

Risk management and Reinsurance

Association of Health Funders of Zimbabwe Conference
Victoria Falls,
September 6 2018



Solve this

$\rightarrow x^2 + px + q = 0$
 $\rightarrow x_{1/2} = -\frac{p}{2} \pm \sqrt{\left(\frac{p}{2}\right)^2 - q}$

$W = \int_{s_1}^{s_2} F(s) \cdot \cos \alpha \, ds$
 $\tan x = \frac{e^x - e^{-x}}{e^x + e^{-x}}$
 $u_c = U(1 - e^{-t/RC})$

$v = \frac{ds}{dt}$
 $\theta = \underline{I} \cdot N$
 $C + O_2 \rightarrow CO_2$

$f_r = \frac{1}{2\pi} \cdot \frac{1}{\sqrt{LC}}$; $\omega = 2\pi f_r$
 $4FeS_2 + 11O_2 \rightarrow 2Fe_2O_3 + 8SO_4$

$-\frac{d}{dt} \int_A \vec{B} \cdot d\vec{A} = \oint_L \vec{E}' \cdot d\vec{l} = - \int_A \left(\frac{\partial B}{\partial t} + \text{rot}(\vec{B} \times \vec{v}) \right) \cdot d\vec{A}$

$HCl + H_2O \rightleftharpoons Cl^- + H_3O^+$
 $a^2 = b^2 + c^2 \rightarrow W_{rot} = \frac{1}{2} J \omega^2$

$V = \frac{1}{6} \pi h (3e_1^2 + 3e_2^2 + h^2)$
 $\rho_v = \int_{\varphi=0}^{2\pi} \int_{\vartheta=0}^{\pi} \frac{r^2}{5\sigma_2} H_\varphi H_\varphi^* \sin \vartheta \, d\vartheta \, d\varphi$

Introduction

Risk

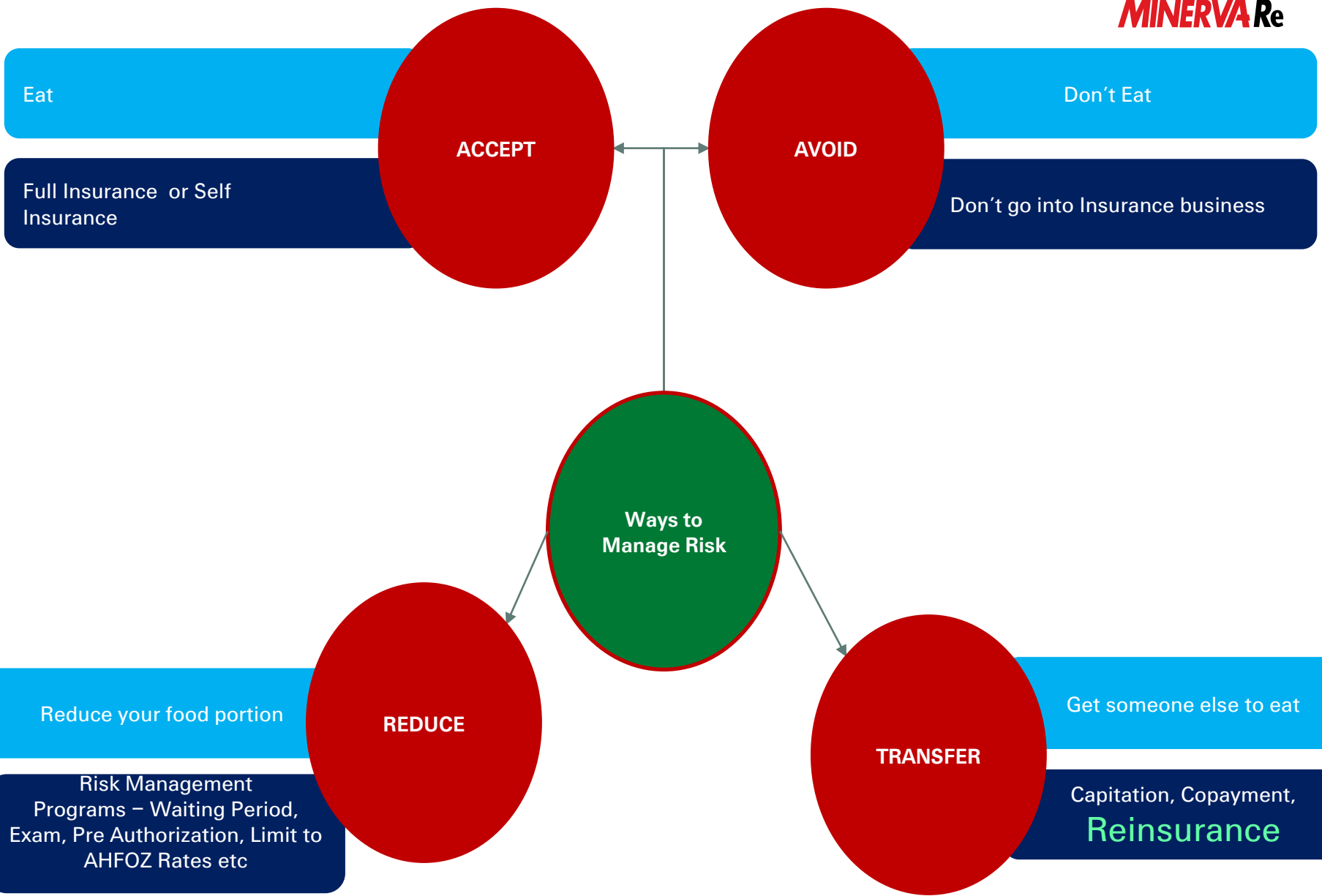


Risk Taking Behavior

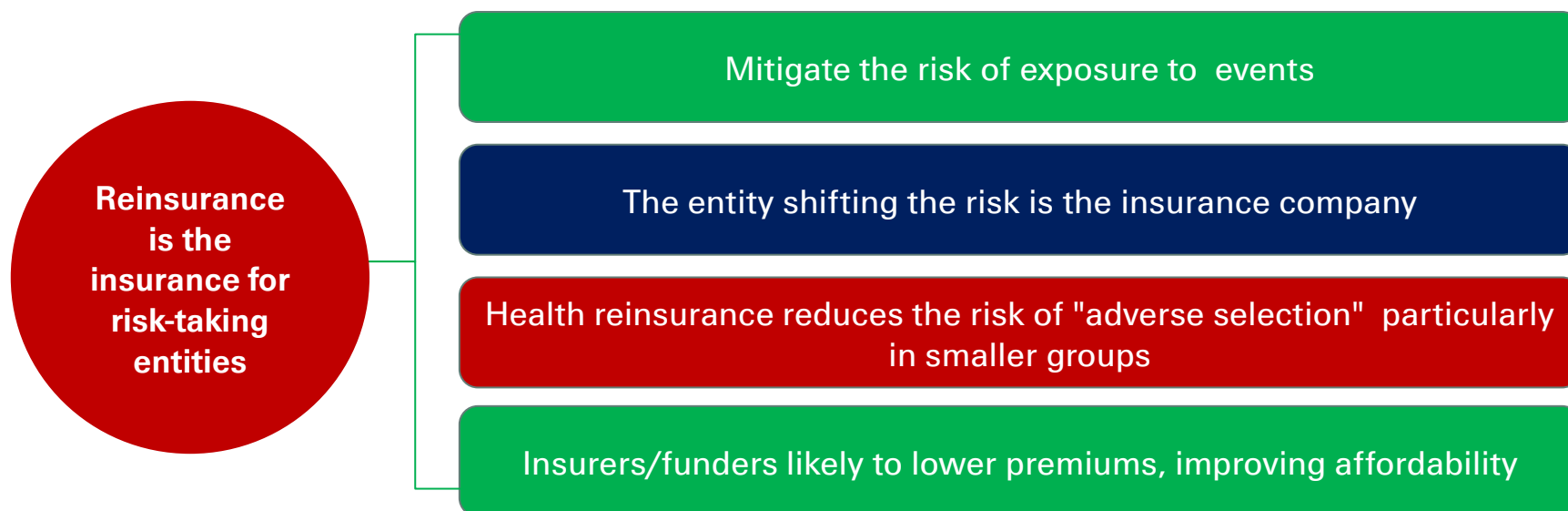
Risk-Averse

Risk-Neutral

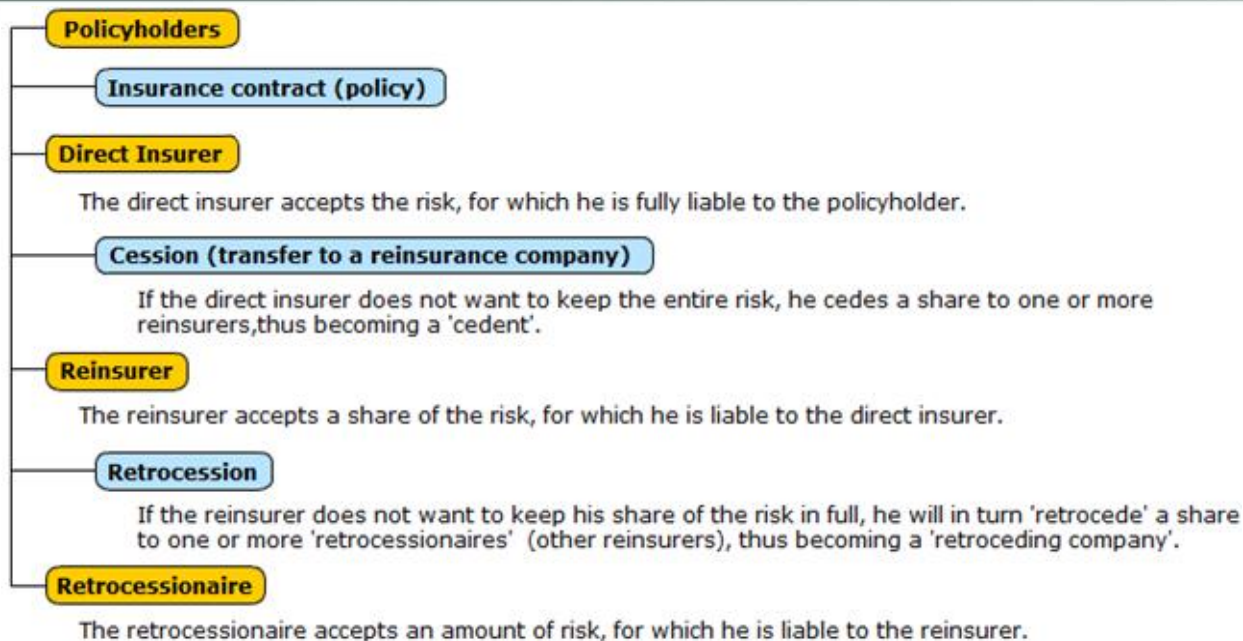
Risk-Taker

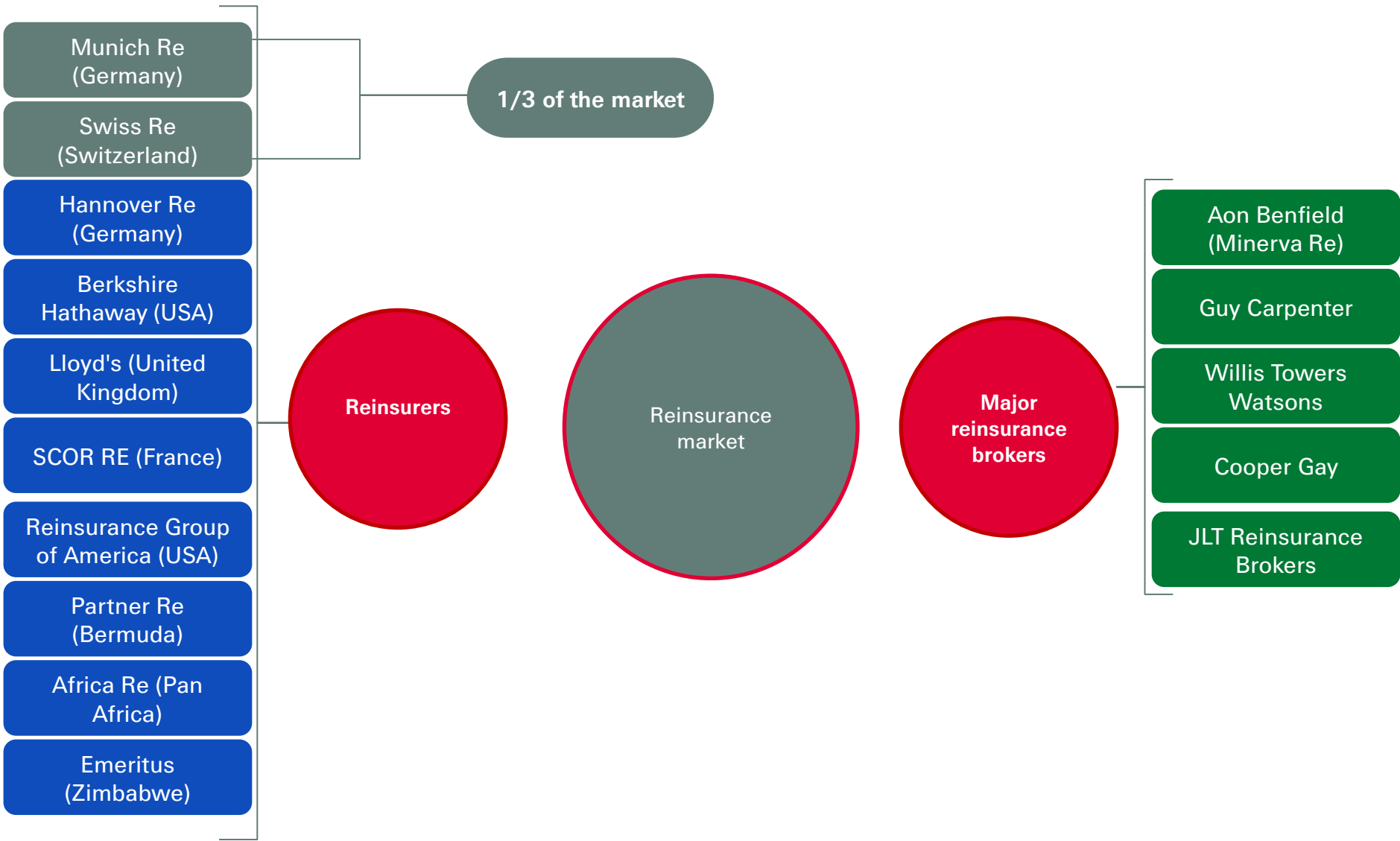


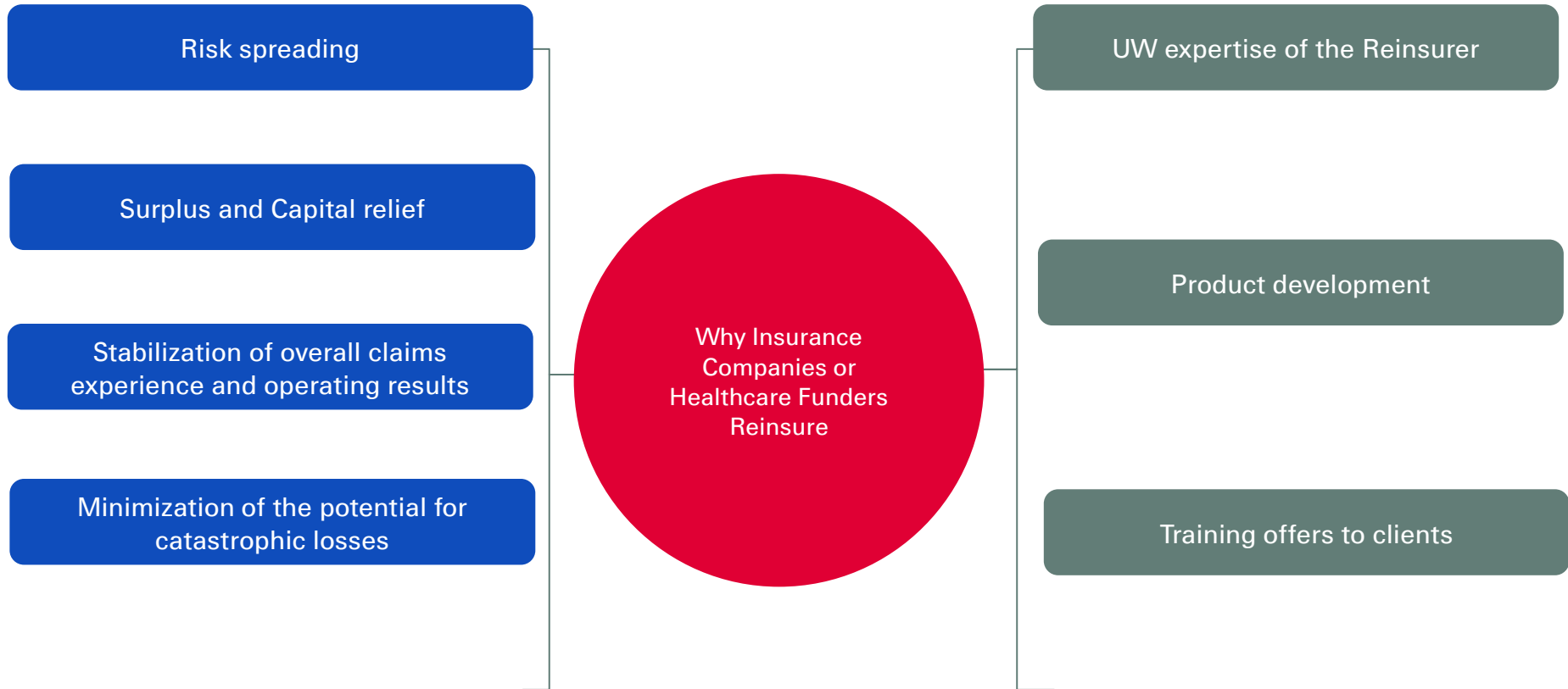
Definition of Reinsurance

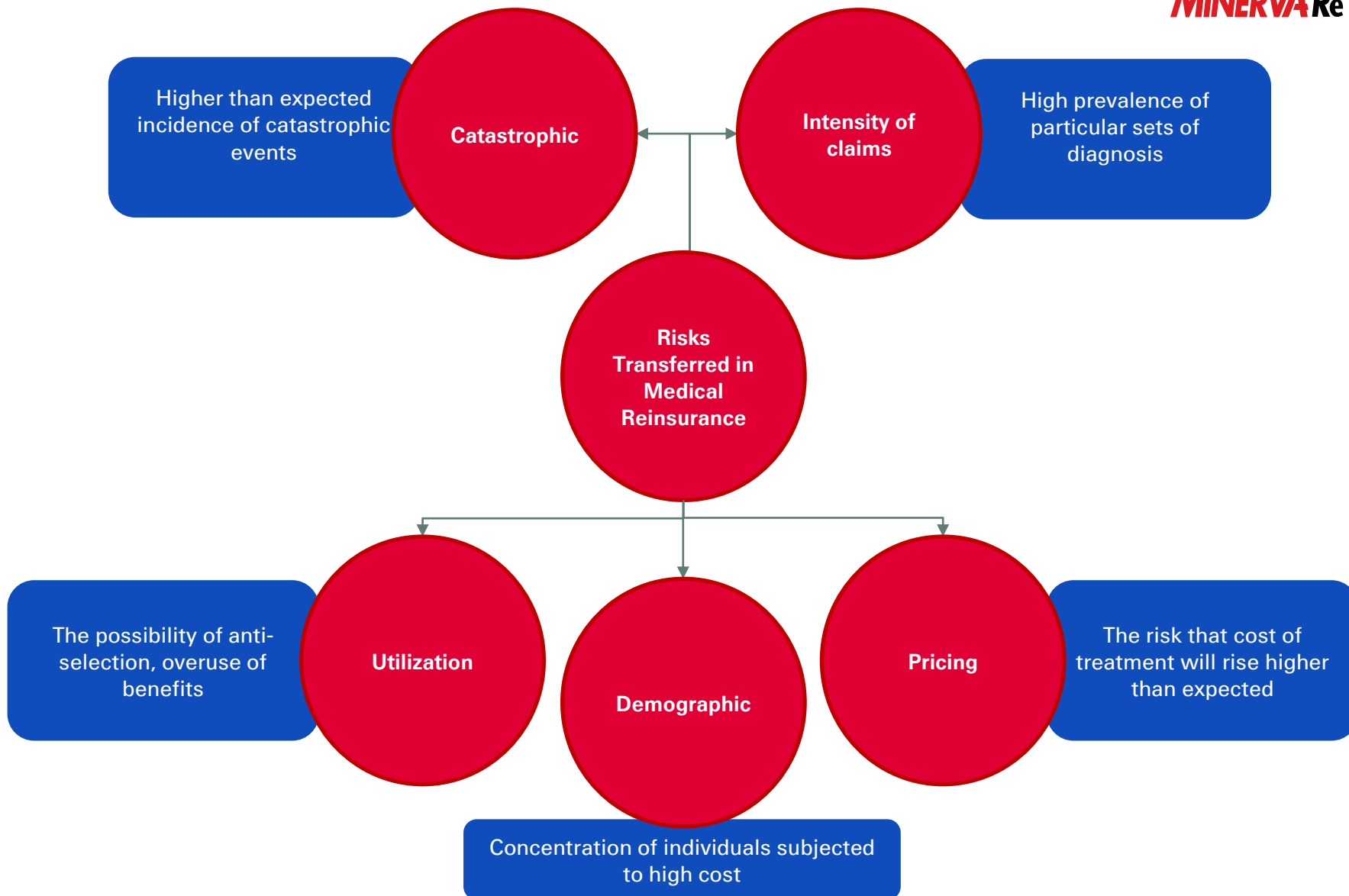


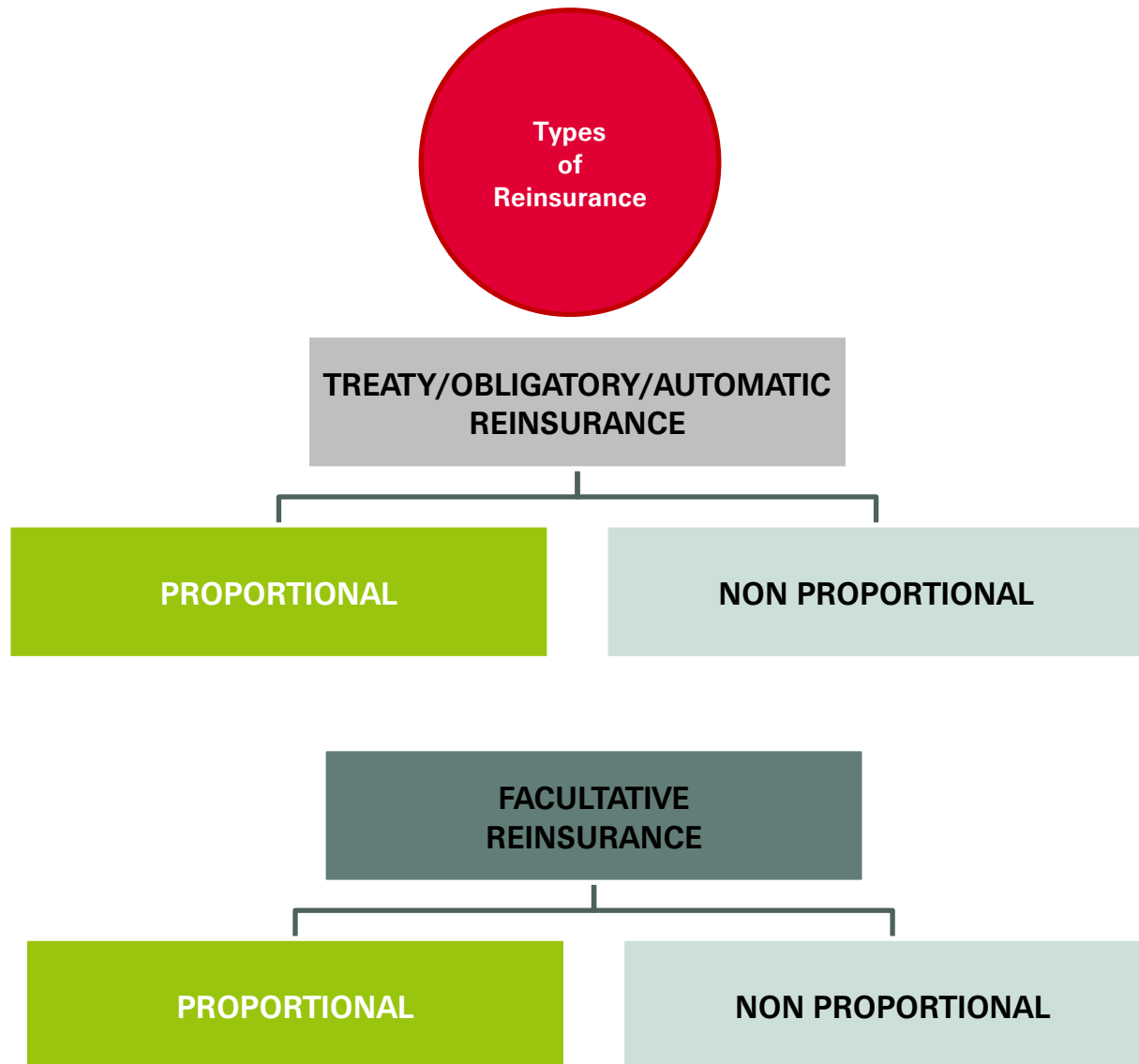
Players in the Reinsurance Market





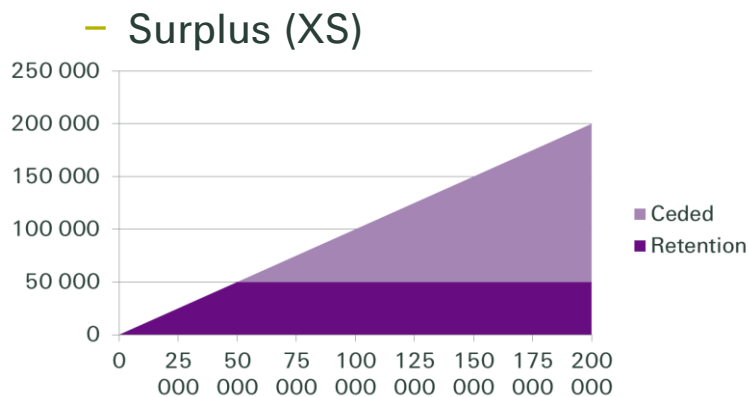
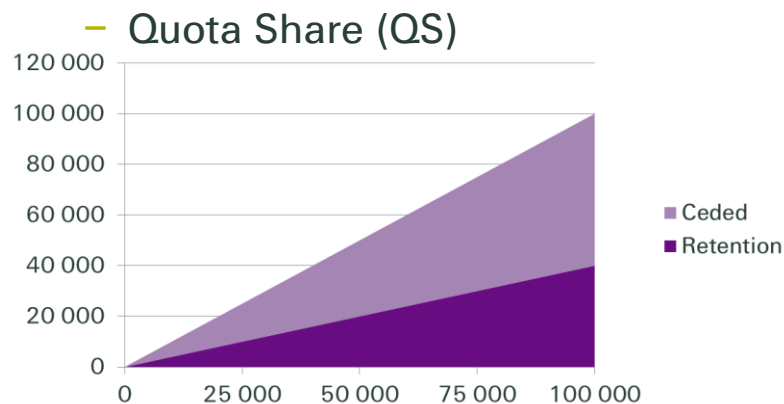






Forms of Reinsurance

- Proportional Reinsurance**



Non-proportional Reinsurance



Catastrophe excess of loss (Cat XL)

Stop Loss (SL)

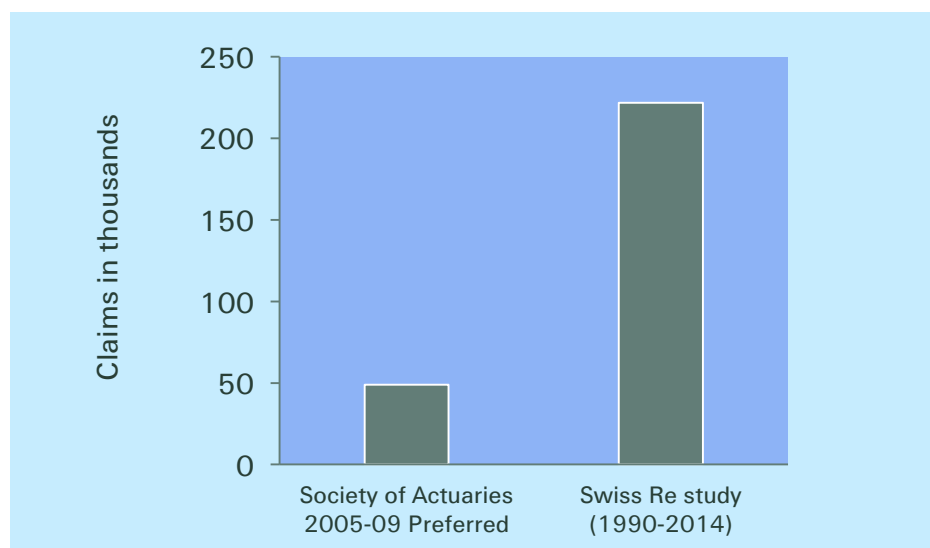
Benefits of Reinsurance



SWISS RE
150
YEARS

Reinsurers have access to myriad of data

- For example Swiss Re has access to data in the Zimbabwe market from various insurers



Reinsurers use this data to make more accurate pricing decisions at inception and to monitor treaty performance on a monthly basis

Reinsurers as trusted partners

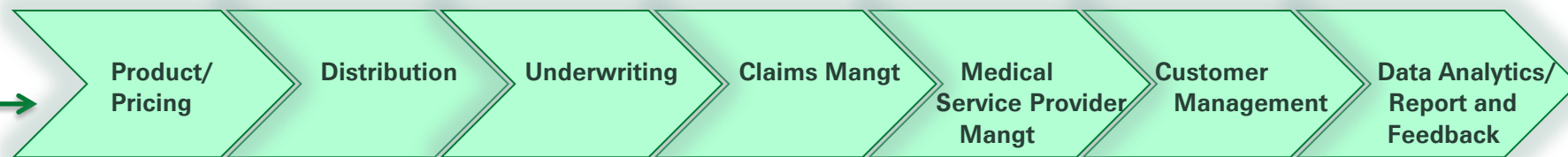
Capacity	Reinsurance can provide capacity for risks that are too large and/or too complex for other players
Strategic Support	Reinsurers can facilitate strategic transactions for its key partners
Reputation	Unparalleled brand reputation and long-standing relationship with many insurance companies and governments around the globe
Expertise	Reinsurers operates on a global scale for both Non-Life, Life & Health business and have extensive knowledge of all business lines, products and risks
Excellence	Proven execution track record covering the full range from standardised products to highly tailored and innovative solutions



Swiss Re has been recognised as both **Life Reinsurer of the Year** and **General Reinsurer of the Year** for 2013 at the Asian Insurance Review Awards

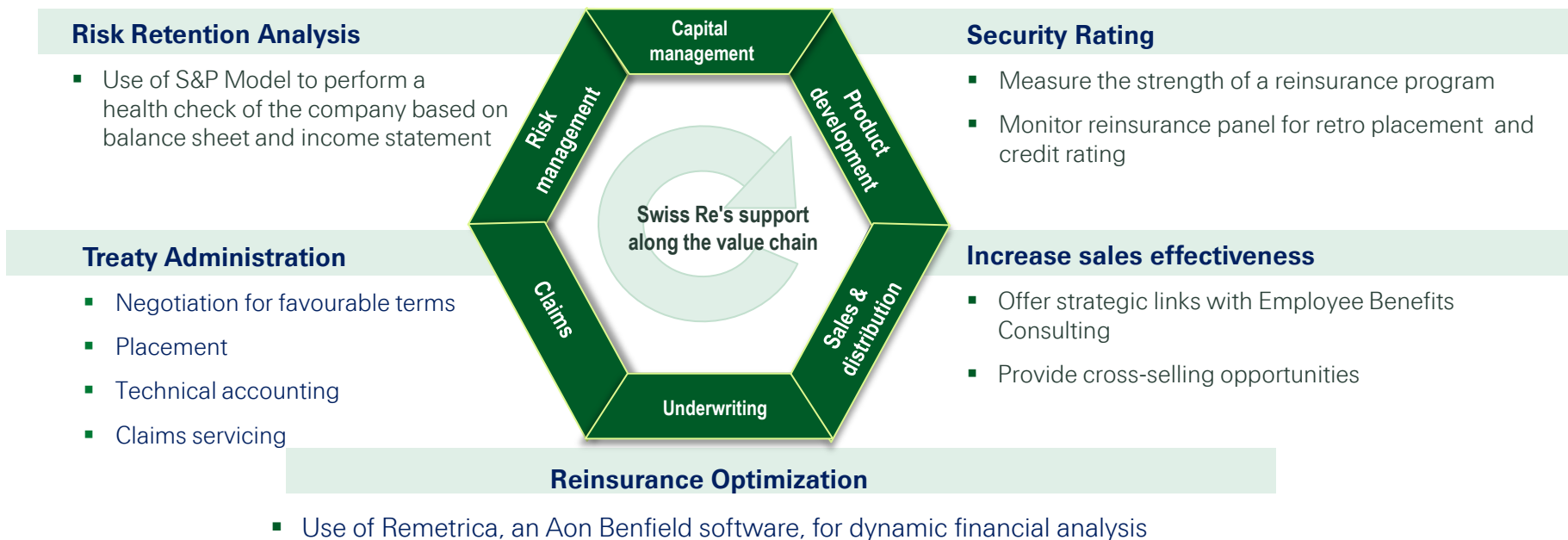


Swiss Re support across the whole value chain



- | | | | | | | |
|---|---|---|--|--|---|---|
| <ul style="list-style-type: none"> ▪ Product design ▪ Actuarial input for pricing ▪ Large datasets ▪ Pricing tools ▪ Product solutions | <ul style="list-style-type: none"> ▪ Simplified U/W Solutions ▪ Distribution Strategies ▪ Sales Support ▪ Consumer Research | <ul style="list-style-type: none"> ▪ Philosophy ▪ Guidelines ▪ Manuals : Life Guide/ MedeGuide ▪ PRC market ▪ Training ▪ Magnum ▪ Juvenile Risks | <ul style="list-style-type: none"> ▪ Standard protocols ▪ Training ▪ Claims Reviews ▪ PRC market ▪ IT System expertise ▪ Process engineering ▪ Staff training | <ul style="list-style-type: none"> ▪ Philosophy ▪ MSP network mangt & basic control features ▪ Standard medical protocols ▪ Medical Cost containment | <ul style="list-style-type: none"> ▪ Policyholder/ patient Management ▪ Prevention and Wellness ▪ Member education ▪ Value added services | <ul style="list-style-type: none"> ▪ Informatic design ▪ Data collection & analysis ▪ Experience analysis ▪ Feedback and revision along the value chain |
|---|---|---|--|--|---|---|

Minerva Re's analytics and administration support along the value chain



Q&A



Legal notice

©2018 Swiss Re. All rights reserved. You are not permitted to create any modifications or derivative works of this presentation or to use it for commercial or other public purposes without the prior written permission of Swiss Re.

The information and opinions contained in the presentation are provided as at the date of the presentation and are subject to change without notice. Although the information used was taken from reliable sources, Swiss Re does not accept any responsibility for the accuracy or comprehensiveness of the details given. All liability for the accuracy and completeness thereof or for any damage or loss resulting from the use of the information contained in this presentation is expressly excluded. Under no circumstances shall Swiss Re or its Group companies be liable for any financial or consequential loss relating to this presentation.