FORUM

European Smallcaps GmbH

Memorandum

To : FORUM Staff

From : BW

Copy to :

Date : October 26th, 2012

Subject : Macro Dashboard Q III 2012 Web Version

---

1. Summary of Results

1.1 Profits and Valuations

In Q III 2012 the level **US Corporate profitability** has come down slightly, reducing the positive deviation from the **long-term average slightly:**

a) **to 20 – 50%** above the mean with an interpolated **median at +40% above the mean**
b) down from 24 – 62% with an interpolated **median of 42%** in Q II 2012.

At the same time the further increase in equity prices in Q III 2012 has increased the degree of overvaluation relative to the historical averages:

a) **to 26 - 55%** with an interpolated **median at 42%**
b) up from 24 – 62% with an interpolated **median of 30%** at the end of Q II 2012.

This implies an **interpolated mean of ca. 1,0 standard deviations**.

As a result **expected real returns from US equities continue to be below their historical average of 6,3% p.a.** History suggests **real returns of ca. 2 - 3% p.a. in next 5 – 10 years.**

1.2 Risks

We still see most of the general risks we have been pointing towards in past newsletters, e.g. a structural weaknesses in consumer spending in the USA, the China investment bubble and the € crisis.

We feel the €-crisis will eventually culminate - and not die down. We see a significant probability that **we will see a "catharsis" which will have repercussion which are difficult to gauge.**

1.3 Range of Outcomes

We feel that the way the €-crisis is evolving we are moving from a system with outcomes which can at least be predicted with ranges of probabilities to a set of outcomes which cannot be modeled any more as the risks are unknown. **In the terminology of risk management we are moving from risk to uncertainty.**

This implies a **significant negative tail-end risk.**

We propose to respond to this change in our assessment of the situation by becoming even more cautious. Most importantly we will not join the call for investing in equities because other asset classes - mostly bonds - offer expected returns close to 0.

2. Status of the Profit Cycle

2.1 US After-Tax Corporate Profits as % of GDP (Appendix 2.1)

2.1.1 Total Profits

In Q II 2012 **US after-tax Corporate Profits** retracted slightly to 7,9% of **GDP** - down from a revised 8,3% in Q I 2012. The highest level historically was reached in 2006 with 8,6% and before that a level of 8,0% or more was last reached in 1950. Thus in the historical context they are still at a high level.

This implies a **ratio of 151% of its 83-year average since 1929** which stands at 5,2%.

2.1.2 Non-Financial Profits

US after-tax Non-Financial Corporate Profits – eliminating the volatility of banking profits – also decreased slightly to **5,9% of GDP - down from 6,1% in Q I 2012**. At this level it is still close to the All-Time High of 6,2% reached in 2006.

The 83-year mean is 4,2%. Thus in Q II 2012 US after-tax Non-Financial Corporate Profits stood **at 143% of the long-term average – indicating a significant positive deviation. This corresponds with 1,1 standard deviations.**

2.2 US Corporate EBITDA (Appendix 2.2)

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 interests or taxes.

As you can see from the **Appendix 2.2** we get similar results as outlined in the chapter above:

a) In Q II 2012 **Corporate EBITDA decreased slightly to 32,5% - down from 33,9**% in Q I 2012.

b) As the **83-year average stands at 27,5% the latest level of 32,5% implies a ratio of 118%.**

2.3 Pre-Tax Non-Financial ROA (Appendix 2.3)

Pre-Tax Return on Tangible Assets ("ROTCE") of the US Non-Farm, Non-Financial sector (as reported by the Federal Reserve) in Q II 2012 fell back slightly to 7,9% - down from 8,1% in Q I 2012. The picture here is similar to the profit metrics discussed above. The level in Q II 2012 is still close to the all-time high of 8,6% reached in 2006 – and is at the levels seen in both 2005 and 2007, i.e. when the non-sustainable credit binge of the private sector was still underway.

The long-term average since the first publication of this time series in 1965 is 5,9%. Thus this measurement of **corporate profitability stood at ca. 134% of its long-term average** – in line with the other two profit metrics outlined above.

2.4 FORUM Conclusions on Profitability

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

Metric	**% of LT Average**	**Standard Deviations**
Total Profitability as % of GDP	151%	1,42x SD
Non-Fin. Profits % of GDP	143%	1,03x SD
Corporate EBITDA Level	118%	1,81x SD
Non-Financial ROA	133%	1,22x SD.

When viewed together, the four metrics for corporate profitability in Q II 2012 show **a reasonably consistent picture of a positive deviation of ca. 20 – 50% from their averages with the median positive deviation at ca. 40%.** This is down slightly since the last quarter when the range of overvaluations was 24 – 52% and the median stood at 42%.

In terms of **standard deviations** the different metrics show more scatter due to their different implicit volatilities. The median has increased to **ca. 1,3 standard deviations**. This implies **a**

slight positive deviation in the profit cycle - but is still clearly away from the two standard deviations we use to define a bubble.

3. Valuations

3.1 Cyclically Adjusted PE Ratios/Shiller´s CAPE (Appendix 3.1)

For a **tops-down calibration of valuations we prefer Shiller´s CAPE**, a metric introduced 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. It is calculated based on all constituents of the S & P 500. We will refer to it below as Shiller´s **C**yclically-**A**djusted **P**rice **E**arnings Multiple **("Shiller´s CAPE" or just "CAPE").**

Prof. Shiller reports **a CAPE of 22,2x for September 26th, 2012**, his latest update. On that date the S&P 500 stood at 1.433,56. This is a further slight increase from a CAPE of 21,8x reported as of July 3rd, the time of our latest report with the S&P 500 at 1.374,02.

The long-term average of CAPE since 1881 stands at 16,5x. This implies that **current valuations are at 135% of their long-term average.** In terms of deviation from the past this valuation implies a moderate **standard deviation of 0,88x** – up from 0,82x in our latest report.

3.2 Tobin´s q

Tobin's q is a ratio of the **value of the stock market relative to the replacement cost of net assets.**

The application of Tobin´s q to equity market valuations has been introduced by authors Smithers and Wright in their 2000 book "Valuing Wall Street" and updated by Andrew Smithers in his book "Wall Street Revalued" published in 2009. For a validation we refer to an article by Harney/Tower in the Jan. 2nd 2003 edition of The Journal of Investing. Please note that **q is only calculated on non-financial companies.**

There are two generally accepted methods to calculate this ratio:

- the US Federal Reserve Flow of Funds accounts
- Smithers & Co consultants who apply an adjustment.

There are also numerous additional versions published by consultants and market participants, thus you may get diverging data.

3.2.1 Non-adjusted Tobin´s q

Based on the latest **US Federal Reserve Flow of Funds** as of June 30th, 2012 **the non-adjusted ratio has decreased slightly to 0,92 at the end of Q II 2012**, down from 0,96 as of March 31st, 2012.

The non-adjusted average observed since 1900 based on our calculations is 0,76, **thus q is at 120% of its long-term average.** This corresponds with **0,5 Standard Deviations**. (We used to calculate this ratio based on a published average of 0,63 for q, but cannot replicate this number. We have therefore decided to switch now to the number of 0,76 which is based on our own calculations.)

3.2.1 Adjusted Tobin´s q

Smithers & Co. adjust Tobin´s q as reported by the Fed for statistical discontinuities beginning in 1983, mainly revaluations of fixed assets to market values beginning in 1984. At the end of Q II 2012 **q ex statistical discontinuities (line 20 of Table R 102) stood at 1,51**, down slightly from 1,57 at the end of Q I 2012. Based on the long-term average of 0,88 this implies **a level of 169% of its long-term average resp. 1,36 standard deviations.**

3.3 US Equity Market Capitalization as % of GDP (Appendix 3.3)

Based on the Fed data US market capitalization as % of GDP **stood at 120%** at the end of Q II 2012, down from 125% at the end of Q I 2012.

As the 60-year average since the beginning of this time series in 1952 is 81%, this valuation implies **a premium of ca. 48% which corresponds to 1,35x standard deviations.**

3.4 Qualitative Indicators for Overvaluations

In Q III 2012 stock markets were up

a) S&P 500 by 3,3%

b) Stoxx 500 by 6,9%.

The general mood in equity markets was risk-off - major risks, most importantly the €-crisis, the China bubble and earnings levels - were not in the frontlines. Here is short review of some metrics we monitor:

c) **IPO activity** continue to be at a low level. The quality and valuation of the European IPOs we see look reasonable. Pricing is subdued, many issued had to lower the planned issue prices and/or came out at the lower end of the book building range. In the USA the enthusiasm for technology stocks appears to be cooling after many recent IPOs blundered - most prominently Facebook and Zynga.

d) There were few attempts by **PE firms and other asset managers to do IPOs**. Historically they have shown a good sense of market timing – thus a decision by the partners to "sell" part of their groups is a counter-indicator.

e) **Volatility** in global equity markets is at very low levels.

3.5 FORUM Summary and Conclusions

Below please find a summary of the level of valuation metrics compared with their long-term averages and standard deviations **as of June 30th, 2012 for the USA**:

	% of LT Average	**Standard Deviation**
Shiller´s CAPE	135%	0,88x SD
Tobin´s q non-adjusted	120%	0,50x SD
Tobins´s q adjusted for discontinuities	169%	1,36x SD
US Equity Market Cap. as % of GDP	148%	1,35x SD[1].

These data on equity valuation suggest that US equity markets are **overvalued by 26 – 55%** (eliminating Tobin´s adjusted q as an outlier). **The interpolated mean of all four metrics is an overvaluation by ca. 45%.** This is slightly up from last quarter.

S**tandard deviations have also increased, with the interpolated median of all four metrics at ca. 1,1x**. By our definition this implies that markets are in a zone of **"mild overvaluation".**

3.5.1 Implications for Expected Long-Term Returns

If one believes in the Mean-Reversion characteristics of valuation the most likely assumption on expected returns on equities in the next 5 – 10 years would be **returns below long-term averages**. **The long-term real return of the US equity market since 1900 including dividends has been 6,3% p.a.** The most likely expected return will depend on the time it takes for this **overvaluation of with a mean of ca. 40%** based on the four metrics analyzed above to unwind:

Years for Unwinding	**Real Return p.a.**
2	negative
5	-1 - 1%
10	**1 – 3%.**

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

Based on a standard deviation of 1,1x our statistical exercise – **correlating standard deviation** of Shiller´s CAPE with subsequent **nominal** returns without dividends, see **Appendix 2.2** - would suggest **nominal returns of**

a) **ca. 3,0% p.a.** in the next 5 years
b) **ca. 3,0% p.a.** in the next 10 years.

Assuming a long-term inflation rate of ca. 2% p.a. and dividends at the same rate **real total returns from equities would be the same, i.e. ca. 3% p.a.**

GMO – an asset manager whose approach we share in many respects – in their 7-year Asset Class Return forecast as of September 30th, 2012 **expect real returns of**

a) -0,1% p.a. for US small cap
b) +0,4% p.a. for US Large caps.

This is even more negative than our forecasts.

As our investment results over a cycle will be determined by the returns in equity markets in general plus an outperformance of 5 – 10% p.a. created from our investment approach **these expected market returns make it very difficult for us to reach the targeted 15% p.a. return in equity markets of mature economies.**

4. Risks to US Profits and Valuations

In this chapter we focus on **trends and constellations in the US economy which appear unsustainable to us.** We have explained our concerns in the last few Macro Dashboards, they are mainly centered around

a) **Stagnating resp. decreasing real Median Household Income** – most of the additional income created in the last decade has gone to the top 1 – 10% of top earners.

b) **Stagnating real Market-based income and purchasing power** – purchasing power is maintained by government transfer payments – which in turn create an unsustainable rate of increase in government debt.

c) A very **slow process of deleveraging in the household sector**. At the end of Q II 2012 the level of household debt/GDP continued the process of slow deleveraging to **82,6% from 83,1% at the end of Q I 2012**. The new level is ca. 15% below the peak of 97,9% reached at the end of 2006.

   Total debt of all sectors stayed unchanged at 353% of GDP. This is still largely unchanged from the all-time **peak level of 362%** at the end of 2007 when the financial crisis began.

We are still worried that the US economy is treading water by substituting government debt for household debt. The margin expansion from 2000 to 2007 was accompanied by an expansion of total debt from 276% of GDP to 354%, **i.e. a net stimulus of ca. 10% p.a.** With the required de-leveraging of the private sector this stimulus will lack for the next few years. This makes **corporate profits – particularly at the elevated levels reached by now – exposed to setbacks.**

We feel that this has not been fully realized by investors. Most of the investor sentiment is determined by the chase for yield above the lowly short-term money market rates – which makes most risk asset classes look attractive. We doubt whether the implied equity risk premium compensates for the risks to corporate profits and valuations outlined above

5. Other Risks

5.1 Overview

In the last Macro Dashboards we discussed the following risks:

a) **Sovereign Debt:** We see this as the most important short-term risk in Europe, and a significant mid-term risk in the USA and Japan in the medium term. We are discussing our views on the European perspective in a separate chapter below.

b) **China investment bubble**: history suggests strongly that any long period of expansion based on a share of investments in GDP of more than 50% will eventually lead to massive capital misallocations and tends to correct itself with a sharp bust.

   We do not know when this will happen, but **historical evidence lets us put a rather high probability of this event happening**. We believe the outcome will be moderate to the world on average, but hit certain industries and companies very hard.

c) **Trade wars**: historically this has tended to be an answer of politicians to problems at home.

   This risk is latent and **at this point in time probabilities appear to be low**.

5.2 Main Issue Today: Unfolding of the Euro-Crisis

We talked about this issue at length in previous Macro Dashboards. Generally we believe that the €-crisis it being approached with the governing principle of "kicking the can down the road", i.e. to gain time until the next elections.

the discussion about the right policy response is torn between two extremes with strong ideological positions:

a) those asking for budget discipline - mainly the German and Northern European camp.

b) those arguing that budget discipline would kill growth and lead to ever-increasing levels of debt as % of GDP:

We believe the right policy response has to deal with other aspects which help to stipulate growth, with a focus on liberalization on many markets. Germany has been very successful with a combination of budget discipline after the spending boom for re-unification with the Agenda 2010 which made structural changes to many markets, very importantly labor markets.

Unfortunately very little is happening on this side. an Italian attempt at this failed. We do not have the feeling that politicians in the other Southern European countries are making an effort at this.

6. Conclusions

6.1 Expected Economic Conditions and Equity Returns

In summary we draw the following conclusions:

a) We should assume that **Average Future Conditions** of the economy will be not as good as in the last up-cycle which I would time from 2003 – 2008.

b) **Based on valuations of equity markets, equity returns in the next 5 – 10 years** in the mature economies should be assumed to be below their long-term averages. An expectation off **0 - 2% p.a. in real total terms for equities respectively 3 – 4% in nominal terms (assuming LT levels of inflation) appears realistic.**

6.2 Range of Potential Outcomes

We believe that there is a **significant tail-end risk** that the economy in Europe will suffer from a sequence of deteriorating events with potentially very negative outcomes: the warning signal is Greece where the GDP has shrank by 25% since 2008.

7. Recommendations for the Tops-Down Portfolio Construction

The general recommendation for us as investors is to

a) **Reduce net long exposure** to negative events in Europe

b) …..in particular against **major tail-end events, i.e. deeps drawdowns**

c) Continue to **build cash** in order to be able to take advantage of a major drop in equity prices.

We will comment on these steps in our **Letter to Clients.**

Table of Appendices

No.	Content
1.1	Historical Relationship between Valuation and Returns for CAPE
2.1	US Corporate Profits as % of GDP
2.2	US Corporate EBITDA
2.3	US Corporate Profitability measured as ROA
3.1	Cyclically Adjusted PR-Ratios (Shiller`s CAPE)
3.2	Tobin´s q
3.3	Capitalization of US companies as % of GDP

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

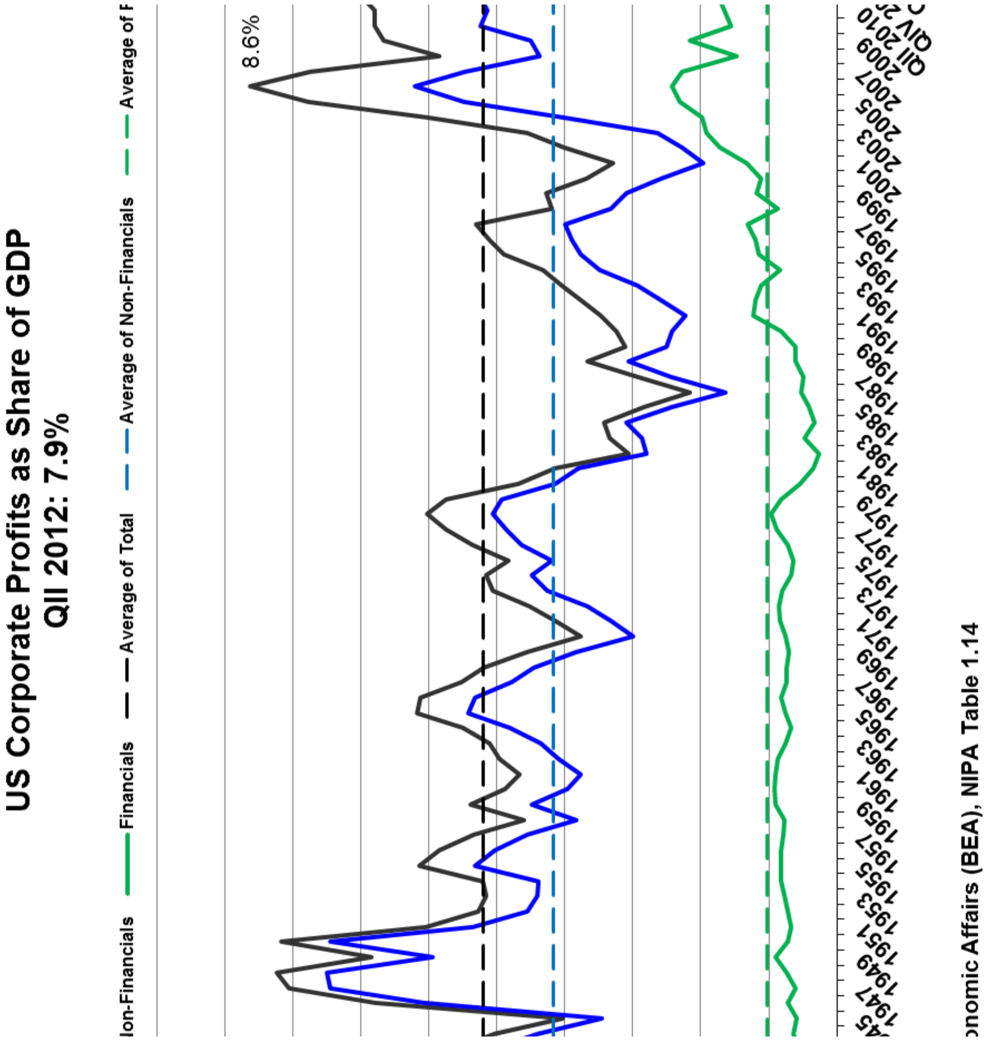
Status as of November 2nd 2010

	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%

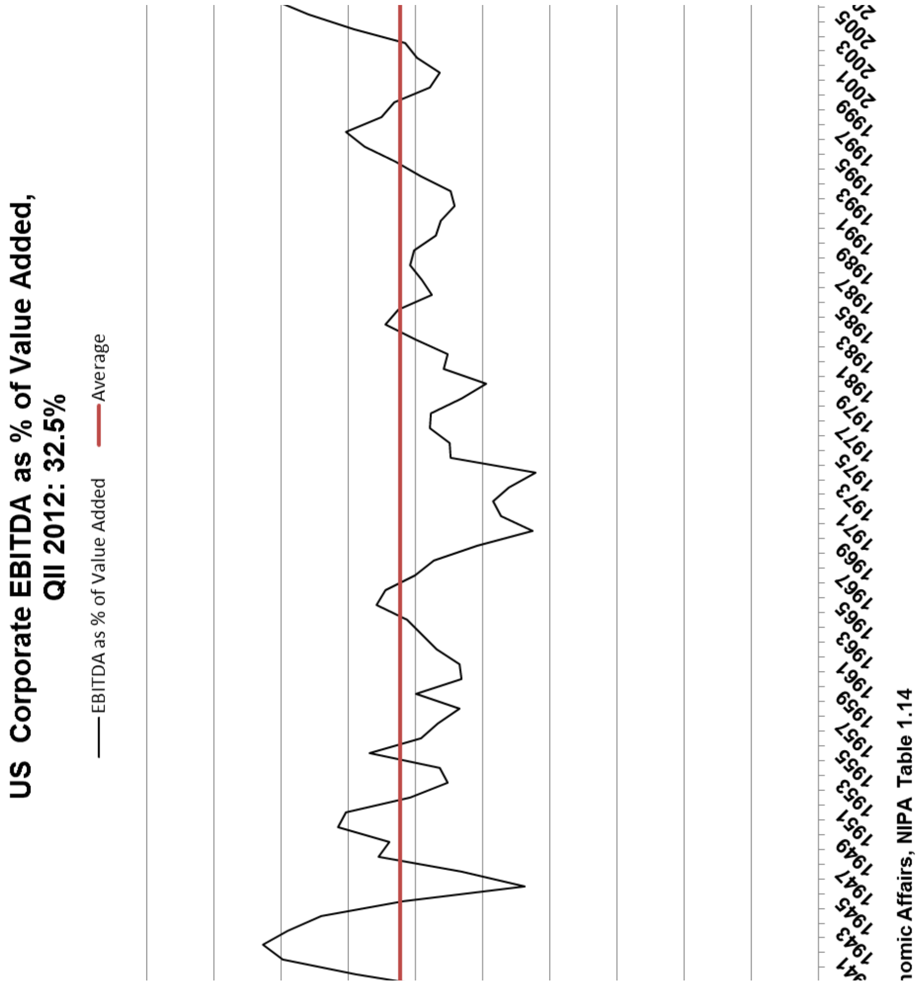
48%
86%

Period covered: 1881-2010
Source: Shiller, FORUM Research

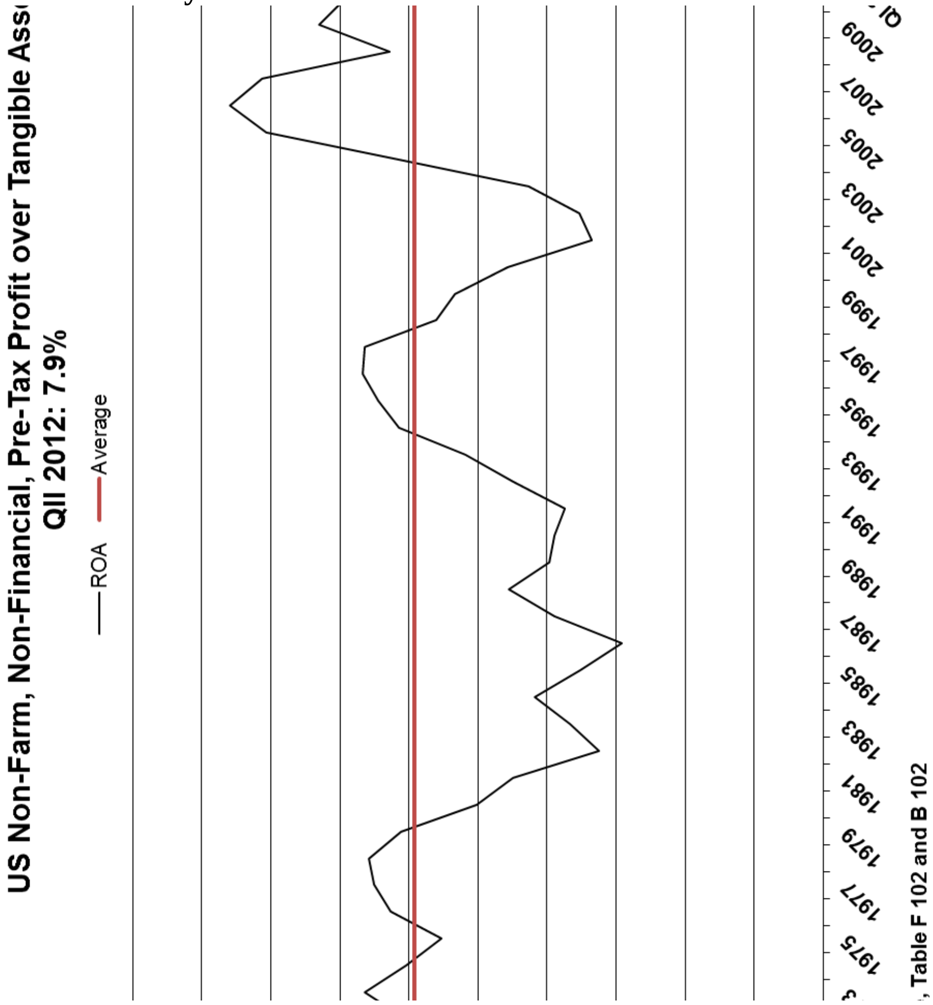
Appendix 2.1: Corporate Profits as % of GDP



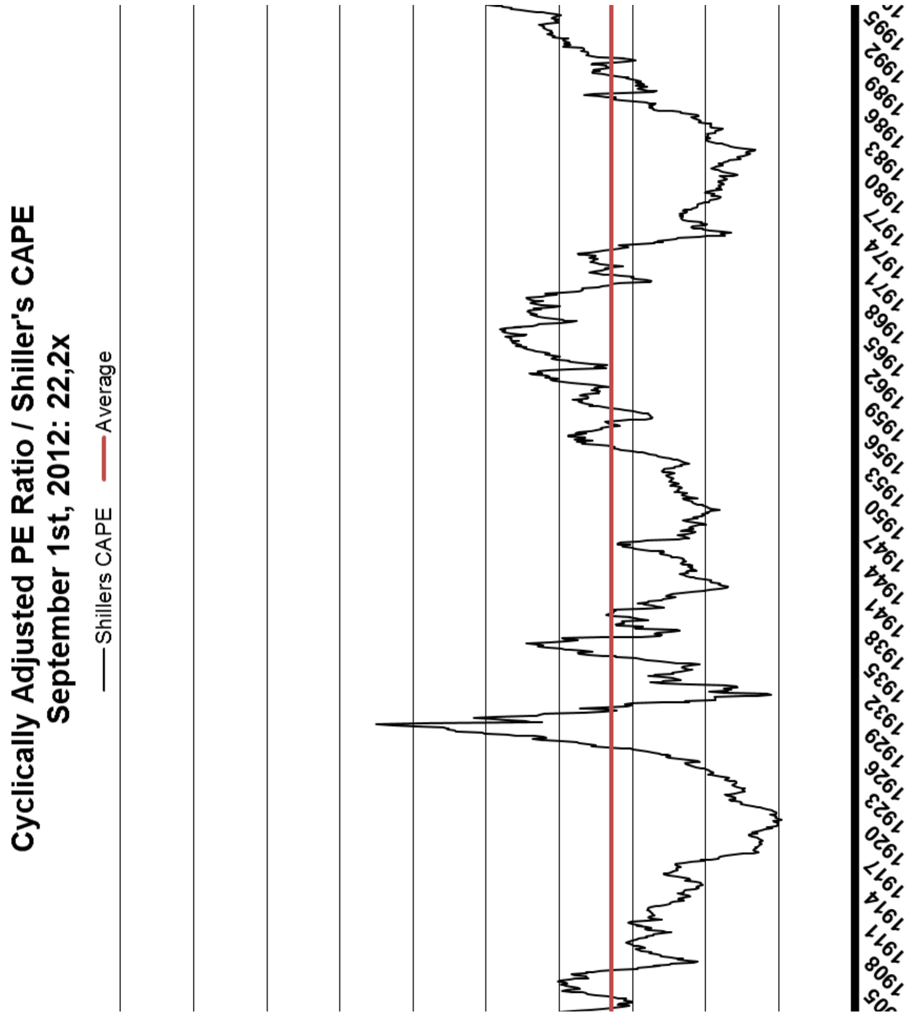
Appendix 2.2: Corporate EBIDTA


US Corporate EBITDA as % of Value Added,
QII 2012: 32.5%
EBITDA as % of Value Added
Average
1943
1945
1947
1949
1951
1953
1955
1957
1959
1961
1963
1965
1967
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
nomic Affairs, NIPA Table 1.14

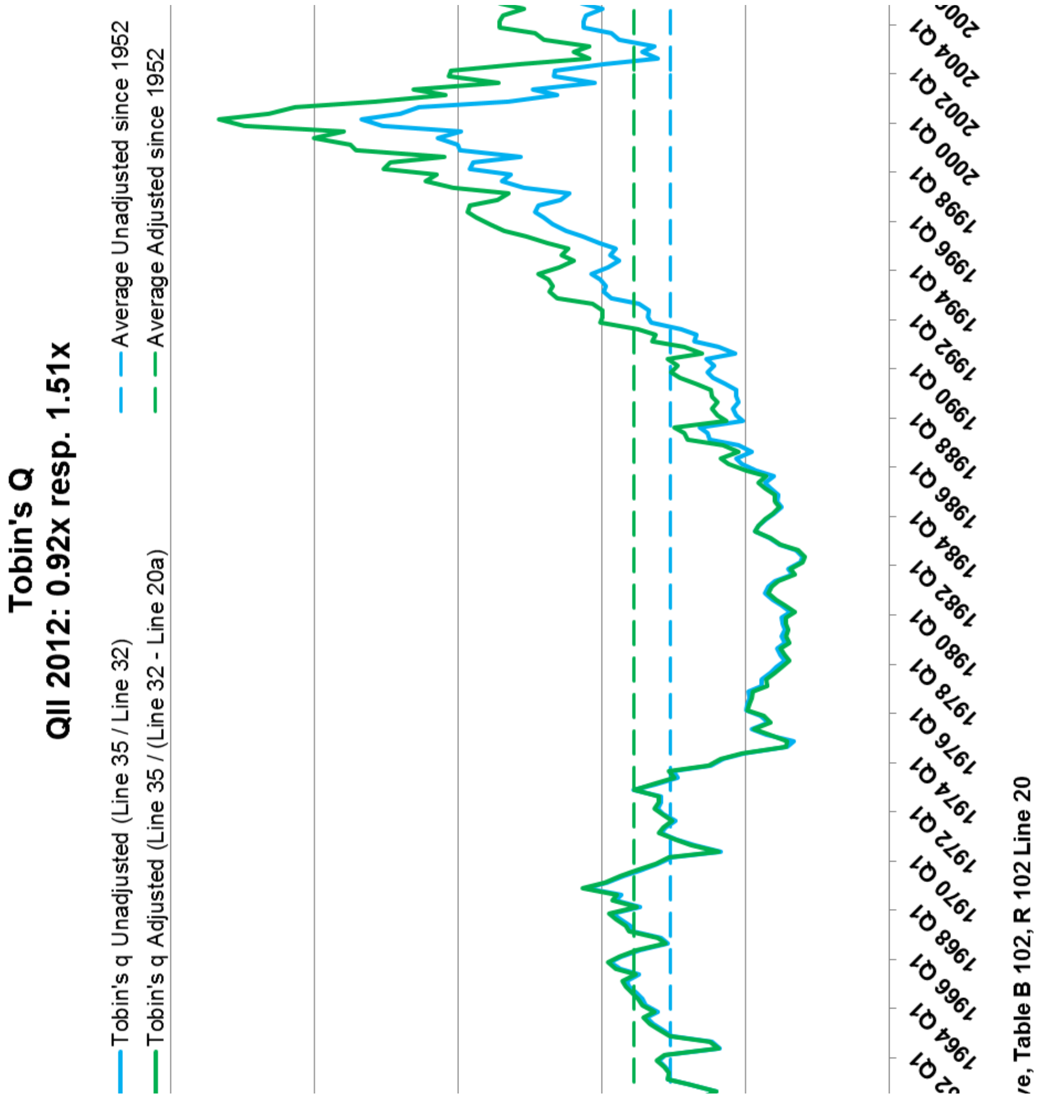
Appendix 2.3: Corporate Profitability Measured as ROA



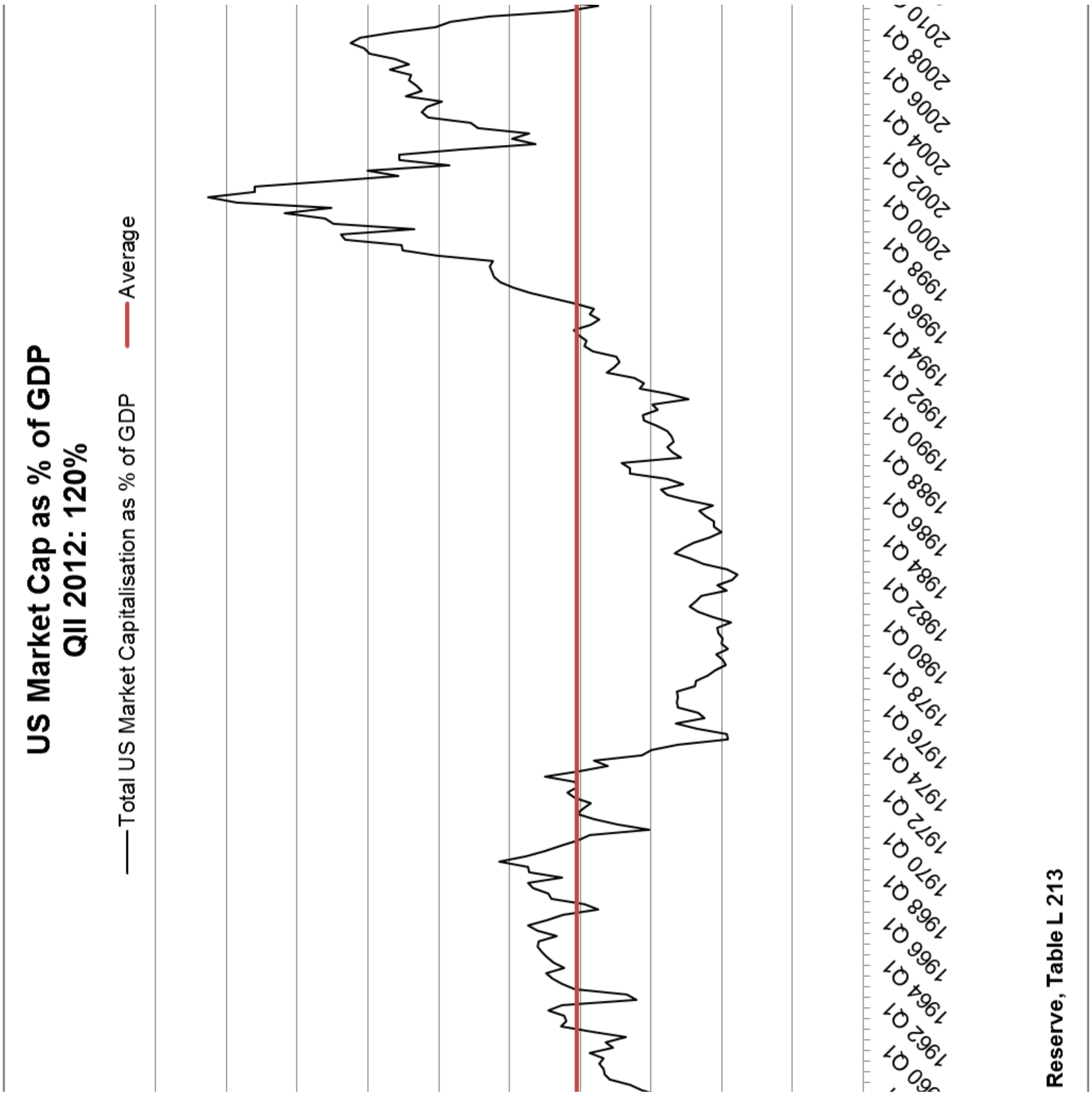
Appendix 3.1: Cyclically Adjusted PE Ratios/Shiller´s CAPE



Appendix 3.2 – Tobin's Q

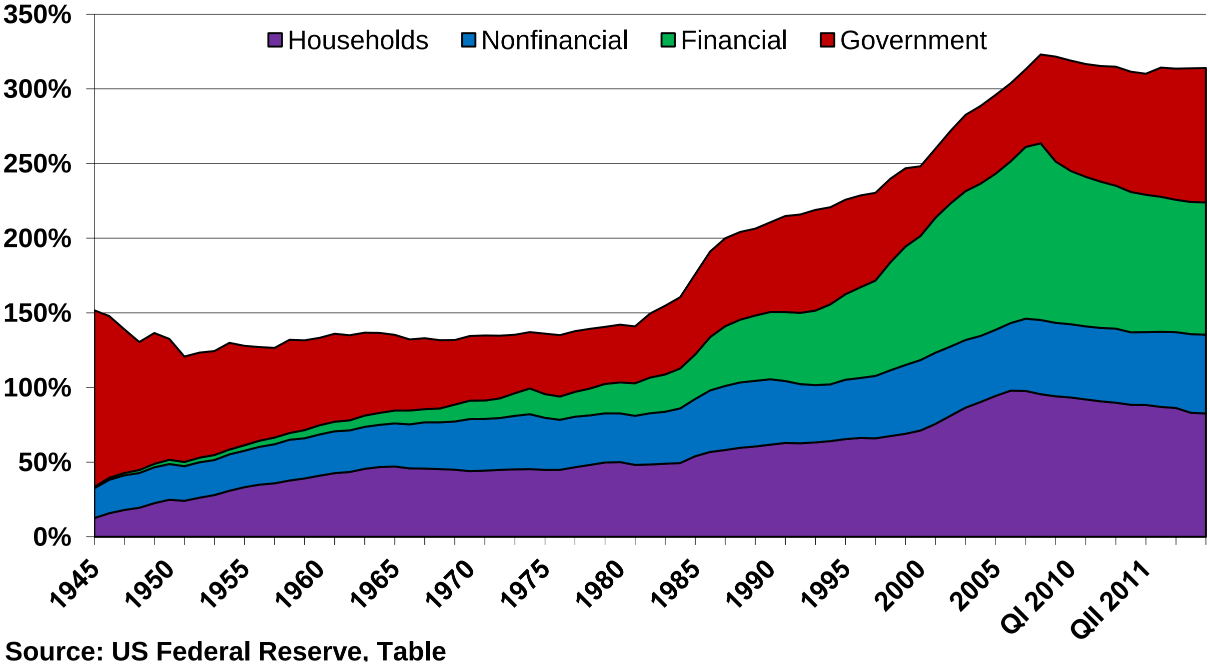


Appendix 3.3 – Capitalization of US companies as % of GDP



Appendix 3.4 – Debt

Credit Market Debt to GDP
QII 2012: 352.6%



Source: US Federal Reserve, Table