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Trends in LGPS asset allocation

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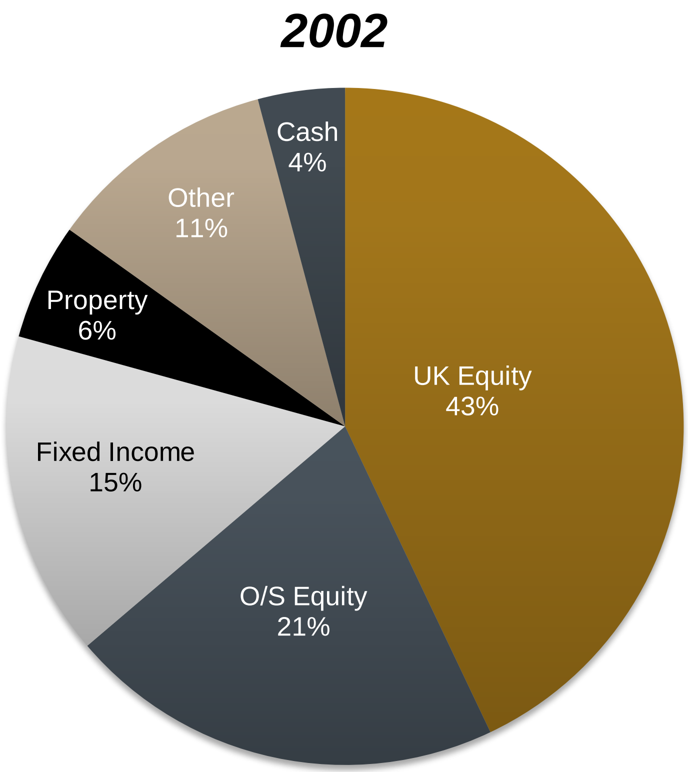
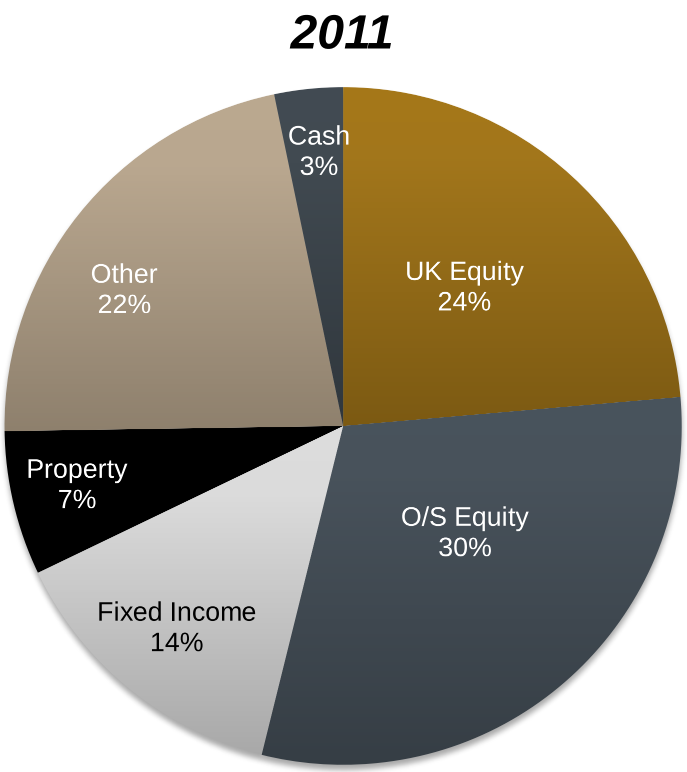
Evolution of the "LGPS" Asset Allocation

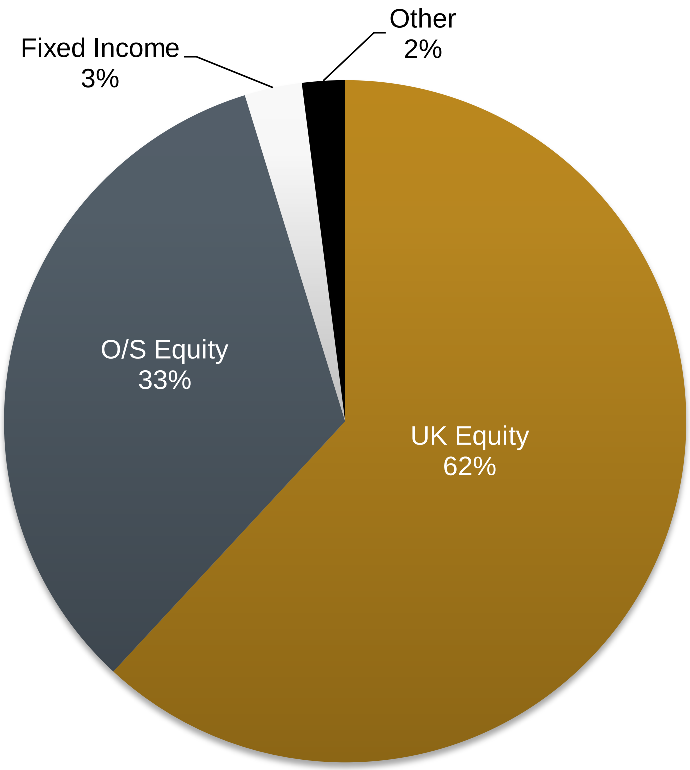




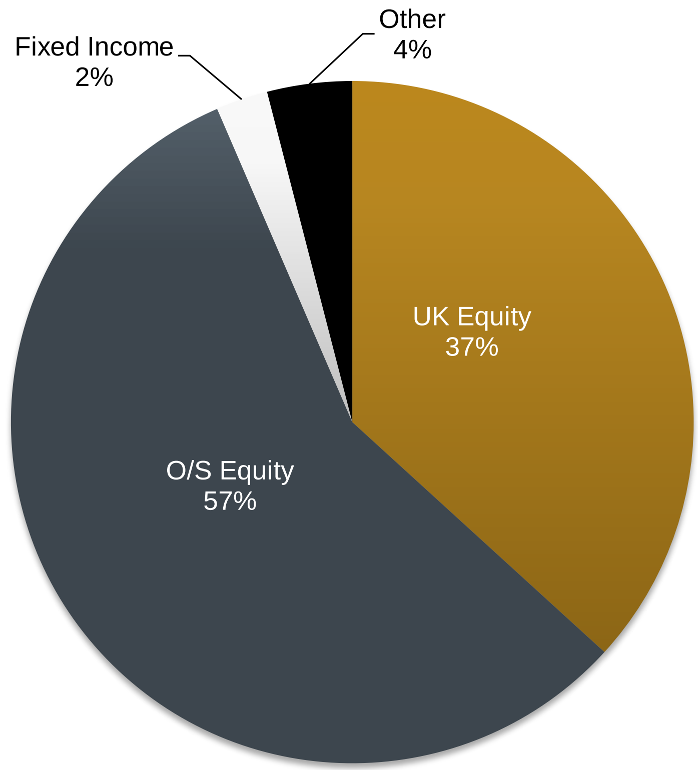
- **Asset allocation policy changes during the last decade**
  - 20% reduction in UK equity exposure
  - 10% increase in overseas equities
  - 10% increase in "other / unclassified" assets
  - approx 15% increase in non-sterling denominated assets

Evolution of the "LGPS" Risk Allocation

_2002 (11.3%pa)_



_2011 (11.0%pa)_



- **The "average" LGPS has marginally reduced market risk exposure in the last decade**
- **Equity market risk still dominates the overall "asset only" risk profile**
  - 90%+ contribution to total portfolio volatility

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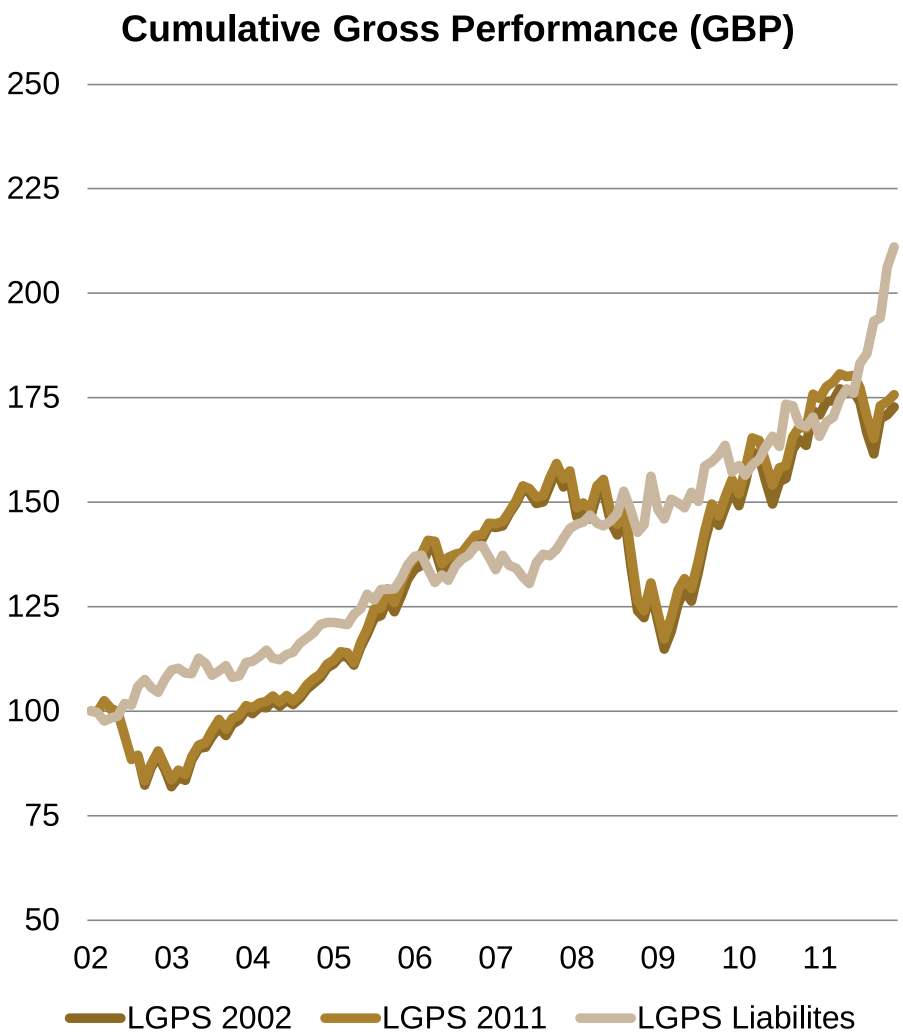
Asset Allocation Analysis: Summary of Assumptions

- Analysis is based on the aggregated asset allocation of 108 LGPS* with accumulated asset of £182bn**
- Active management risk and return sources are excluded from the performance and risk analysis (with the exception of Hedge Funds)
- Private Equity and Infrastructure excluded from analysis
- Exposure to “other / unallocated” asset classes and strategies has been re-allocated:
  - 50% allocated pro-rata to equity & fixed income
  - 50% allocated pro-rata to “alternatives”
- Common indices used as proxies for the performance and risk of each asset class / strategy represented in the aggregated asset allocation
- All underlying non-GBP exposures are assumed to be un-hedged
- 60% Long dated ILG / 40% Long-dated Nominal Gilt portfolio used as a proxy for the “typical” scheme’s liability profile

* From Pension Fund Performance Guide – Local Authority Edition. ** As at March 2011

Return and Risk of the LGPS Portfolio



Performance and Risk Summary

2002-2011	Gross Return (%pa)	Risk (%pa)	Sharpe Ratio
LGPS 2002	5.6	11.3	0.20
LGPS 2011	5.9	11.0	0.23
LGPS Liabilities	7.8	7.9	
LGPS 2002	***-2.0***	***12.6***	***-0.16***
LGPS 2011	***-1.8***	***12.4***	***-0.15***

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Medium term asset allocation trends

Go Global

Seeking returns in a de-leveraging world

Emerging "Anything"

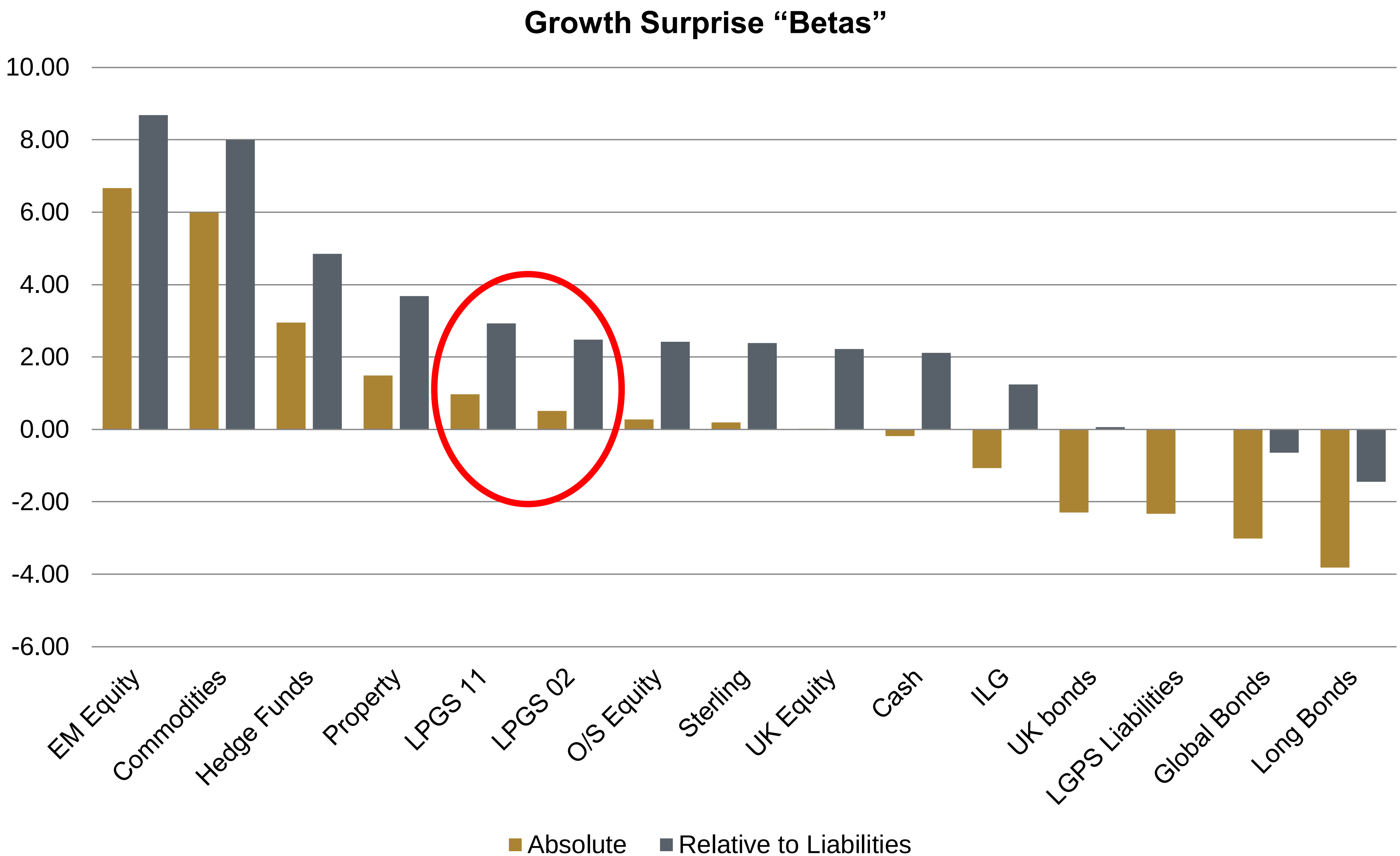
Tail-risk management: Going beyond diversification

Preparing for Inflation

Liability-sensitive & Outcome-driven investing

The search for income

Sensitivity Analysis: Growth “Surprises”



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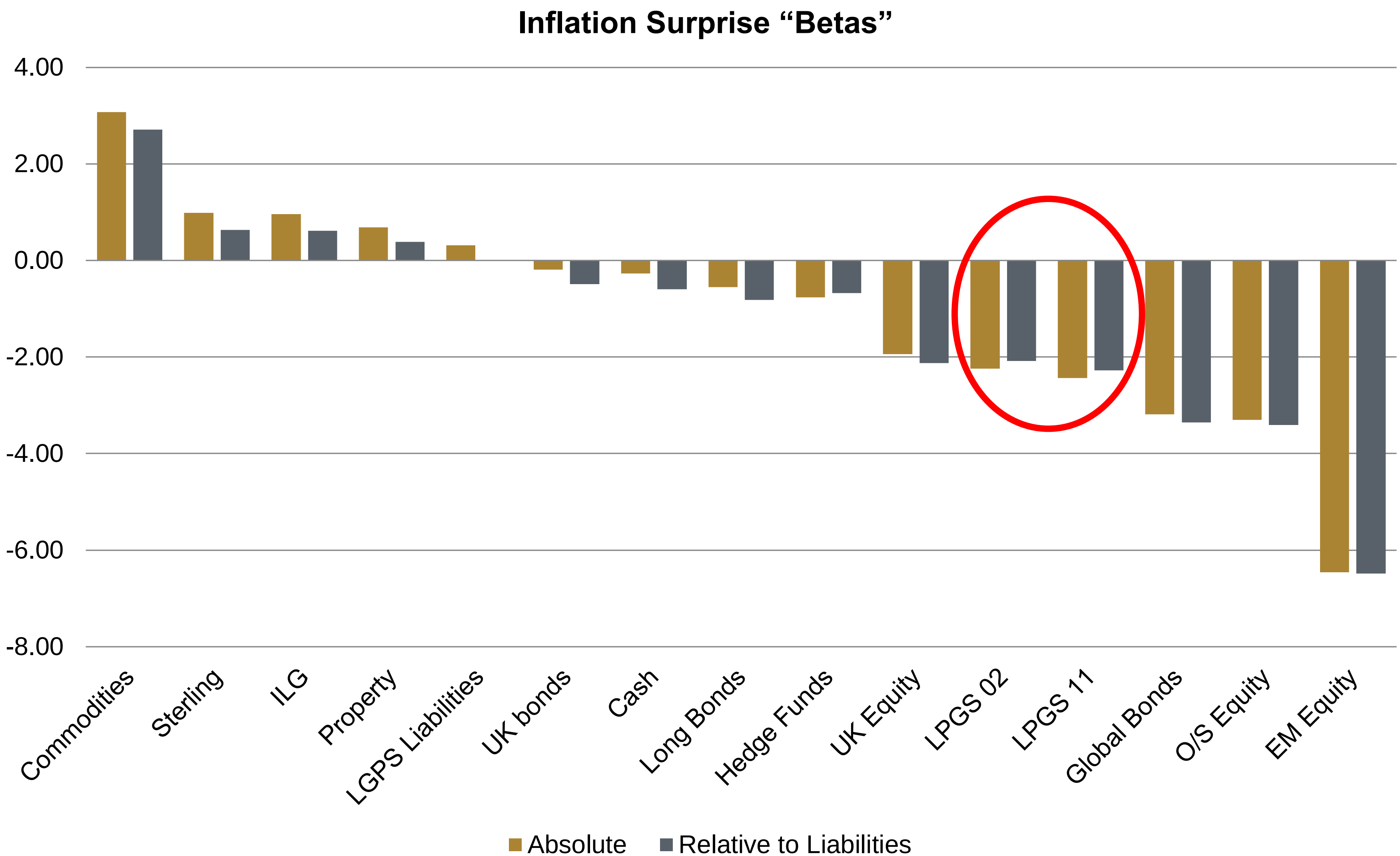
Sensitivity Analysis: Inflation "Surprises"



Summary

- During the last decade we have observed a number changes to the structure of the asset allocation of the typical LGPS
- Impact on absolute and relative-to-liabilities risk profile has been small
- Scheme assets remain positively correlated with growth surprise and negatively correlated with inflation surprises
- This analysis suggests a degree of dynamic asset allocation and active currency hedging is necessary to mitigate the effects of rising economic volatility

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