



Relationship GDP growth vs investment market returns

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What (if any) is the relationship between GDP-growth and investment market returns

Precious metals

Diversified commodities

Investment grade bonds

Stocks

- **Because our industry (and advisors) spend a great deal of time talking about**
 - Future economy
 - Prospective economic growth rates
 - Will we . . . or won't we . . . have a recession
- **We encourage our clients to believe that this is**
 - An important and meaningful topic
 - How we base our investment decisions (at least in part)
 - Understanding it . . . is a key driver of superior performance

Should we be talking to our clients about future GDP-growth?

Or . . . could such discussions be misleading?

- Data 1914 to the present
- 100% pure U.S.
- Investment markets
 - Diversified precious metals
 - Ultra-diversified commodities
 - Investment grade Government/Corporate bonds
 - S&P 500 Index
- Economic growth
 - GDP growth rate
- Everything is in inflation-adjusted terms

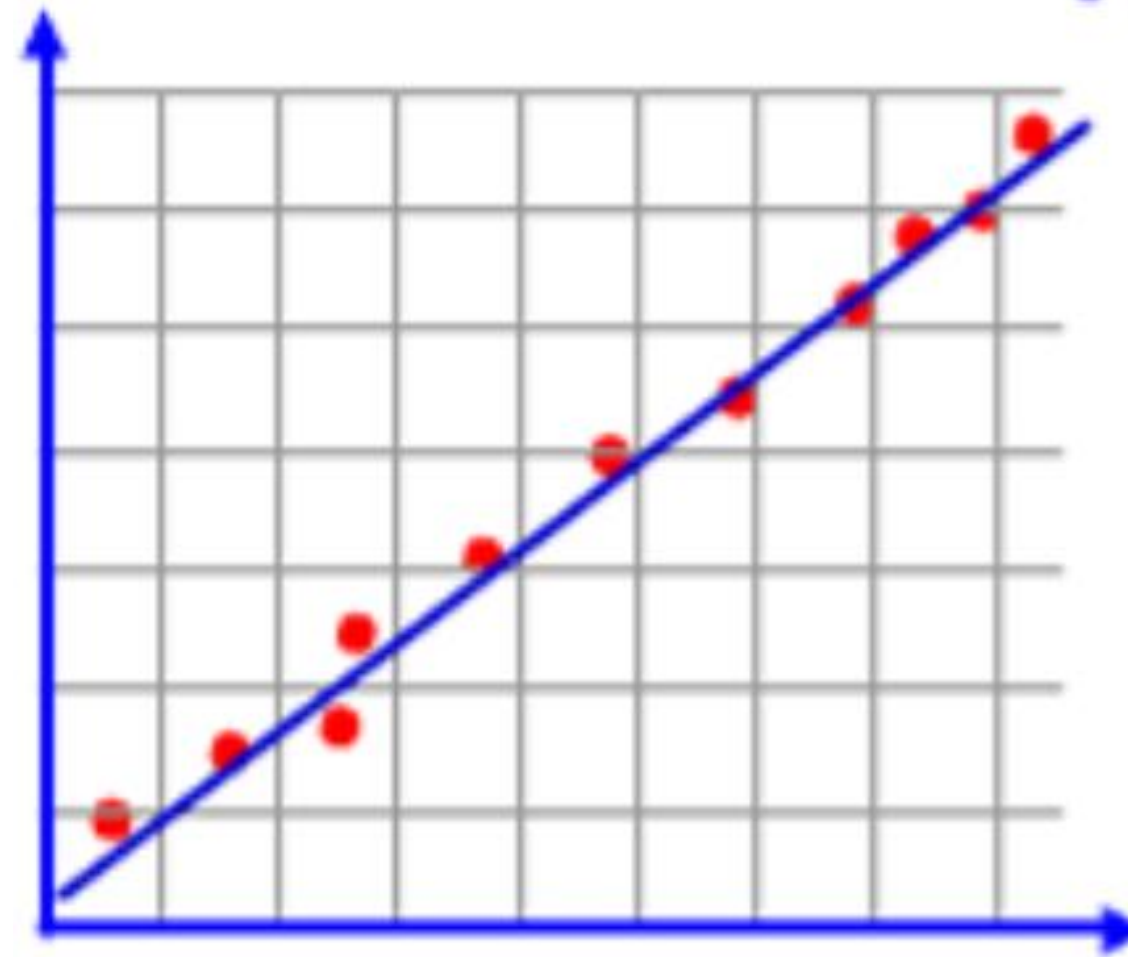
Important question

- If stocks normally return something like 10% per year
 - How much of that “10%” . . . is explained by future economic growth
 - All of it?
 - Half of it?
 - A quarter?
- This is the question . . . we will answer

Rephrasing the question

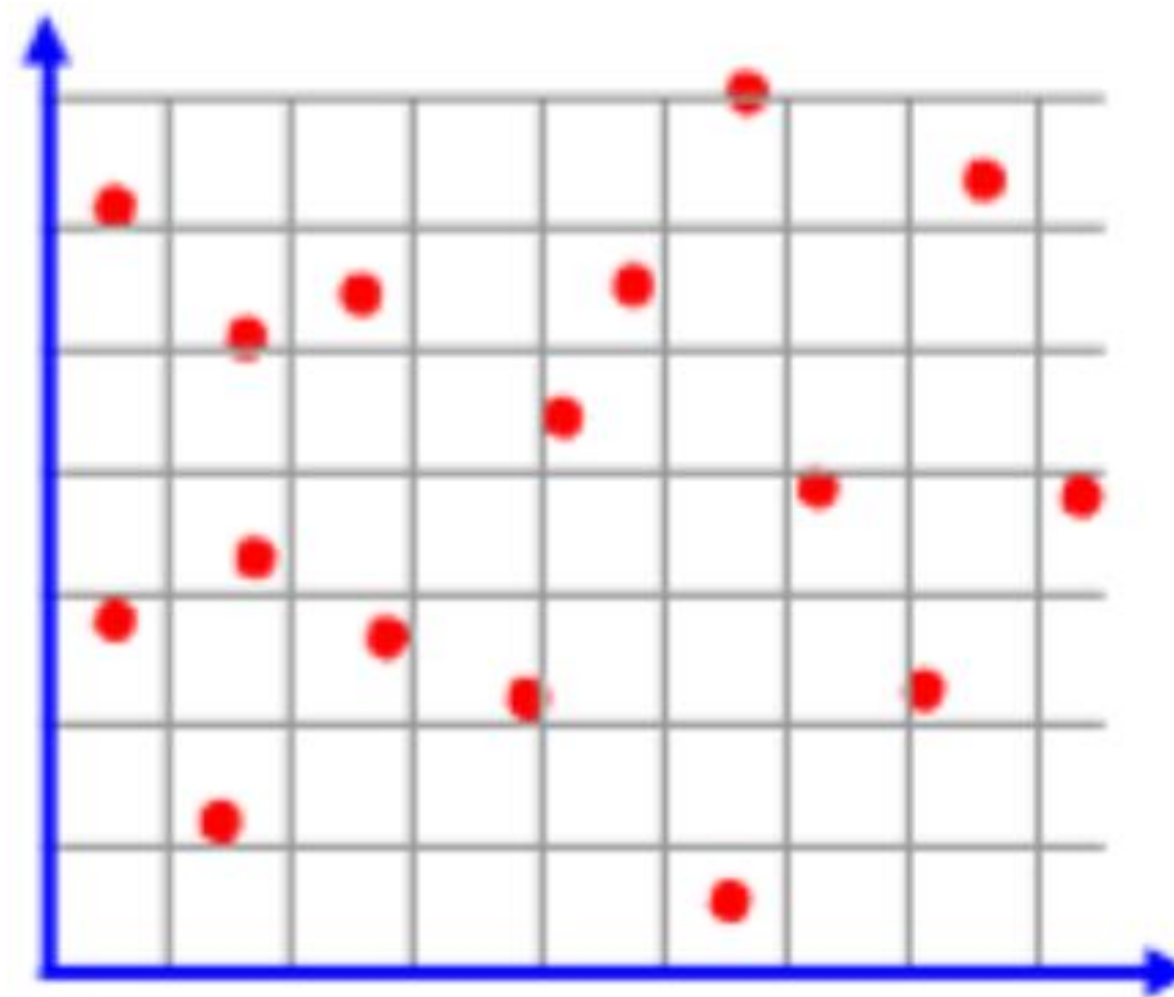
- If you knew in advance . . . exactly how fast the economy would grow (or shrink)
- Would this help you determine whether to be in stocks or not (or any other asset category)
- We examine this question by looking at
 - 1 month
 - 10 years
 - And . . . everything in between

Strong positive relationship . . . GDP growth drives stock returns



**Strong positive
correlation**

NO relationship . . . GDP growth does NOT affect stock returns



No correlation

Diversified precious metals

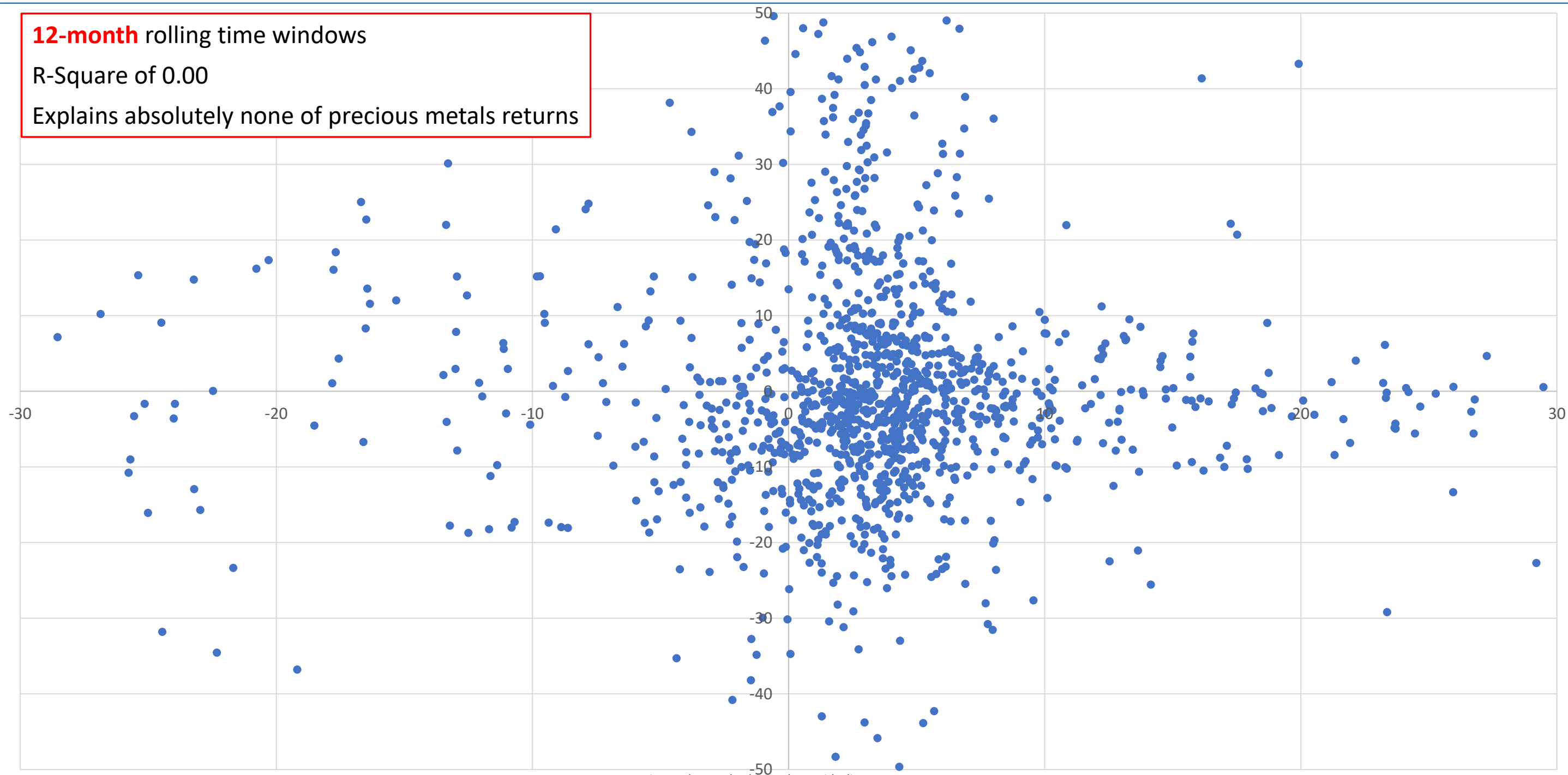
Think of the ETF with ticker symbol “GLTR”

Absolutely no relationship whatsoever NONE !!

12-month rolling time windows

R-Square of 0.00

Explains absolutely none of precious metals returns

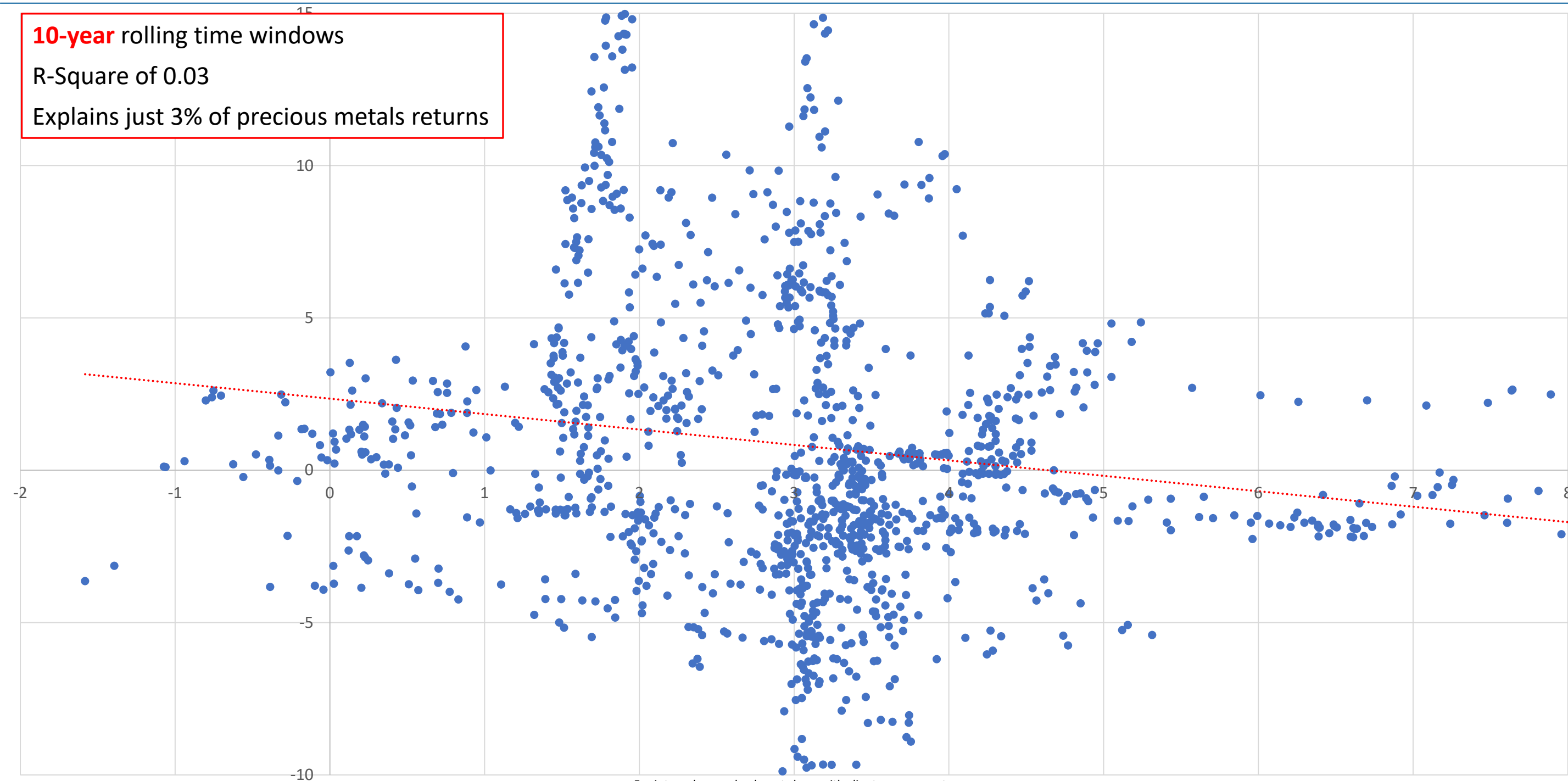


Time period that gives the strongest possible relationship

10-year rolling time windows

R-Square of 0.03

Explains just 3% of precious metals returns



Ultra-diversified commodities

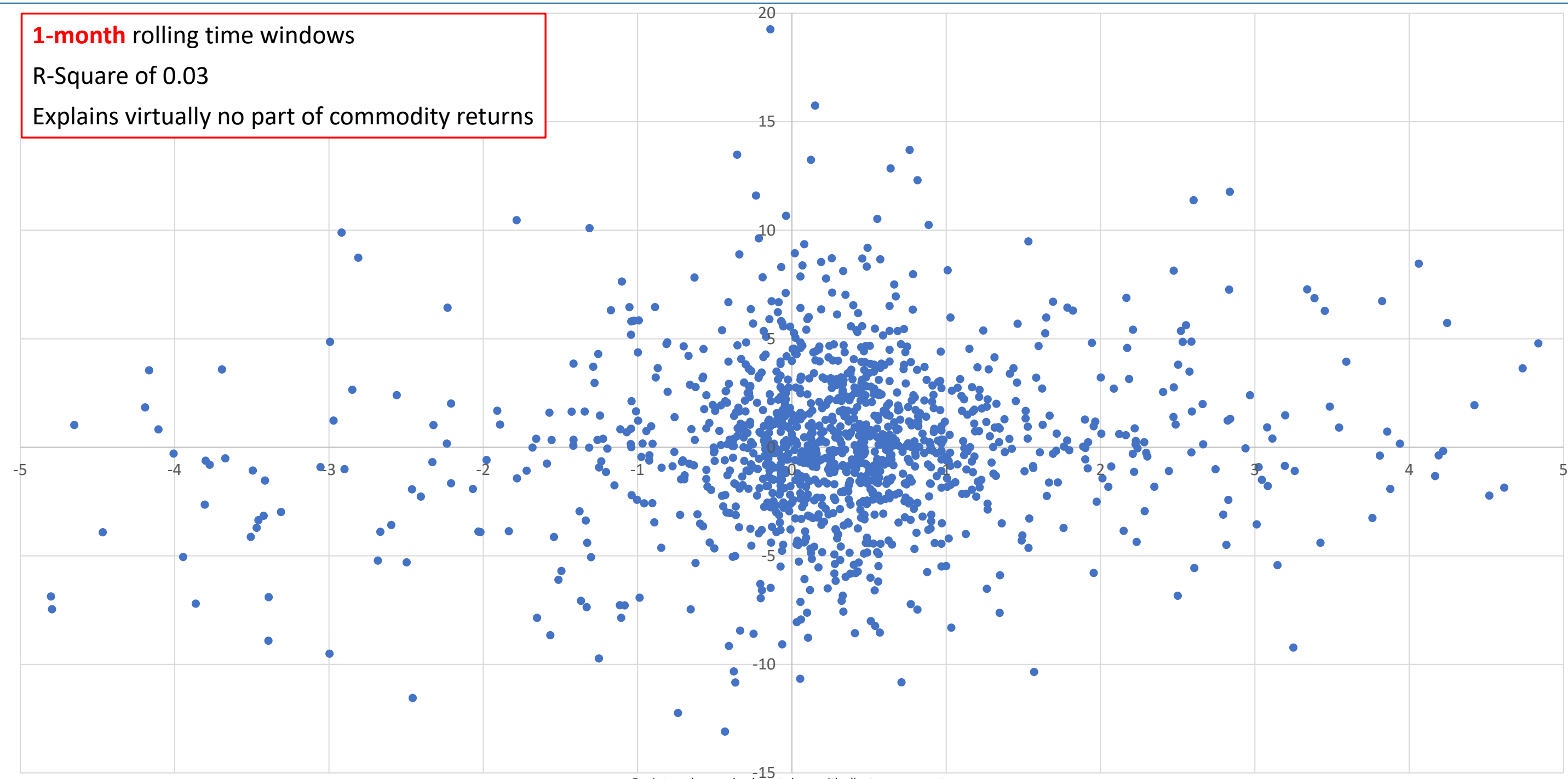
Think of the ETF with ticker symbol “DBC”

Absolutely no relationship whatsoever NONE !!

1-month rolling time windows

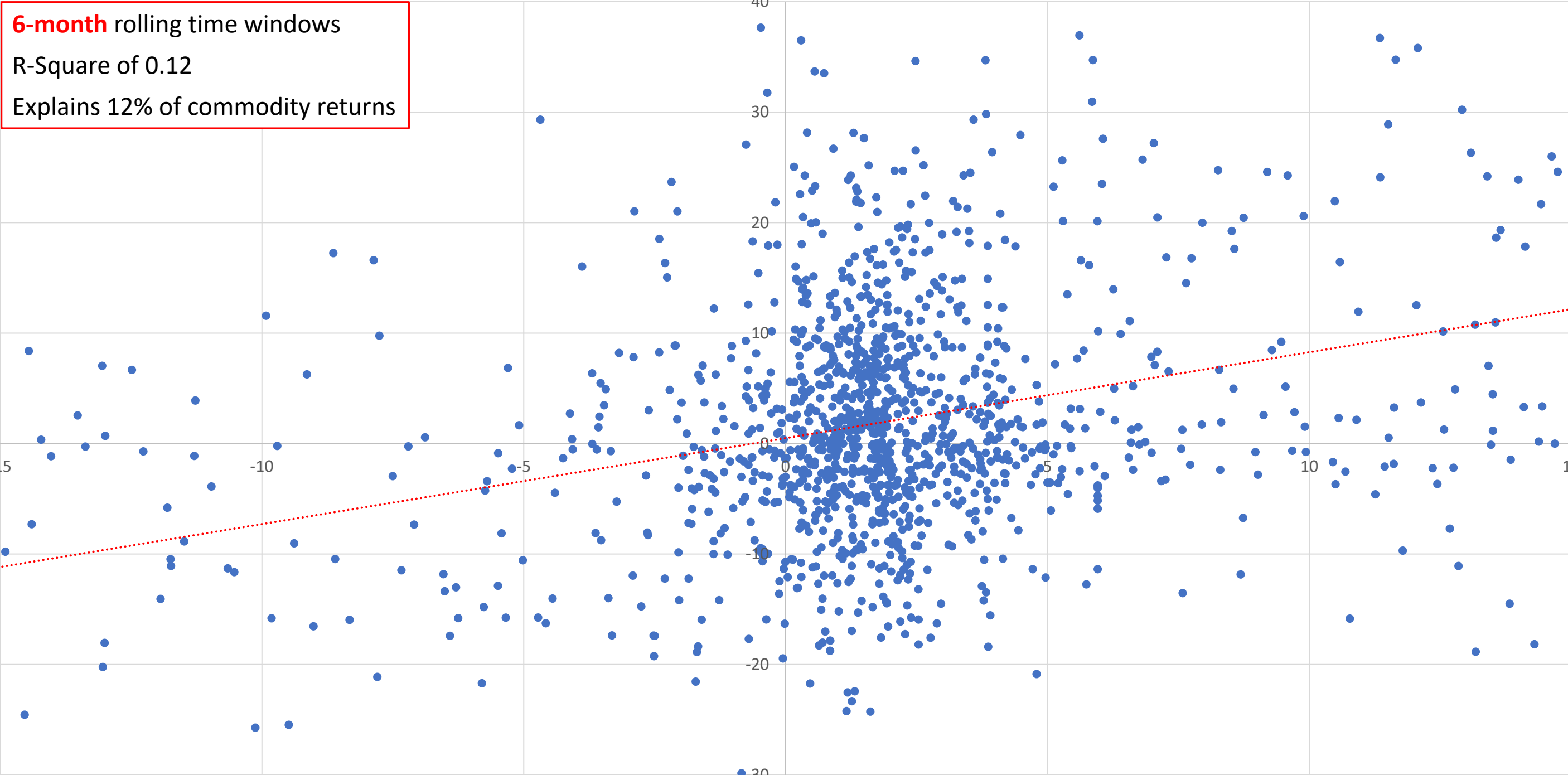
R-Square of 0.03

Explains virtually no part of commodity returns



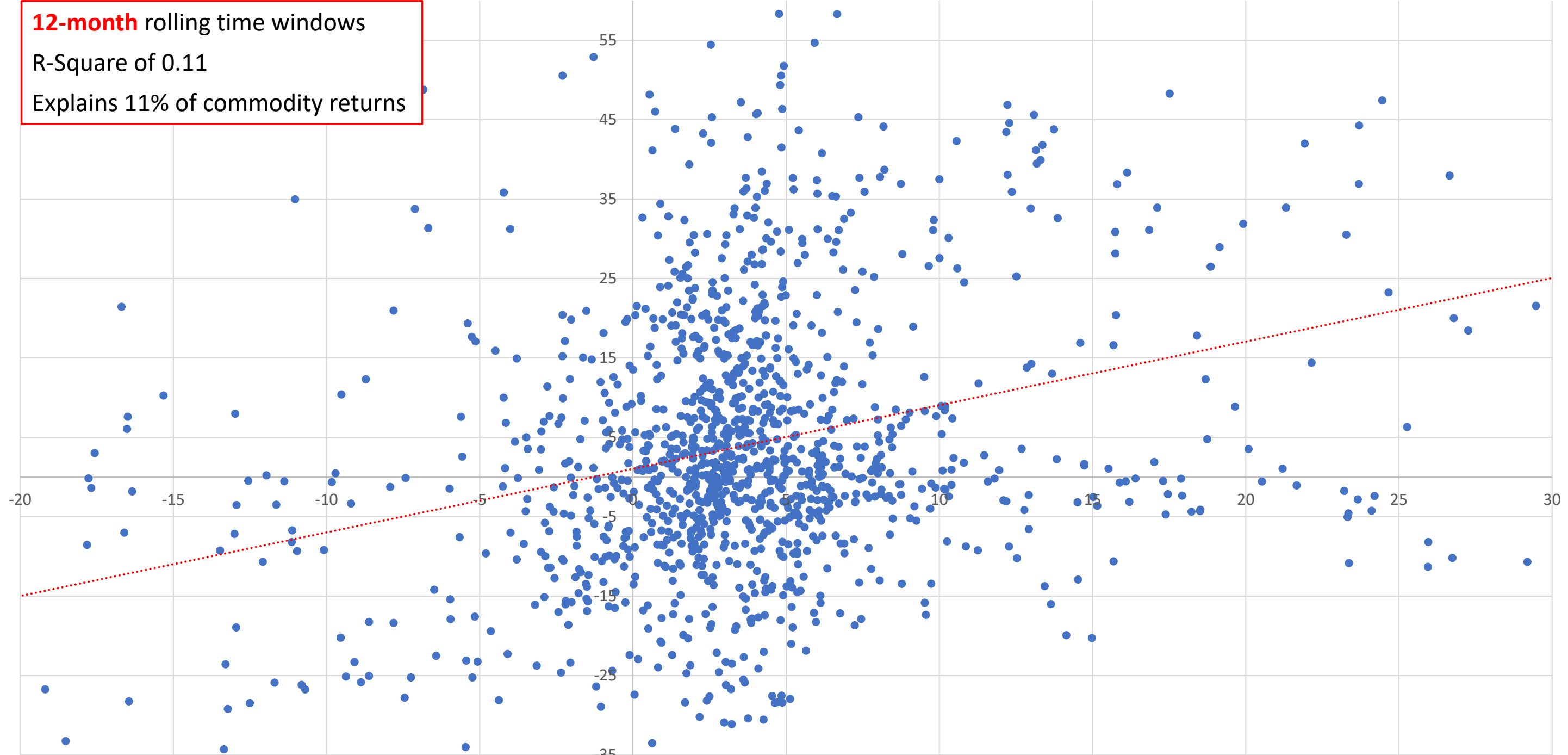
Time period that gives the strongest possible relationship

6-month rolling time windows
R-Square of 0.12
Explains 12% of commodity returns



Let's just consider the 12-month time window

12-month rolling time windows
R-Square of 0.11
Explains 11% of commodity returns



Investment grade bonds

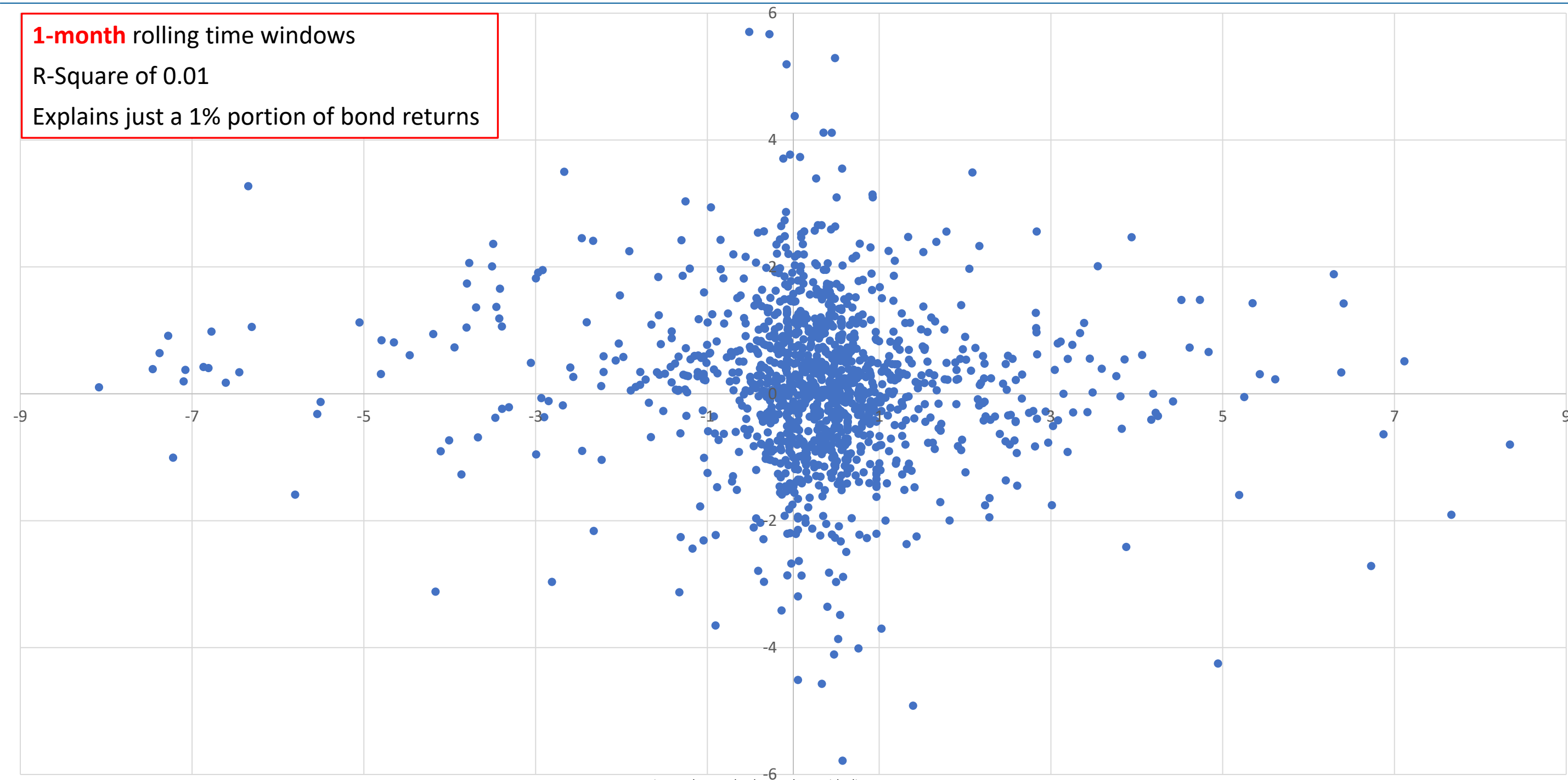
Think of the ETF with ticker symbol "AGG"

Absolutely no relationship whatsoever NONE !!

1-month rolling time windows

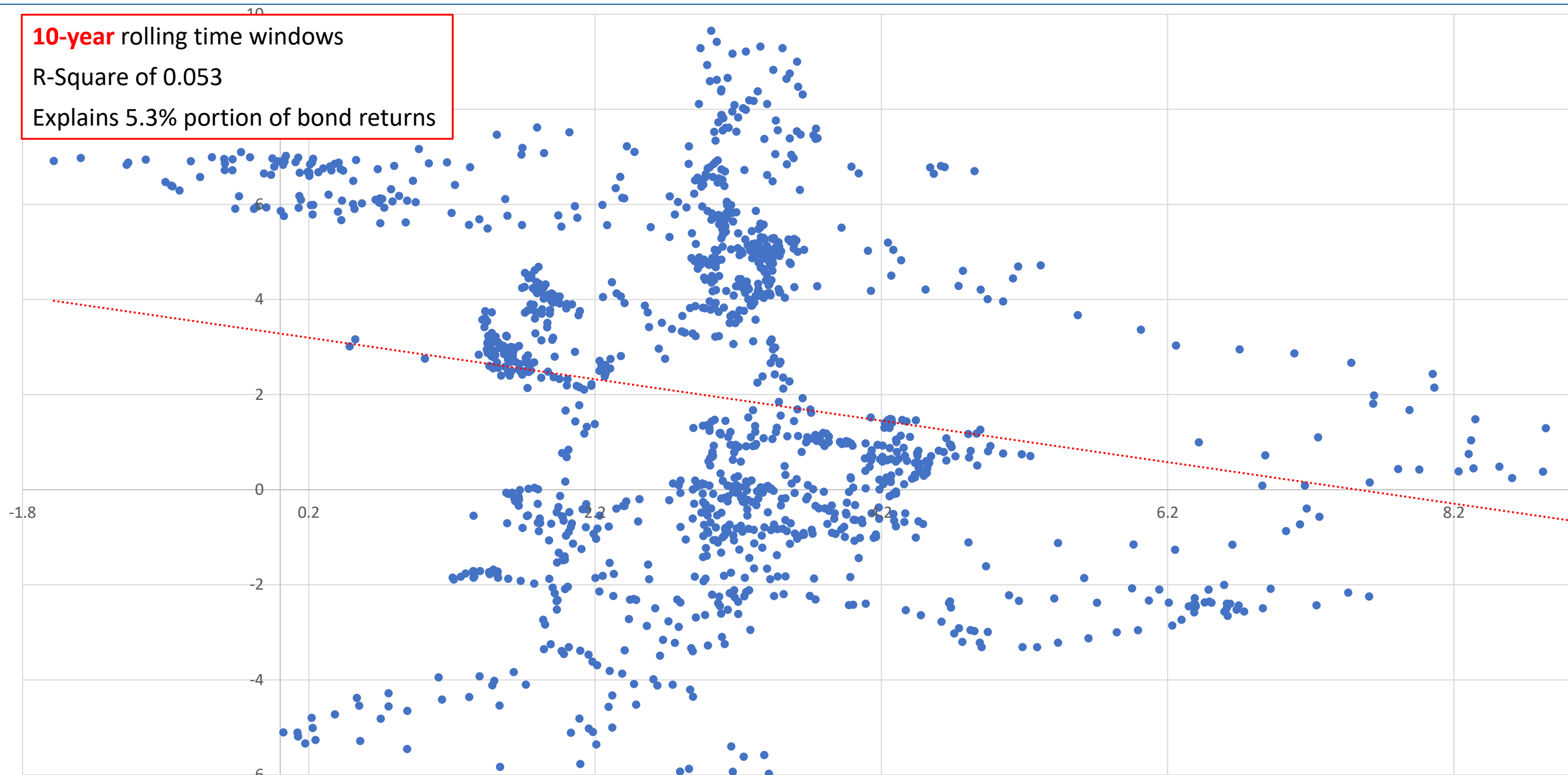
R-Square of 0.01

Explains just a 1% portion of bond returns



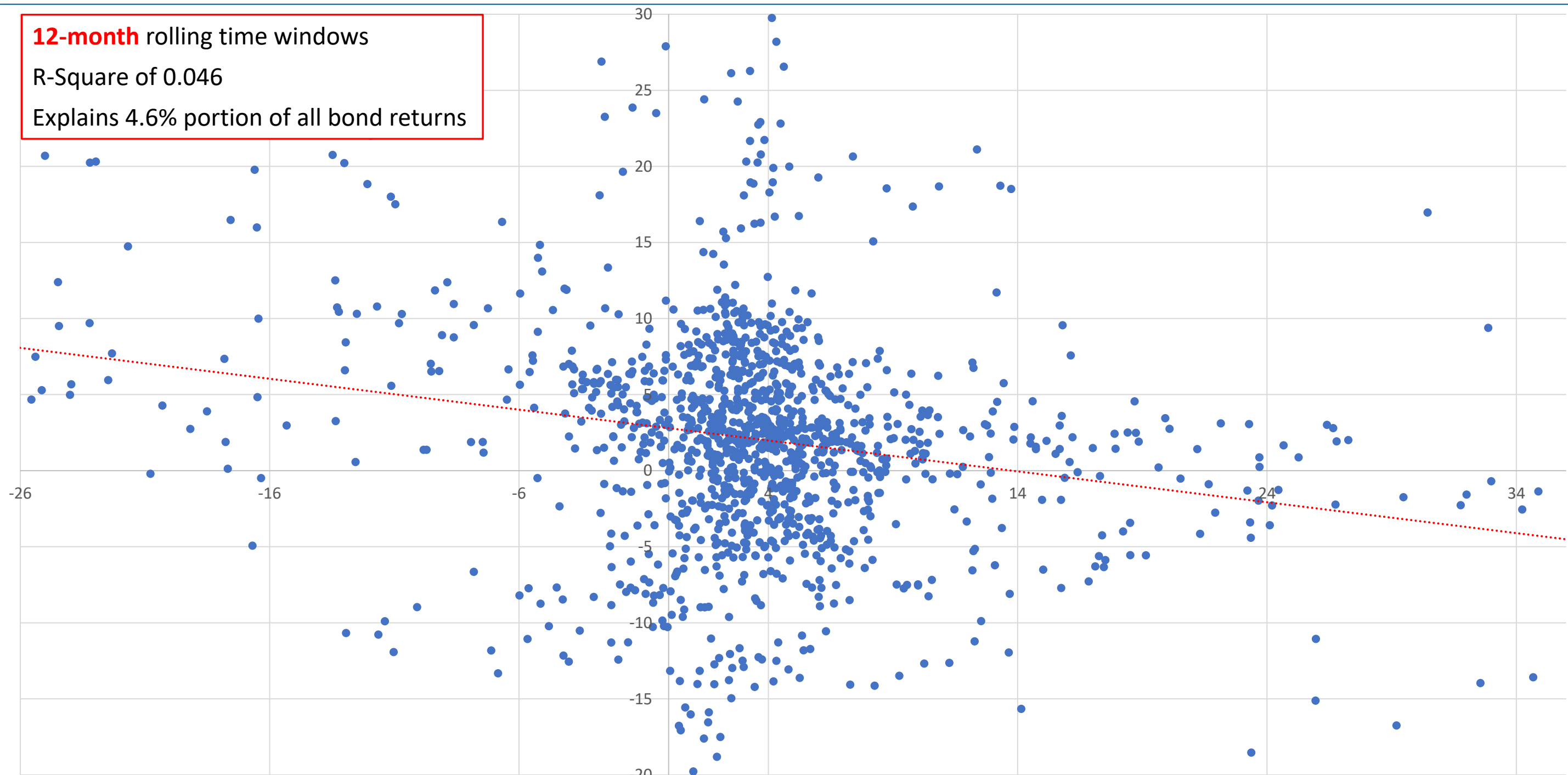
Time period that gives the strongest possible relationship

10-year rolling time windows
R-Square of 0.053
Explains 5.3% portion of bond returns



Let's just consider the 12-month time window

12-month rolling time windows
R-Square of 0.046
Explains 4.6% portion of all bond returns

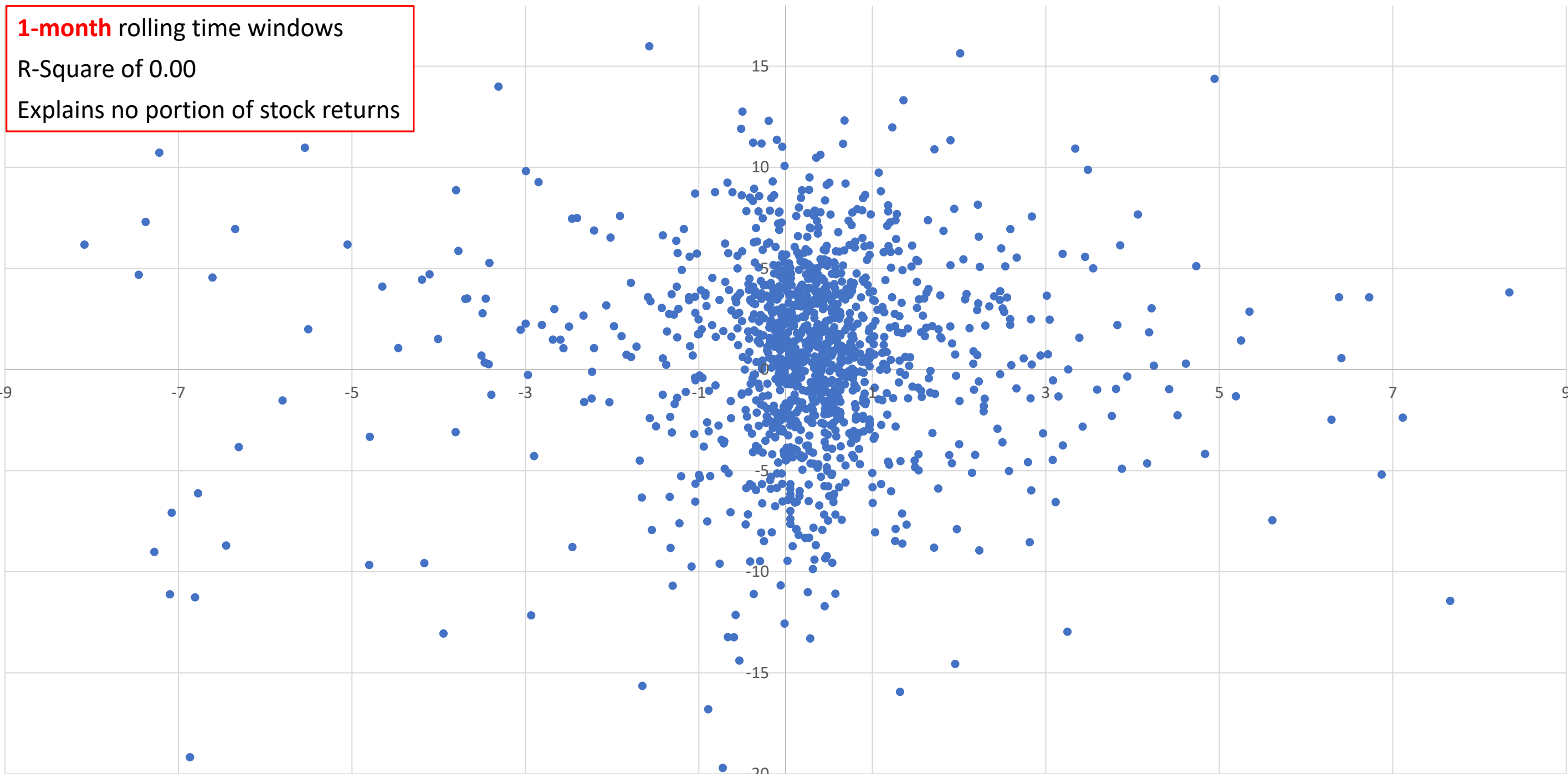


U.S. stocks

Think of the ETF with ticker symbol “SPY”

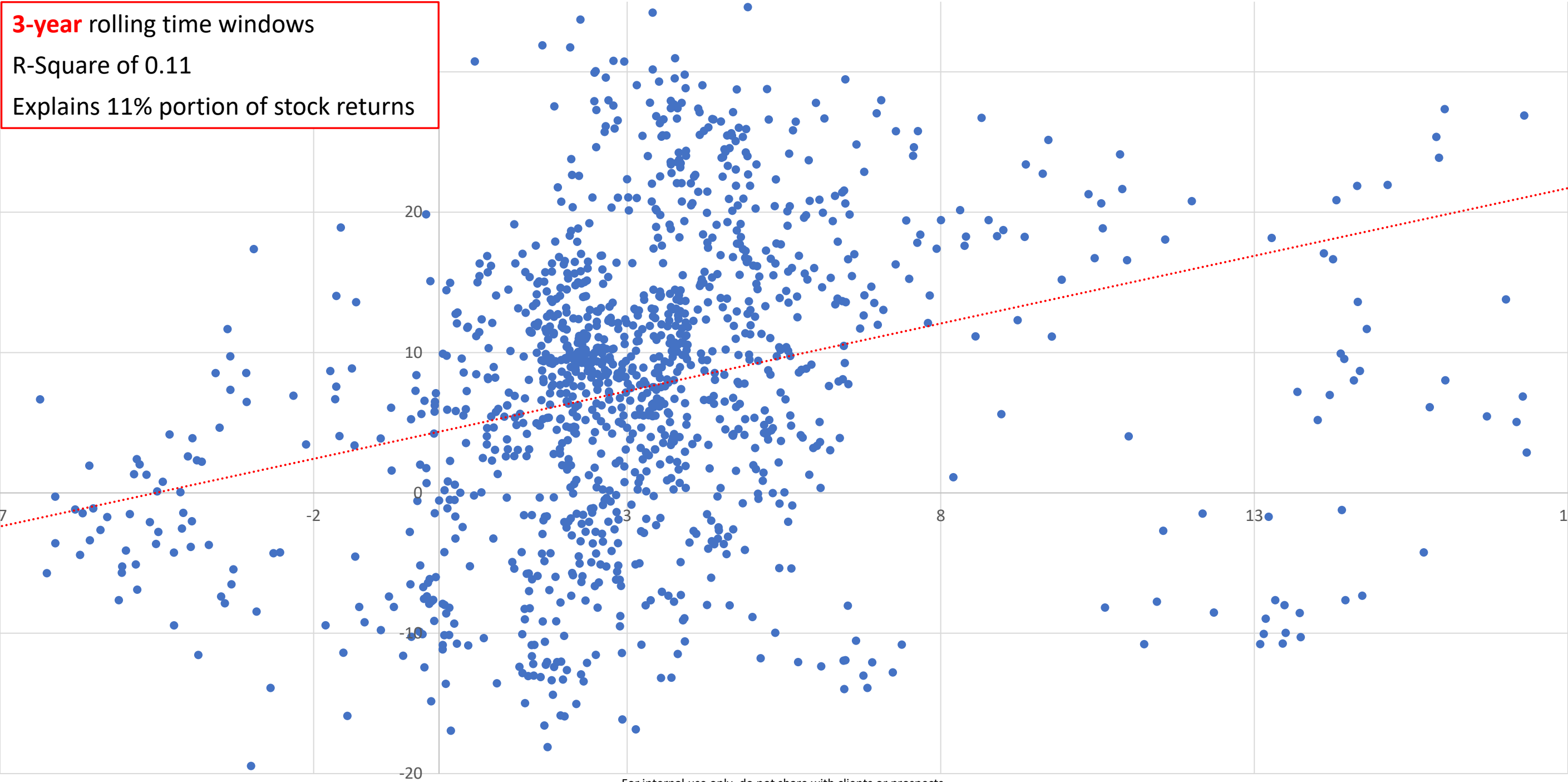
Absolutely no relationship whatsoever NONE !!

1-month rolling time windows
R-Square of 0.00
Explains no portion of stock returns



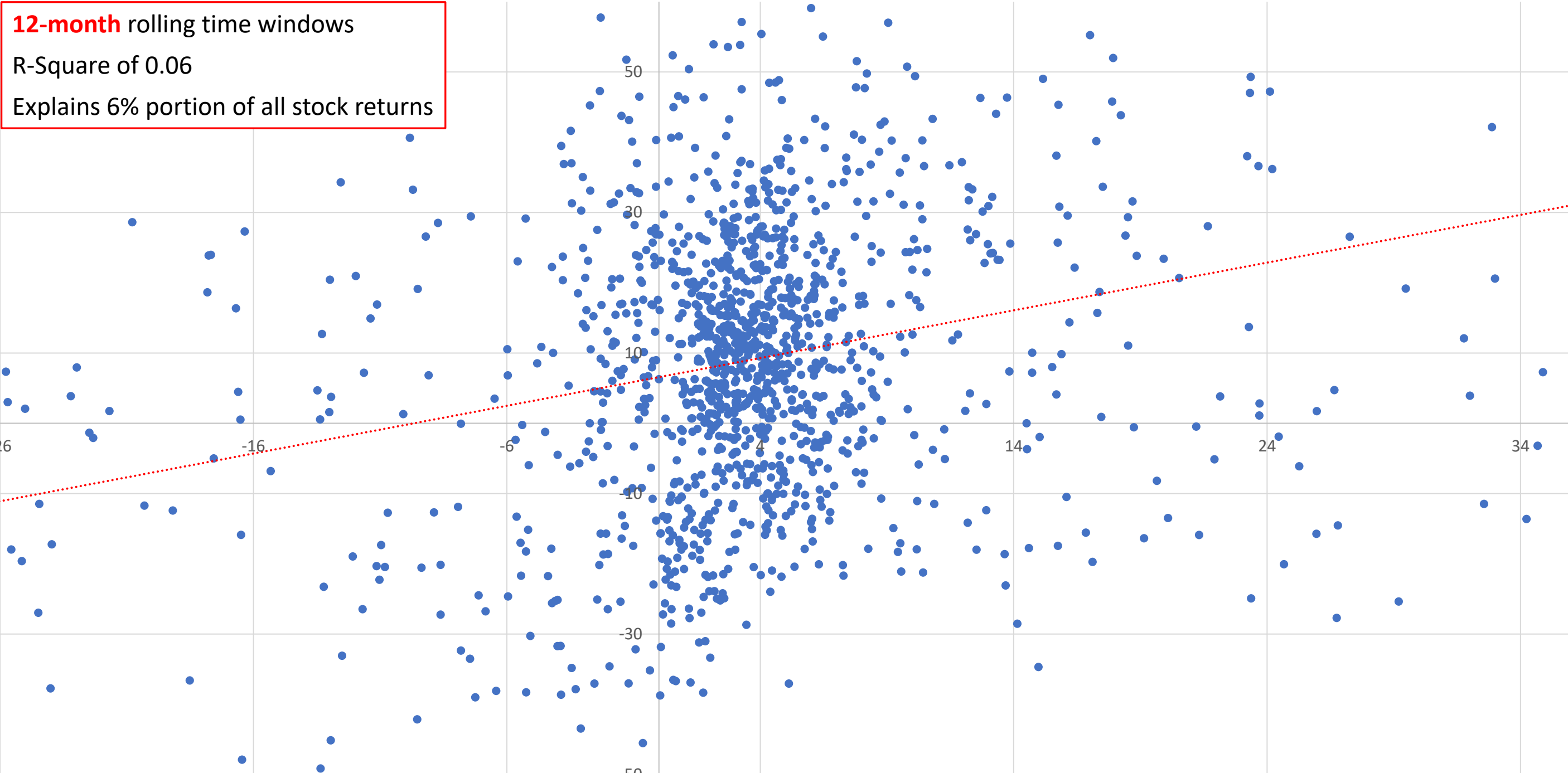
Time period that gives the strongest possible relationship

3-year rolling time windows
R-Square of 0.11
Explains 11% portion of stock returns



Let's just consider the 12-month time window

12-month rolling time windows
R-Square of 0.06
Explains 6% portion of all stock returns



Summary

Summary - If you know the future in advance, how much does it help?

	Worst possible		Best possible			12 months in the future	
Diversified precious metals	12 months	0%	10 years	3%	-	0%	-
Ultra-diversified commodities	1 month	3%	6 months	12%	+	11%	+
Investment grade US government/corporate bonds	1 month	1%	10 years	5.3%	-	4.6%	-
S&P 500	1 month	0%	3 years	11%	+	6%	+

Summary - If you know the future in advance, how much does it help?

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Ultra-diversified commodities	1 month	3%	6 months	12%	+	11%	+
Investment grade US government/corporate bonds	1 month	1%	10 years	5.3%	-	4.6%	-
S&P 500	1 month	0%	3 years	11%	+	6%	+

Important question

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 - All of it?
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Important question

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- A quarter?

- This is the question . . . we will answer

Or . . .

If stocks return 10% next year

Then just **0.6%** is explained by what the economy does

9.4% is explained by other factors

Important question

- If stocks normally return something like 10% per year
- How much of that “10%” . . . is explained by future economic growth

- All of it?
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If you know in advance, exactly what the economy will do over the next 12 months

This perfect foreknowledge allows you to explain what portion of future investment returns?

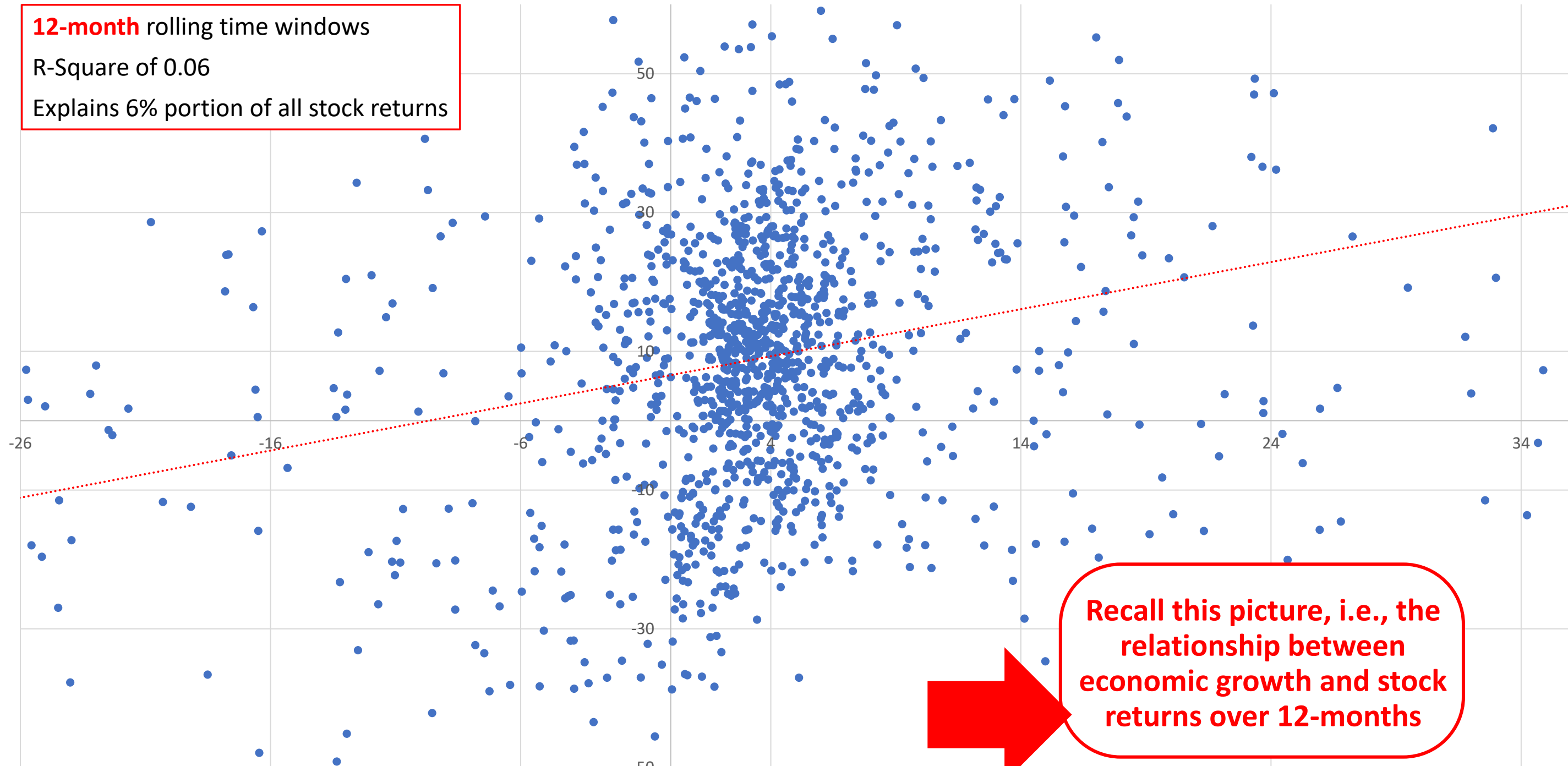
- 0% of precious metals
- 11% of commodities
- 4.6% of bonds
- 6% of stocks

Let's just consider the 12-month time window

12-month rolling time windows

R-Square of 0.06

Explains 6% portion of all stock returns



Recall this picture, i.e., the relationship between economic growth and stock returns over 12-months

Does knowledge of future GDP growth help anywhere?

- Real estate
- Labor income
- Unemployment
- Job prospects
- Housing
- Level of the US Dollar
- Will the credit spreads on your junk bonds widen out
- Will you get a raise . . . and how large
- Long-run professional opportunity
- These are an ENTIRELY different matter

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Case for Tactical Asset Allocation revisited

Friday

February 3rd

11:00 a.m. EASTERN

All data and statistics were provided by Global Financial Data, Inc. and NDR, Inc. (unless otherwise indicated in the exhibit)

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