



**Dlhodobé investovanie do akcií.
Zodpovedajú výnosy akciových trhov ich reálnemu riziku?**

KAPITÁLOVÝ TRH 2012
Investovanie v krízových časoch

Juraj Podracký, 19-6-2012
Elesko Wine Park, Modra

Dlhodobé investovanie do akcií

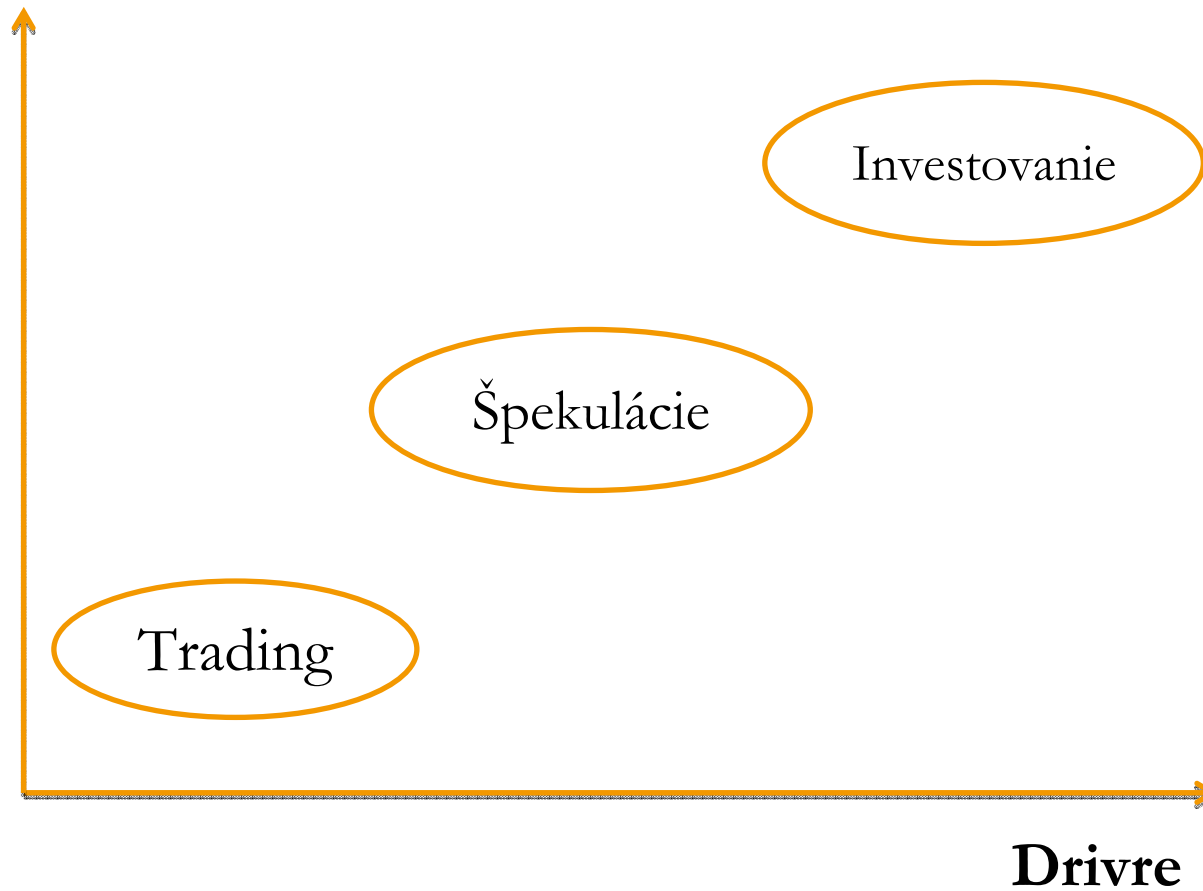


- Teoretické základy akciovej prémie
- Historický pohľad na akciovú prémiiu na vyspelých trhoch
- Riziko pri dlhodobom investovaní
- Sú akcie mŕtve?

Dlhodobé investovanie



Časový horizont

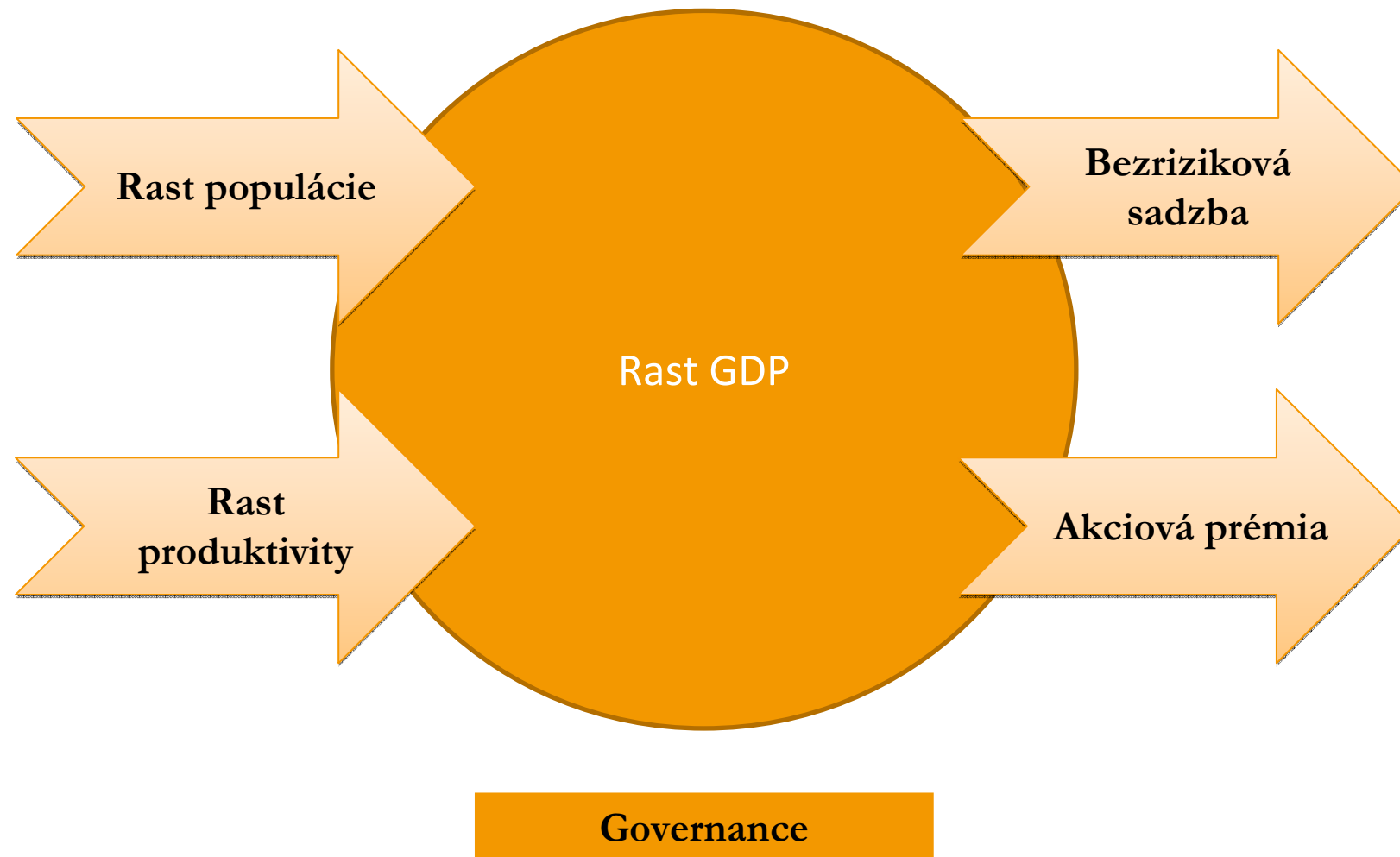


Teoretické základy akciovej prémie



- Celkový nominálny výnos = inflácia + bezriziková sadzba + akciová prémie
- Bezriziková sadzba = reálny výnos štátnych dlhopisov

Teoretické základy akciovej prémie

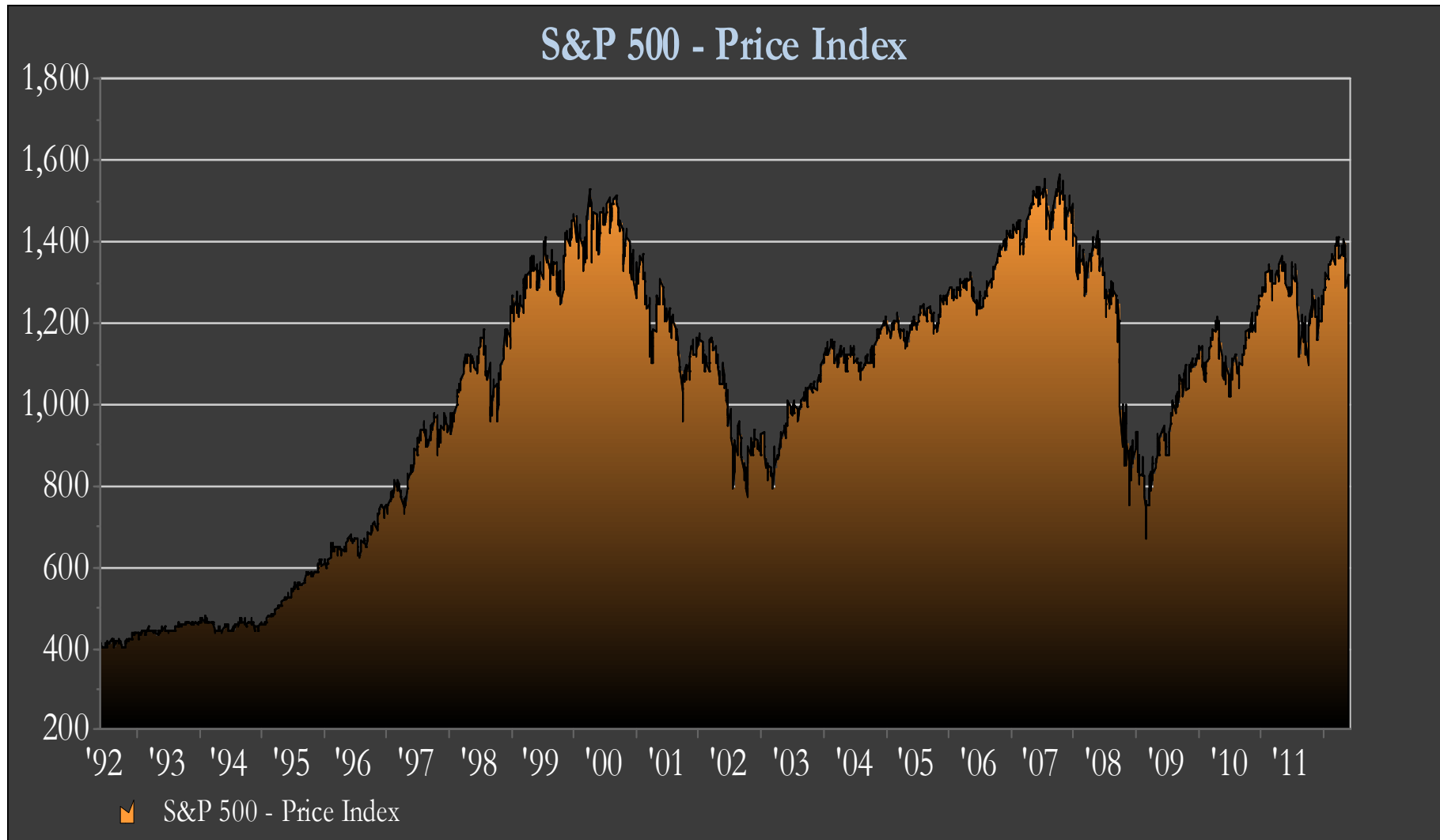


Teoretické základy akciovej prémie

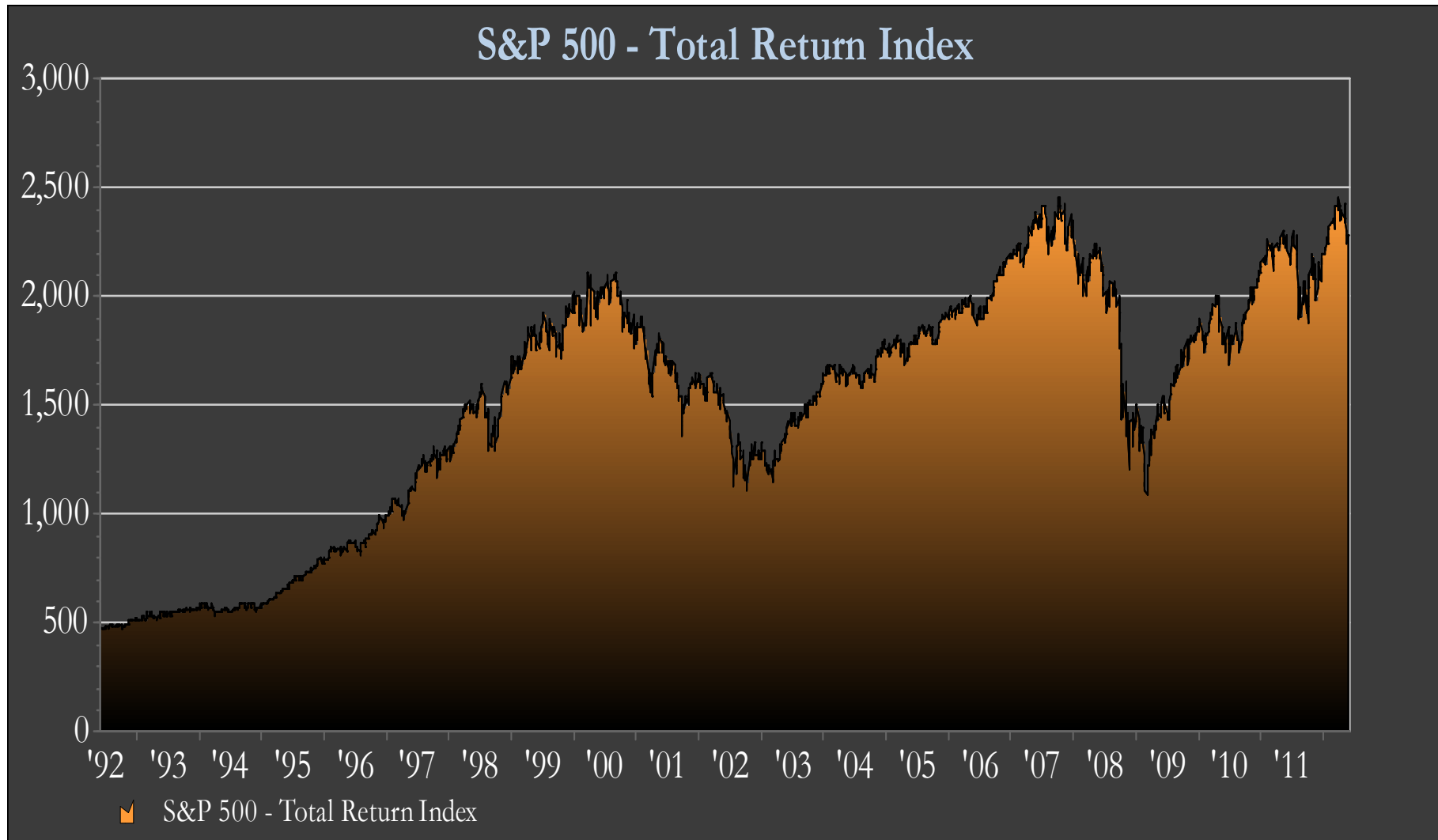


- $\text{Akciová prémie} = \text{dividendový výnos} + \text{rast EPS} + \text{zmeny vo valuácii}$
- $\text{Akciová prémie} = \text{dividendový výnos} + \text{rast book value} + \text{zmeny vo valuácii}$
- Governance, shareholder friendliness

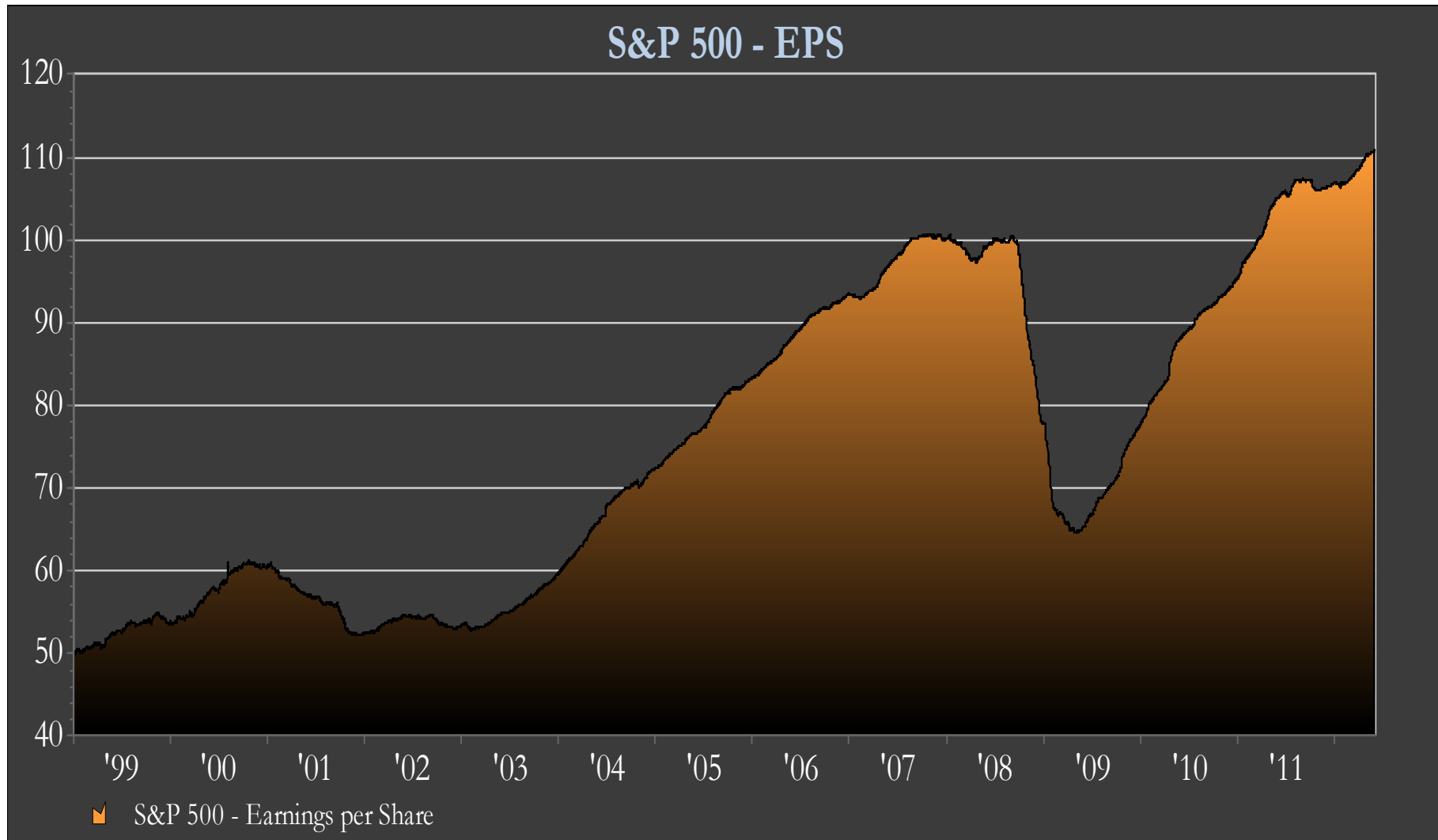
Graf SPX 500 - Cena



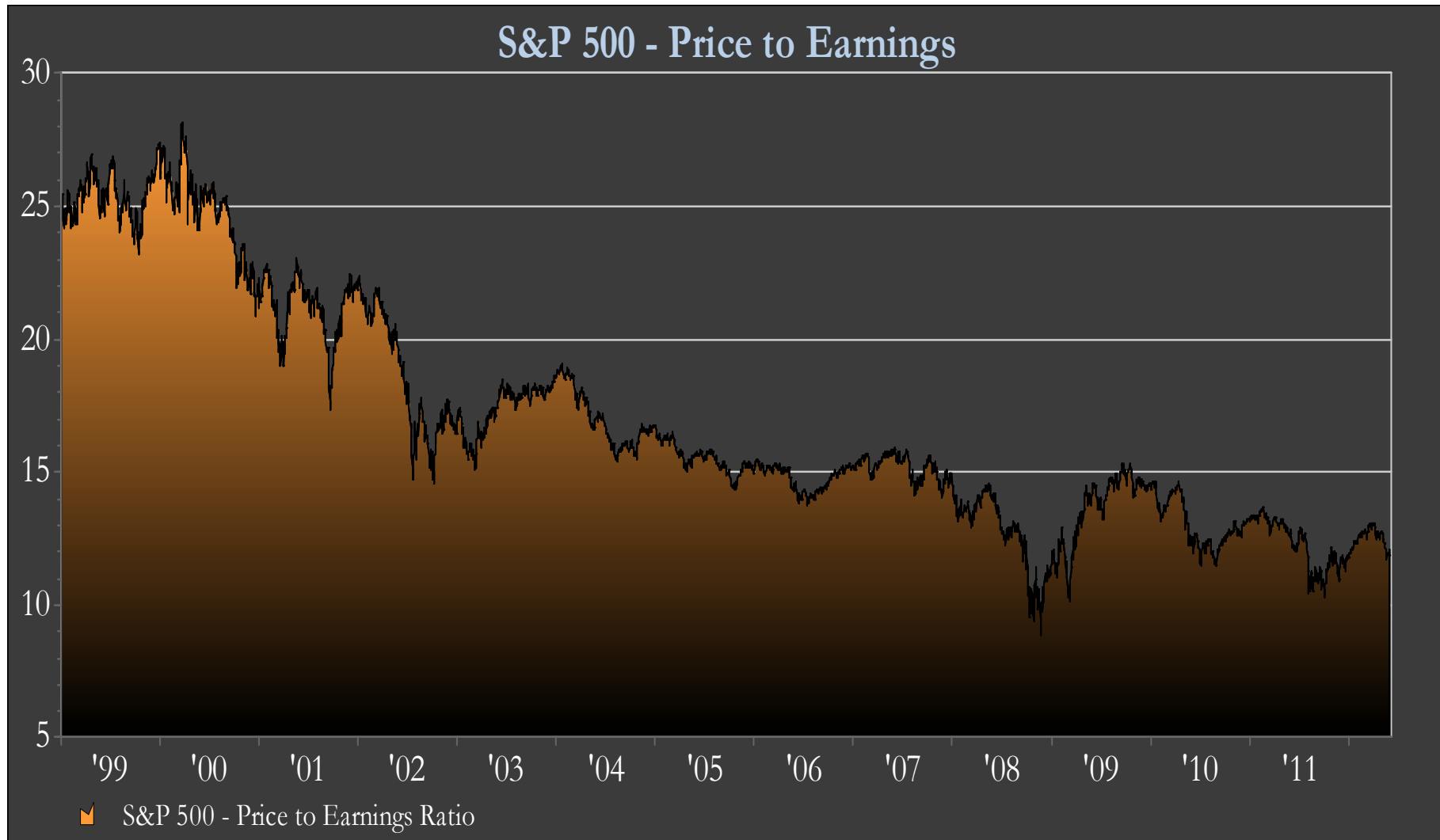
Graf SPX 500 - Total Return



Graf SPX 500 - EPS



Graf SPX 500 - P/E

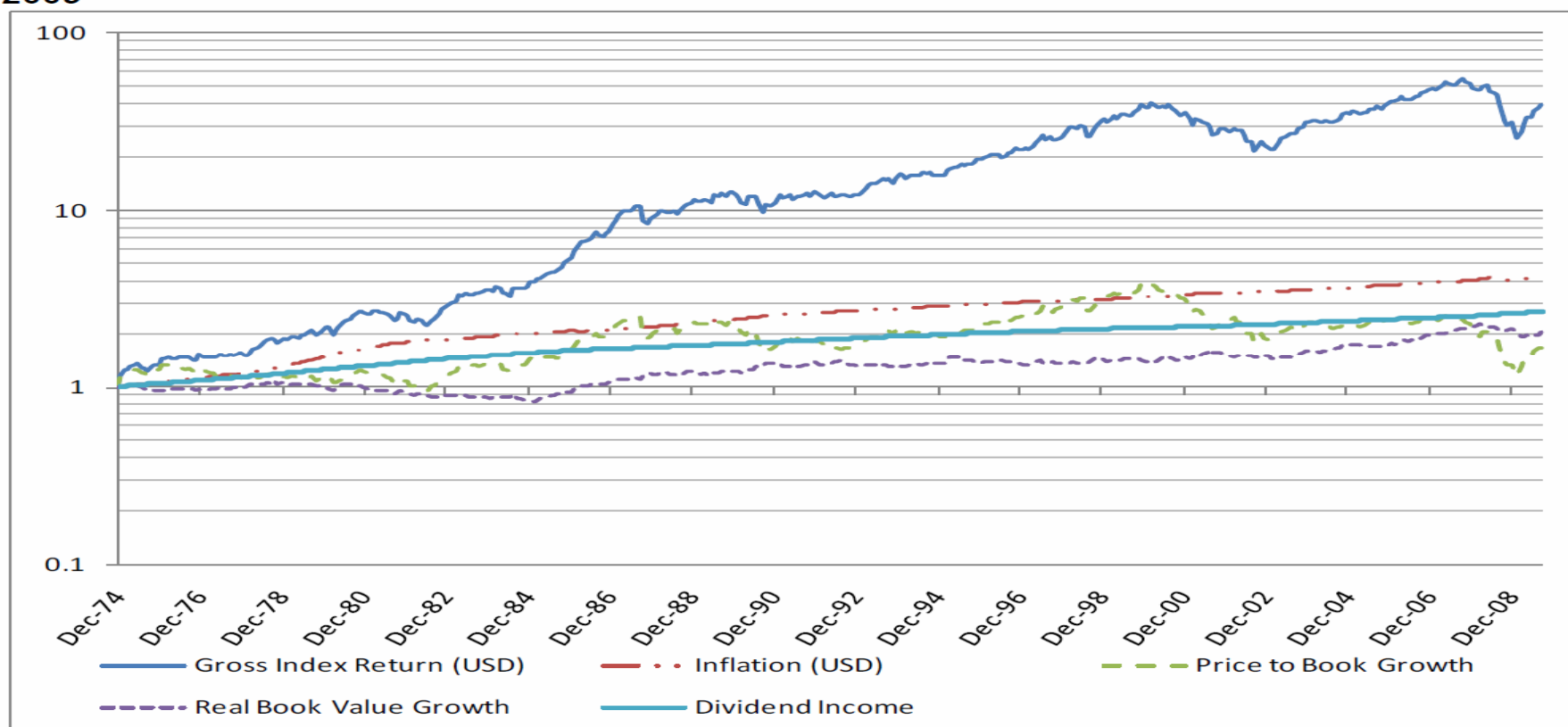


Empíria vyspelých trhov



Akciová prémie = dividendový výnos + rast book value + zmeny vo valuácii

Exhibit 2: Cumulative return of the components of the MSCI World Index (gross), 1975-2009



Source: MSCI Barra and OECD (inflation data). Data as of September 30, 2009.

Empíria vyspelých trhov



Akciová prémie = dividendový výnos + rast book value + zmeny vo valuácii

Exhibit 1: Components of the MSCI World Index gross returns and their volatilities, 1975-2009 and subperiods

Period	1975 - 2009					volatility
		1975 - 1979	1980 - 1989	1990 - 1999	2000 - 2009	1975 - 2009
Gross Index Return (USD)	11.1%	16.0%	19.9%	12.0%	-0.2%	14.9%
Inflation (USD)	4.2%	8.1%	5.1%	2.9%	2.6%	1.3%
Price to Book Growth	1.5%	2.3%	8.0%	5.0%	-8.3%	14.0%
Real Book Value Growth	2.1%	0.2%	2.1%	1.4%	3.8%	5.6%
Dividend Income	2.9%	4.6%	3.6%	2.1%	2.2%	0.4%
Residual Interactions	0.4%	0.7%	1.2%	0.5%	-0.5%	0.3%

Source: MSCI Barra and OECD (inflation data); annualized values. Data as of September 30, 2009.

Empíria vyspelých trhov



Figure 8: Historical equity returns and excess returns (local currency, inflation adjusted)

Country	Period	Div	Cap Gain	TR	R	Excess return
UK	1950-2011	4.48%	1.66%	6.15%	1.94%	4.21%
US	1950-2010	3.69%	3.27%	6.96%	2.32%	4.65%
Germany	1973-2011	2.65%	2.63%	5.27%	3.77%	1.50%
Japan	1973-2011	1.30%	0.31%	1.61%	0.88%	0.73%
UK	1900-2011	4.51%	0.33%	4.84%	1.84%	3.00%
US	1926-2010	4.17%	2.40%	6.57%	2.03%	4.54%

Note: Div stands for the average dividend yield; Cap Gain is the total return attributable to real capital appreciation; TR stands for total return on equities, and R is the average (ex-post) real interest rate on government debt. Source: Haver Analytics, Datastream Global Equity Indices, CRSP

Figure 1: Real investment returns by asset class (% pa)

Last	2011	10 years	20years	50years	112 years*
Equities	-7.8	1.2	4.8	5.3	4.9
Gilts	15.8	3.9	5.9	3.1	1.3
Corporate Bonds	1.6	1.6			
Index-Linked	14.4	4.0	5.0		
Cash	-4.1	0.2	2.1	1.6	0.9

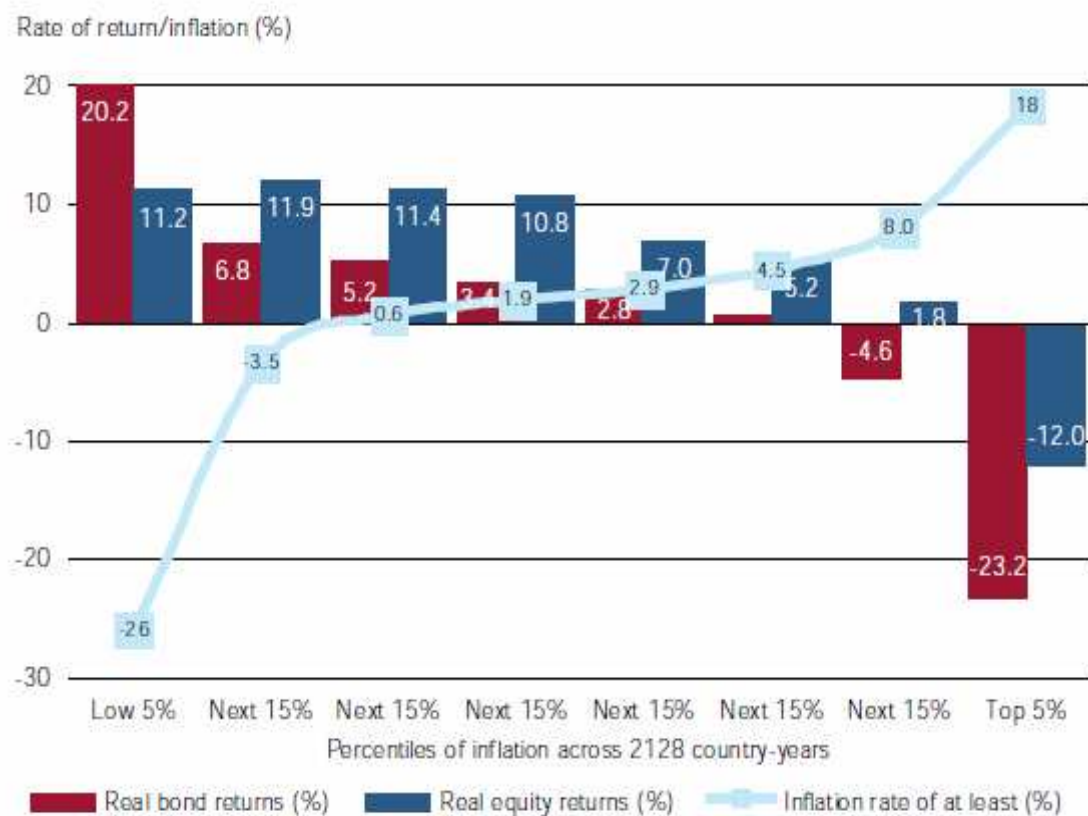
Note: * Entire sample. Source: Barclays Capital

Empíria vyspelých trhov



Real bond and equity returns vs. inflation rates, 1900–2011

Source: Elroy Dimson, Paul Marsh, and Mike Staunton



Empíria vyspelých trhov

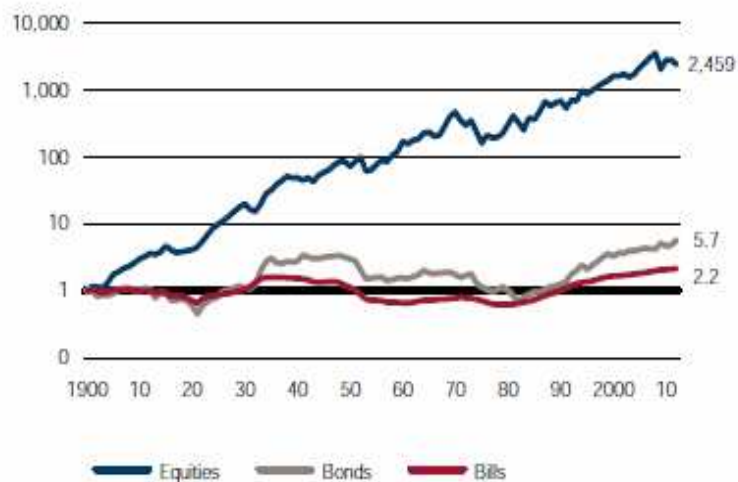


Austrália

Capital market returns for Australia

Figure 1 shows that, over the last 112 years, the real value of equities, with income reinvested, grew by a factor of 2475.2 as compared to 5.8 for bonds and 2.2 for bills. Figure 2 shows that, since 1900, equities beat bonds by 5.6% and bills by 6.5% per year. Figure 3 shows that the long-term real return on Australian equities was an annualized 7.2% as compared to bonds and bills, which gave a real return of 1.6% and 0.7% respectively. For additional explanations of these figures, see page 37.

Figure 1
Annualized performance from 1900 to 2011

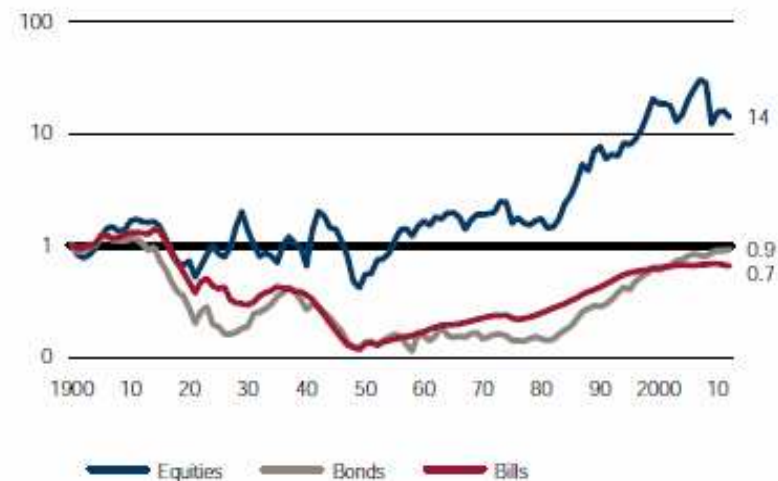


Belgicko

Capital market returns for Belgium

Figure 1 shows that, over the last 112 years, the real value of equities, with income reinvested, grew by a factor of 14.1 as compared to 0.9 for bonds and 0.7 for bills. Figure 2 shows that, since 1900, equities beat bonds by 2.5% and bills by 2.8% per year. Figure 3 shows that the long-term real return on Belgium equities was an annualized 2.4% as compared to bonds and bills, which gave a real return of -0.1% and -0.4% respectively. For additional explanations of these figures, see page 37.

Figure 1
Annualized performance from 1900 to 2011



Empíria vyspelých trhov

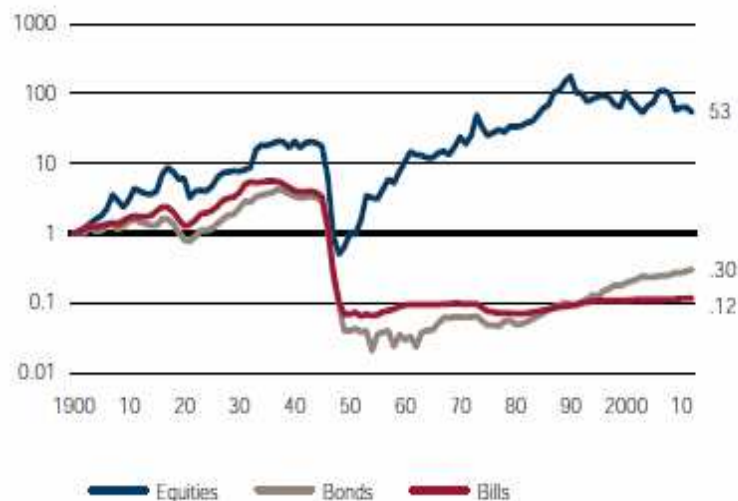


Japonsko

Capital market returns for Japan

Figure 1 shows that, over the last 112 years, the real value of equities, with income reinvested, grew by a factor of 53.5 as compared to 0.3 for bonds and 0.1 for bills. Figure 2 shows that, since 1900, equities beat bonds by 4.7% and bills by 5.6% per year. Figure 3 shows that the long-term real return on Japanese equities was an annualized 3.6% as compared to bonds and bills, which gave a real return of -1.1% and -1.9% respectively. For additional explanations of these figures, see page 37.

Figure 1
Annualized performance from 1900 to 2011

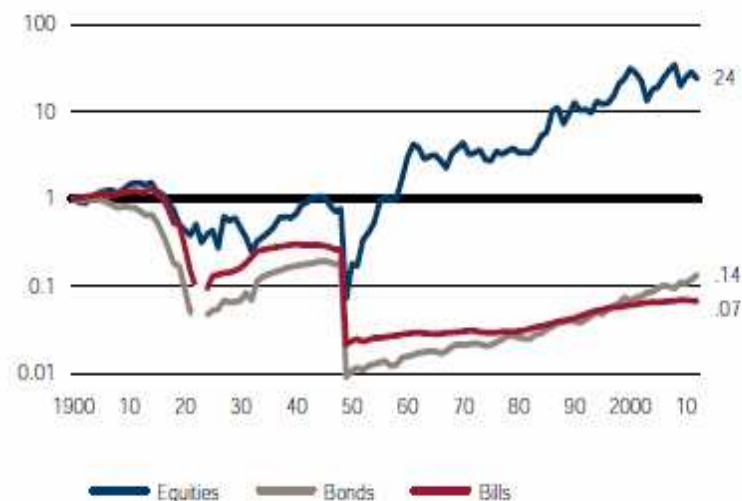


Nemecko

Capital market returns for Germany

Figure 1 shows that, over the last 112 years, the real value of equities, with income reinvested, grew by a factor of 23.6 as compared to 0.14 for bonds and 0.07 for bills. Figure 2 shows that, since 1900, equities beat bonds by 5.1% and bills by 5.7% per year. Figure 3 shows that the long-term real return on German equities was an annualized 2.9% as compared to bonds and bills, which gave a real return of -1.8% and -2.4% respectively. The bond and bill series are rebased after 1923. For additional explanations of these figures, see page 37.

Figure 1
Annualized performance from 1900 to 2011



Empíria vyspelých trhov



Svet

Capital market returns for World (in USD)

Figure 1 shows that, over the last 112 years, the real value of equities, with income reinvested, grew by a factor of 343.7 as compared to 7.0 for bonds and 2.8 for US bills. Figure 2 shows that, since 1900, equities beat bonds by 3.5% and US bills by 4.4% per year. Figure 3 shows that the long-term real return on World equities was an annualized 5.4% as compared to bonds and US bills, which gave a real return of 1.7% and 0.9% respectively. For additional explanations of these figures, see page 37.

Figure 1
Annualized performance from 1900 to 2011



Svet bez USA

Capital market returns for World ex-US (in USD)

Figure 1 shows that, over the last 112 years, the real value of equities, with income reinvested, grew by a factor of 200.4 as compared to 4.1 for bonds and 2.8 for US bills. Figure 2 shows that, since 1900, equities beat bonds by 3.5% and US bills by 3.9% per year. Figure 3 shows that the long-term real return on World ex-US equities was an annualized 4.8% as compared to bonds and US bills, which gave a real return of 1.3% and 0.9% respectively. For additional explanations of these figures, see page 37.

Figure 1
Annualized performance from 1900 to 2011

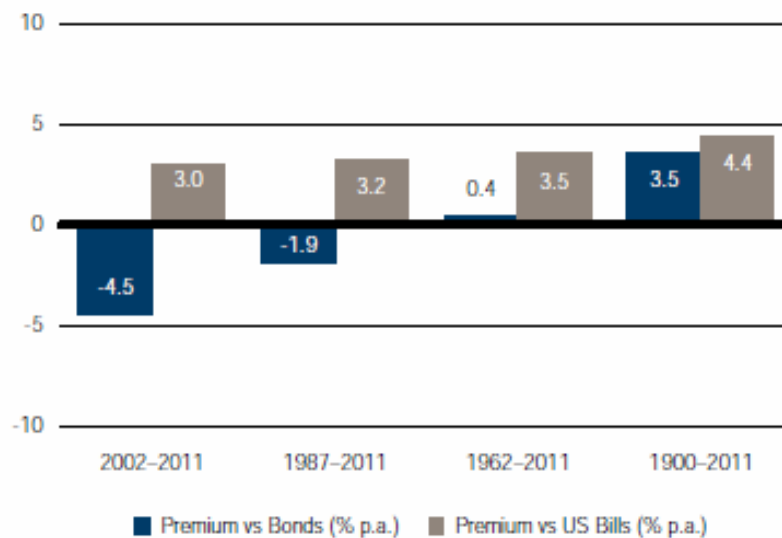


Empíria vyspelých trhov



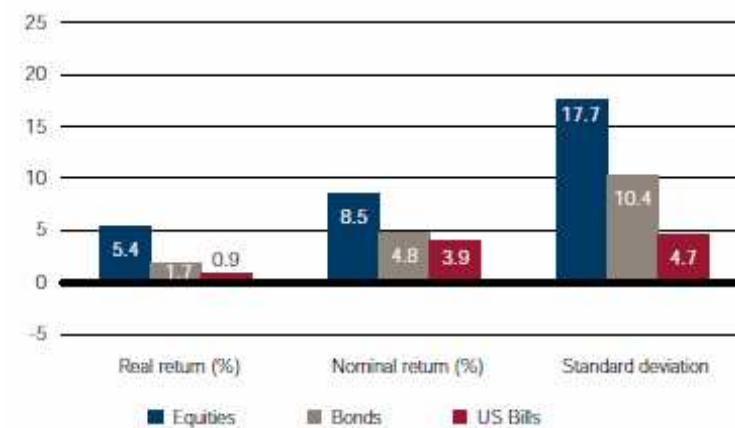
Svet s USA

Equity risk premium over 10 to 112 years



Svet s USA

Returns and risk of major asset classes since 1900



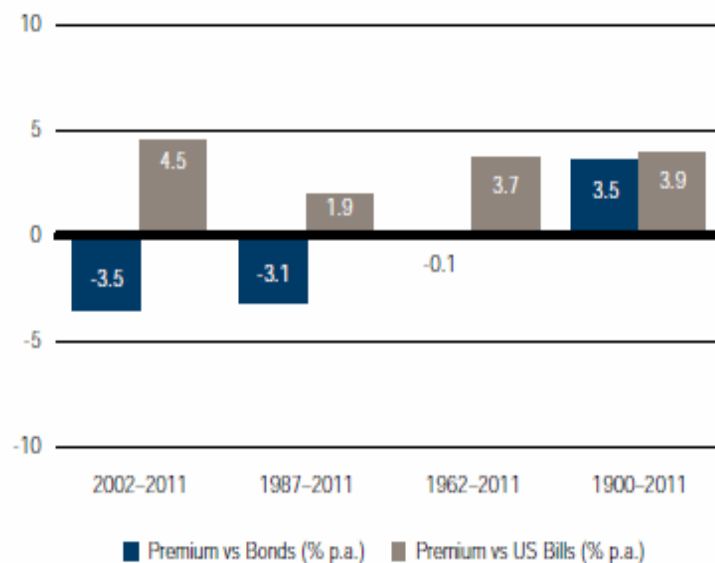
Source: Elroy Dimson, Paul Marsh, and Mike Staunton, Credit Suisse Global Investment Returns Sourcebook 2012.

Empíria vyspelých trhov



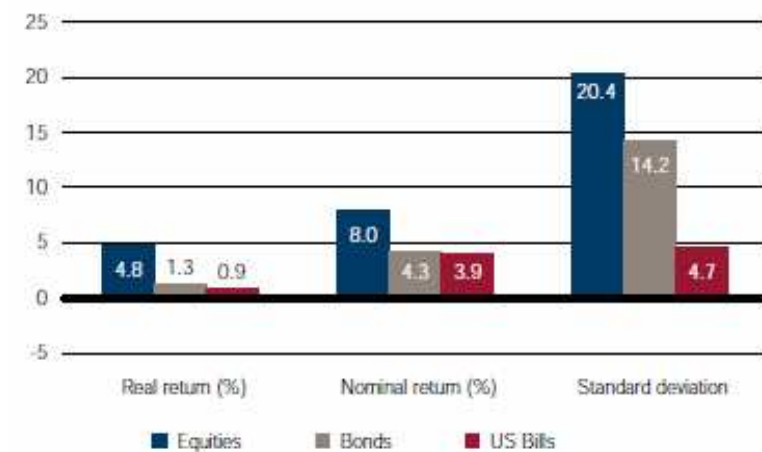
Svet bez USA

Equity risk premium over 10 to 112 years



Svet bez USA

Returns and risk of major asset classes since 1900



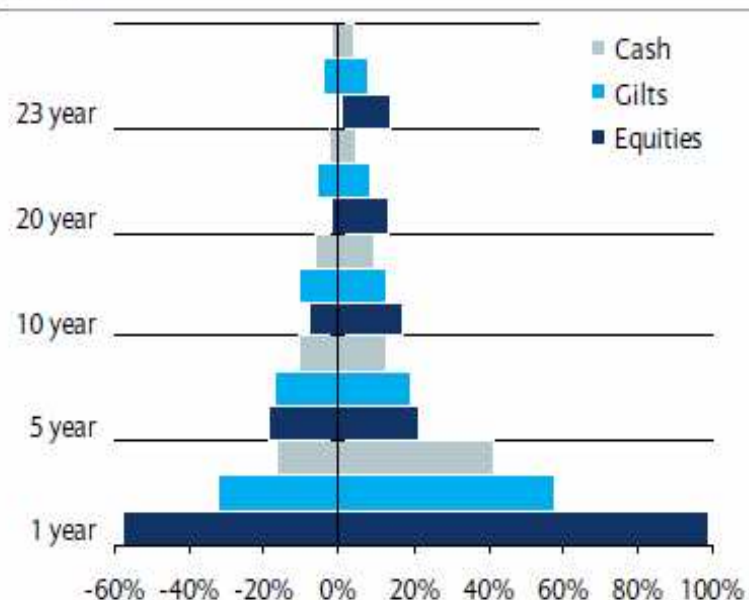
Source: Elroy Dimson, Paul Marsh, and Mike Staunton, Credit Suisse Global Investment Returns Sourcebook 2012.

Čo je merítkom rizika pri dlhodobom investovaní ?



United Kingdom

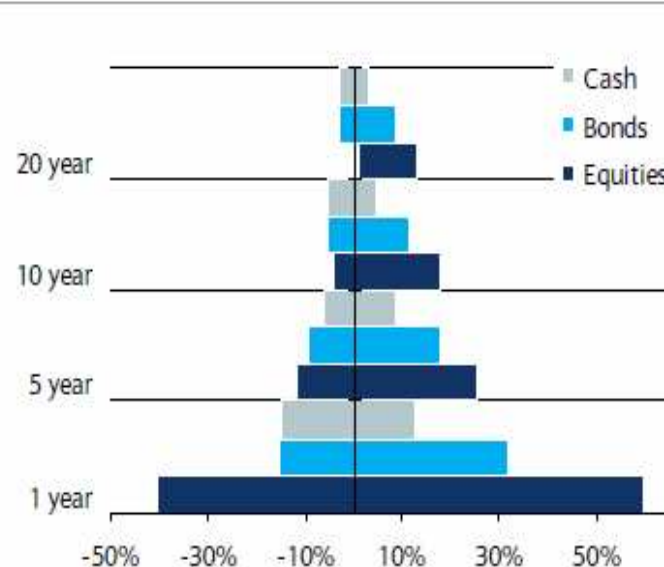
Figure 7: Maximum and minimum real returns over various periods



Source: Barclays Capital

USA

Figure 7: Maximum and minimum real returns over different periods



Source: CRSP, Barclays Capital

Čo je merítkom rizika pri dlhodobom investovaní ?



Figure 8: Equity performance

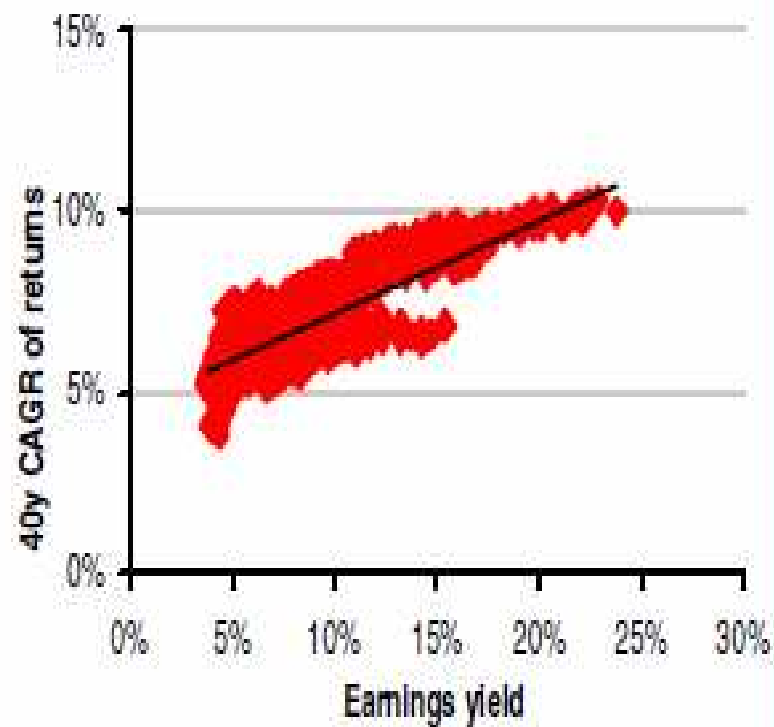
	Number of consecutive years					
	2	3	4	5	10	18
Outperform cash	74	76	78	80	93	94
Underperform cash	37	34	31	28	10	1
Total number of years	111	110	109	108	103	95
Probability of Equity Outperformance	67%	69%	72%	74%	90%	99%
Outperform Gilts	76	82	82	80	81	84
Underperform Gilts	35	28	27	28	22	11
Total number of years	111	110	109	108	103	95
Probability of Equity Outperformance	68%	75%	75%	74%	79%	88%

Source: Barclays Capital

Čo je merítkom rizika pri dlhodobom investovaní ?

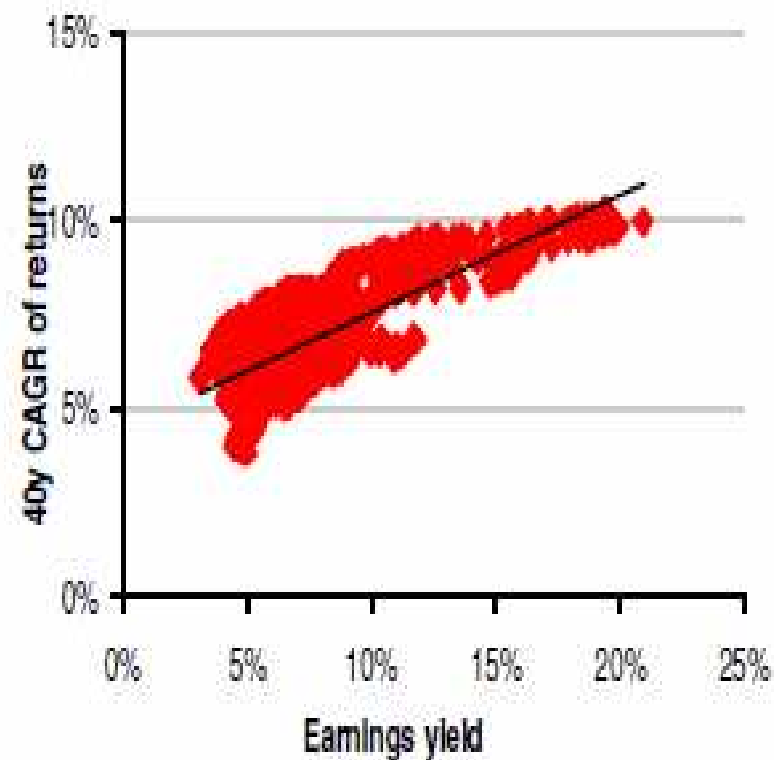


9. S&P 500: Earnings yield based on trend earnings vs. future returns



Source: HSBC, Robert Shiller

10. S&P 500: Earnings yield based on 10y avg earnings vs. future returns

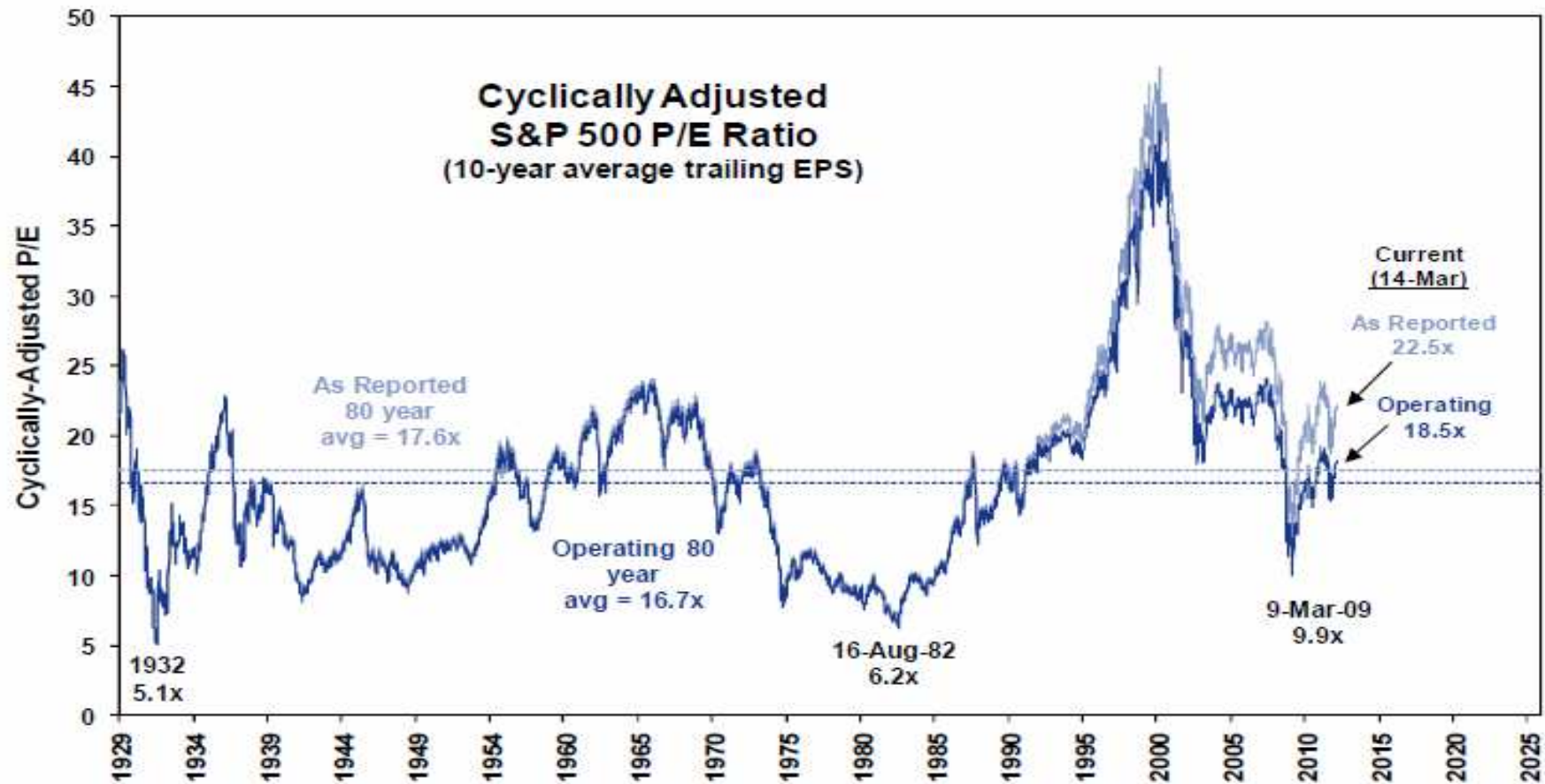


Source: HSBC, Robert Shiller

Valuácie prudko fluktuujú – tak v USA...



Exhibit 9: S&P 500 cyclically-adjusted P/E in-line with long-term levels as well
S&P 500 cyclically-adjusted P/E as of March 14, 2012



Valuácie prudko fluktuujú - ako aj vo svete



Exhibit 13: World P/E (X) on trend earnings

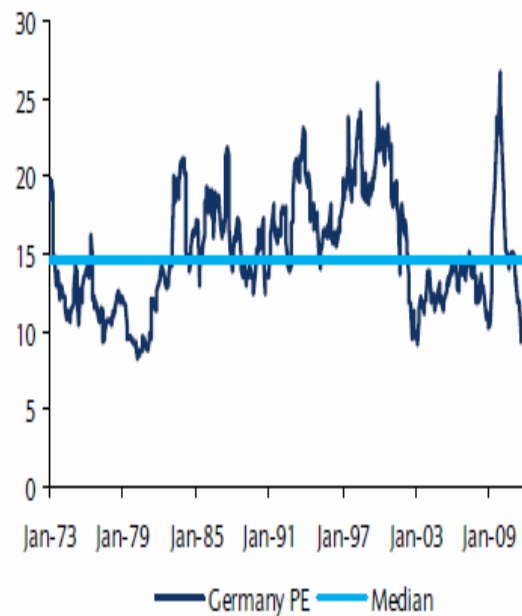


Source: FactSet, Datastream, Goldman Sachs Global ECS Research.

Valuácie prudko fluktuujú - ako aj vo svete



Figure 4: Germany – Near an all-time low



Source: Datastream Global Equity Indices

Figure 5: Japan – Back to pre-bubble era valuations



Source: Datastream Global Equity Indices

Figure 3: UK equities – Back to the 1970s?



Source: Datastream Global Equity Indices

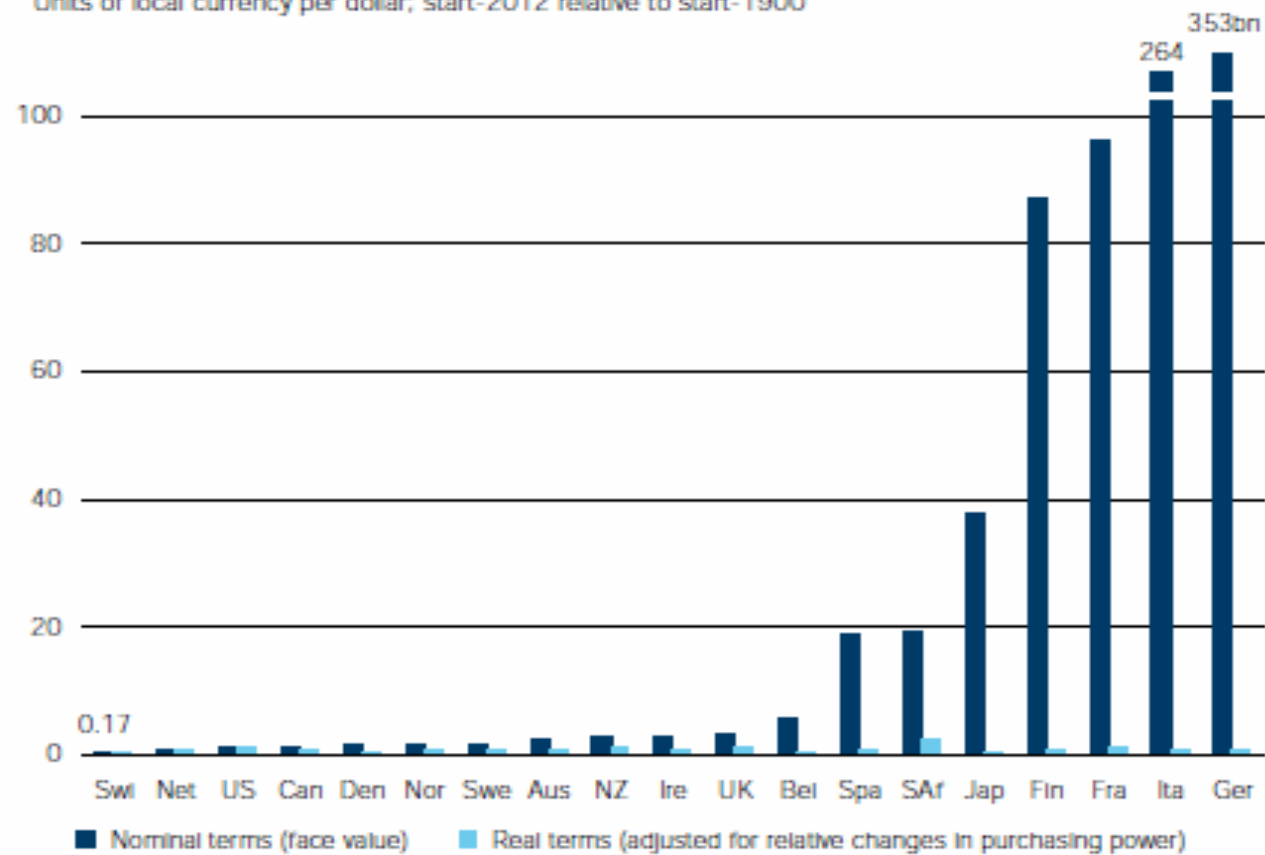
Na záver – Začiatkový bod rozhoduje !



Nominal and real exchange rates, 1900–2011

Source: Elroy Dimson, Paul Marsh, and Mike Staunton; Triumph of the Optimists; authors' updates

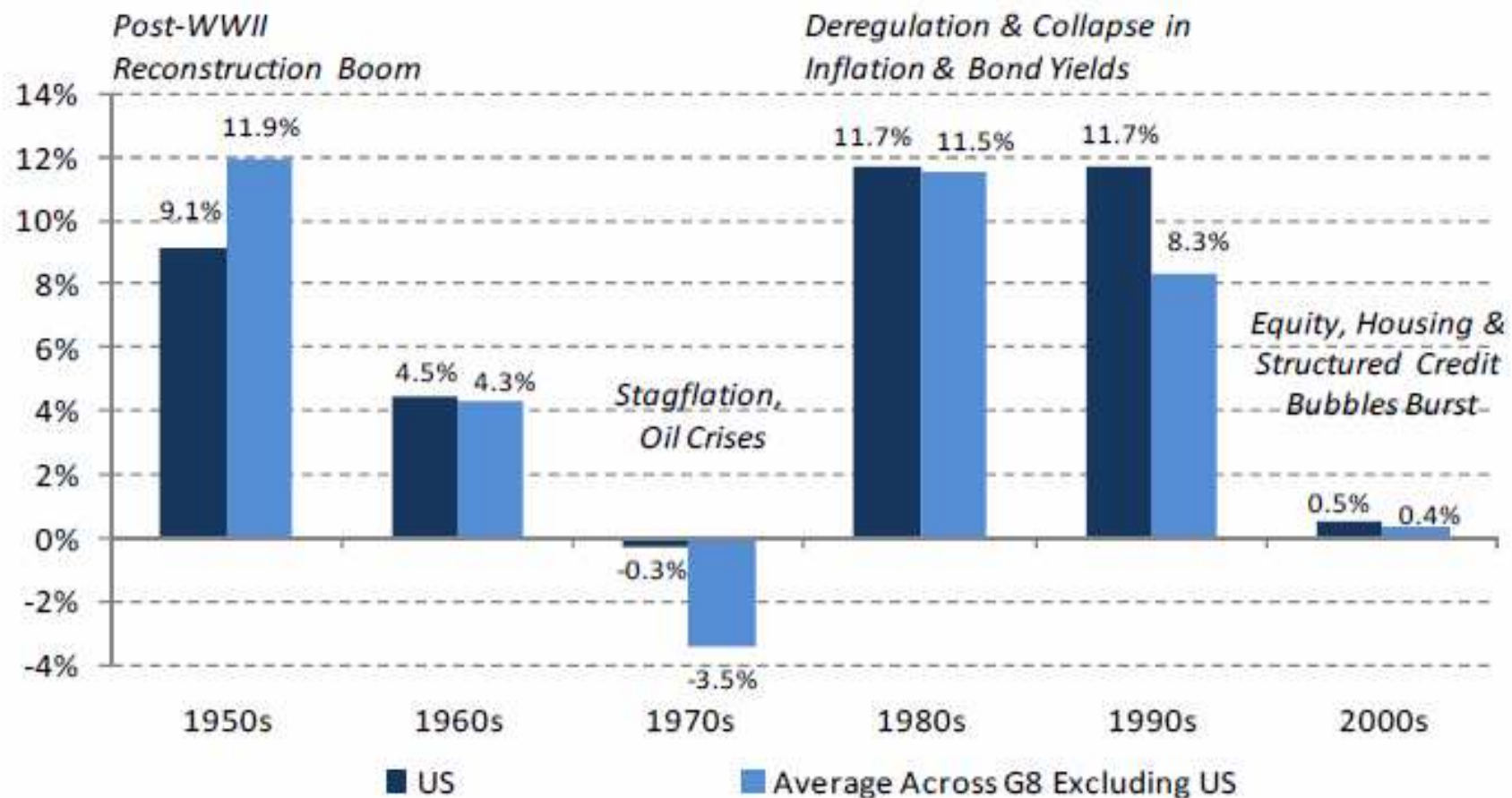
Units of local currency per dollar; start-2012 relative to start-1900



Na záver – Cykly sa menia



Figure 12: Time-Varying Realized Risk Premiums to a Real 60/40 Portfolio, Globally

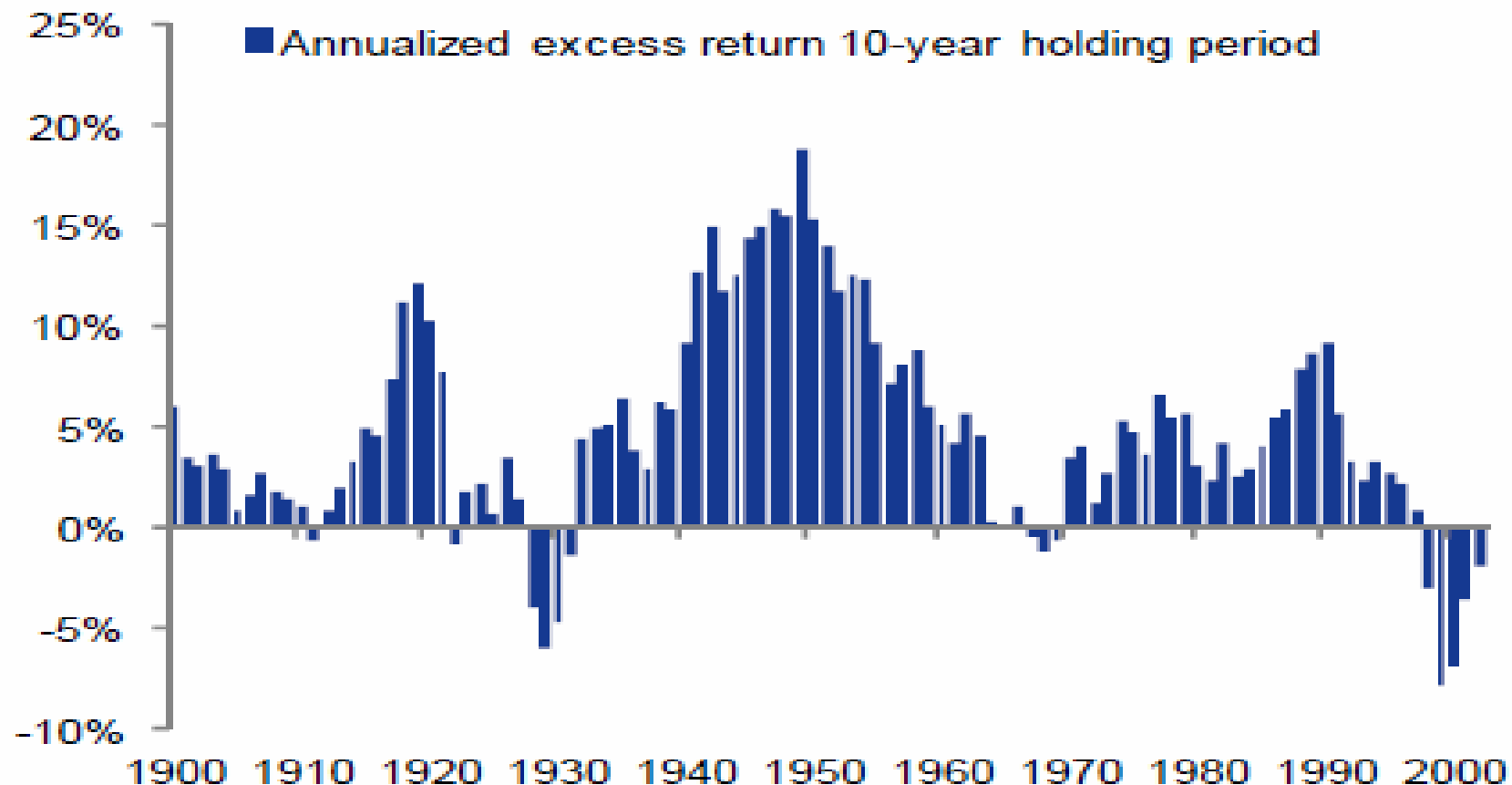


Source: Deutsche Bank, Robert Shiller Database. Sample countries for the 'G8 excluding the US' are the UK, Japan, Germany, France, Italy, Spain and Canada, with data sourced from "A Roadmap for the Grey Age", Reid and Burns, Deutsche Bank (September 2011).

Na záver - Bondová bublina či koniec akcií?



Exhibit 8: Annualized excess return of S&P 500



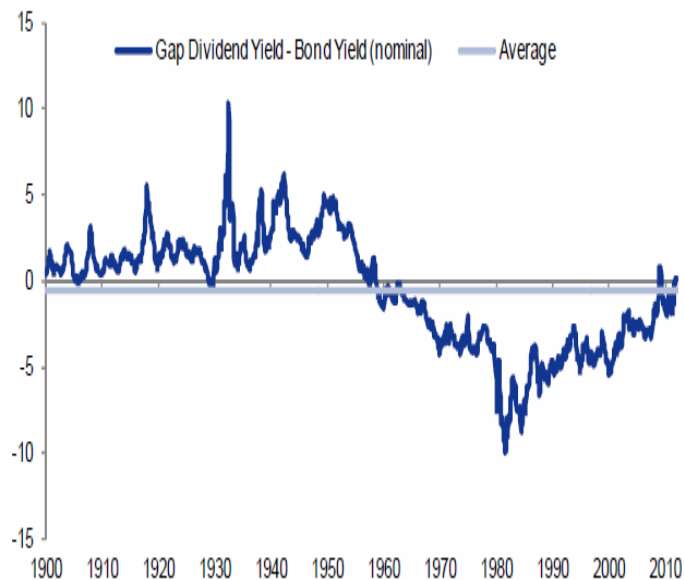
Source: Robert Shiller, Datastream, Goldman Sachs Global ECS Research.

Na záver - Bondová bublina či koniec akcií?



Exhibit 1: Yield gap

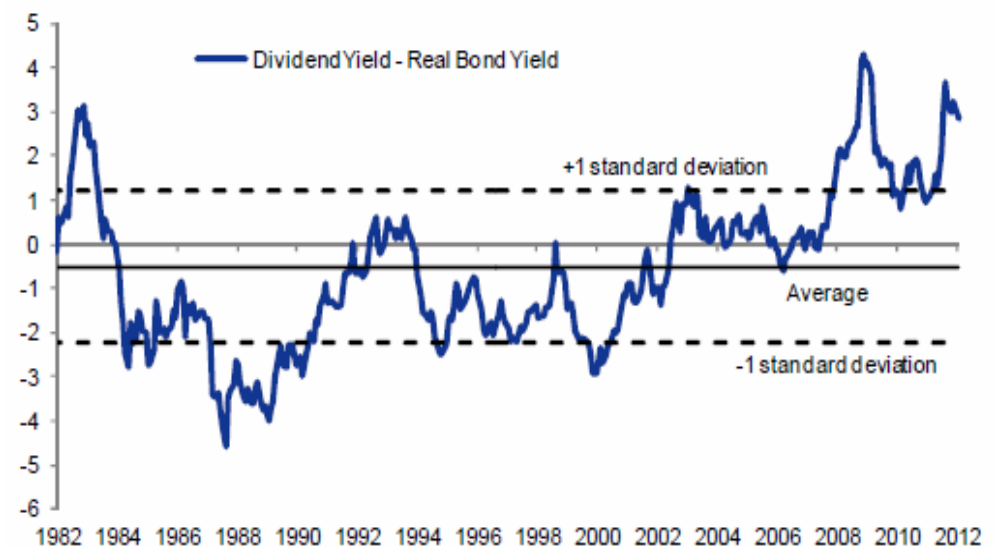
S&P 500



Source: Robert Shiller, Goldman Sachs Global ECS Research.

Exhibit 14: Dividend yields (%) vs. real bond yields (%)

Global dividend yield vs. US real 10-year bond yield



Source: MSCI, DataStream, Goldman Sachs Global ECS Research.

Na záver - Bondová bublina či koniec akcií?

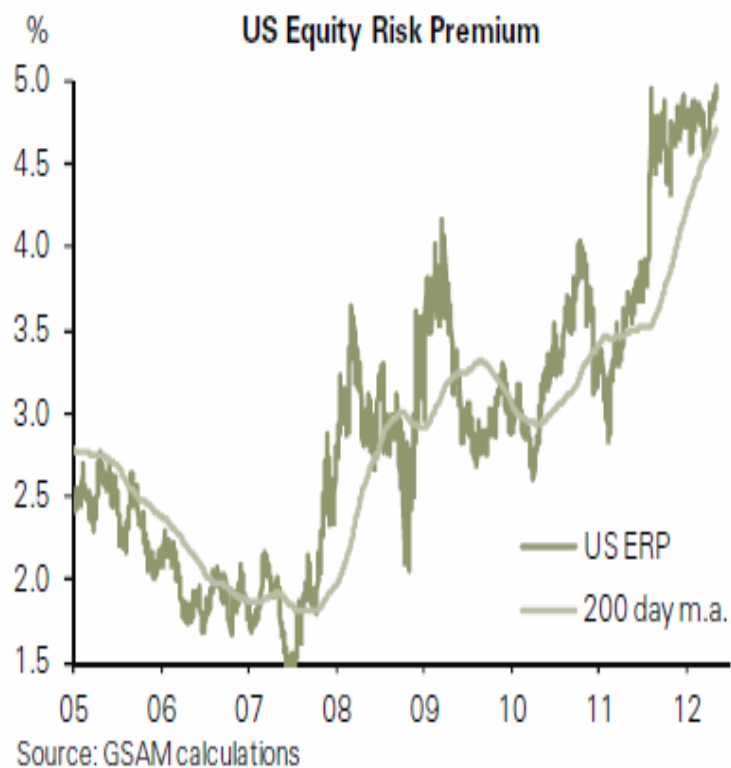
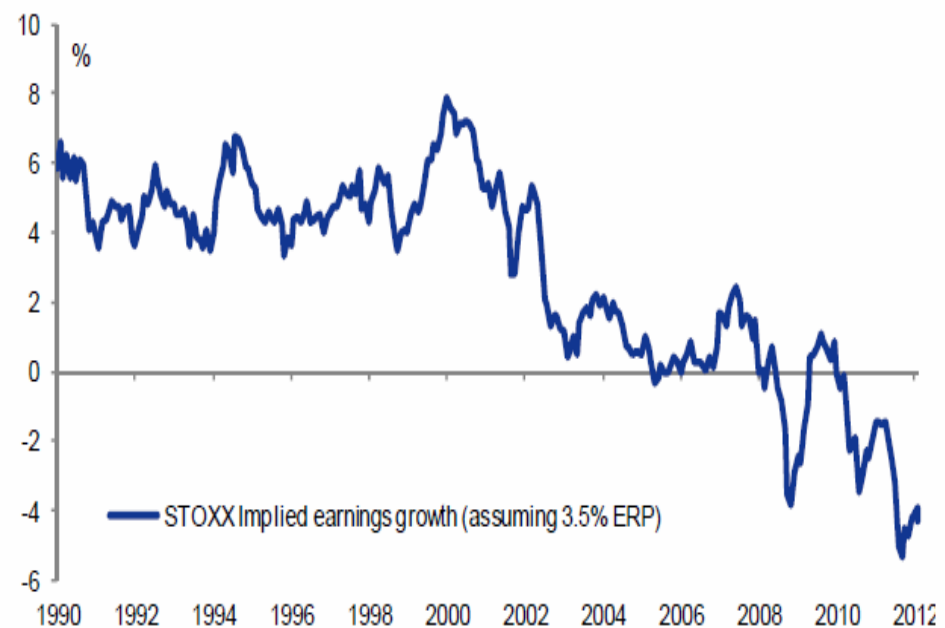


Exhibit 14: Market implies negative real earnings growth annually for 20 years
Assuming a 3.5% ERP



Source: Goldman Sachs Global ECS Research.

Na záver - Očakávaná akciová prémie niektorých trhov

Global Equity Risk Premium*

	Real GDP Growth Trend	Real Earnings Growth	+	Dividend Yield	=	Expected Real Return	-	Real Bond Yield	=	Implied ERP	Expected Inflation	Expected Nominal Return
US	2.5	2.5		2.1		4.6		-0.3		5.0	2.0	6.6
UK	2.3	2.3		3.6		5.8		-1.2		7.1	2.0	7.8
Europe ex UK	2.0	2.0		3.9		5.9		0.8		5.1	2.0	7.9
Japan	1.5	1.5		2.4		3.9		0.6		3.3	1.0	4.9
Brazil	5.0	5.0		3.8		8.8		4.2		4.6	4.5	13.3
China	8.0	8.0		3.9		11.9		0.5		11.4	3.0	14.9
India	8.0	8.0		1.7		9.7		4.6		5.1	4.0	13.7
Russia	5.0	5.0		3.0		8.0		2.2		5.7	6.0	14.0
GDP-weighted												
Advanced	2.1	2.1		2.9		5.1		0.2		4.9	1.8	6.9
BRICs	7.0	7.0		3.4		10.5		2.0		8.5	3.8	14.3
World	3.5	3.5		3.1		6.6		0.7		5.9	2.4	8.9
PPP-weighted												
Advanced	2.2	2.2		2.9		5.0		0.1		4.9	1.9	6.9
BRICs	7.3	7.3		3.3		10.6		2.0		8.6	3.7	14.4
World	4.2	4.2		3.0		7.3		0.9		6.4	2.6	9.9

*As of 09 May 2012. Source: GSAM calculations



- Z dlhodobého hľadiska akciové indexy kompenzujú investorov za volatilitu dostatočne
- Under/Out performance akcií závisí od zvolenej “look-back” periódy
- Posledných desať rokov je veľmi neštandardných:
 - začínali sme na extrémne vysokých valuáciách na akciových indexoch
 - bondy sú dnes na extrémne vysokých valuáciach – negatívny real yield
- Preto porovnania obsahujúce iba túto periódu sú misleading
- Zisky firiem sú dnes na rekordných úrovniach vo viacerých krajinách sveta pričom v médiách sa prezentuje iba blížiaci sa koniec sveta