

## CapitOx Actuary Division Weekly Newsletter

Welcome to the third edition of the weekly actuarial newsletter, brought to you by the Actuarial Division of CapitOx. This issue is featured by the new section 'Puzzle'. We hope you enjoy the read! If you have any views on what you would like to see in future newsletters, please feel free to e-mail [capitoxactuaries@googlemail.com](mailto:capitoxactuaries@googlemail.com).

The past issues could be found on our website <http://www.capitox.com/actuary/>.

### Structure Summary

1. Recent Developments
2. Term of the Week
3. Puzzle
4. Conclusion

### 1. Recent Developments

*Below is a summary of relevant news. Please read more about the following articles:*

- One of the largest risks pension funds bear is longevity risk. A group of banks, insurers and pension professionals has got together in the UK to form the Life and Longevity Markets Association.  
[http://www.bloomberg.com/apps/news?pid=20601100&sid=afK\\_4VWgd03I](http://www.bloomberg.com/apps/news?pid=20601100&sid=afK_4VWgd03I)
- Nortel's UK pension scheme had a shortfall of roughly £2.1bn. Britain's Pensions Regulator defended its efforts to lay claim to a portion of the assets of Nortel and hopes its claim will help fill the gap.  
<http://www.ft.com/cms/s/0/d4e9787e-20e4-11df-b920-00144feab49a.html>
- What's the difference between predictive modeling and forecasting? An interesting article on predicting the future and risk management  
<http://smartdatacollective.com/Home/25000>

### 2. Term of the Week

*Definition of Defined Contribution Scheme*

A retirement plan in which a certain amount or percentage of money is set aside each year by a company for the benefit of the employee. It usually increased by an amount based on the investment return on those contributions. There are restrictions as to when and how the employees can withdraw these funds without penalties. Also known as a "money purchase" scheme.

### 3. Puzzle

*In the round*

A rectangle measuring 4 metres by 5 contains two non-overlapping circles. Given this restriction, the total perimeter of the circles is as large as it can possibly be. But how big?

The answer will be found at the end of the newsletter.

### 4. Conclusion

We hope that you have enjoyed reading, and are now more knowledgeable about the role actuaries play in business. The fourth edition of the newsletter will be out next week so be sure to catch it!

Thank you for your time.

CapitOx Actuaries

### **Answer to the Puzzle**

In the round

A rectangle measuring 4 metres by 5 contains two non-overlapping circles. Given this restriction, the maximum total perimeter of the circles is:  $\pi * (18 - 4*\sqrt{10})$  metres; i.e. around 16.8 metres.