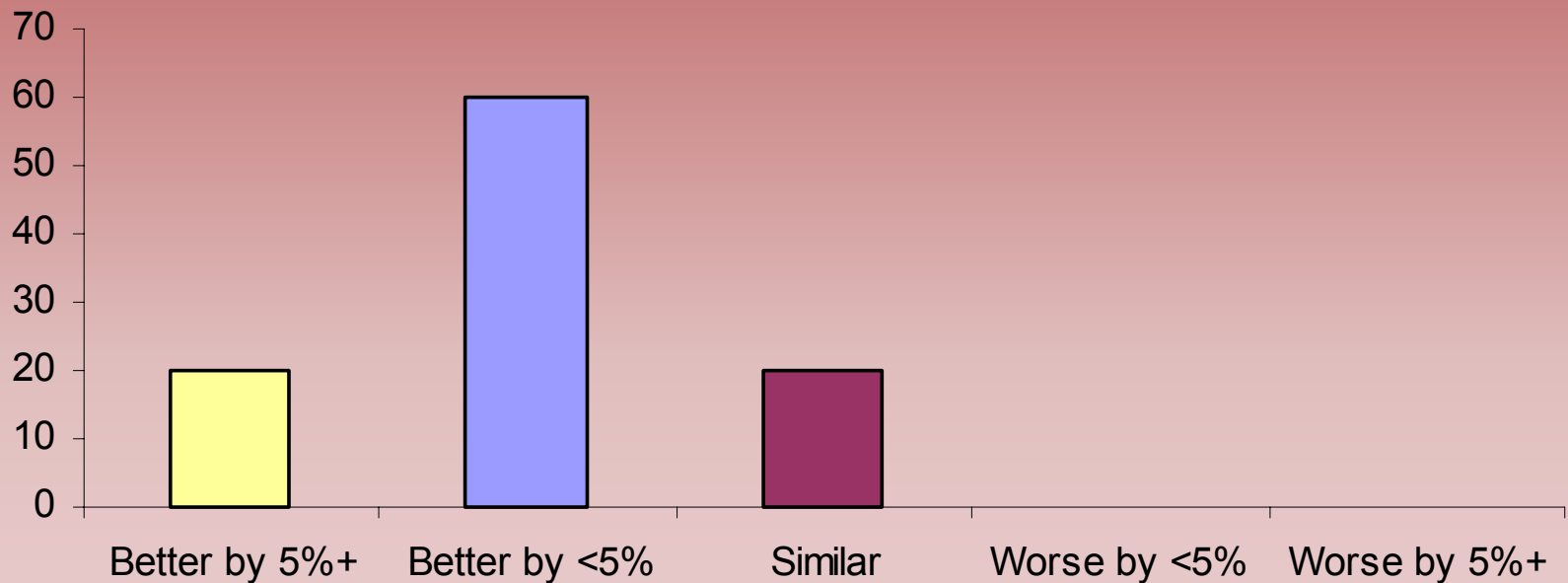
How do you think the Ultimate Loss Ratio experience (for buildings and contents combined) has changed in 2003 relative to the 2002 accident year?

- a) Better by 5%+
- b) Better by <5%
- c) Similar
- d) Worse by <5%
- e) Worse by 5%+

# Quiz question 3

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**Survey result (% response) - Expected ultimate loss ratio change from 2002 to 2003**

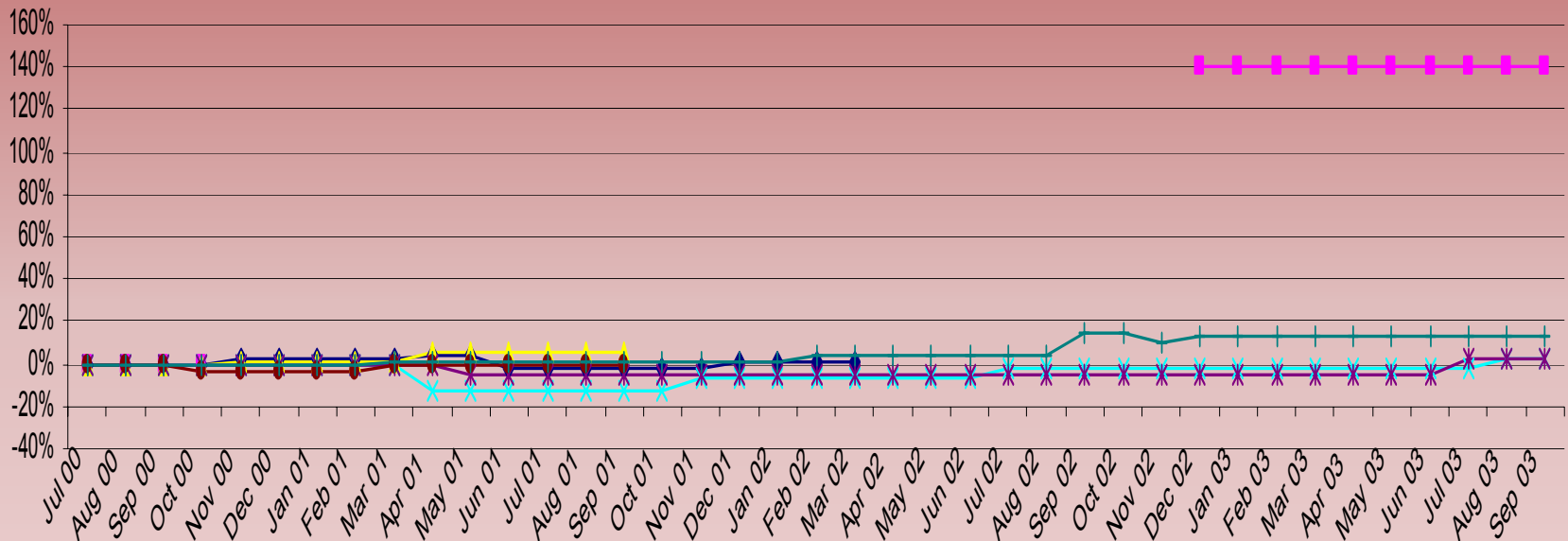


# Pricing

## Rating factors

■ Direct insurers – how have rates moved over time?

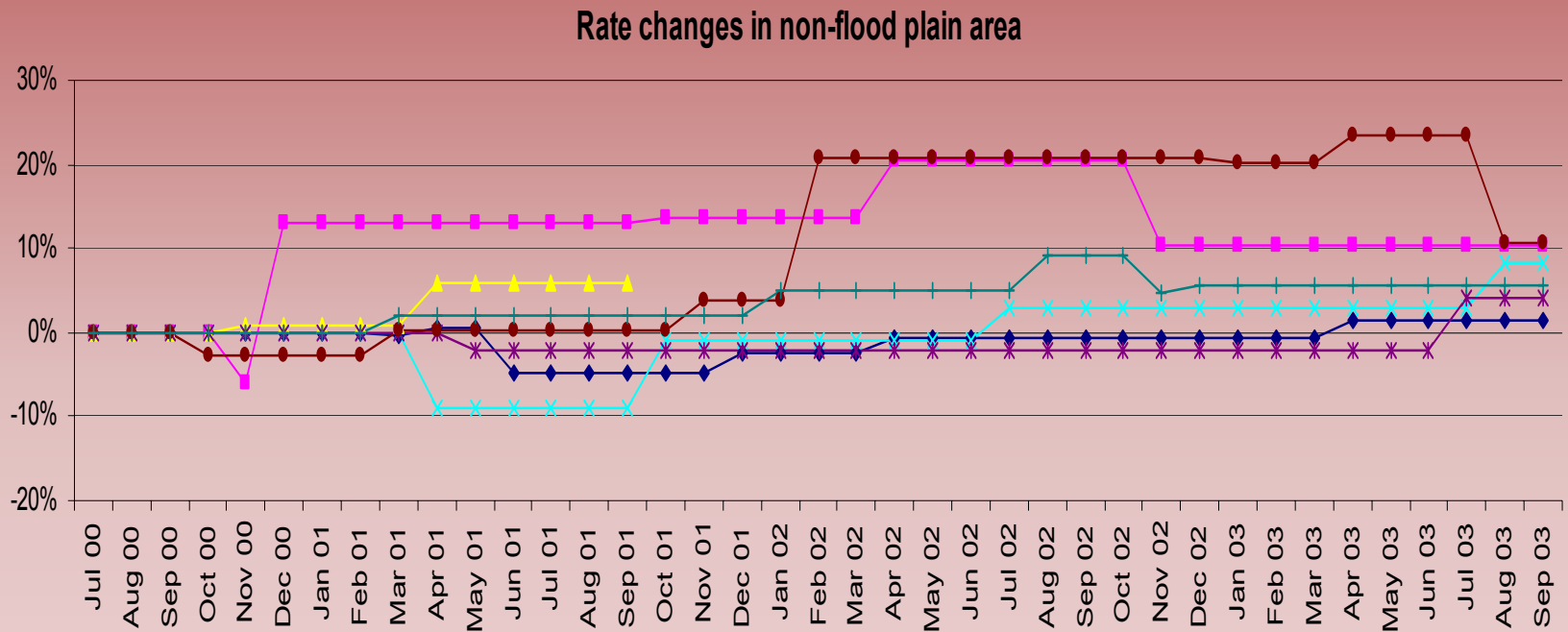
Rate changes in flood plain area



# Pricing

## Rating factors

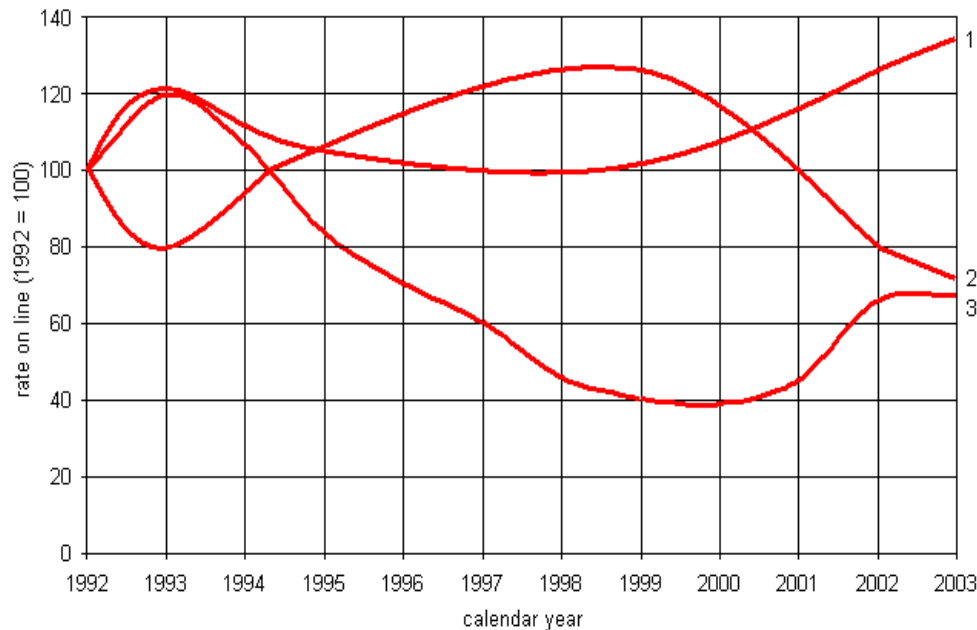
■ Direct insurers – how have rates moved over time?



# Quiz question 17

This graph plots trends in the cost of catastrophe reinsurance cover for the UK property market over recent calendar years. 2003 purchasing patterns are used to calculate the price that would have been paid each year since 1992 for the same cover. The price was then indexed to 1992 values.

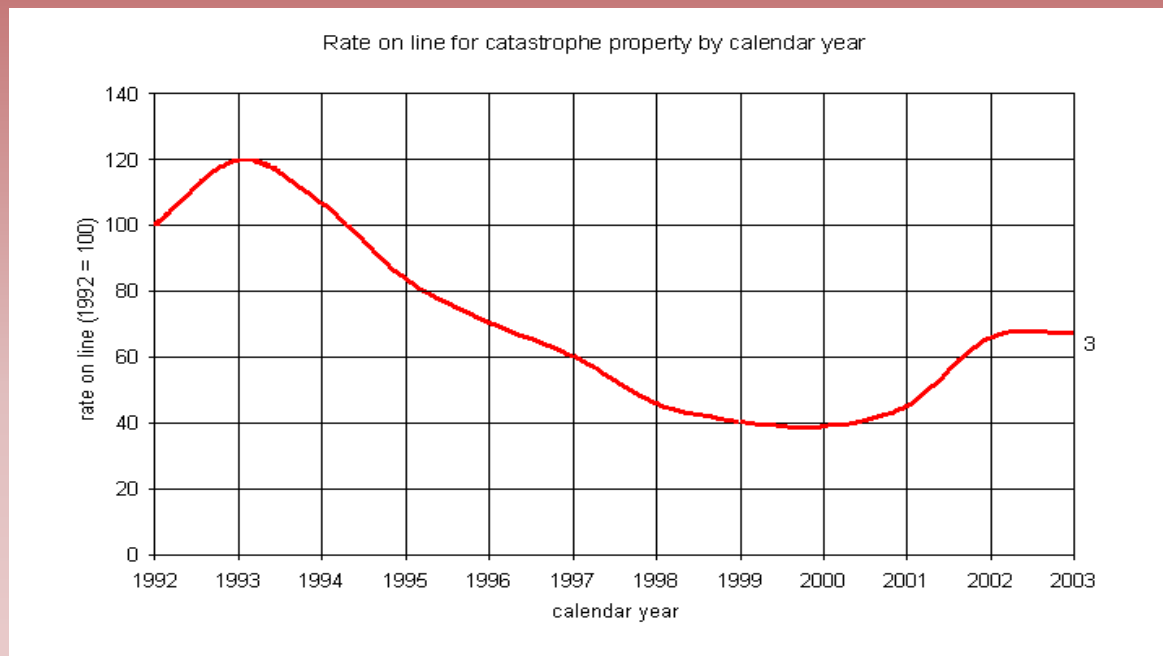
Which trend line plots the true picture?



# Quiz question 17

This graph plots trends in the cost of catastrophe reinsurance cover for the UK property market over recent calendar years. 2003 purchasing patterns are used to calculate the price that would have been paid each year since 1992 for the same cover. The price was then indexed to 1992 values.

Answer:





# Quiz question 6

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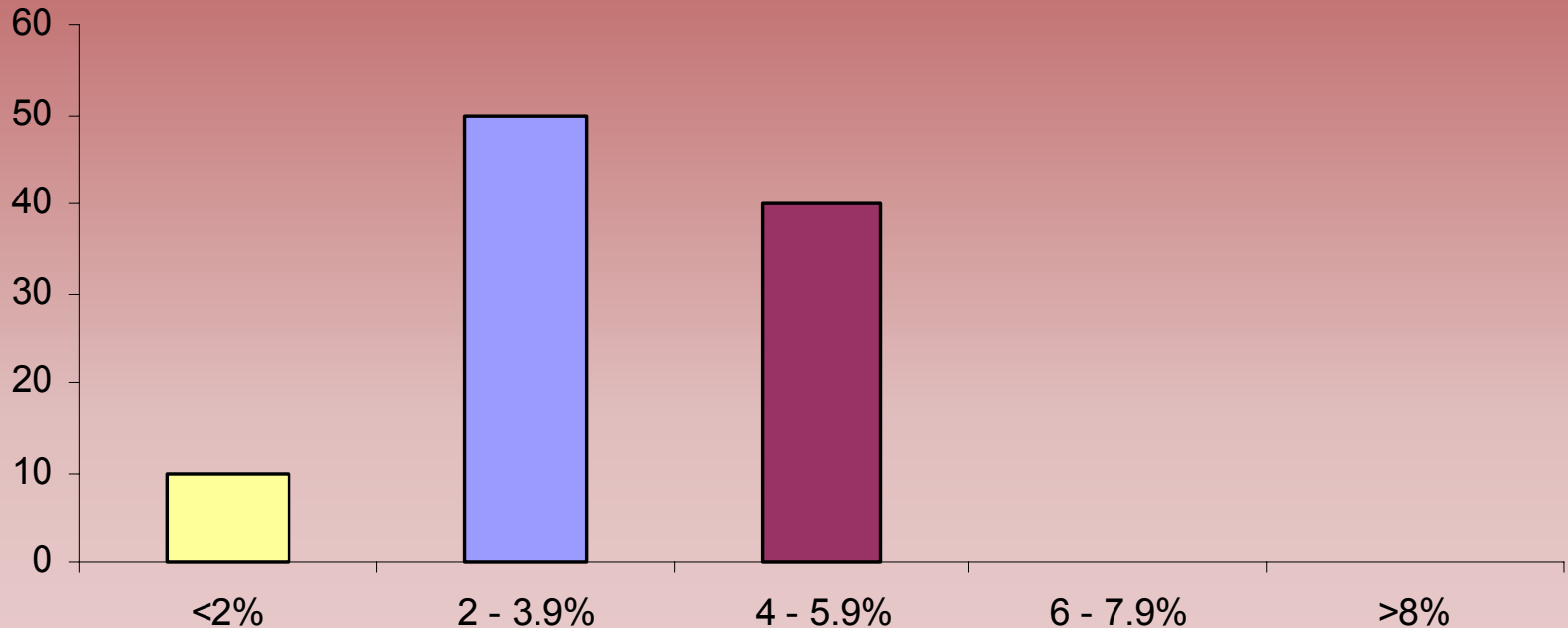
What do you expect the 2003 figure for claims inflation of average cost per claim for contents insurance to be?

- a) Below 2%
- b) 2-3.9%
- c) 4-5.9%
- d) 6-7.9%
- e) 8% and above

# Quiz question 6

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**Survey result (% response) - Expected 2003 figure for inflation of average cost per claim for contents insurance**



# Quiz question 7

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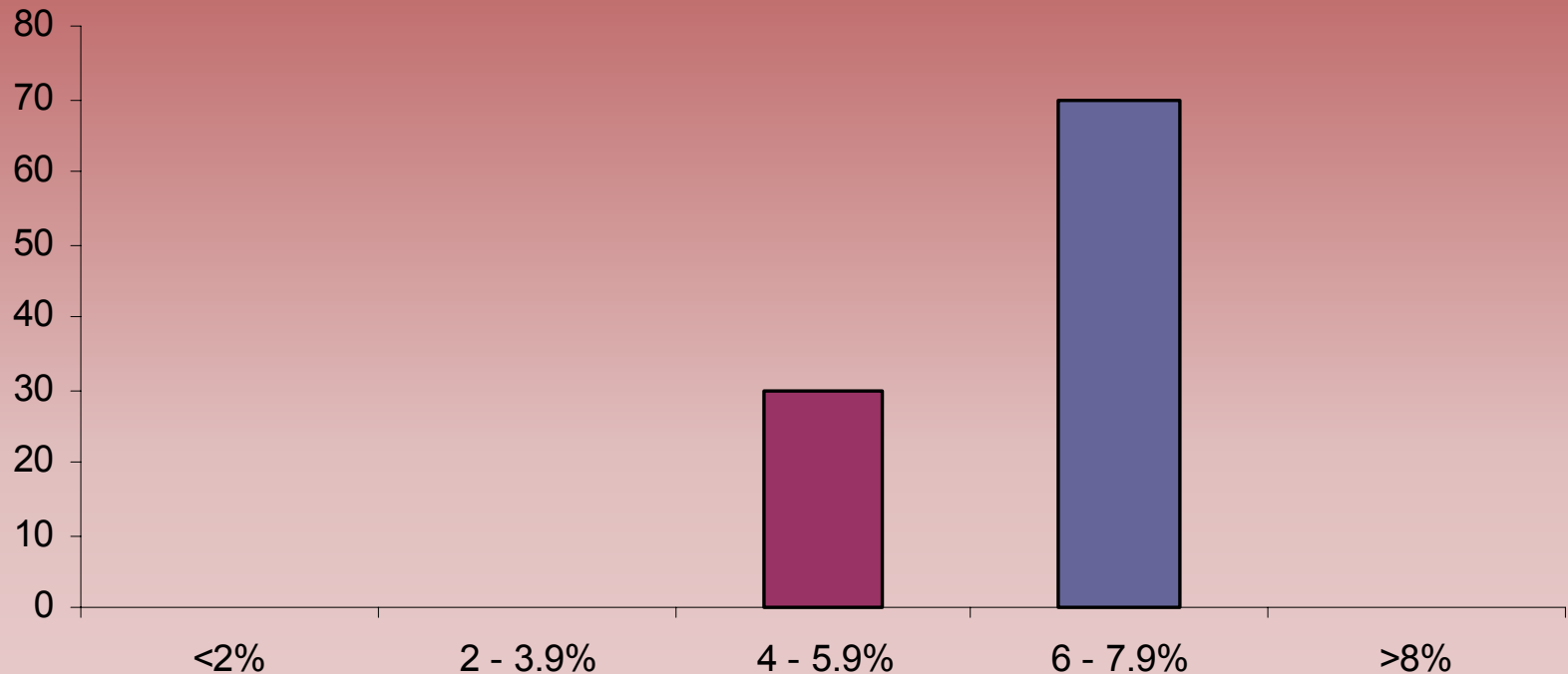
What do you expect the 2003 figure for claims inflation of average cost per claim for buildings insurance to be?

- a) Below 2%
- b) 2-3.9%
- c) 4-5.9%
- d) 6-7.9%
- e) 8% and above

# Quiz question 7

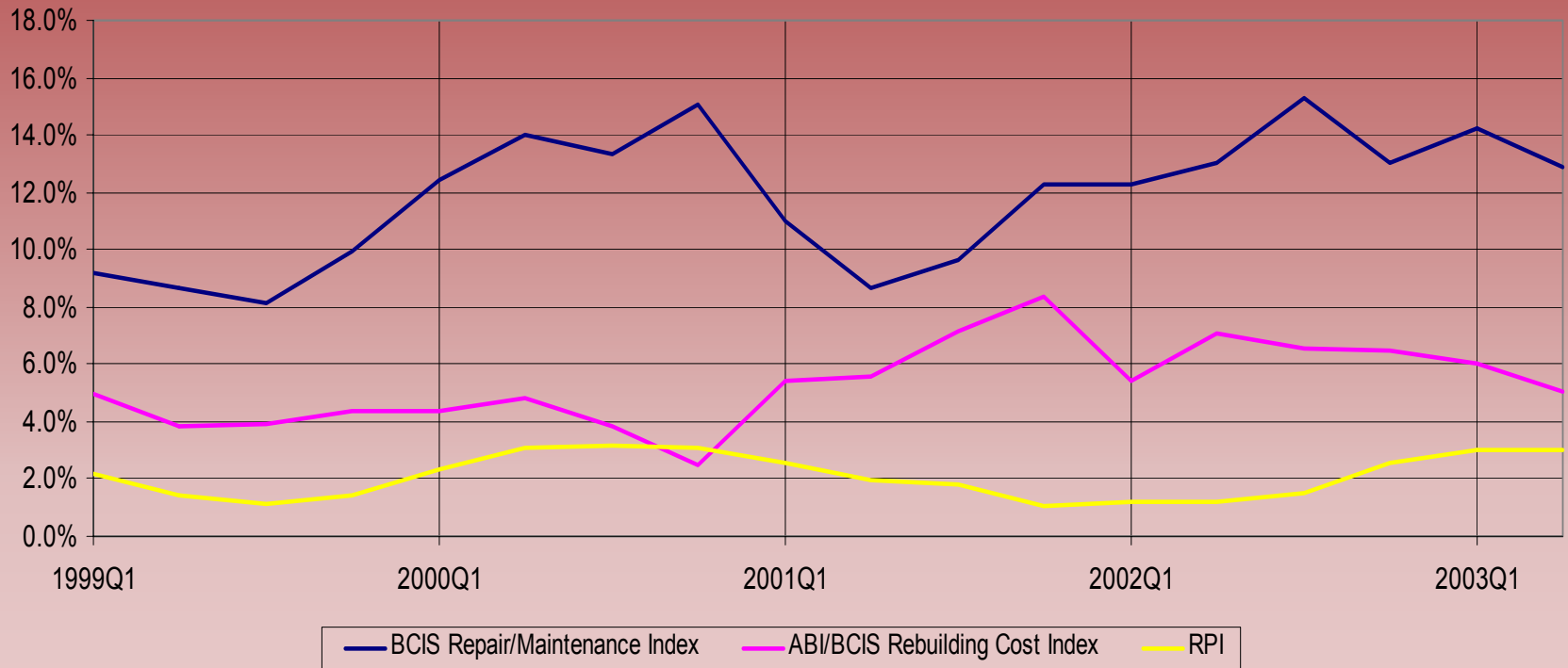
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**Survey result (% response) - Expected 2003 figure for inflation of average cost per claim for buildings insurance**



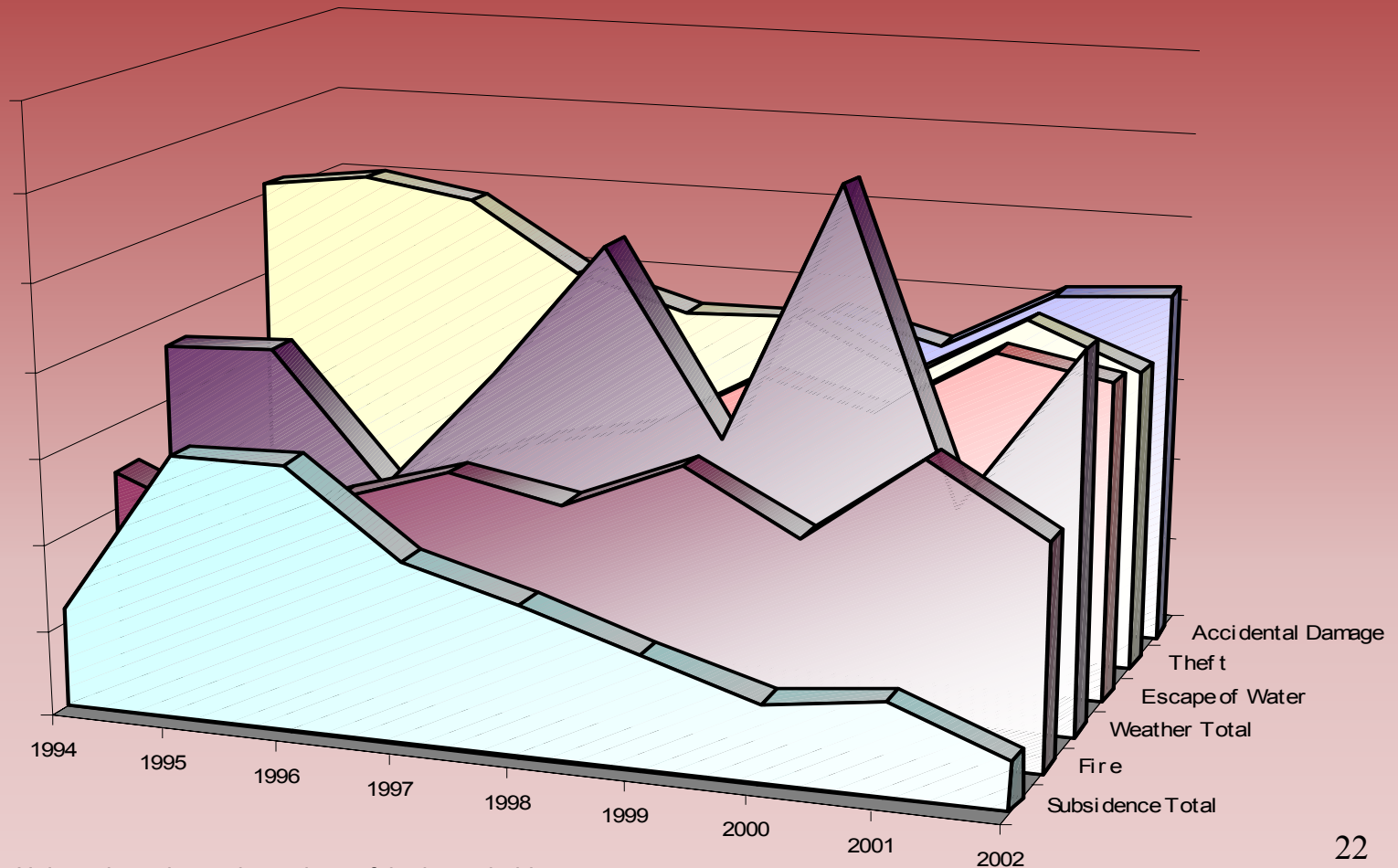
# Inflation comparison

Annual Percentage Change in RPI, ABI/BCIS Rebuilding Index and BCIS Repair/Maintenance index



Source : RICS / BCIS

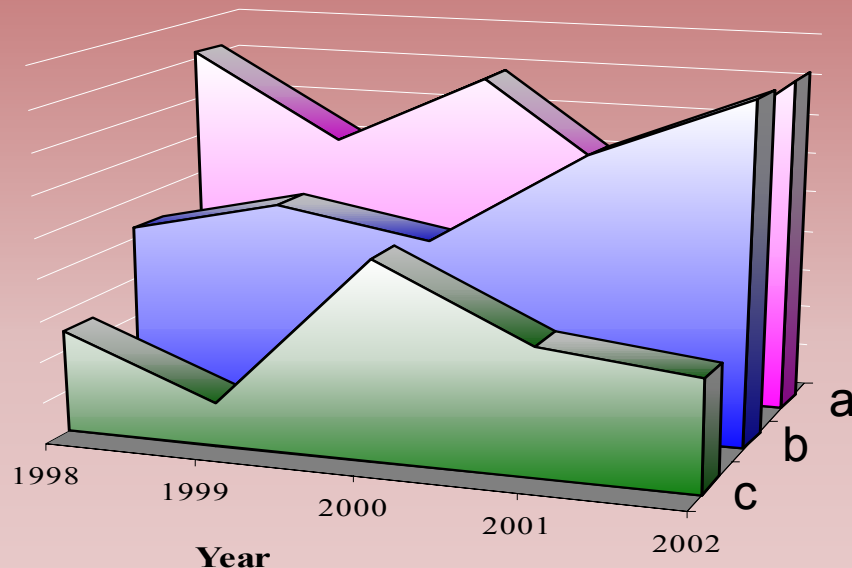
# Trends by peril



# Quiz question 4

Can you identify which segment of the chart (a, b or c) relates to trends in gross incurred claims for each of Floods, Storms and Burst pipes/escape of water?

**Weather Damage - Gross Incurred Claims**



a) Storms b) Burst pipes/escape water c) Floods

# Quiz question 1

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What trends do you think the claims cost will experience over the next 3 years, compared to the last 3 years, for the following perils?

- a) Accidental damage
- b) Escape water through Pitch Fibre pipes
- c) Escape water excluding Pitch Fibre pipes
- d) Floods
- e) Subsidence
- f) Fire
- g) Public liability
- h) Terrorism
- i) Other



# Quiz question 1

Survey Results - Prediction of perils which will display the most worrying trends over the next 3 years



Least  
Worrying

Terrorism

Other

Fire

Accidental damage

Escape of water through Pitch Fibre pipes

Subsidence

Escape of water excluding Pitch Fibre Pipes

Public liability

Floods



Most  
Worrying 25

# Trends by peril

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## Peril summary

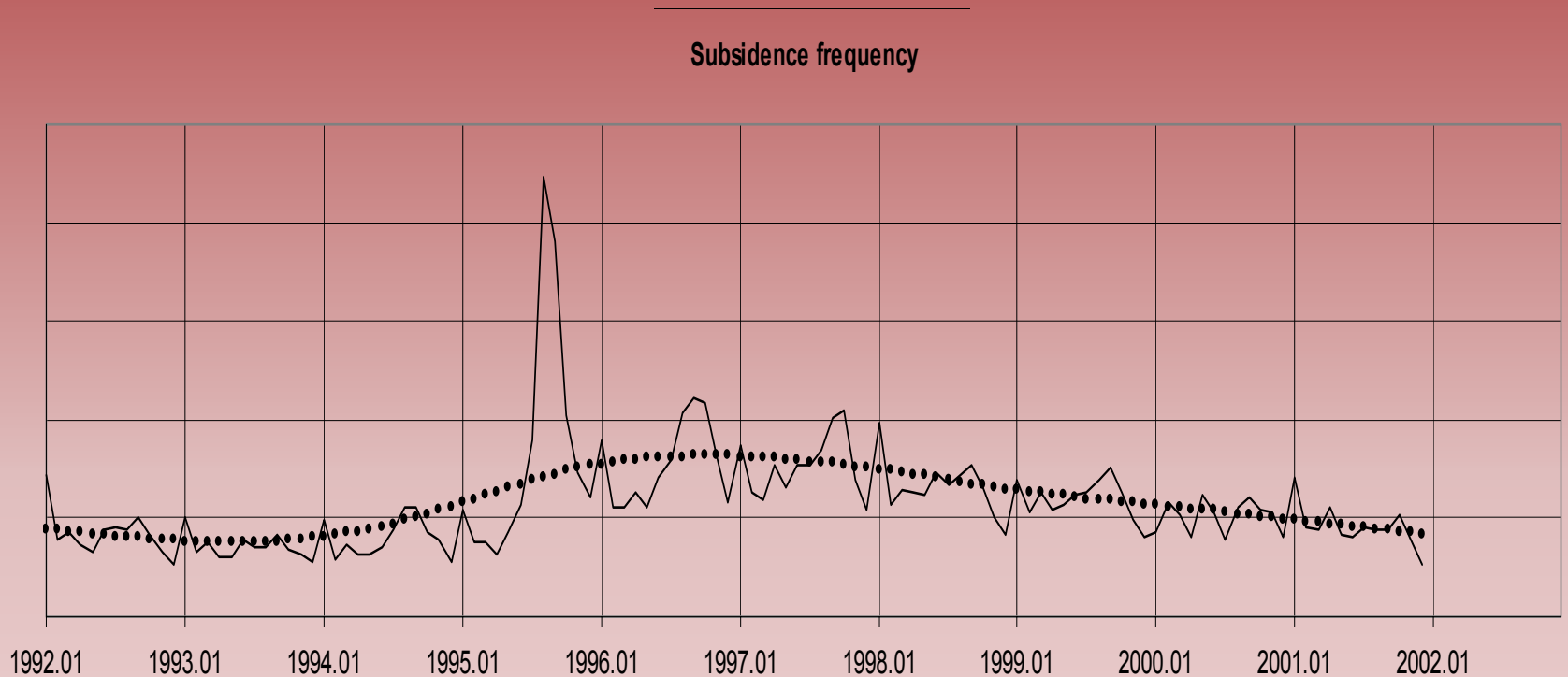
Peril	Contents (C) or Buildings (B)	% of total claims cost	Length of tail	Trends in ACPC	Trends in Frequency
Subsidence	B	3-17%	Long	Depends on weather	Volatile from year to year
Fire	B/C	9-13%	Short	Dependent on contractors rates/level of consumerism i.e. goods in home	Stable
Escape of water	B/C	10-20%	Short	Dependent on contractors rates/level of consumerism i.e. goods in home	Stable



Photo courtesy of Cunningham Lindsey

# Quiz question 12

How has the claim frequency of subsidence claims moved in 2002 and how do you foresee it to move 2003?

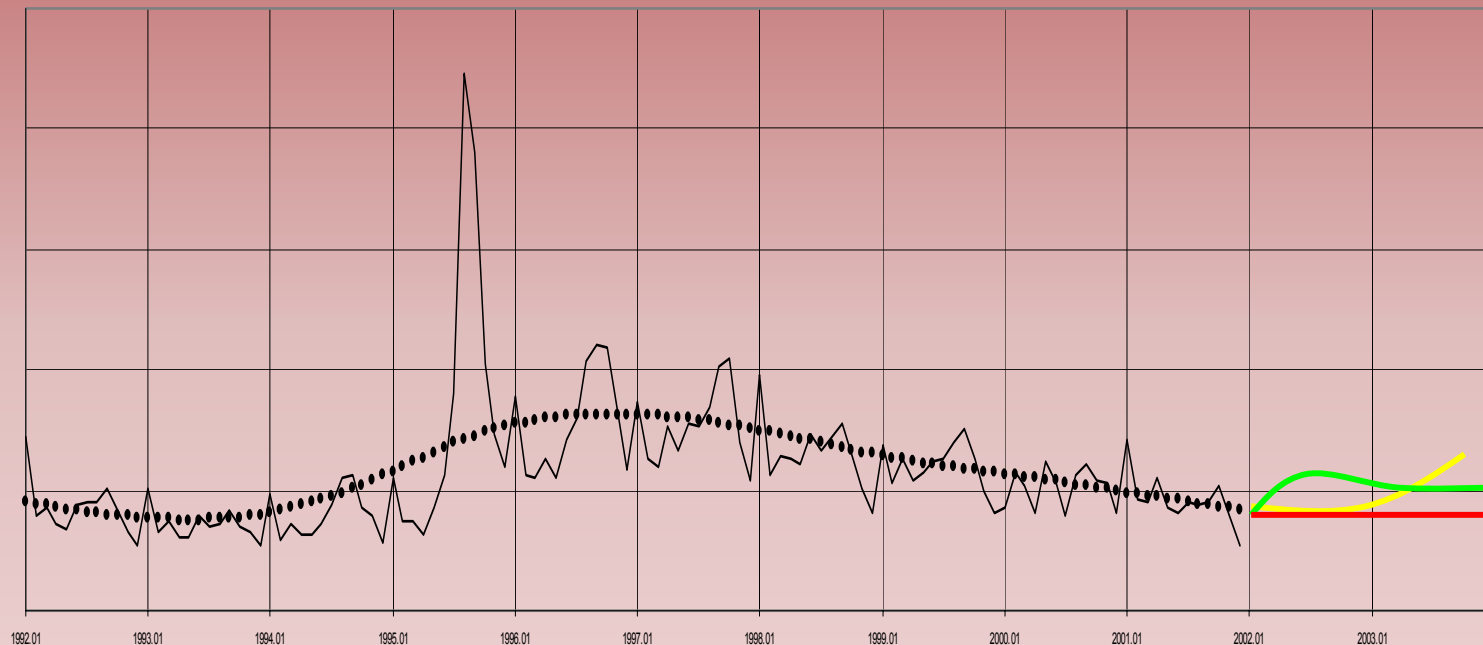


# Quiz question 12

How has the claim frequency of subsidence claims moved in 2002 and how do you foresee it to move 2003?

Lines show survey responses, with the consensus amongst those at the GIRO workshop session being the yellow line

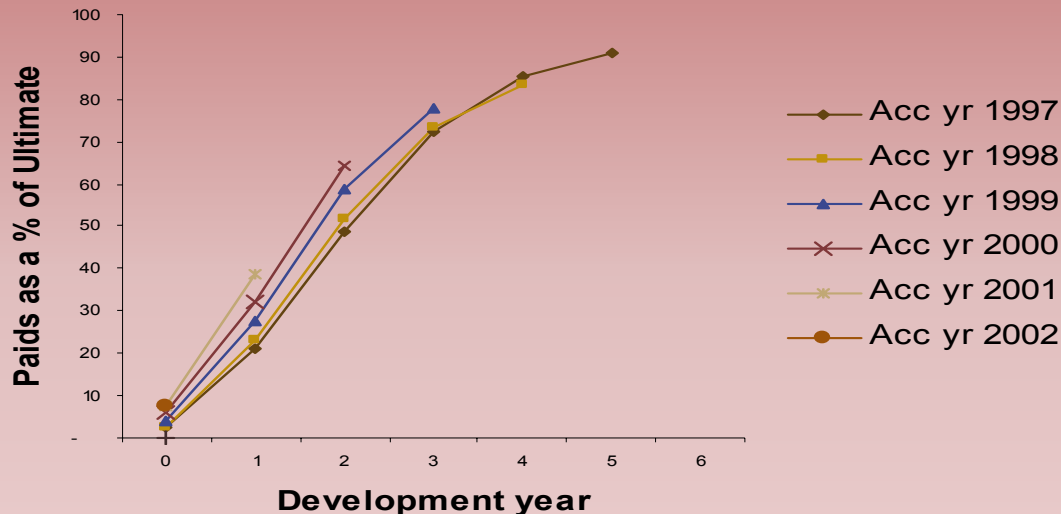
Subsidence frequency



# Quiz question 2

Can you identify which of the following perils is showing progressively faster payment patterns, as illustrated in the graph below?

Paid development by accident year

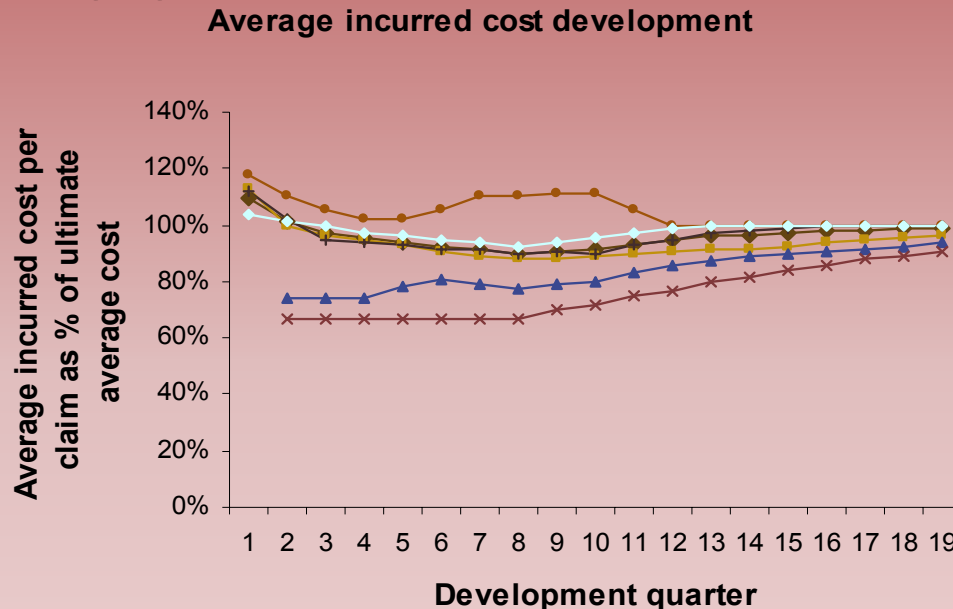


Subsidence

Source: DwC market data

# Quiz question 9

The graph below shows the development of average cost per claim (each line represents a different insurer/policy type experience). Which peril do you think this is?



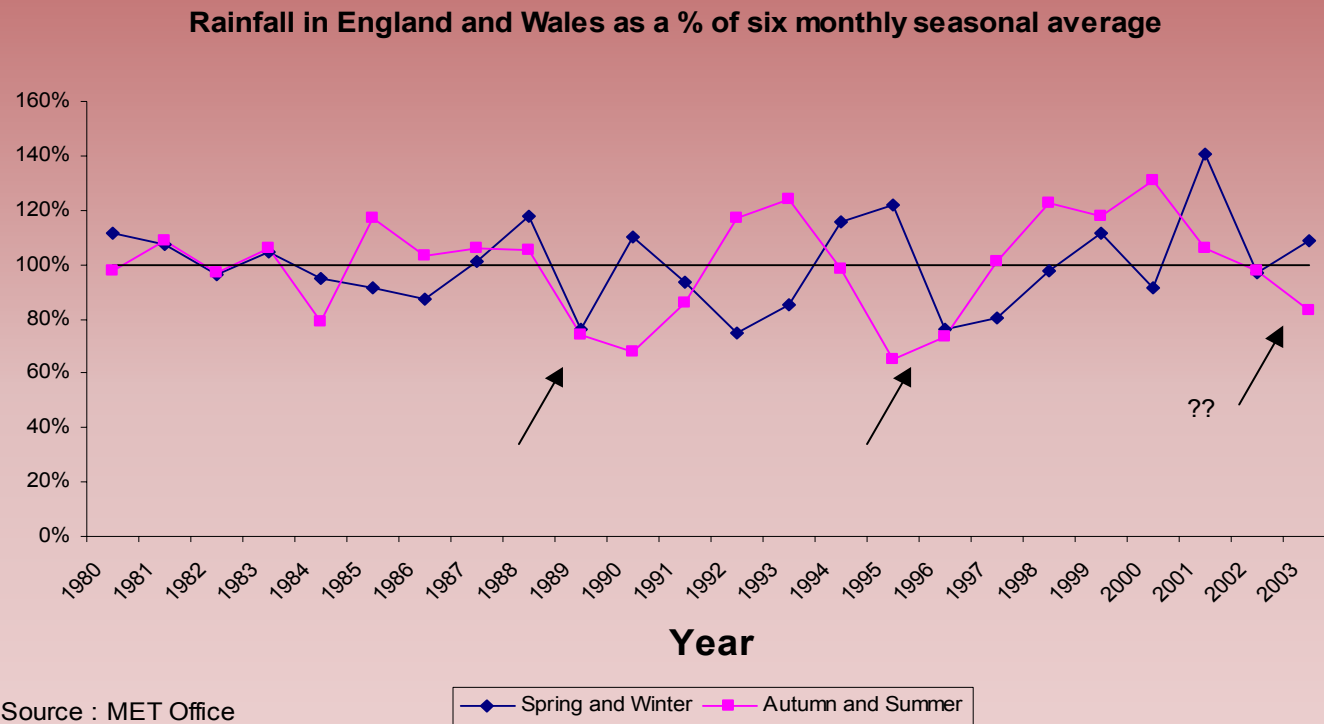
Subsidence

Source: RWC market data

# Trends by peril

## Subsidence

■ How does 2003's rainfall compare to other years?

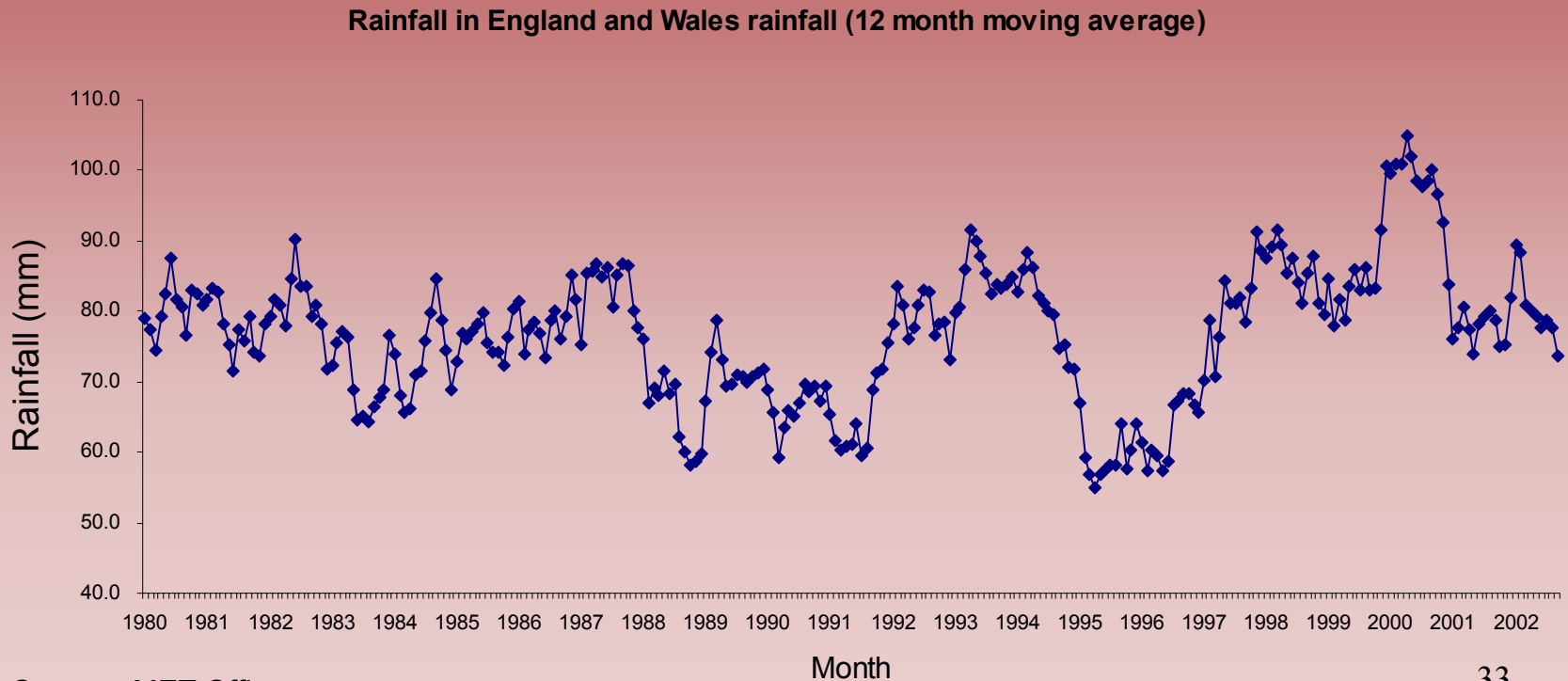




# Trends by peril

## Subsidence

■ How does 2003's rainfall compare to other years?



# Quiz question 5

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The planting of which of the following trees near the home is most likely to give rise to subsidence problems?

- a) Palm Tree
- b) Oak
- c) Willow
- d) Hedge-Lleylandii

# Quiz question 5

Most likely to cause  
subsidence

Survey responses



Least likely to cause  
subsidence <sup>35</sup>



# Trends by peril

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## Floods

- Different approaches to pricing/coverage



# Quiz question 15

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Which of the following comments have insurers not been quoted to say about flood coverage in 2003?

- a) We are not looking to provide cover for new customers in known flood risk areas
- b) We do not automatically refuse cover in any area of the country
- c) Our aim is to quote extremely competitively in all areas – even those regarded as higher risk
- d) In really exceptional circumstances, a premium loading of around 30% may also be applied
- e) I can say for clarification that we will, in all likelihood, be reviewing terms and premiums for existing customers in areas in risk of flooding
- f) The industry message here is really to stick with your current insurer who should be able to provide you with renewal terms post 1 Jan 2003

All have been said!

# Quiz question 16

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i) Approximately how many 'flood events' were recorded in Europe in the period 1993-2002, relative to the number in the previous ten years?

- a) The same number
- b) Twice as many
- c) Three times as many
- d) Five times as many

# Quiz question 16

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i) Approximately how many 'flood events' were recorded in Europe in the period 1993-2002, relative to the number in the previous ten years?

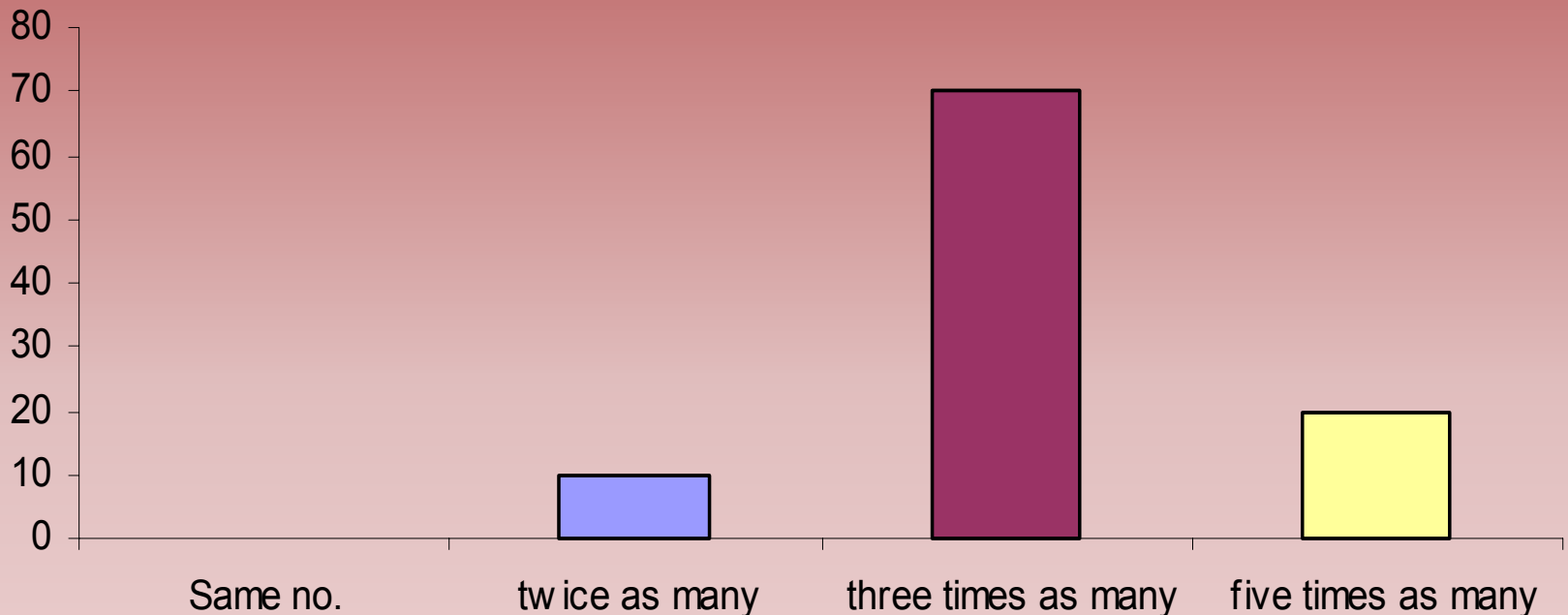
- a) The same number
- b) Twice as many
- c) Three times as many
- d) Five times as many



# Quiz question 16

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**Survey result - Estimated number of flood events recorded in Europe in the period 1993 - 2003, relative to the previous ten years**



# Quiz question 16

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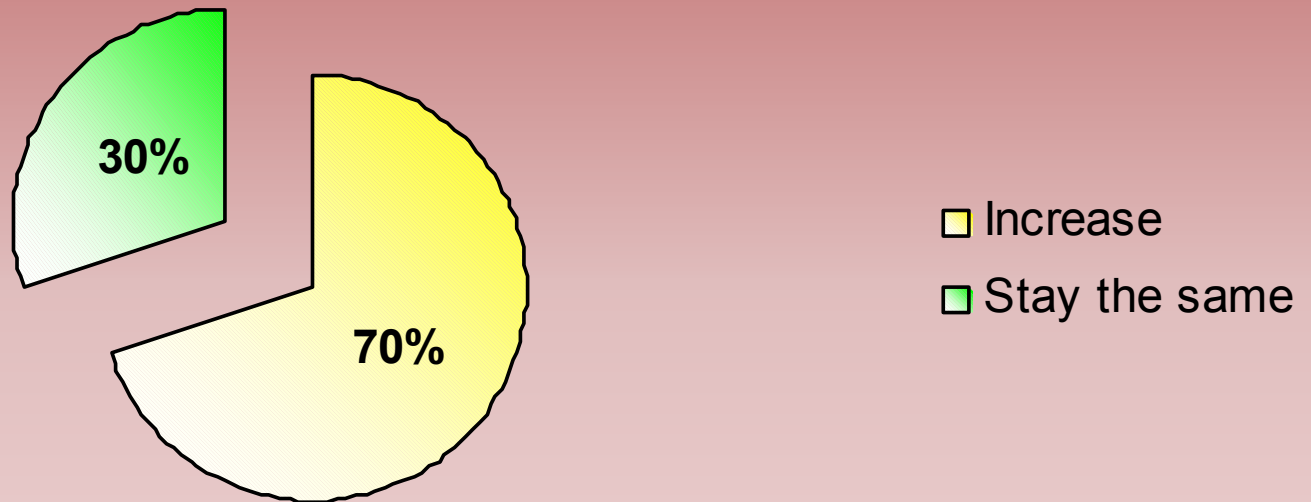
ii) How do you think this figure will change in the next ten years?

- a) Increase
- b) Decrease
- c) Stay the same

# Quiz question 16

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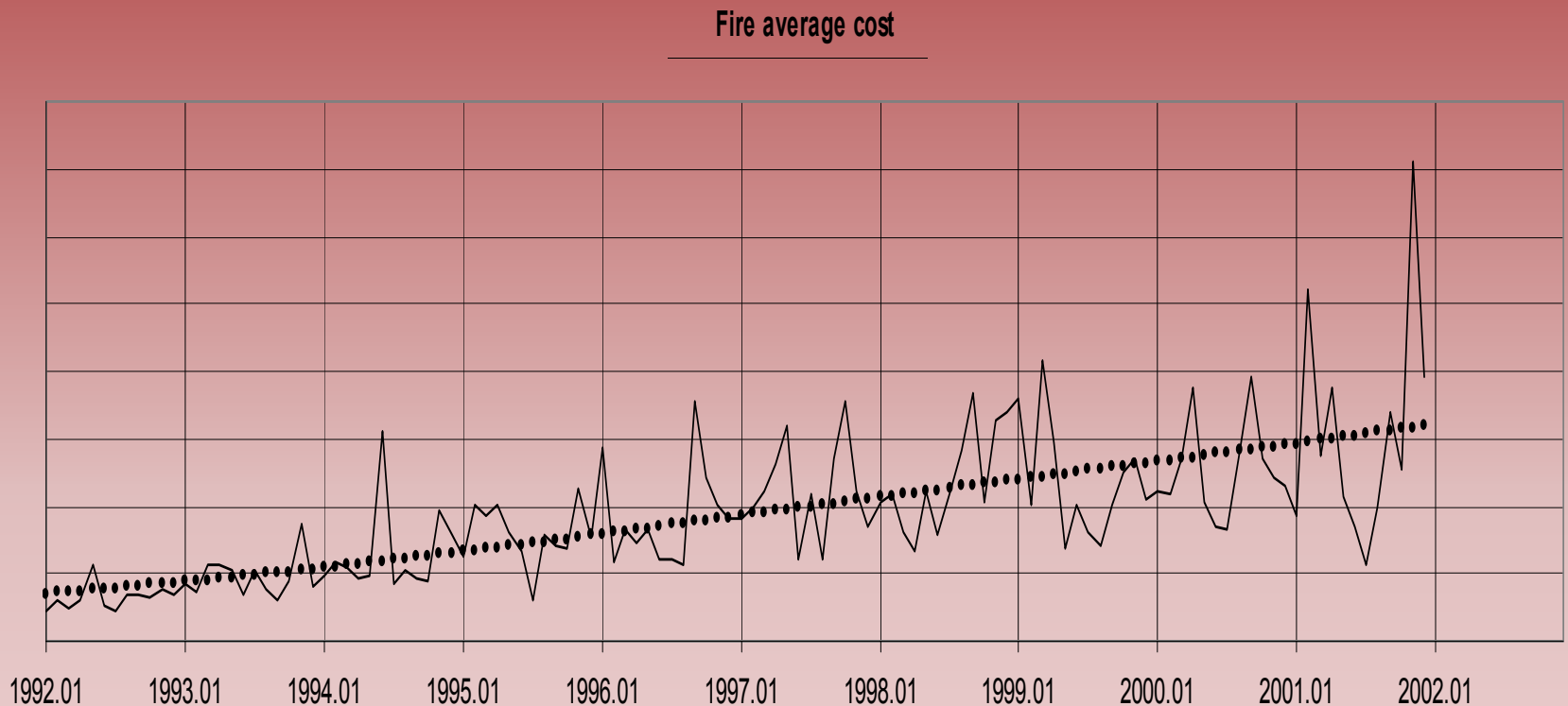
**Survey response - Predicted change in the number of flood events in the next 10 years, relative to the period 1993-2003**





# Quiz question 13

Q13. How has the average size of fire claims moved in 2002 and how do you foresee it to move over 2003?

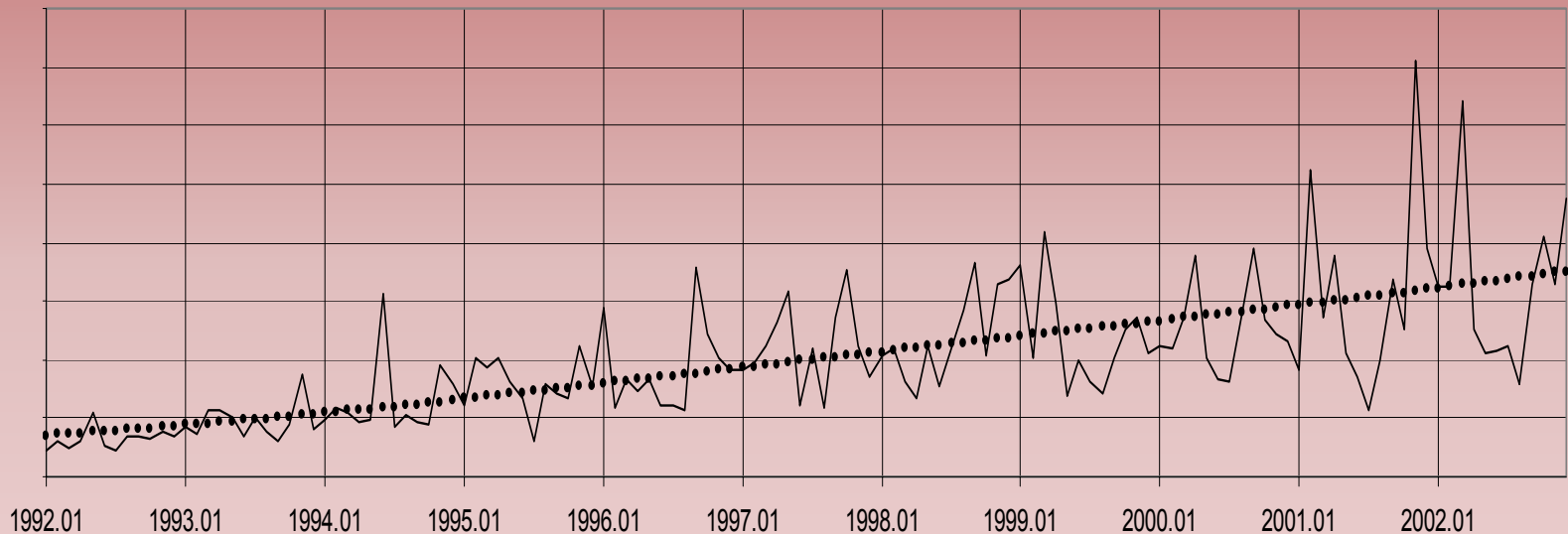


# Quiz question 13

Q13. How has the average size of fire claims moved in 2002 and how do you foresee it to move over 2003?

2002 line shows actual data – this matched the survey consensus; though the recent volatility may show a flattening out of the line

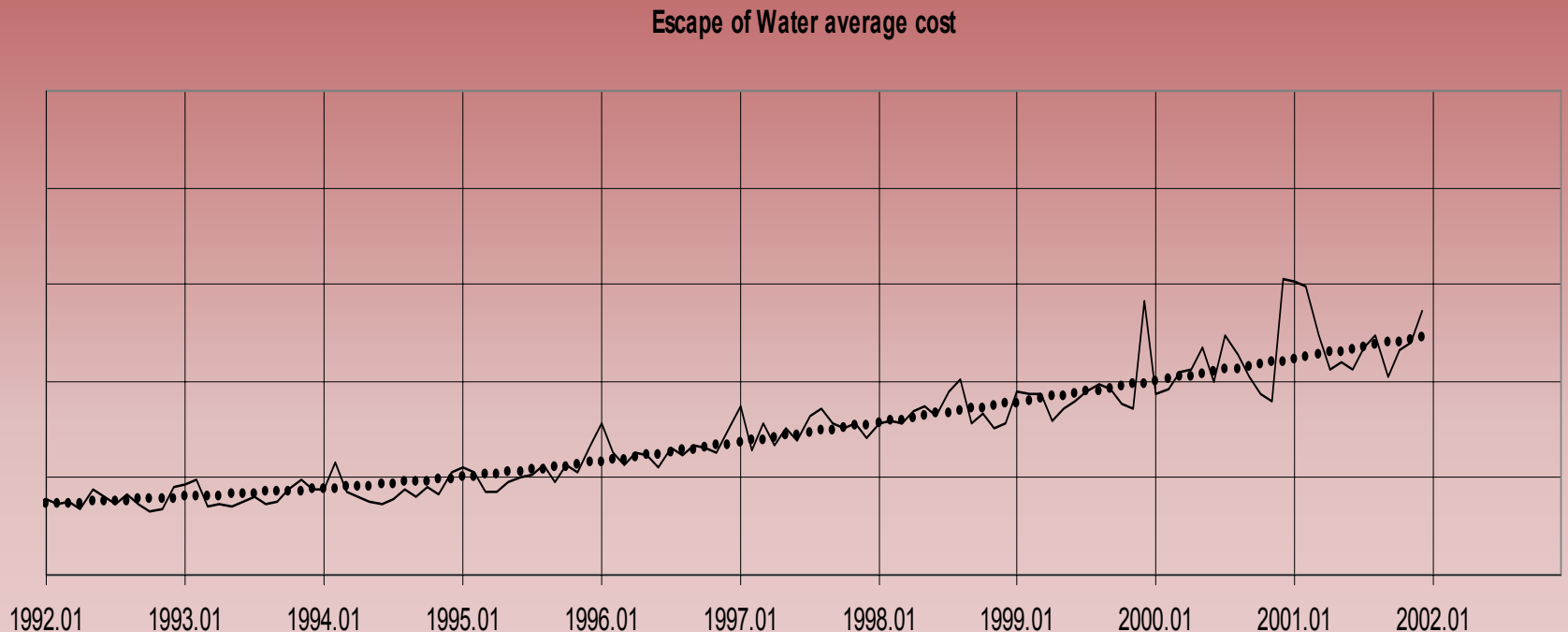
Fire average cost





# Quiz question 14

Q14. How has the average size of escape of water damage claims moved in 2002 and how do you foresee it to move over 2003?



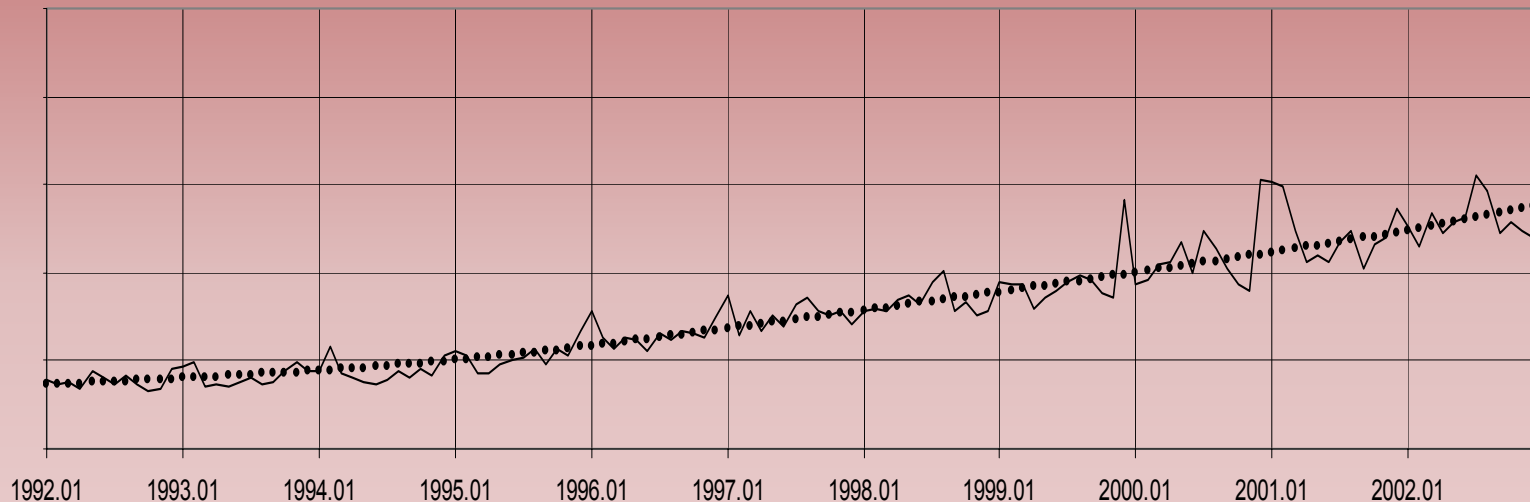


# Quiz question 14

Q14. How has the average size of escape of water damage claims moved in 2002 and how do you foresee it to move over 2003?

2002 line shows actual data – this matched the survey consensus

Escape of Water average cost



# Quiz question 10

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For contents insurance, if you had the choice of using only 6 rating factors, which would you choose?

Sum insured

Number of rooms

Post sector

Past experience or NCD

Business use

Occupancy during the day

Owner status (e.g. landlord, tenant)

Cross cover (buildings or contents cover or both)

Building type (e.g. terrace or bungalow)

Year of construction

Type of locks

Alarm fitted (burglar and smoke)

Dog ownership

Voluntary excess

Smoker

Accidental damage (add-on)

Heating type

Age of policyholder

Height above sea level

DEFRA/EA database (flood defence level by post sector)

# Quiz question 10

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Survey result – Most popular rating factors for contents insurance

Age  
of  
policyholder

Post  
sector

Sum  
insured

Accidental  
damage  
(add-on)

Past  
experience  
Or  
NCD

Building  
type

# Quiz question 11

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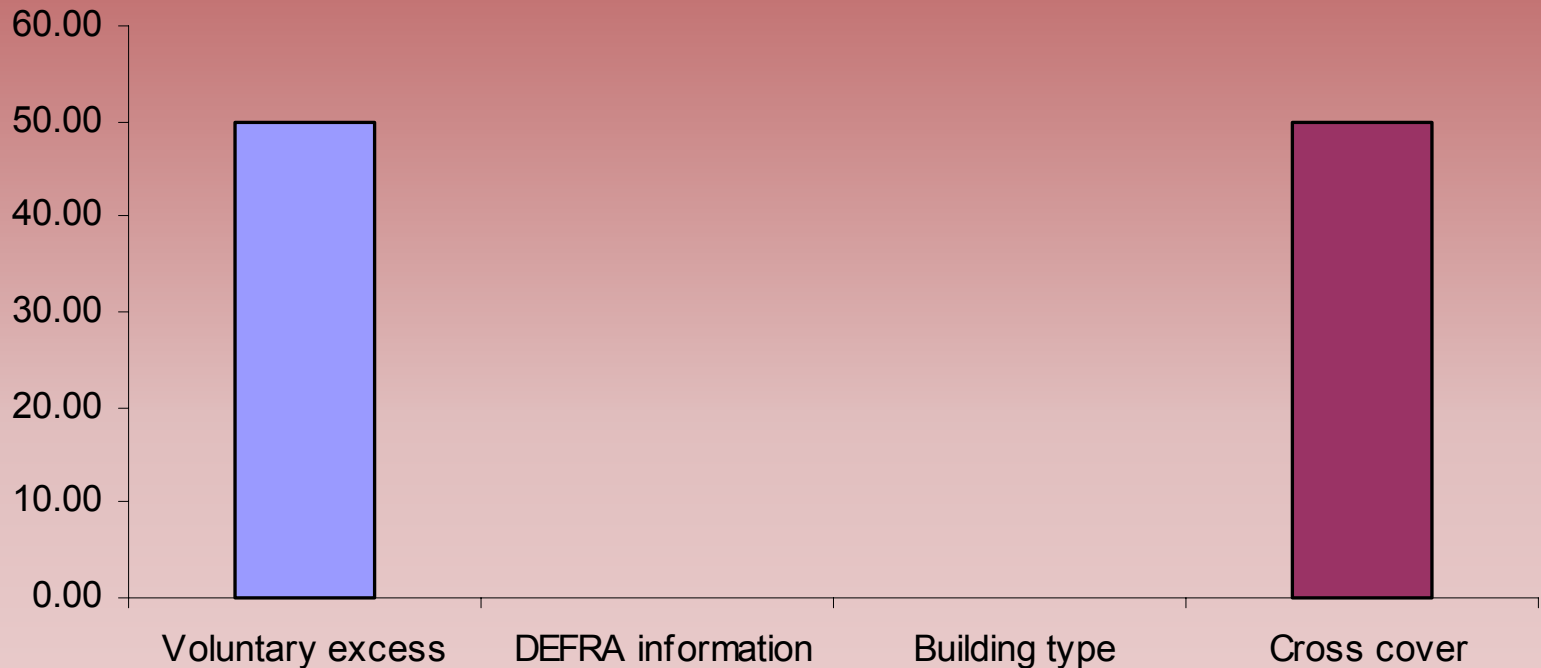
For buildings insurance, which of the following four rating factors do you think will prove least useful?

- a) Voluntary excess
- b) DEFRA flood defence information
- c) Building type
- d) Cross cover (is the person seeking buildings and/or contents cover?)

# Quiz question 11

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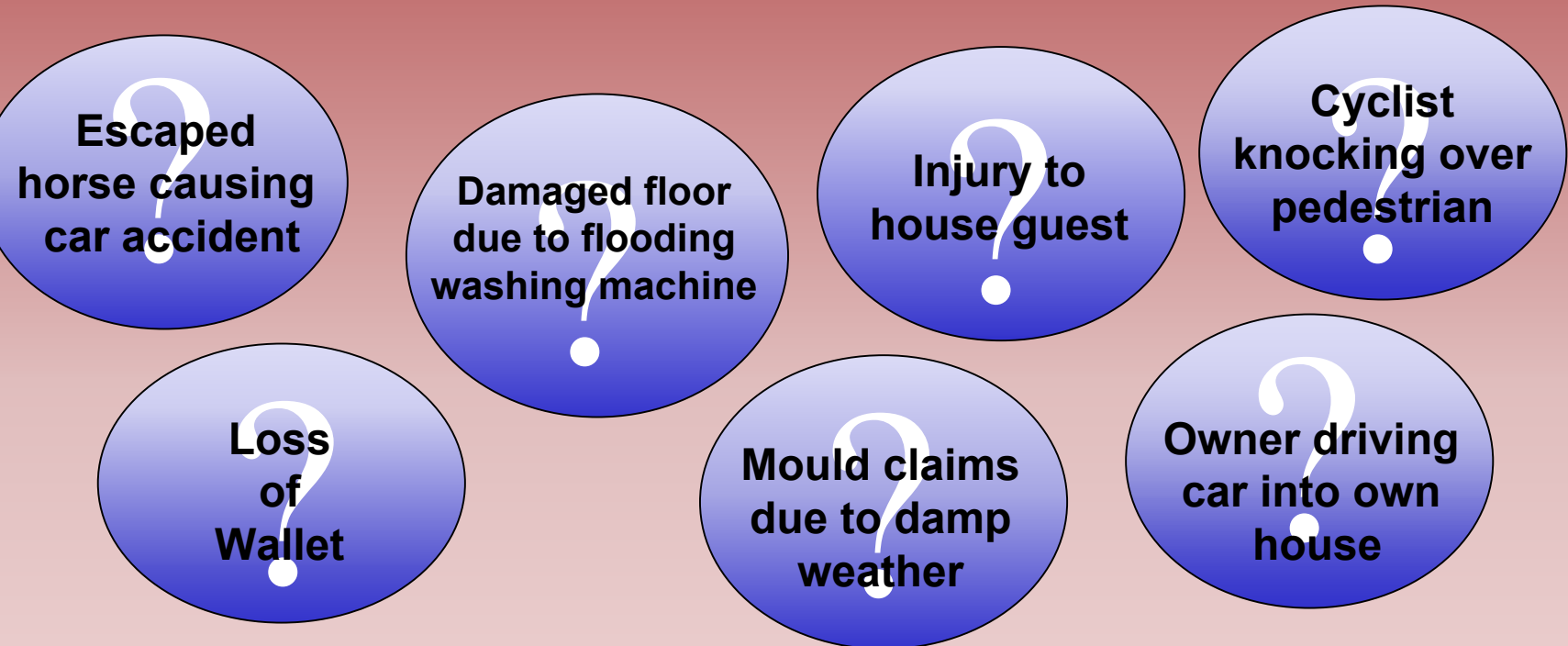
**Survey result (% response) - Predicted least useful rating factor for buildings insurance**



# Quiz question 8

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Which of the following claims are generally covered by Householder's Building and Contents policy?



Survey result – percentage of participants that said YES

# Quiz question 8

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Which of the following claims are generally covered by Householder's Building and Contents policy?

Escaped horse causing car accident  
**70%**

Damaged floor due to flooding washing machine  
**100%**

Injury to house guest  
**100%**

Cyclist knocking over pedestrian  
**60%**

Loss of wallet  
**50%**

Water damage due to damp weather  
**20%**

Owner driving car into house  
**30%**

