



Data visualisation in fixed income

James Eagle



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Fixed income was a massive migraine for me.

Maturities (from 3mths - 30yrs)

Credit ratings (from AAA to C)

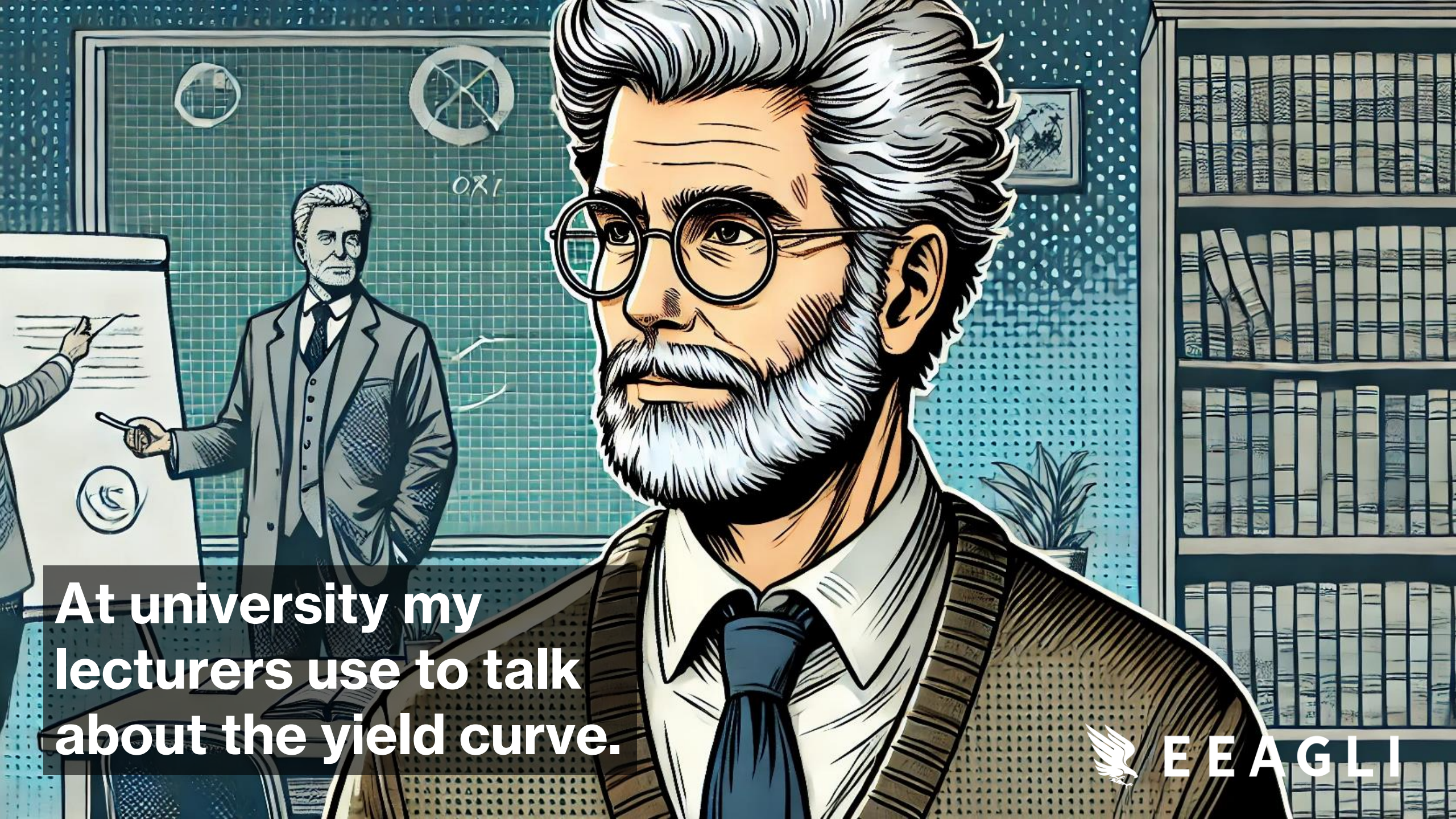
Sectors (government, corporate, municipal)

Different currencies

Structural features (callable, convertible, inflation-linked)



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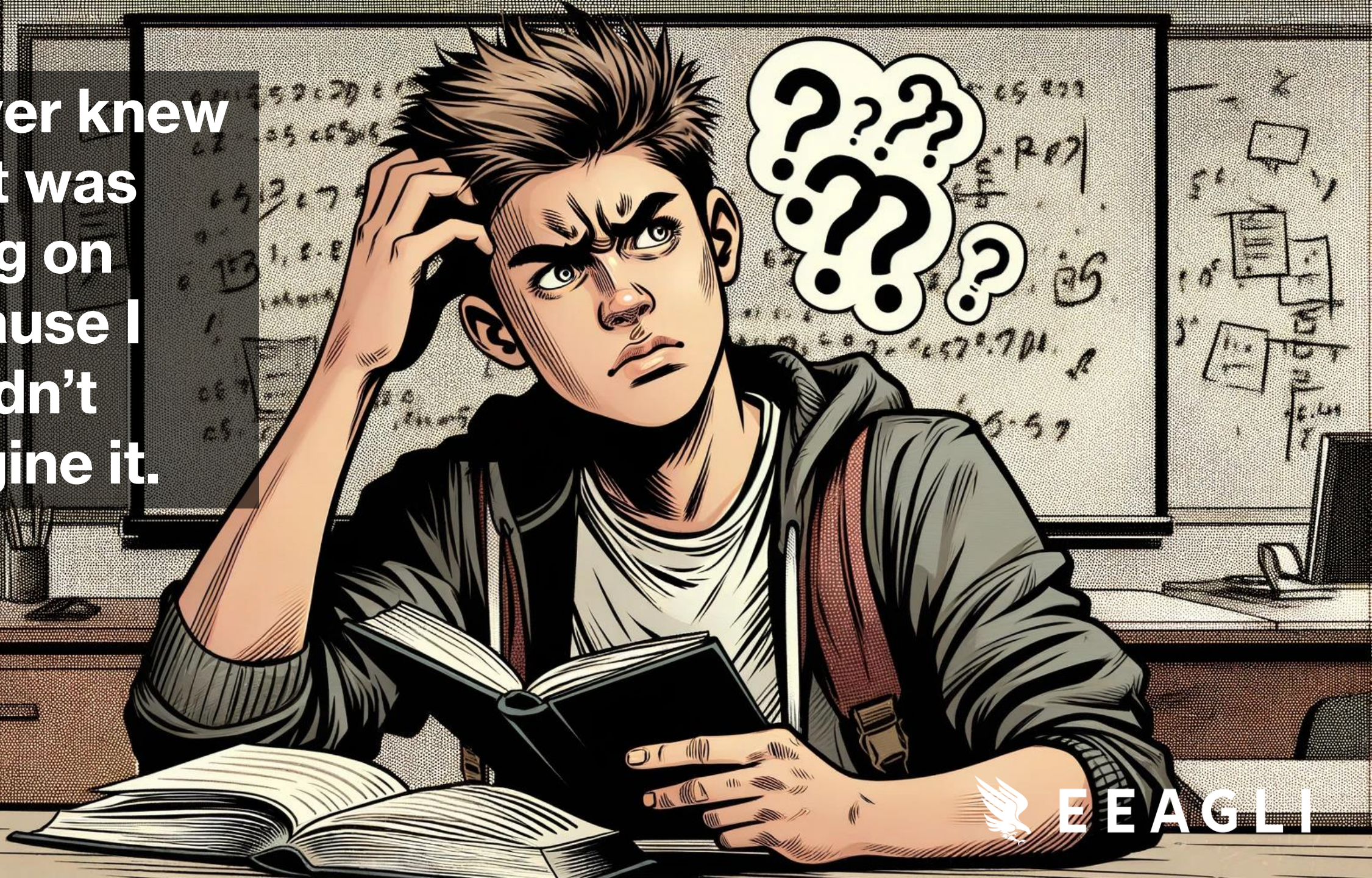


**At university my
lecturers use to talk
about the yield curve.**



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**I never knew
what was
going on
because I
couldn't
imagine it.**



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**The problem is
that fixed income
is inherently a
visual topic.**



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**What changed
for me was the
Financial Crisis.**



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It was mind-blowing.

**I suddenly found
fixed income
fascinating.**



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**I became a fixed
income product
specialist in
London.**



Investment grade

Inflation

Duration

Interest rates

FINANCIAL TIMES

Finasmiz Feemes

My new world.

High yield

Earnings season

Default

Illiquid

EBITDA

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Something had changed.



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The Fed slashed interest rates to nearly zero and launched QE.

Yield, %

6,0.0

5,0.0

4,0.0

3,0.0

2,0.0

1,0.0

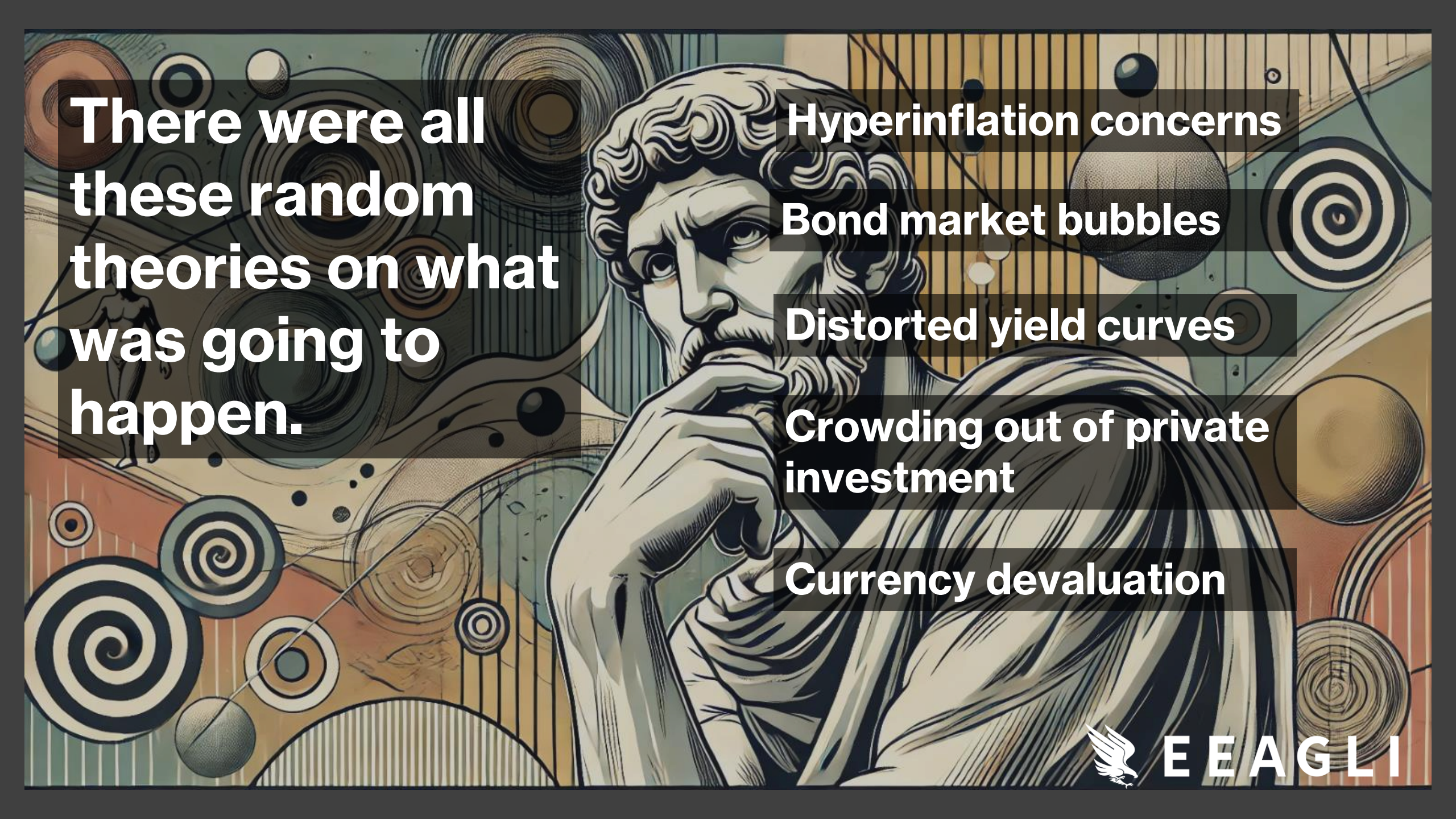
,0.0

дек.03 сен.06 июн.09 мар.12

Historic low



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**There were all
these random
theories on what
was going to
happen.**

Hyperinflation concerns

Bond market bubbles

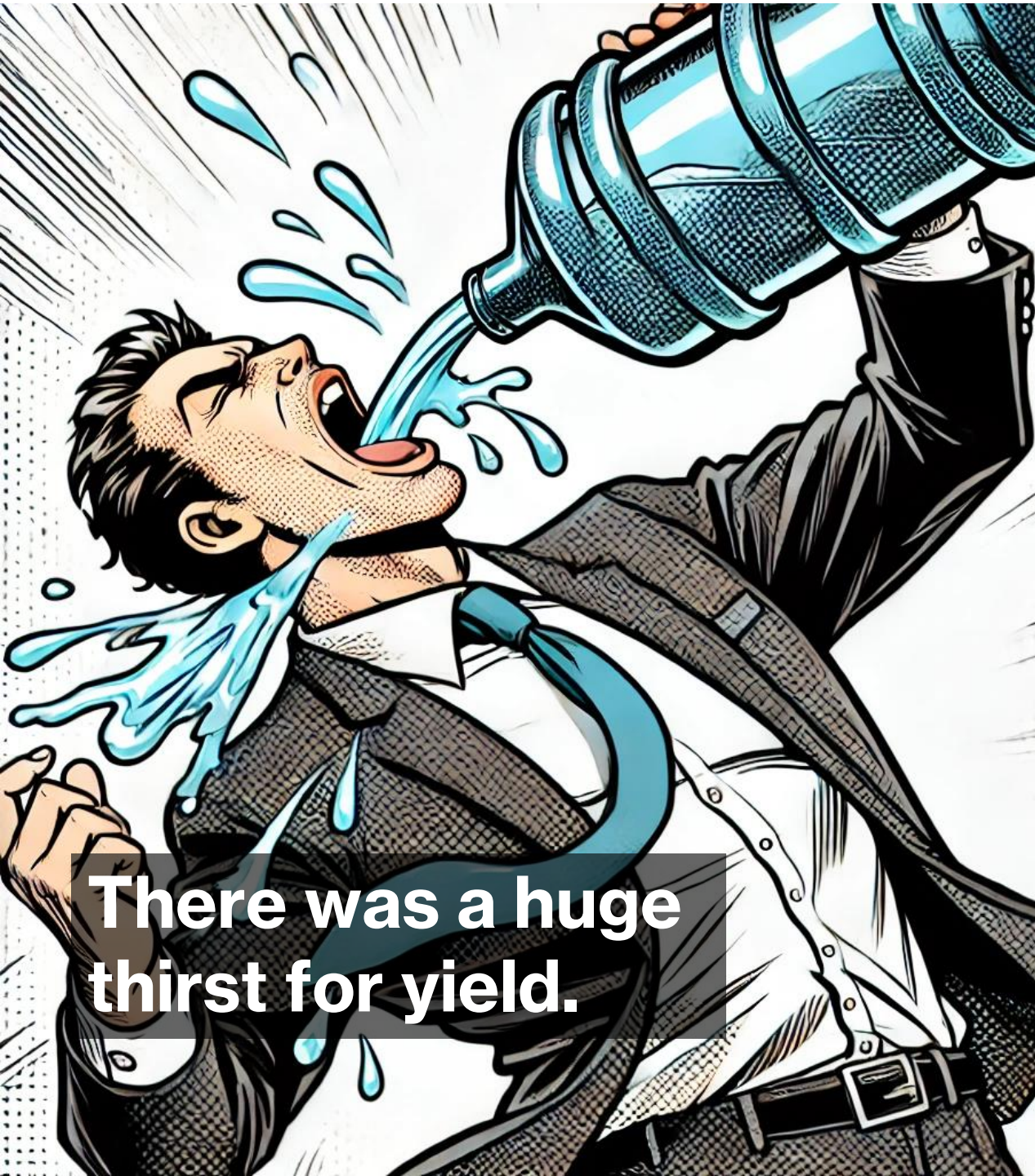
Distorted yield curves

**Crowding out of private
investment**

Currency devaluation



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**There was a huge
thirst for yield.**

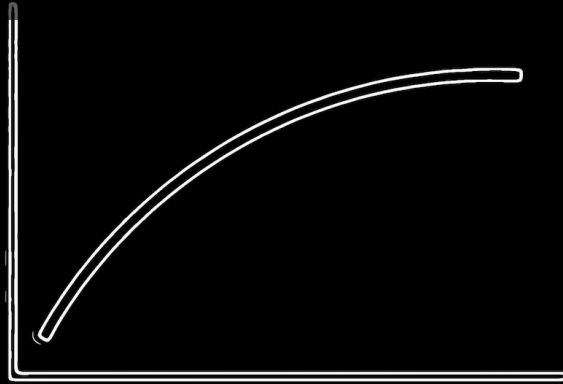


**There was now
greater credit
risk awareness.**

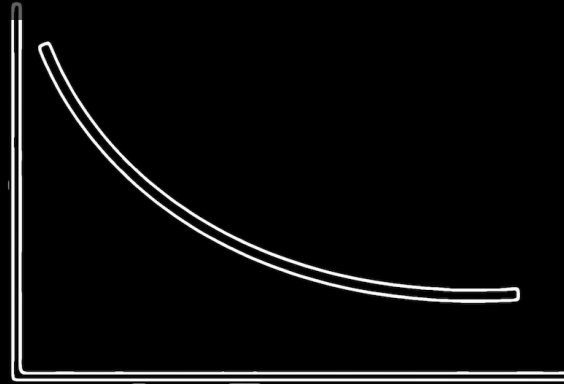


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**We started studying
yield curves more
intensely.**



Positive



Inverted



Flat



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S333

-534

**We started to track
credit spreads
more granularly.**



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**Risk heat maps
became a huge
thing.**



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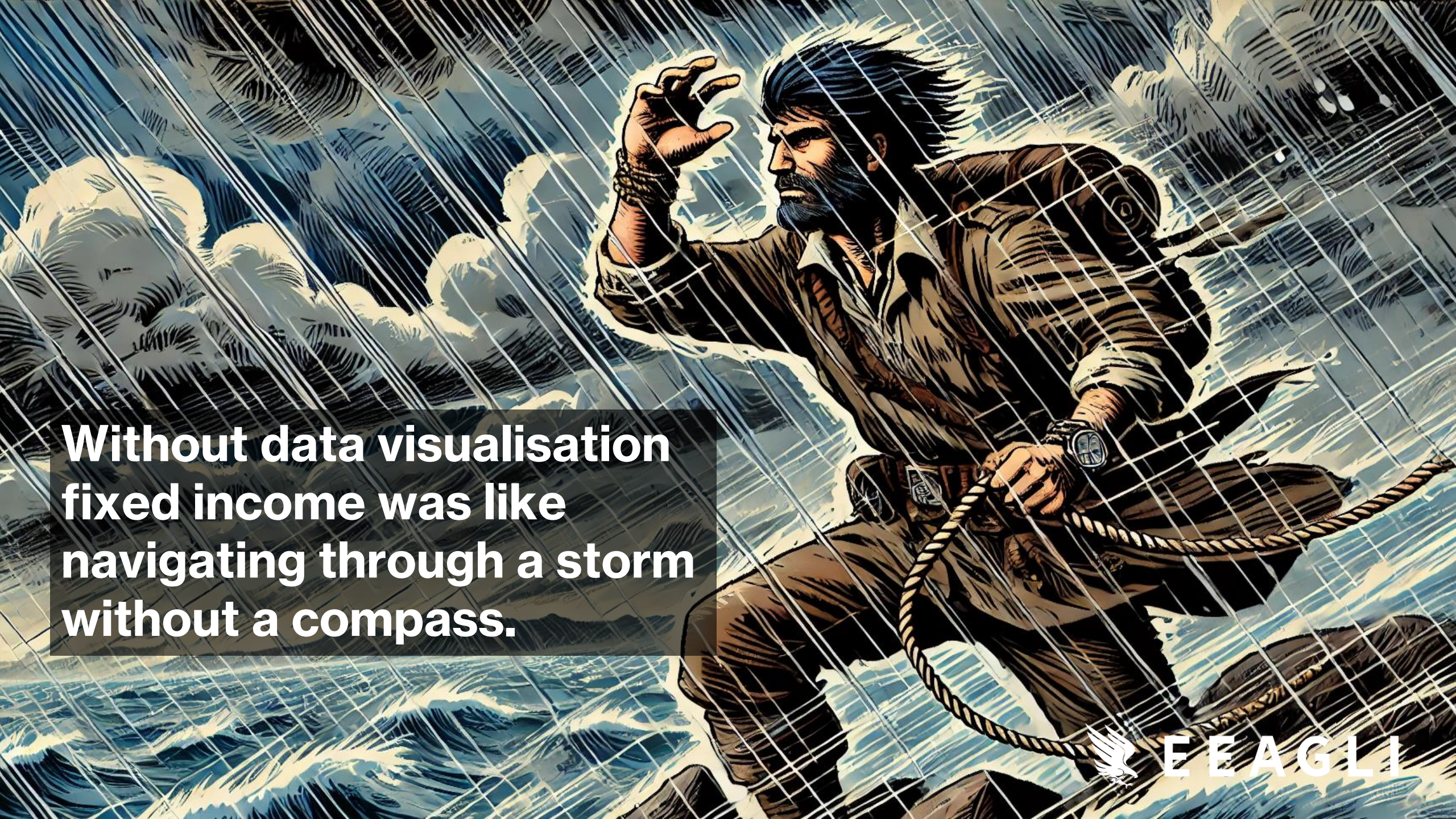
Interactive duration and convexity curves were now being used.

Bubble charts were used to assess liquidity.

**Fixed income was now
all about data visualisation.**



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**Without data visualisation
fixed income was like
navigating through a storm
without a compass.**



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**Our brains process
visual information
60,000 times
faster than text.**



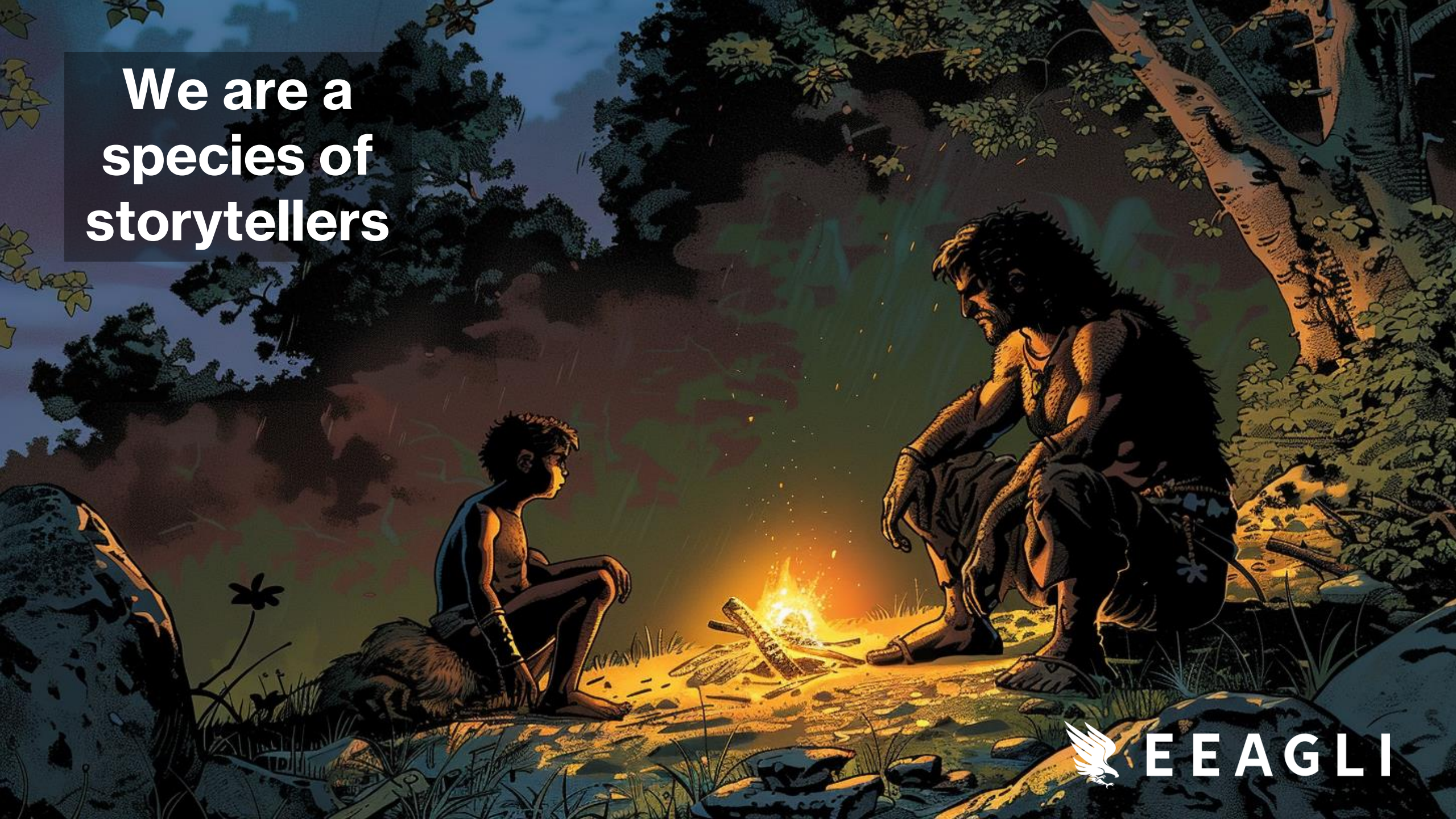
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This is rooted in
how we evolved



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**We are a
species of
storytellers**



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A comic book style illustration of a muscular cavewoman with long brown hair and a beard, wearing a simple brown loincloth. She is standing in a server room, looking at a rack of server units. The room is filled with rows of server racks, some with glowing red lights. The style is reminiscent of classic comic book art with bold lines and a limited color palette.

**We are visual
creatures.**




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**Without data
visualisation you
are essentially
blind.**



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**Portfolio
managers in fixed
income actually
rely heavy on data
visualisation.**



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**It's the visual
language of fixed
income, which is
seen not spoken.**



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**If datavisualisation
is the language.**

Cbonds

**Data is the
vocabulary.**



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Here is a view into my world.



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**This was my first
fixed income data
visualisation.**



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**Here is another
example.**

**How well does the futures
market predict the future
path of interest rates?**



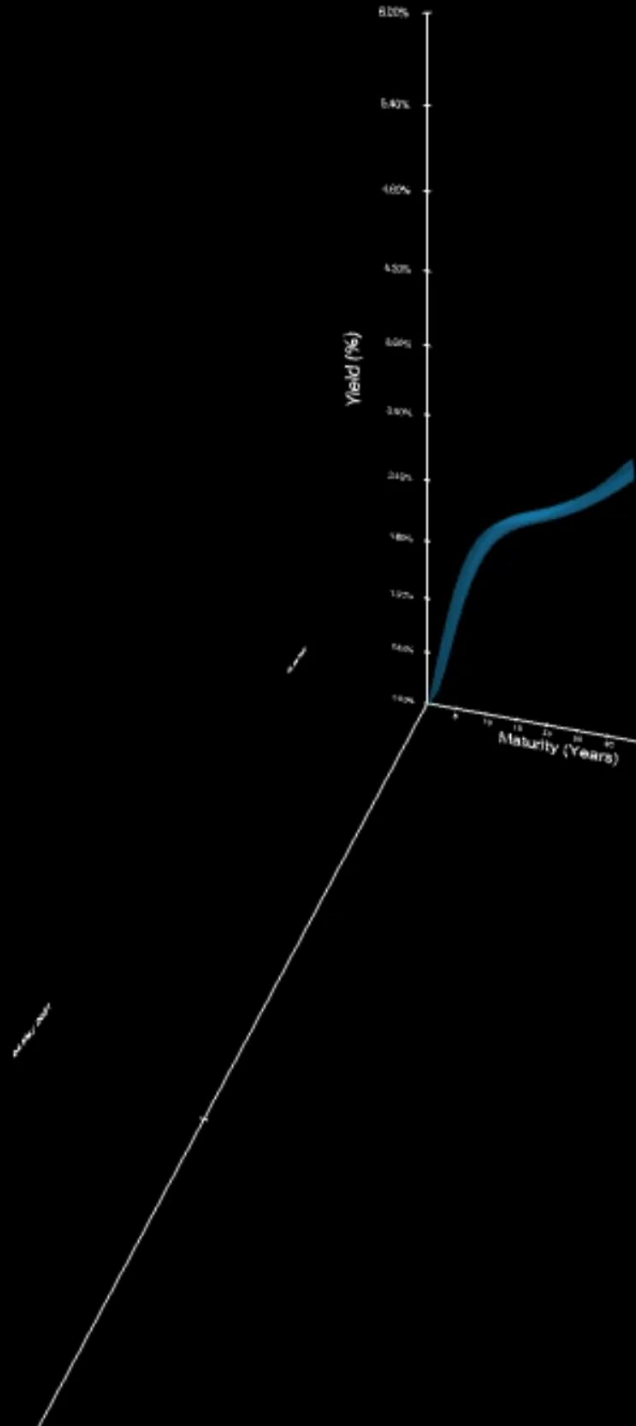
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**Data
visualisation
helps you see
risk.**



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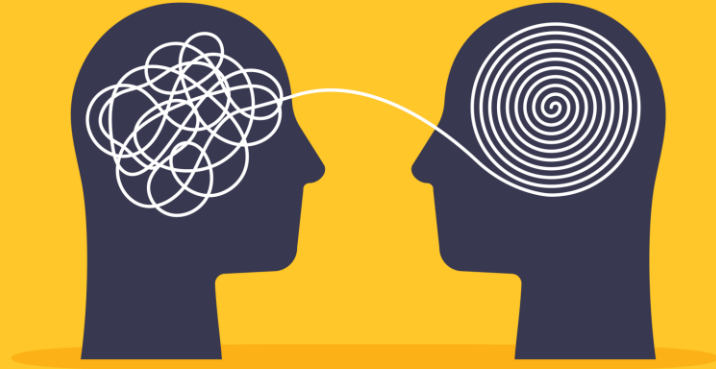
**The sky is the
limit.**



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JAMES EAGLE

FROM
CHAOS
TO
CLARITY



How Data Visualization
can *Save the World*

WILEY

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Questions



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