

Memorandum

To : BW, FES Team
From : MB
Date : February 4th, 2024
Subject : Macro Dashboard Q IV 2024 v_1.0

A. Summary of Results

The key metrics we monitor in this Macro Dashboard have stayed largely unchanged since our last report:

- a) **In Europe** the levels of profitability as well as equity valuations stay **largely close to their historical averages** – there is neither sign of either an inflated, non-sustainable level of corporate profitability or a valuation bubble. **Thus, in the future, we expect average returns.**
- b) **In the USA** the **level of profitability is elevated by 150% above historical averages** resp. trend-line growth. More significantly equity valuations are significantly inflated and have gone up further. **Both valuation metrics we use stand at 200-250% of their historical averages, implying standard deviations of 2,8-3,2x. This signals a bubble.**

On the risk side, global economic and political risks appear to have increased, i.e., the outcome of the war in Ukraine and the geostrategic implications, other military conflicts and tight monetary policy. High 10-year bond yields in the USA ~4% will open many risky financing structures that were not stress-tested for such an evolution.

B. Europe

1. Levels of Profitability

1.1 Introduction

Aggregate European data for the level of profitability in Europe or the €-area have only been available since ca. 2000. To get a long-term series, we have decided to **focus on the national statistics of Germany and France**. These countries jointly account for ca. 40% of the GDP of the Eurozone.

1.2 Corporate Profits Germany

Appendix B.1.2.a. shows that the German Gross Operating Surplus plus Gross Income as % of Gross Value-Added **decreased to 37,6% in Q IV 2024 from 39,4% in Q IV 2023**. Sequentially it was unchanged from the previous quarter. This metric is a “high-level” indicator for profitability in the corporate sector.

The 25-year average for this metric is 41,4%. Thus, in Q IV 2024, this profit metric stood at **91% of its long-term average**.

The **second metric** we use for monitoring the level of profitability in Germany is the **time series for the last twelve months ("LTM") EPS of the DAX German index**. **Appendix B.1.2.b** shows that **aggregate LTM EPS in Q IV 2024 increased to € 1.081,80 from € 823,60 last year** – an increase by ca. 30%. This number is based on reported – not adjusted – profits, thus it includes all one-off negative effects like write-downs on assets.

In historical comparison, DAX EPS is **slightly above the multi-year trendline**.

1.3 Corporate Profits France

In France we obtained a 76-year time series on the Corporate EBITDA as % of Gross Value Added - see **Appendix B.1.3.a**. In Q IV 2024, this metric **decreased to 30,8%** from 31,8% last year. The 76-year average is 31,5%. Thus, in Q IV 2024, French Corporate EBITDA stood **at 98% of its long-term average**.

The **second metric** for monitoring corporate profitability in France is the time series of LTM EPS for the CAC All Tradeable index – **Appendix B.1.3.b**. The Appendix shows that **aggregate EPS in Q IV 2024 decreased to € 222,5 from € 240,4 the same time a year ago** – a decrease by ca. 7,4%. The graph shows that this profit metric is on **the trend line**.

2. Valuation

2.1 Shiller's CAPE in Europe

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Shiller's Cyclically-Adjusted Price Earnings Multiple (or CAPE) is a metric introduced by Robert Shiller in his 2000 book **"Irrational Exuberance"**. It eliminates short-term earnings fluctuations by calculating a 10-year average, inflated to today's purchasing power based on the GDP deflator.

The primary source of this data is **Research Affiliates**. Our data is drawn from the JP Morgan Guide to Markets as a secondary source. **Appendix B.2.1.1** shows the 35-year evolution of this metric. The basis is the **MSCI Europe index**.

Current CAPE Europe stands at 18,1x. The 35-year average of CAPE Europe since 1990 stands at 19,2x. This implies that the **current valuation stands at 94% of their long-term average**. Thus **current valuations in Europe are supported by 10-year average profits**.

2.2 Summary of Valuations in Europe

In summary both

- a) levels of profitability
- b) valuations

in Europe are very close to their historical averages – **no sign of overvaluation or a bubble**.

C. USA

1. Status of the Profit Cycle

1.1 US After-Tax Corporate Profits as % of GDP (Appendix C.1.1)

1.1.1 Total Profits

In Q IV 2024, **US after-tax Corporate Profits** were 9,9% (vs. 9,2% in Q IV 2023) **of GDP**.

The current level of profitability implies a **ratio of 160% of its 96-year average since 1929**, which stands at 6,2%. **This corresponds with 1,7x standard deviations**.

1.1.2 Non-Financial Profits

In the US **after-tax Non-Financial Corporate Profits** – eliminating the volatility of banking profits – in Q IV 2024 increased to 7,8% vs. 7,7% in Q IV 2023. This metric indicates that the increase in total corporate profits is largely driven by the financial sector – which is in line with the blockbuster financial reports of J.P. Morgan, Goldman etc.

The 96-year average is 4,9%. Thus, in Q IV 2024, US after-tax Non-Financial Corporate Profits stood **at 158% of their long-term average**. **This corresponds with 1,5x standard deviations**.

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1.2 US Corporate EBITDA (Appendixes C.1.2.a and C.1.2.b)

The second metric we use for assessing corporate profitability is **US Corporate EBITDA** (Net Operating Surplus plus Consumption of Fixed Capital divided by Gross Value Added). It eliminates any distortions from changes in interest or taxes.

As you can see from **Appendix C.1.2.a** in Q IV 2024 Corporate EBITDA stood at 37,1% of Gross Value Added, slightly up from 35,7% in Q IV 2023. **Appendix C.1.2.b** shows that the share accounted for by **wages** as % of GDP decreased to 32,0% (vs. 32,8% in Q IV 2023).

As the 96-year average of Corporate EBITDA stands at 30,2% of GDP, the latest level implies a **ratio of 123% of its historical average. Thus the higher metric for net profits is largely driven by lower tax rates.** The implied deviation from historical data corresponds to **1,6x standard deviations.**

Historically US Corporate EBITDA has varied within a much tighter range (23-36%) than the rest of the metrics discussed in Chapter 2.1, e.g. US after-tax Corporate Profits ranged from 2% to 8,5%. This is due to EBITDA being "higher up" in the profit funnel, with **less exposure to the operating gearing** from depreciation, interests, and taxes which magnify the relative rate of changes.

1.3 S&P 500 – Earnings per Share (Appendix C.1.3)

In Q IV 2024, TTM **statutory earnings per share** ("EPS") of the S&P 500 stood at \$ 200,3 – up **2,9%** from \$ 194,7 in Q IV 2023.

Appendix C.1.3 shows that EPS was growing strongly above its trend line after the financial crisis of 2008/09. The main driver was the tax cuts, this should be considered when interpreting the data. Currently, EPS is **roughly 90% above the level of profits implied by the trend-line growth rate** around EPS of \$ 100,-.

1.4 FORUM Conclusions on US Profitability

Below please find a summary of the four metrics for corporate profitability compared with their respective averages and expressed in standard deviations:

Metric	% of LT Average	Standard Deviations
Total Profitability as % of GDP	160%	1,7x SD
Non-Fin. Profits % of GDP	158%	1,5x SD

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Corporate EBITDA Level	123%	1,6x SD
S&P 500 eps (vs. trend line)	~190%	n.a.

We, therefore, conclude that the level of profits still appears to be at levels way above historical levels or trendlines.

2. Valuations

2.1 Cyclically Adjusted PE Ratios / Shiller's CAPE (Appendix C.2.1.a)

Prof. Shiller reports a **CAPE of 37,9x in Q IV 2024**. On that date, the S&P 500 stood at 6.010,9. This is compared to a CAPE of 31,5x in Q IV 2023.

The long-term average of CAPE since 1871 stands at 17,5x. This implies that **current valuations are 216% of their long-term average**. In terms of statistical significance, this valuation implies a **standard deviation of 2,8x**.

Thus, we continue to see valuations which are the second highest in history after the 1999 bubble – above the level achieved before the Great Recession in 1929. **This is worrying as there is lots of historical evidence that in the subsequent years returns to shareholders have been poor.**

2.2 US Equity Market Capitalization as % of GDP (Appendix C.2.2)

This is a metric which Warren Buffett cites often when discussing the level of valuations in equity markets. The numerator is the value of corporate equities as recorded on the balance sheet of the Fed.

Based on the Fed data for market capitalization and BEA data for GDP **US market capitalization as % of GDP increased to 215,2% at the end of Q IV 2024**.

As the 73-year average since the beginning of this time series in 1952 is 83%, this valuation implies **a level of 251% which corresponds to 3,2x standard deviations**.

2.3 Summary and Conclusions

2.3.1 Summary of US-based Data

Below please find a summary of the level of the valuation metrics compared with their long-term averages and standard deviations **as of December 31st, 2024, for the USA:**

	% of LT Average	Standard Deviations
Shiller's CAPE	216%	2,8x SD

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US Equity Market Cap. as % of GDP

251%

3,2x SD¹

Both metrics suggest that US equity markets are **overvalued**. We define a bubble when a level of 2x standard deviations is exceeded, thus **according to Schiller's CAPE and Warren Buffett's metric, we are in a bubble**.

This does not exclude a scenario whereby equity valuations continue to increase for many more years – **just the probabilities are against that**. And any rational asset allocation decisions should be based on probabilities – this would have yielded the highest returns in the past 100+ years.

D. Comparison Europe: USA

The following table **summarizes the 2x2 matrix we have de-been facto talking about** (the figures are % relative to their long-term average):

	Europe	USA
Profits	~ 95%	~ 150%
Valuation	~ 94%	~ 220%

Thus, Europe appears perfectly in order. There is room for profit growth for some years without building up a bubble.

The "elephant in the room" is **the massive overvaluation of US equities** – in combination with profits which are very elevated by historical standards.

If it corrects itself, this will also affect European valuations. But given the situation on the left side of the matrix, we cannot afford to pull our horn too much as valuations in Europe could well increase by 20 - 30% from money being re-directed from the USA to Europe. **Thus, we will stay invested to a high degree.**

E. Risks

The analysis above shows that the **levels of profitability and valuation in Europe do not signal an elevated level of risk as they are close to their long-term averages**.

Share prices in Europe may go down as well if we see a correction in the USA. This is a risk we do not see as critical as we focus on the Intrinsic Values of our portfolios – in the long-term share prices will follow the Intrinsic Values.

The risks for a potential impairment of the earnings power value of our portfolio **come from**

¹ All SD calculations are based on end of previous quarter numbers.

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- a) a recession which is triggered by the tightening of the monetary policy.
- b) the war in Ukraine and its economic consequences.

This is a Macro perspective; thus, we cannot comment on the resilience of our holdings. But the answer we would have to these risks is that the top 3 holdings in our portfolio should be able to weather these risks and continue to grow earnings and Intrinsic Values.

F. Conclusions for the Tops-Down Portfolio Construction

1. Expected Market Returns

If one believes in the Mean-Reversion characteristics of valuation, the most likely assumption on expected returns on European equities in the next 5 – 10 years would be **returns in line with historical averages**.

Conversely, expected returns from US equities are below long-term averages. The expected return will depend on the time it takes for this **overvaluation to unwind**. **Appendix F.1** shows the expected market returns going forward. **According to this metric the expected 10-year return of US equities is 2,3% p.a. in nominal terms, implying a high likelihood of a negative real returns.**

As history shows with such predictions, the actual outcome will most likely not be a linear development, **but the losses may come in very concentrated periods**. And the highest risk of a market correction by 10 – 20% is now – when valuations are highest!! **This describes the basic scenario which FORUM wants to position its portfolio for.**

2. Cash Level

Our traditional level of net cash is ca. 20% of net assets. Given our expectations for risks and returns, we prefer to **keep liquidity at this level or slightly below**.

3. Shorting Exposure

We continue to want to have a short exposure of 5 - 10%. But we will need names with a clear catalyst – not just overvaluations – otherwise the risk of being killed from momentum is too high.

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B.1.3.a	France Corporate EBITDA as % of Gross Value Added
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F.1	Expected Returns of Equity Markets USA and Europe

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Appendix 1.1: Historical Relationship between Standard Deviations and Returns for CAPE

Stock Market Return as a Function of # Standard Deviations from Average PE/ 10

Status as of November 2nd 2010

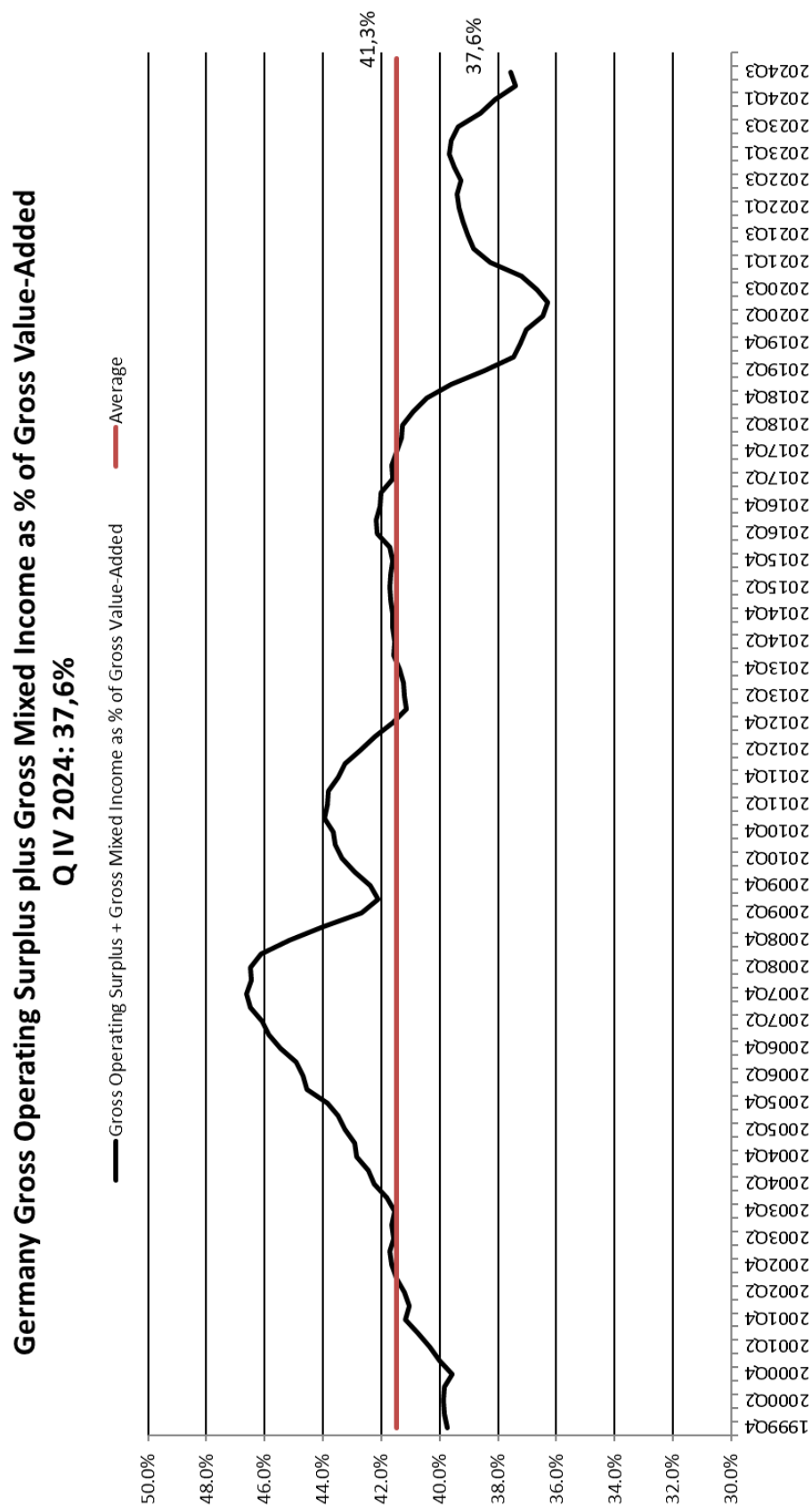
	Deviation from average as a # of standard deviations	# months	Nominal return		
			2 years	5 years	10 years
Negative deviations	Less than -3	1	14.5%	5.2%	9.9%
	Between -3 and -2	79	5.3%	4.8%	7.0%
	Between -2 and -1	294	7.8%	7.8%	4.6%
	Between -1 and -0.5	226	10.5%	6.8%	6.6%
	Between -0.5 and 0	159	7.8%	5.3%	6.3%
Positive deviations	Between 0 and 0.5	169	2.1%	3.6%	5.6%
	Between 0.5 and 1	178	2.1%	2.8%	4.1%
	Between 1 and 2	297	1.6%	3.8%	2.5%
	Between 2 and 3	71	1.1%	1.7%	2.3%
	More than 3	56	0.0%	-2.7%	-0.1%
Total		1530	5.0%	4.8%	4.7%

48% } 86%

Period covered: 1881-2010

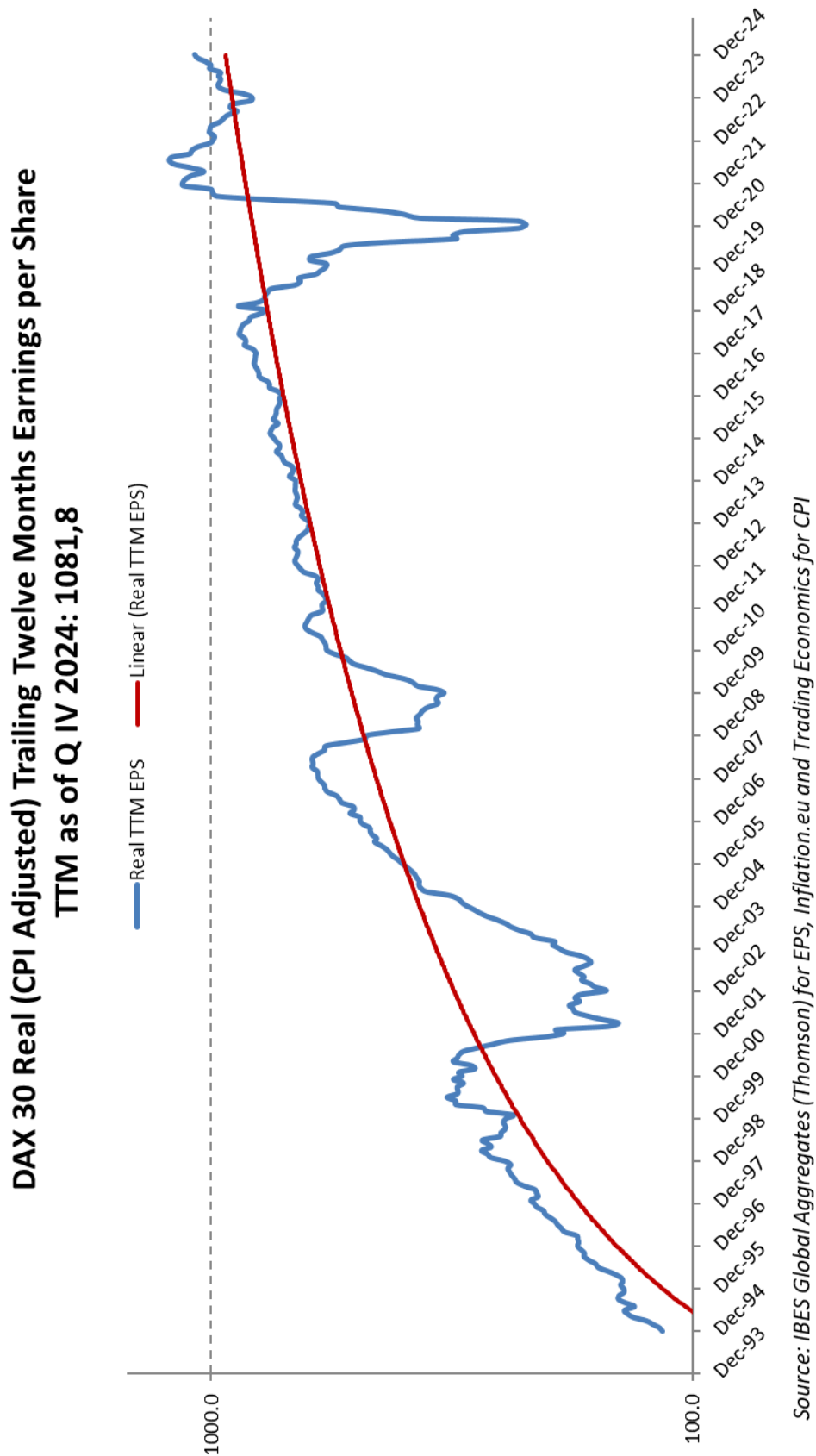
Source: Shiller, FORUM Research

Appendix B.1.2.a – German Gross Operating Surplus plus Gross Income as % of Gross Value-Added

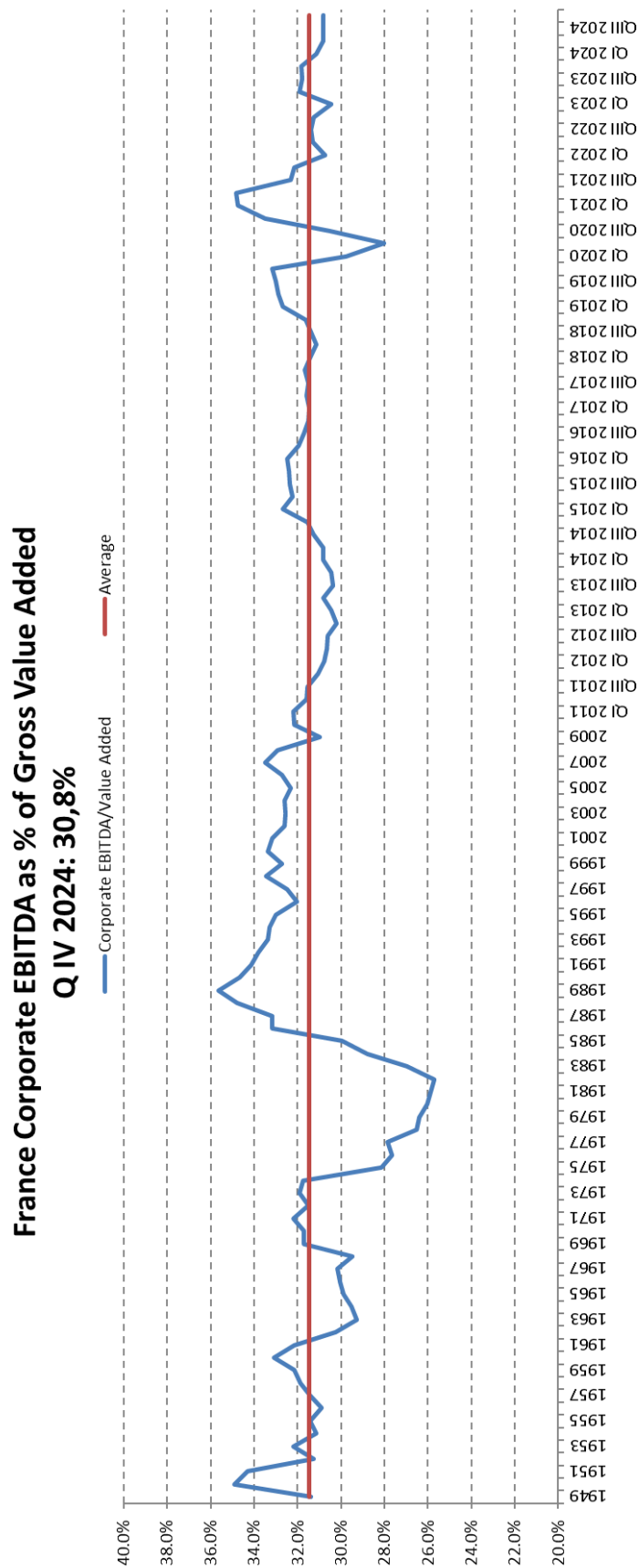


Source: Destatis.de

Appendix B.1.2.b – Real (CPI Adjusted) TTM EPS of DAX 30 Index (Germany)

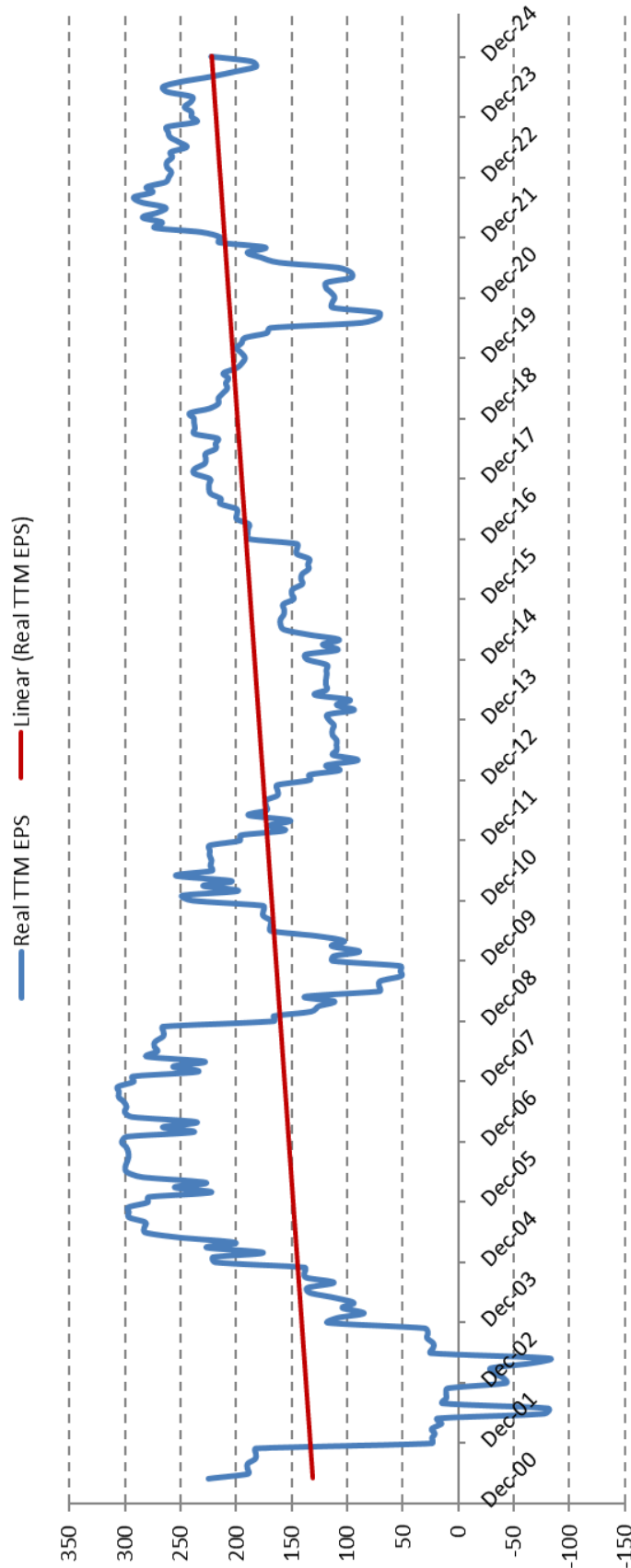


Appendix B.1.3.a - France Corporate EBITDA as % of Gross Value Added



Appendix B.1.3.b – Real (CPI Adjusted) TTM EPS of CAC All Tradeable Index (France)

CAC All Tradeable Index(CPI Adjusted) Trailing Twelve Months Earnings per Share
TTM as of Q IV 2024: 222,5



Appendix B.2.1.1 - MSCI Europe CAPE Ratio

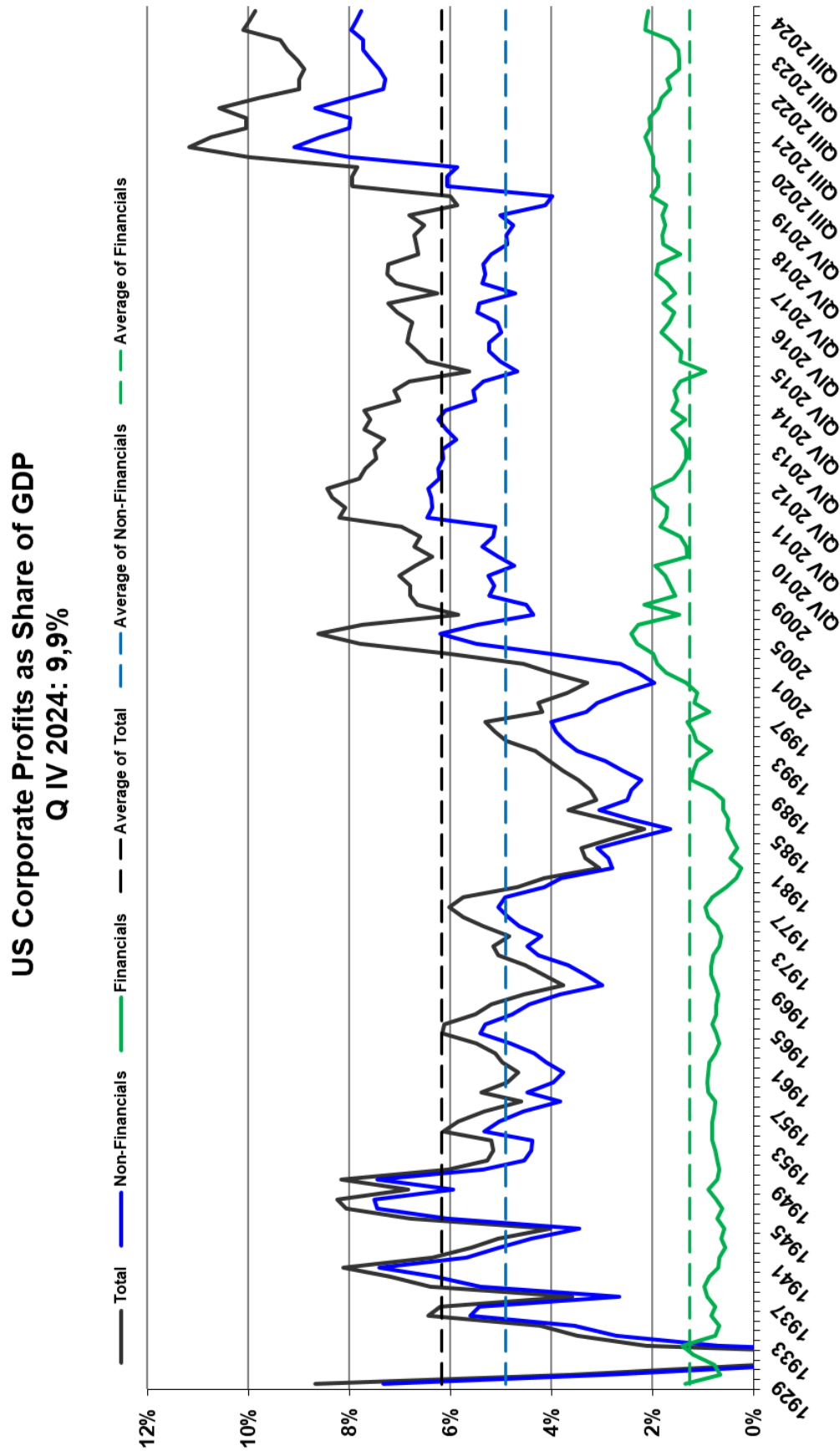
Forward-KGV des MSCI Europe

X, Multiplikator



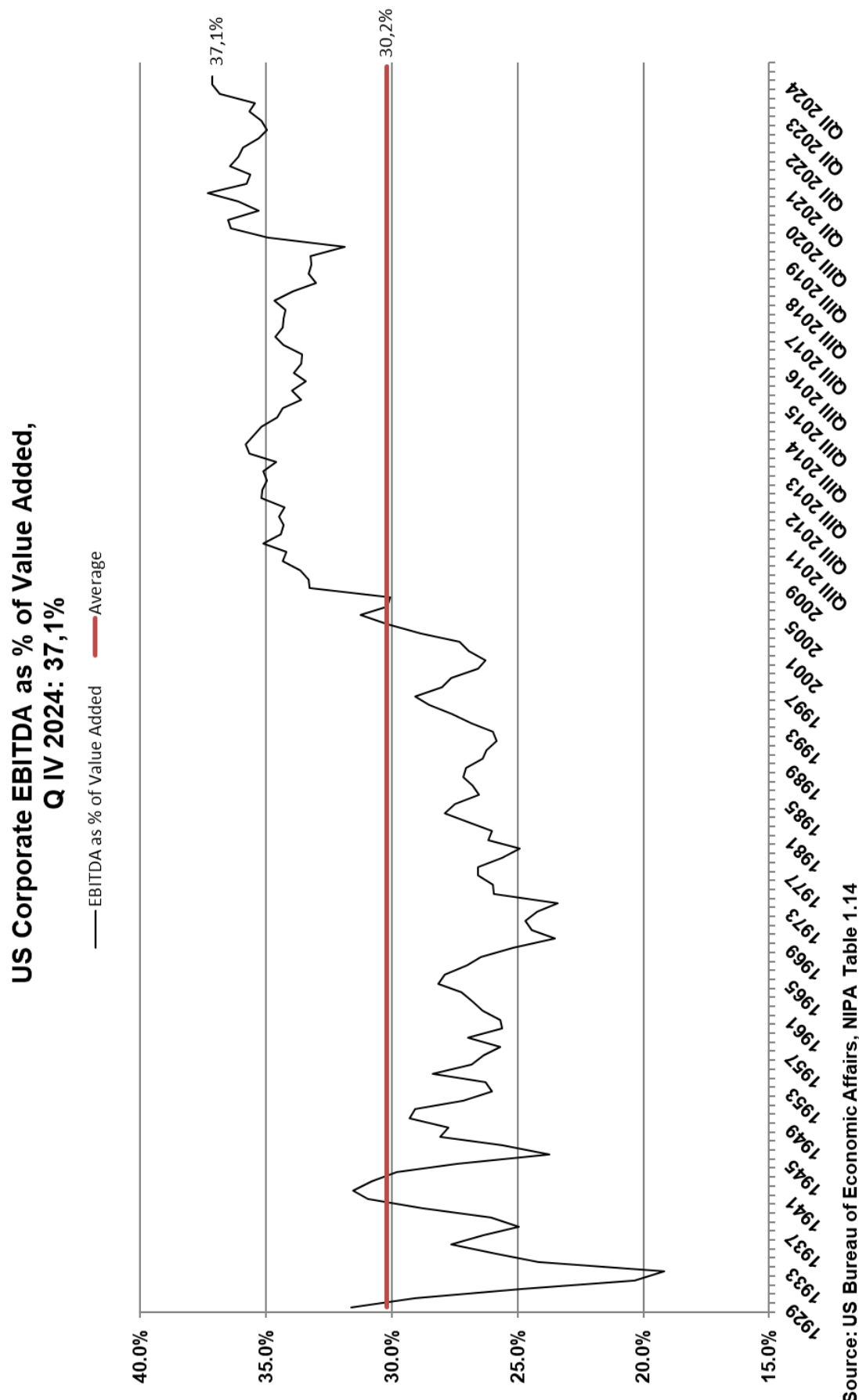
Source: JPM Guide to Markets (Q IV 2024)

Appendix C.1.1 – US Corporate Profits as % of GDP

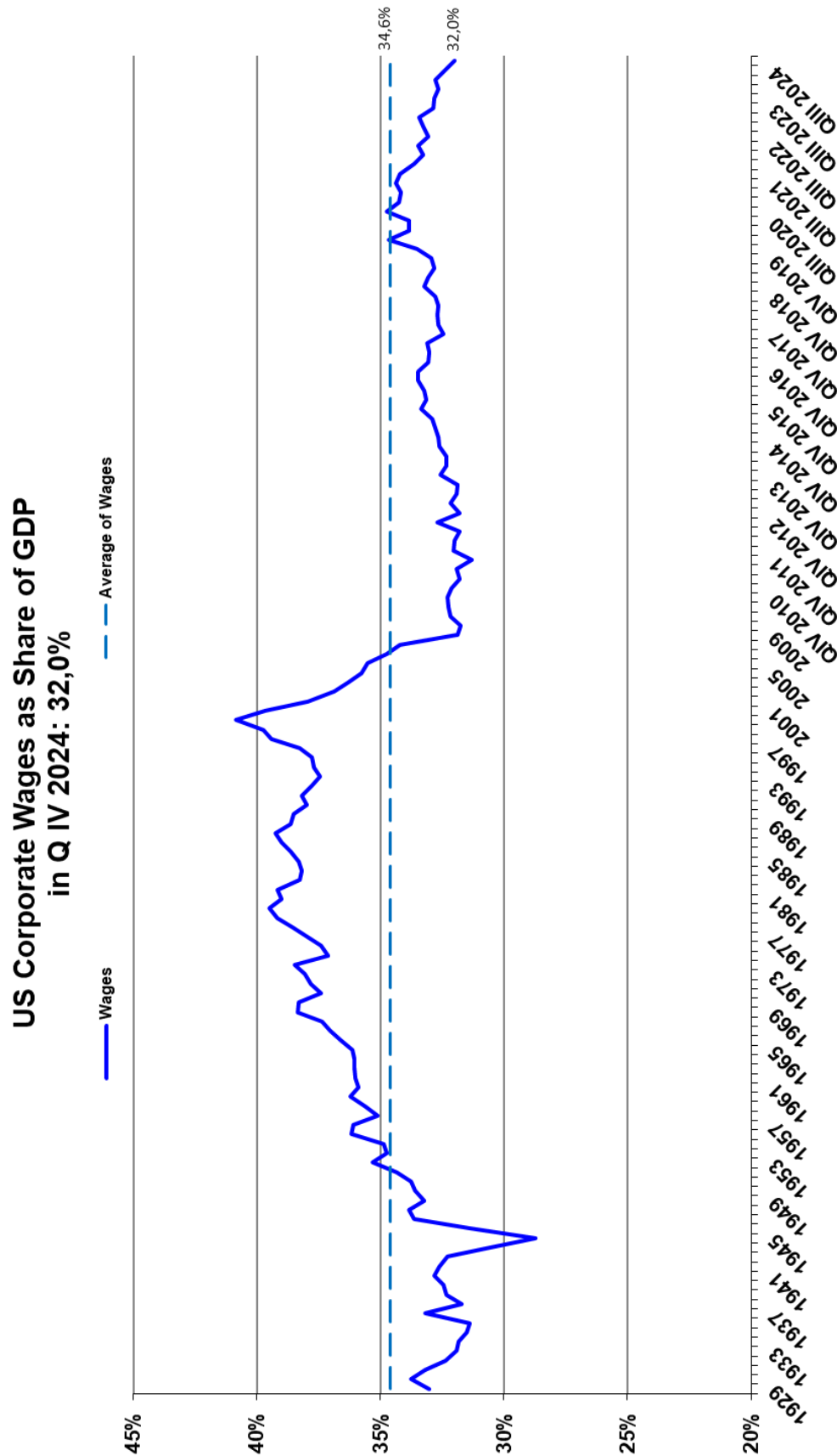


Source: US Bureau of Economic Affairs (BEA), NIPA Table 1.14

Appendix C.1.2.a - US Corporate EBITDA as % of Gross Value Added



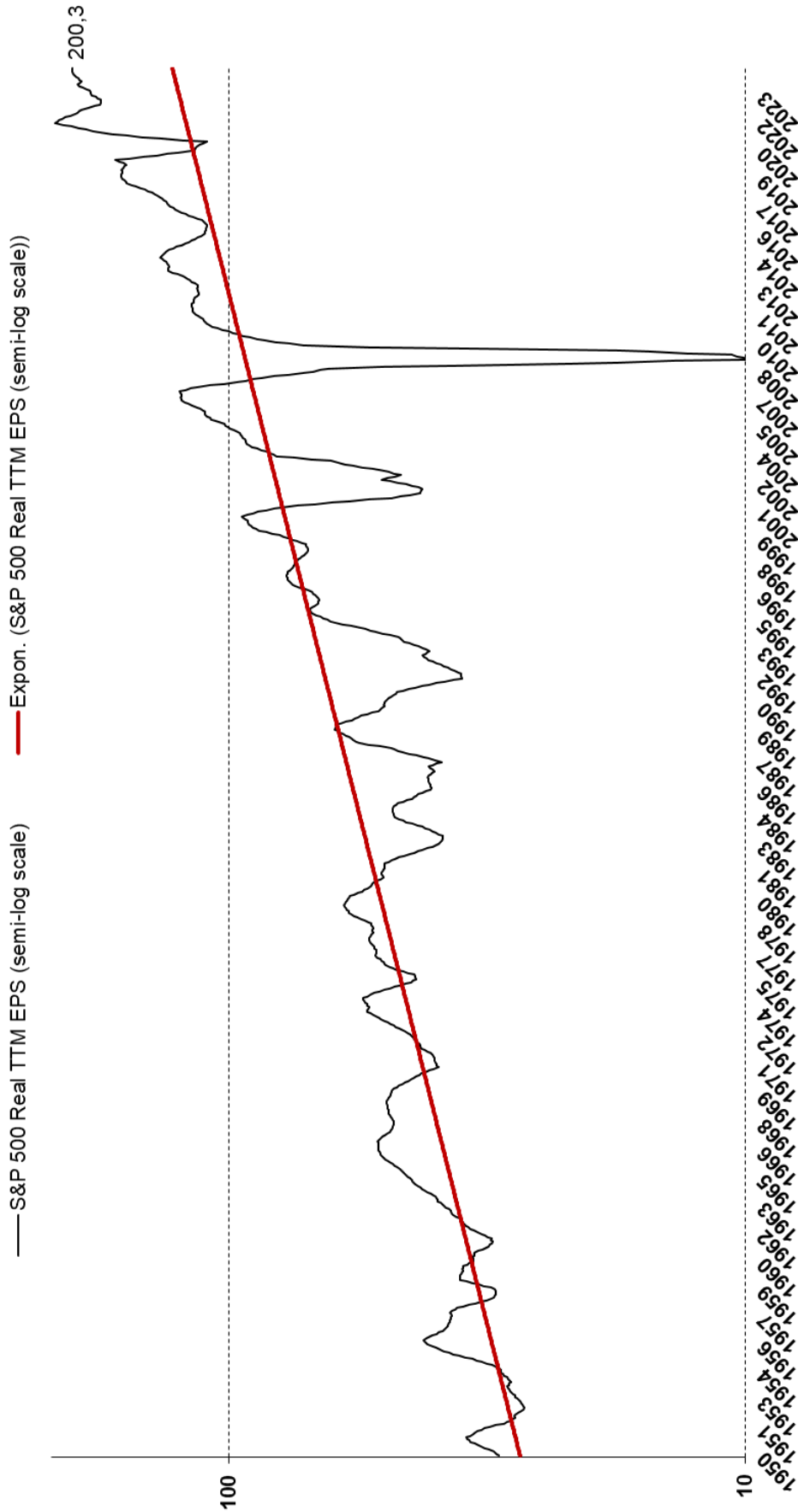
Appendix C.1.2.b - US Corporate Wages as % of GDP



Source: US Bureau of Economic Affairs (BEA), NIPA Table 1.14

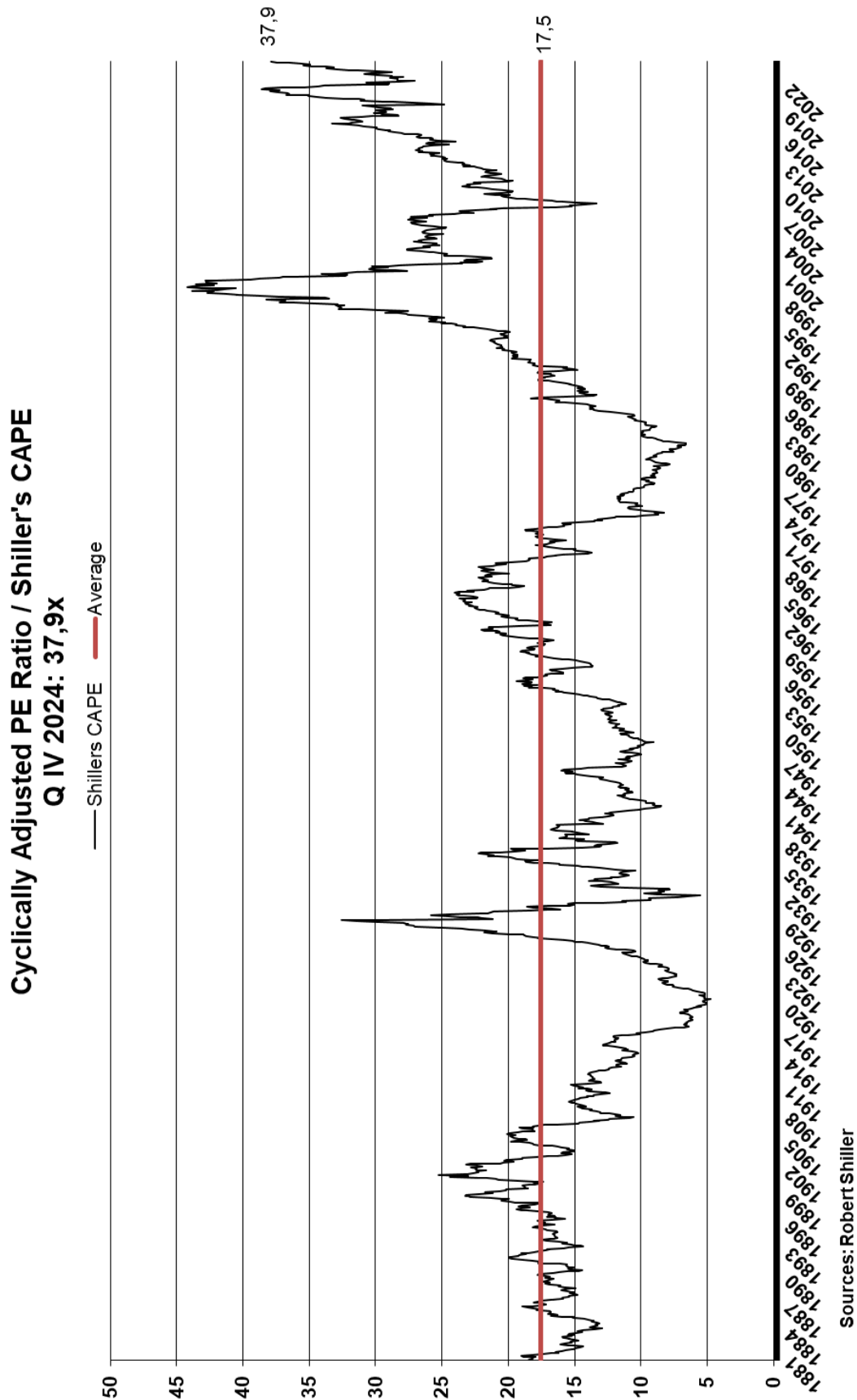
Appendix C.1.3 - Real (CPI Adjusted) TTM EPS of S&P 500

S&P 500 Real (CPI Adjusted) Trailing Twelve Months Earnings per Share LTM as of Q IV 2024: 200,3

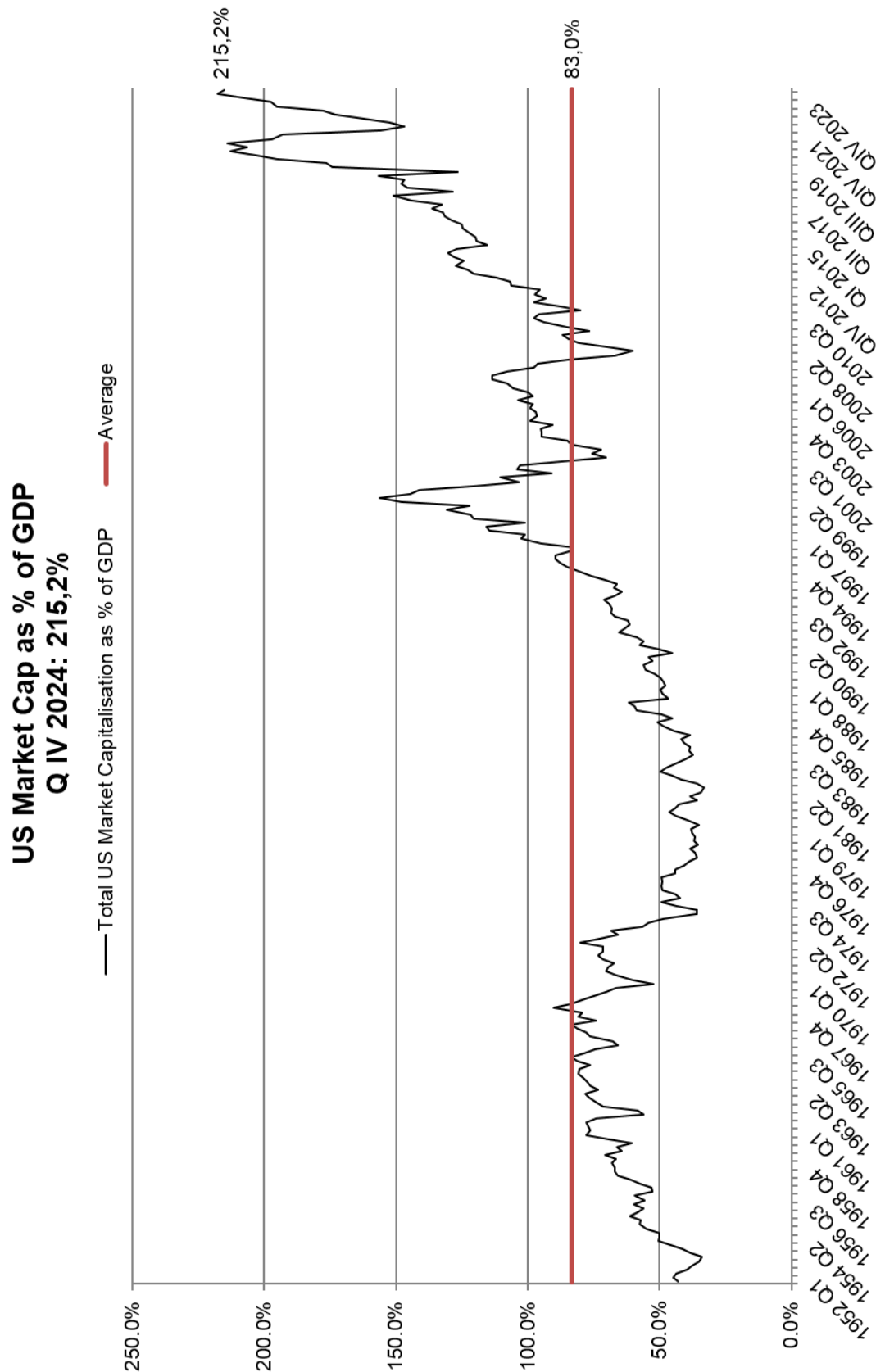


Sources: Robert Shiller

Appendix C.2.1.a - S&P 500 Cyclically Adjusted PE-Ratios (Shiller's CAPE)



Appendix C.2.2 Capitalization of US Companies as % of GDP



Source: US Federal Reserve, Table B 103

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F.1 Expected Returns of Equity Markets USA and Europe

Stock Market Return as a Function of # Standard Deviations from Average PE/ 10

Status as of November 2nd 2010

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