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VIB OUTLOOK 2022

(11 DE NOVEMBRO DE 2021)

“FUNDAMENTOS DE EMPRESAS AMERICANAS PÓS-COVID-19”

DANILO SANTIAGO | RIM

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**VIB OUTLOOK 2022: American companies'
fundamentals post COVID-19**

November 2021

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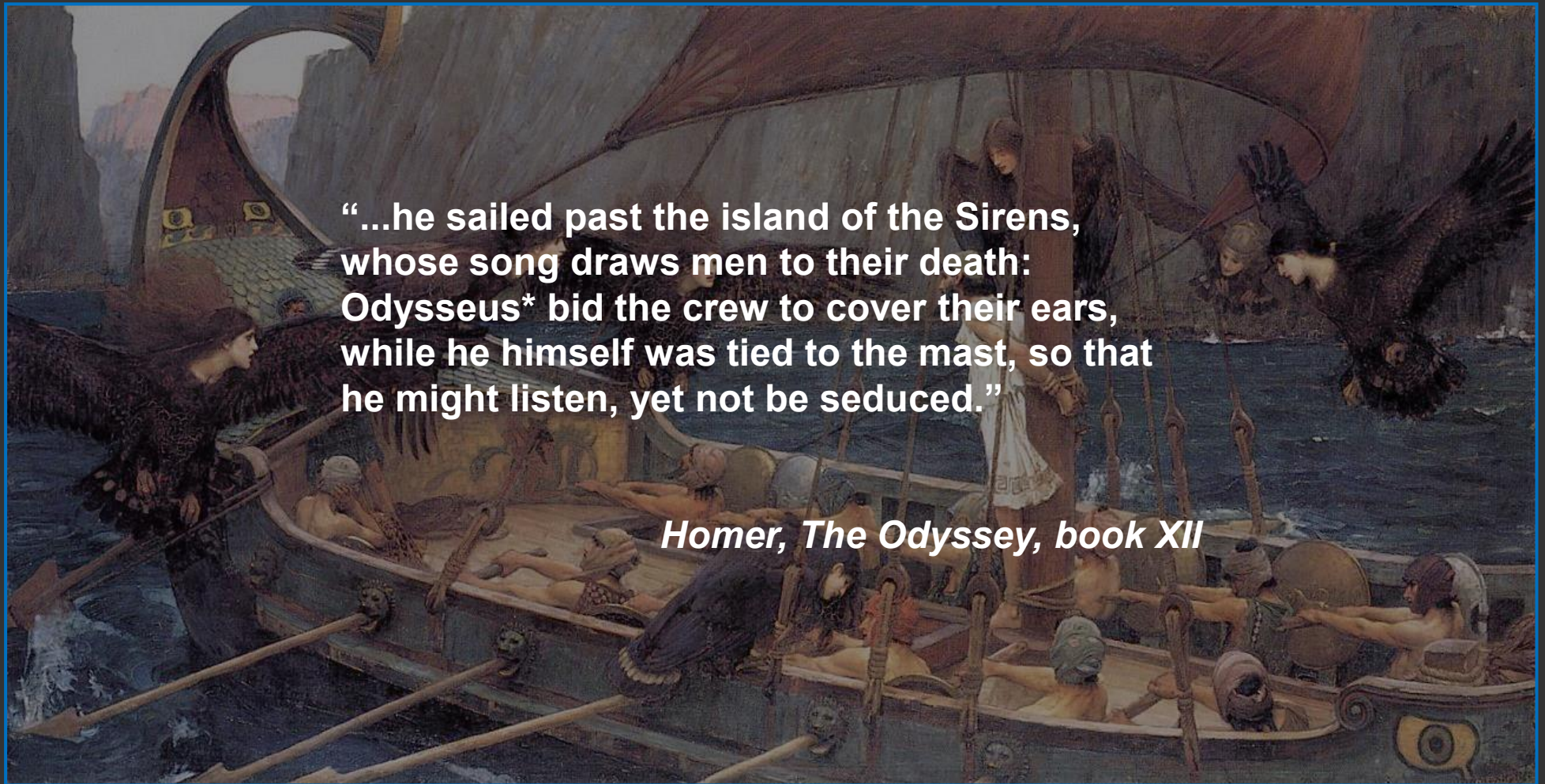
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INVESTMENT METHODOLOGY PHILOSOPHY



**“...he sailed past the island of the Sirens,
whose song draws men to their death:
Odysseus* bid the crew to cover their ears,
while he himself was tied to the mast, so that
he might listen, yet not be seduced.”**

Homer, The Odyssey, book XII

Like Odysseus, RIM seeks to avoid the siren's call, which in the stock market is represented by the cycles of fear and greed that leads to constant mispricing of most stocks

* Odysseus is the protagonist in Homer's Iliad; in Latin he is known as Ulysses. Painting is by John William Waterhouse : Ulysses and the Sirens (1891)

RIM IS A FUNDAMENTAL-QUANT APPROACH TO US EQUITIES INVESTING

Individual stock selection – the FUNDAMENTAL part of the process:

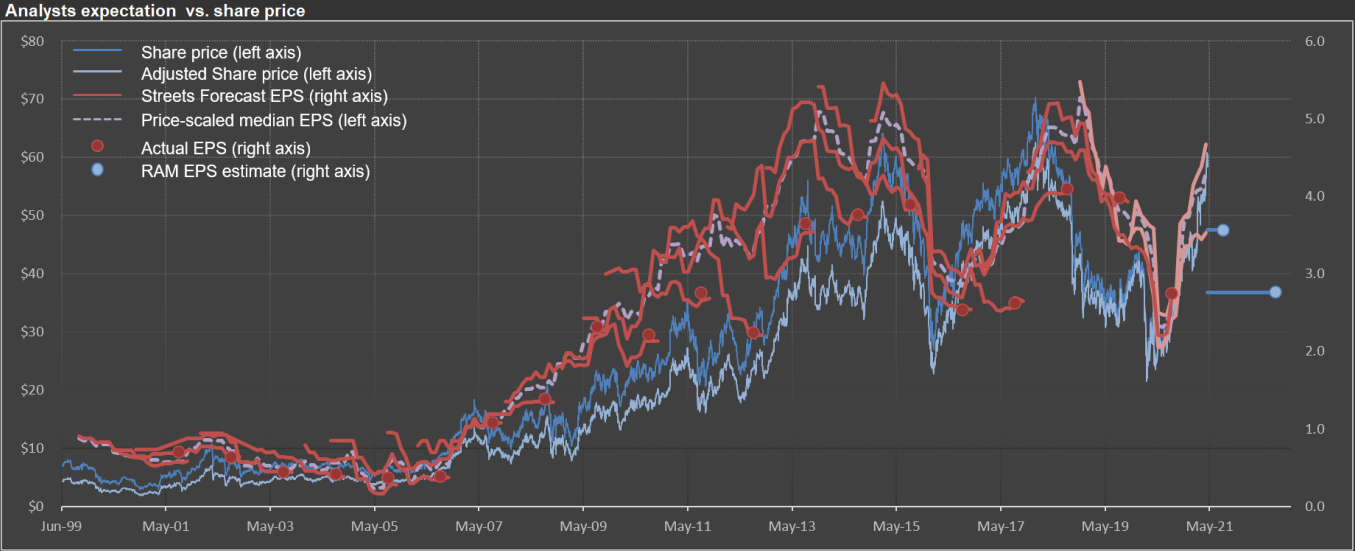
- Focuses on a quasi-static group of 65 publicly traded, liquid US stocks - most of these companies, defined as RIM's Circle of Competence [CofC], have been followed for more than a decade
- Employs extensive industry research and analysis, building highly detailed proprietary discounted-dividend models
- Uses these proprietary models to determine “fair values” of companies based on different scenarios

Portfolio Construction - the QUANTITATIVE part of the process:

- Constructs “rules-based” portfolios (long-short, long-only or long-aggressive) with a company-specific margin of safety relative to “fair value”, using its proprietary Odysseus Portfolio Construction Tool, developed in-house in Python, a contemporary programming language
- Replicates the selected model portfolio into clients' accounts, using Interactive Brokers' platform, adjusting the number of shares in each client's portfolio in a *pari-passu* manner

FUNDAMENTAL ANALYSIS WORKS BECAUSE OF THE MARKET'S FOCUS ON SHORT TERM EARNINGS

Westrock Company [WRK] – paper packaging solutions



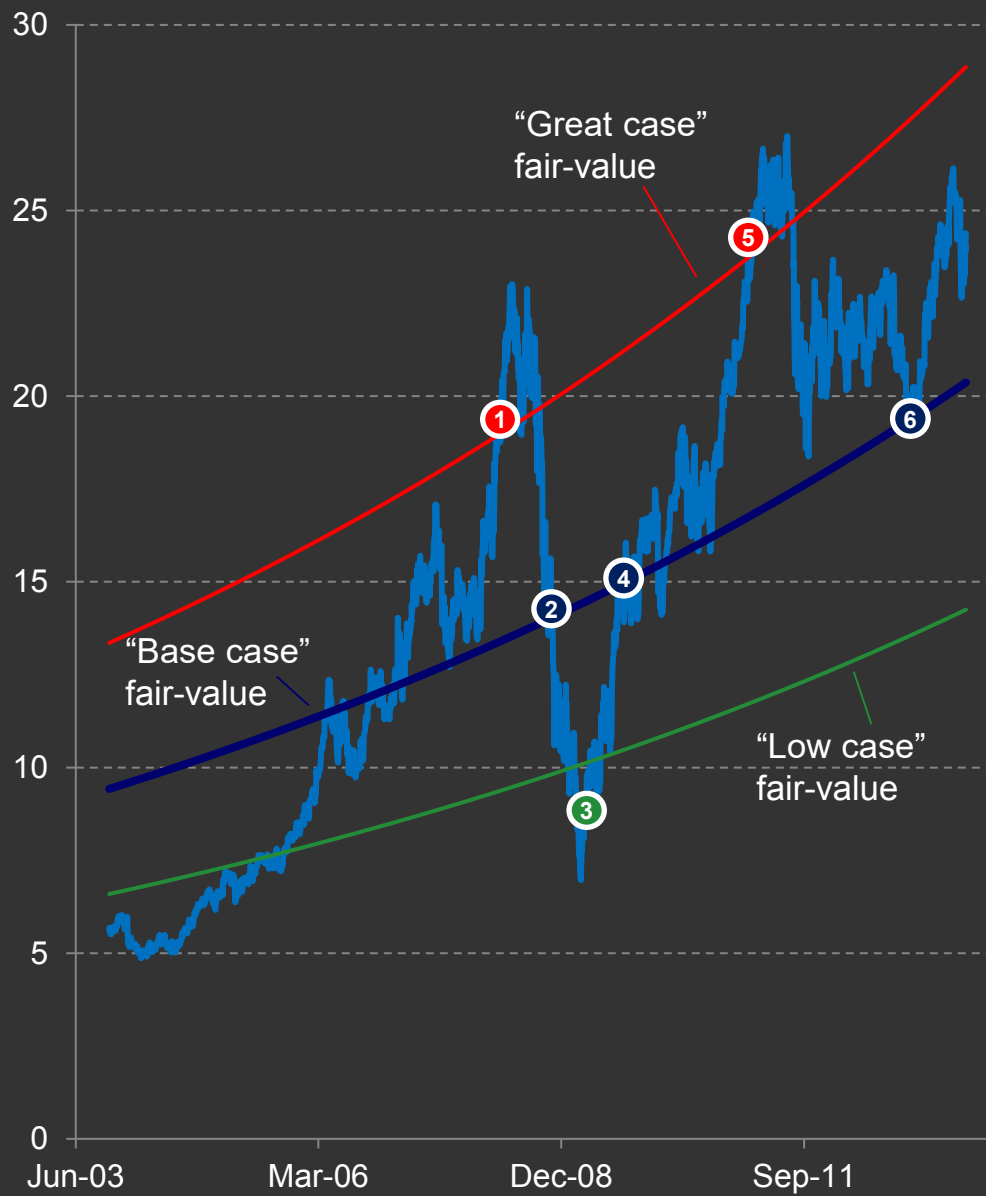
Tempur Sealy International [TPX] – mattresses manufacturing and retailing



- The market is not a random walk - it follows EPS (Earnings Per Share) very closely: if earnings expectations are low, share price is low; if earnings expectations are high, share price is high
- This short-term approach overemphasizes the current stage of macroeconomic cycles, industry cycles or temporary head/tail winds affecting companies' earnings
- An investor that specializes in forecasting mid/long-term EPS of a limited number of companies has a better chance to be positioned correctly on the long or short side of an equity investment

PORTFOLIO CONSTRUCTION RULES: TRIGGERS

Theoretical investment (share price, US\$)



Trading rules

- **Positions initiated when:**
 - Longs: current stock price is below the “low case” fair-value for 10 days
 - Shorts: current stock price is above the “great case” fair-value for 10 days
- **Position closed when the stock price reaches the “base case” fair-value**

Ideal trades*

- | | | |
|-------|---|-----------------------------------|
| Short | ① | April 2008: sell short @ \$19 |
| | ② | October 2008: cover short @ \$14 |
| Long | ③ | March 2009: buy @ \$8 |
| | ④ | August 2009: sell @ \$15 |
| Short | ⑤ | February 2011: sell short @ \$24 |
| | ⑥ | November 2012: cover short @ \$19 |

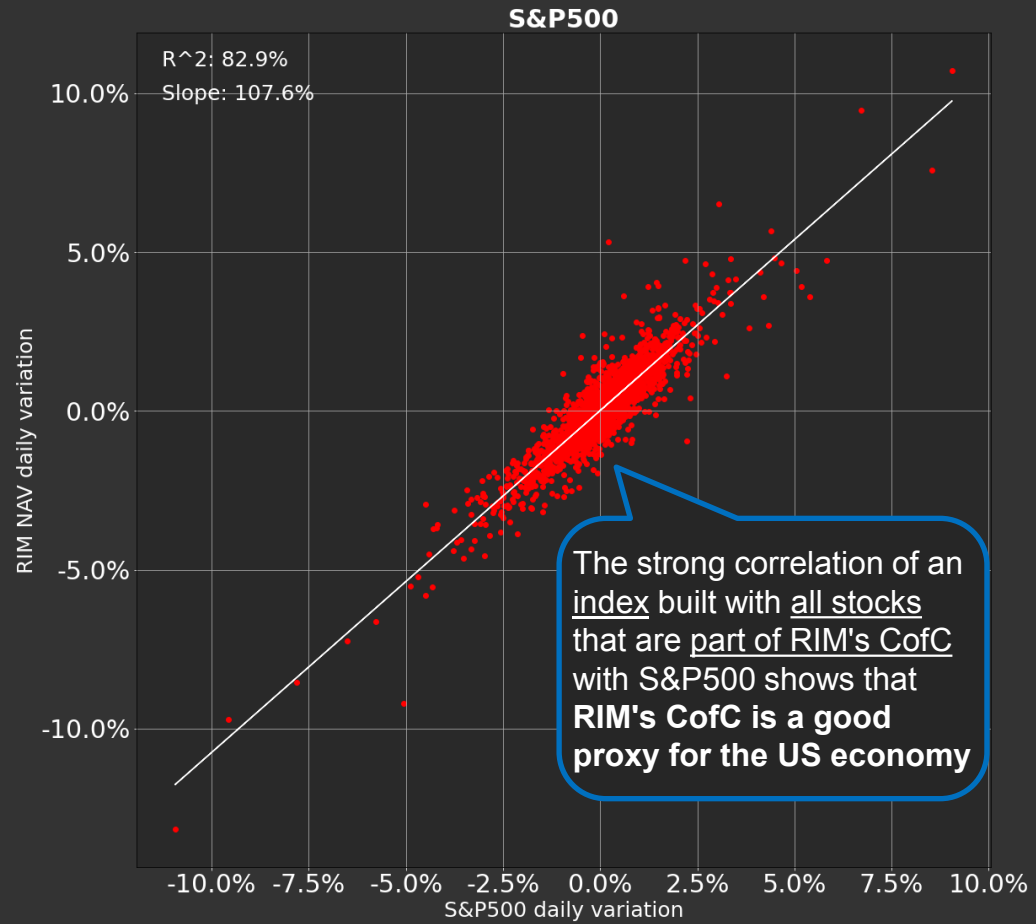
* The “ideal trades” included above represent only the entry/exit points of a theoretical long or short position; while a position is open, usually a series of adjustments are performed – i.e. the size of the initial position varies, depending on a series of portfolio rules (some of those rules are described on the next page); because of these adjustments, actual returns might be significantly lower/higher than the “ideal trades” entry/exit points might indicate.

RIM'S CIRCLE OF COMPETENCE (CofC) REPLICATES THE U.S. ECONOMY

Number of companies covered (total = 65)



RIM's CofC vs. S&P500 index***



* All hardline retailers - Home Depot, Lowe's, Advance Auto Parts, O'Reilly Automotive and Best-Buy

** Other includes a Food and Staples Retailer and a Media Infrastructure company

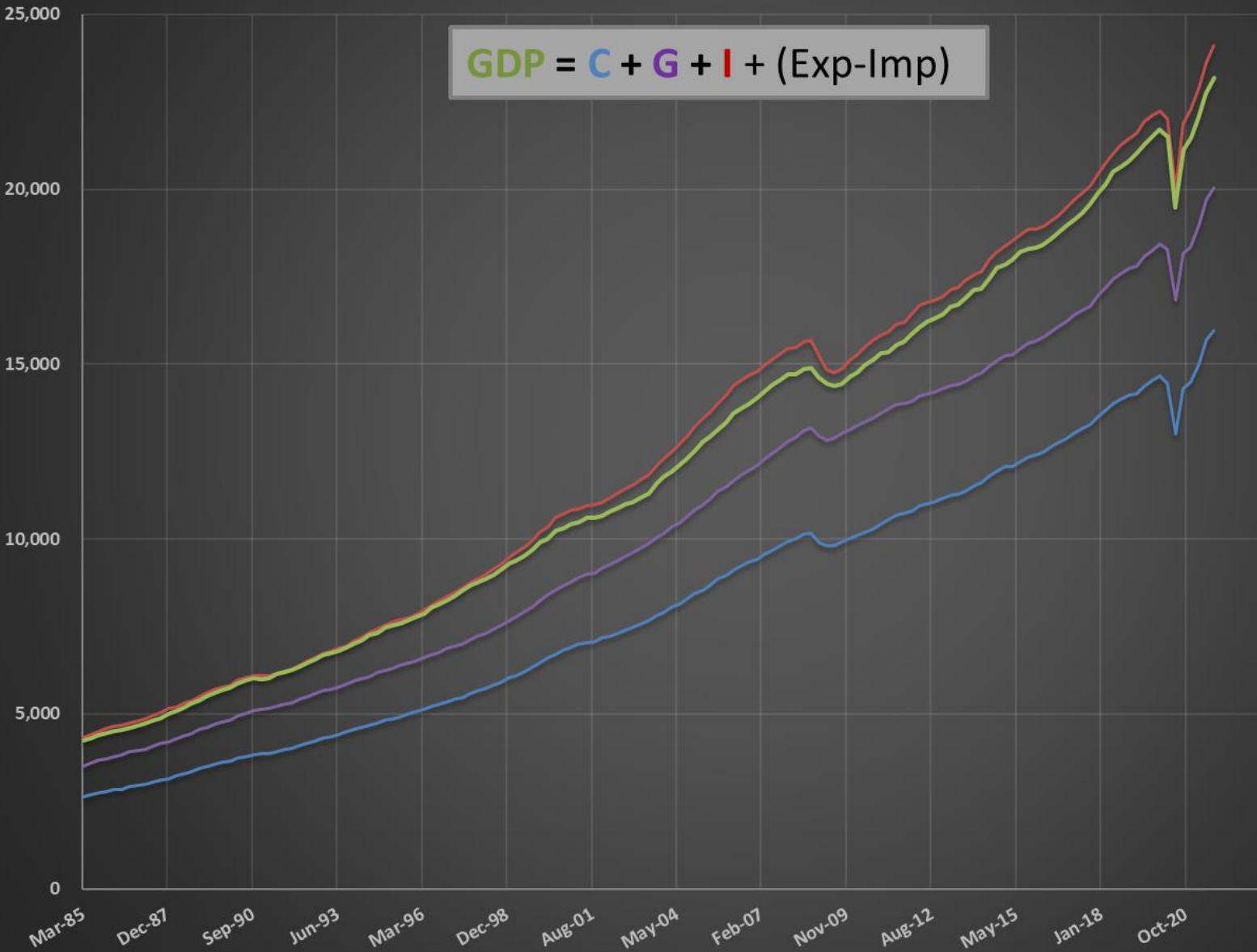
*** Market index information shown herein, such as that of the S&P 500 Stock Index, is included to show relative market performance for the periods indicated and not as standards of comparison, since these are unmanaged, broadly based indices which differ in numerous respects from RIM's portfolio composition. The series with the title "RIM NAV" represents an equal allocation among all the companies on RIM's CofC (i.e., ~1/60th of a simulated amount of resources) at the beginning of the comparison period, with daily rebalancing during the period shown above. Market index and individual securities information was compiled from sources that RIM believes to be reliable. No representation or guarantee is made hereby with respect to the accuracy or completeness of such data.

GDP IS NOW HIGHER THAN PRE-CRISIS LEVELS, BUT...

USA GDP COMPONENTS

USD Billions, Seasonally adjusted at annual rates

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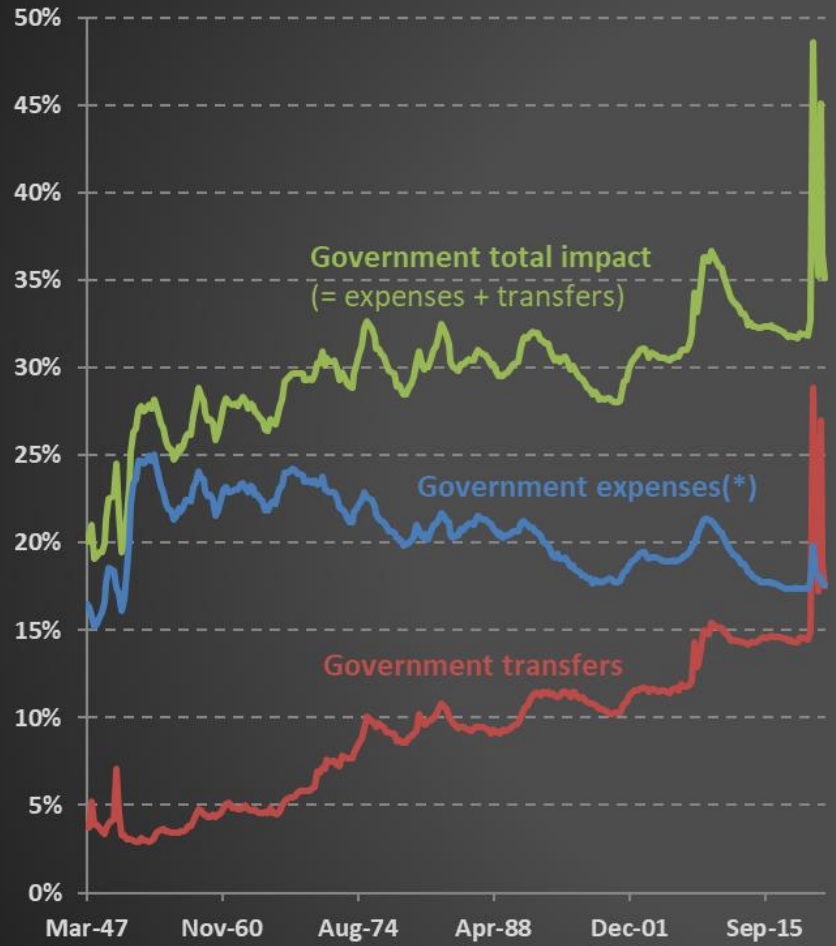


...GOVERNMENT INTERVENTION REACHED NEW RECORD LEVELS NOT SEEN SINCE THE END OF WORLD WAR II

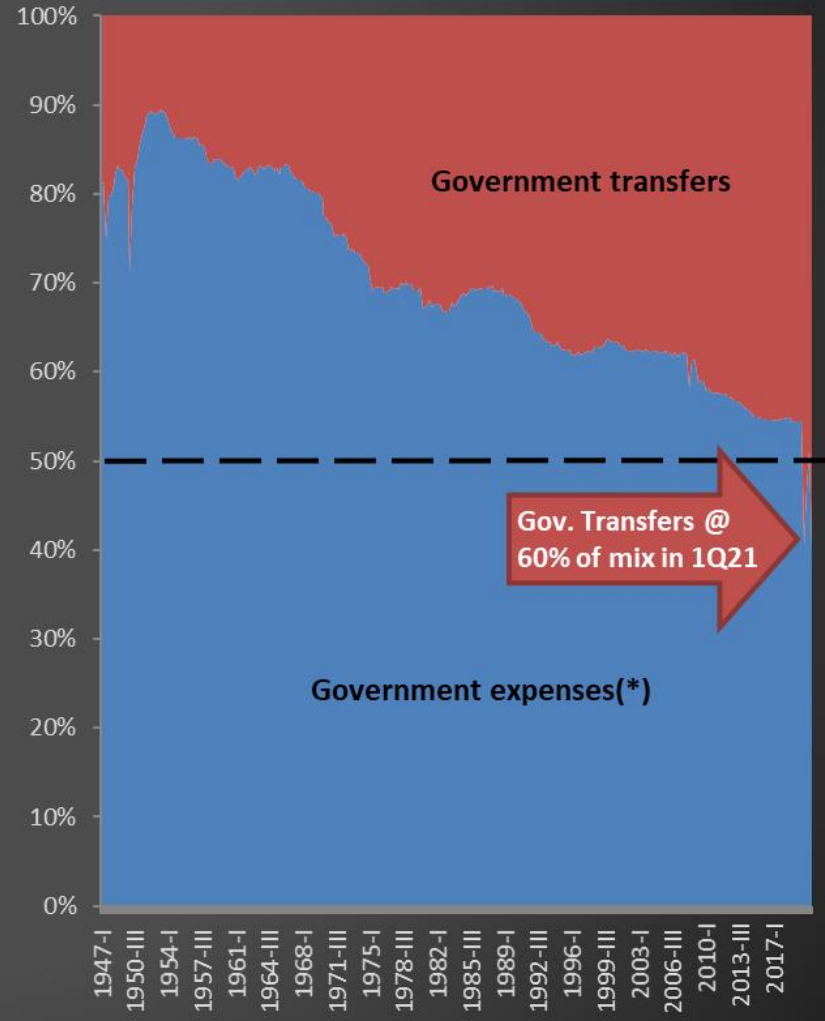
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GOVERNMENT PARTICIPATION ON USA GDP
% total, Seasonally adjusted at annual rates

Expenses and transfer growth



Mix: Expenses vs. transfers



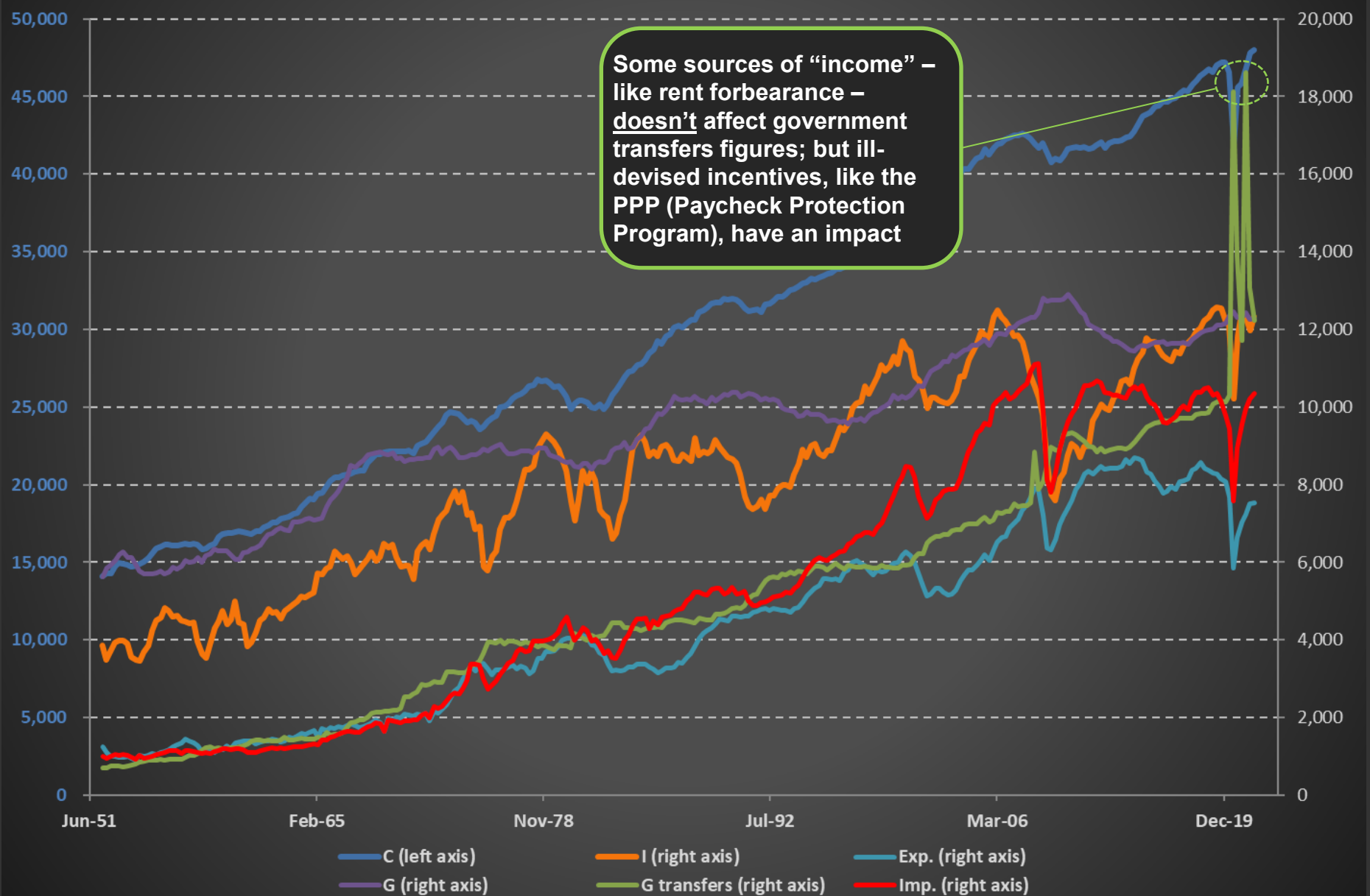
(*) Doesn't include "transfers" like social security, medicare and medicaid ; Transfers are not "expenses" nor "investments" conducted by the government (they are reallocations of money/resources, done by the government nevertheless, between diferent income classes and/or age groups in the country)

TRANSFERS – ON A PER CAPITA BASIS – ALMOST DOUBLED DURING THE 2Q OF 2020 AND THE 1Q OF 2021

USA QUARTERLY GDP COMPONENTS - PER CAPITA

USD, Seasonally adjusted at annual rates, inflation adjusted, "Imports" with positive signal

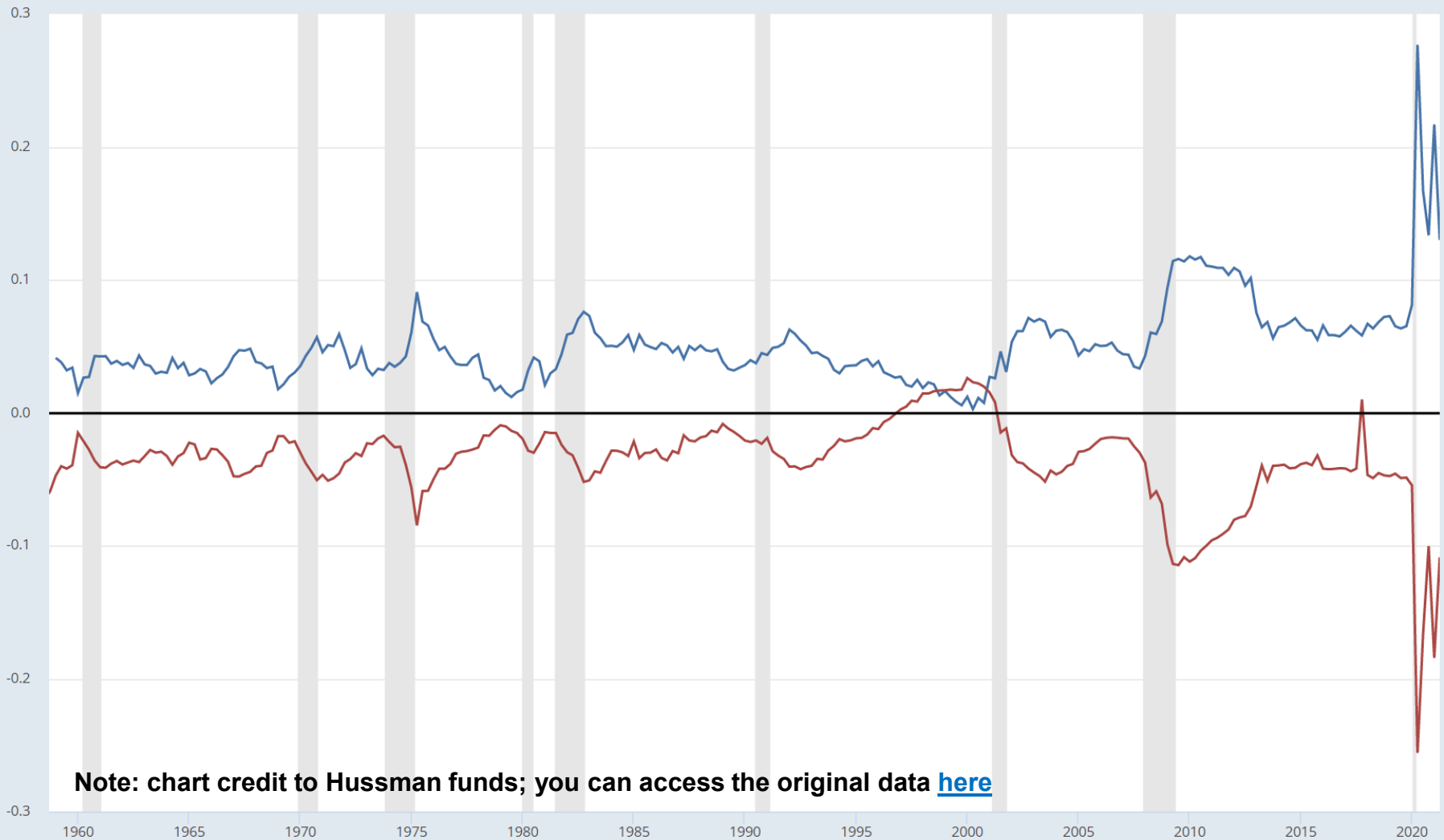
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GOVERNMENT DEFICITS BECOMES A COMBINATION OF (i) PERSONAL SAVINGS, (ii) RETAINED CORPORATE PROFITS AND (iii) TRADE DEFICITS

FRED

— (Personal Saving + (Corporate Profits After Tax with Inventory Valuation Adjustment (IVA) and Capital Consumption Adjustment (CCAdj) - .001*Corporate Business; Net Dividends Paid, Transactions)-Balance on Current Account, NIPA's-Net domestic investment: Private)/Gross Domestic Product
— (Government total receipts-Government Consumption Expenditures and Gross Investment-Government current transfer payments-Federal government current expenditures: Subsidies)/Gross Domestic Product



Note: chart credit to Hussman funds; you can access the original data [here](#)

Shaded areas indicate U.S. recessions.

Sources: BEA; Board of Governors

fred.stlouisfed.org



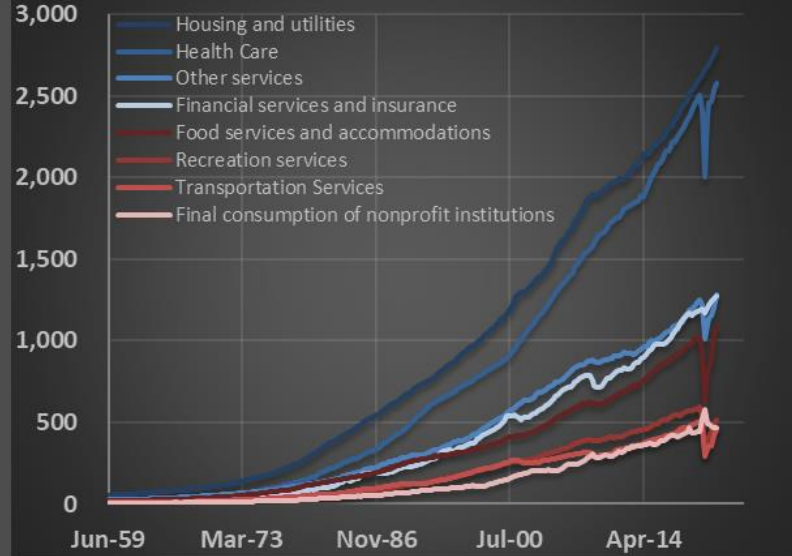
THE NEW BONANZA IN SAVING LEAD TO AN INCREASE IN CONSUMPTION; PAY SPECIAL ATTENTION TO “MOTOR VEHICLES AND PARTS”

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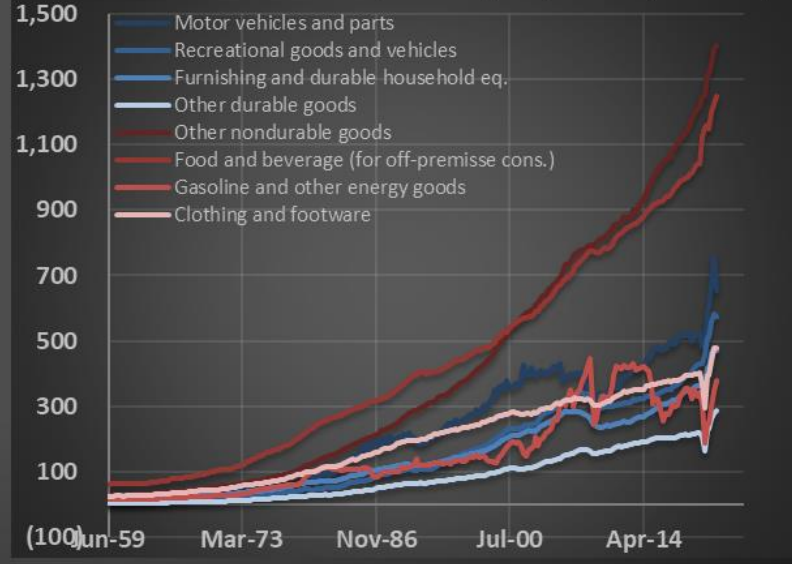
USA QUARTERLY GDP COMPONENTS - CONSUMPTION (C) SPLIT
USD Billions, Seasonally adjusted at annual rates, real change y-o-y [quarters one year apart]



Services composition (USD, billions, nominal)

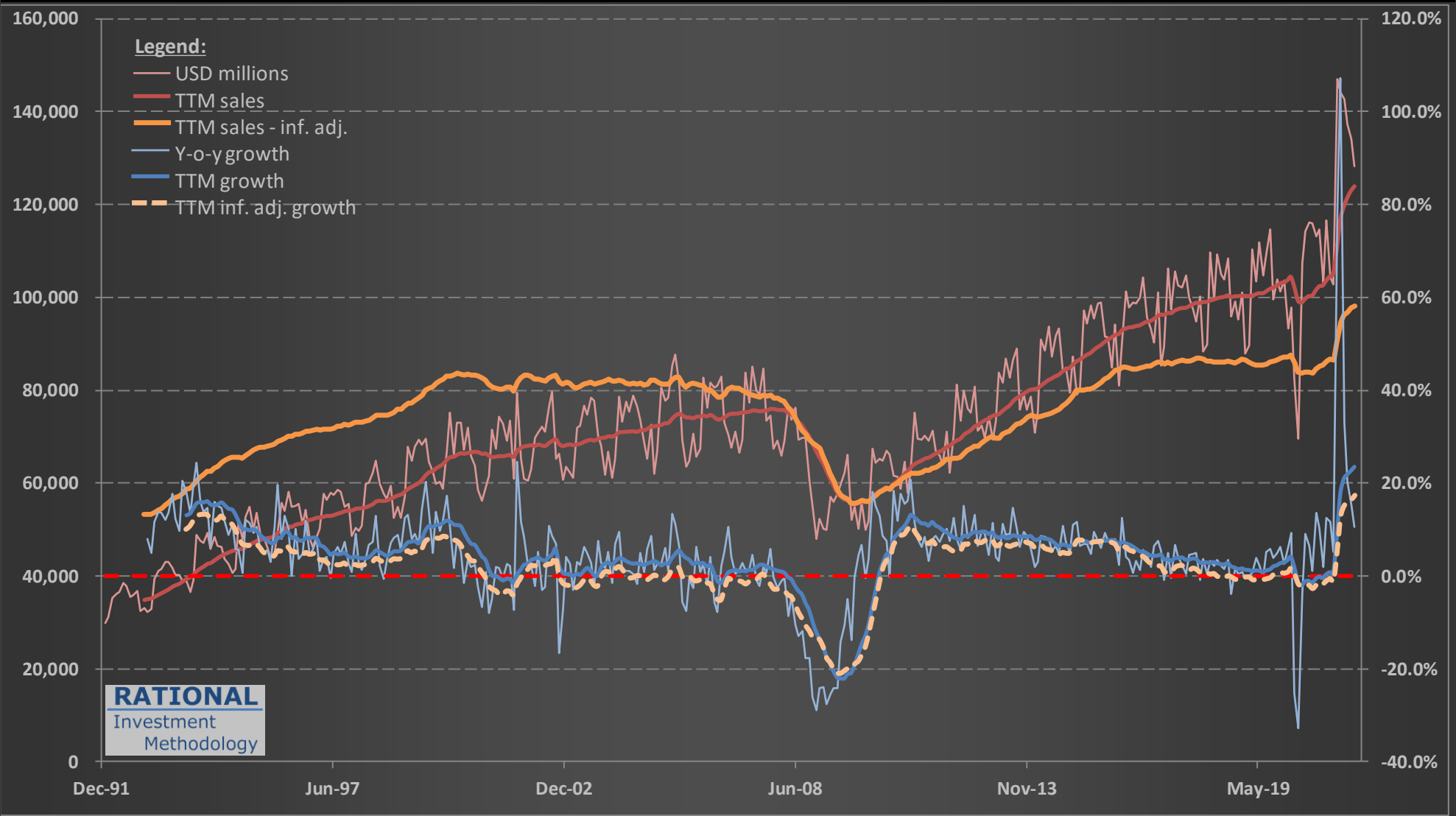


Durable and Nondurable composition (USD, billions, nominal)



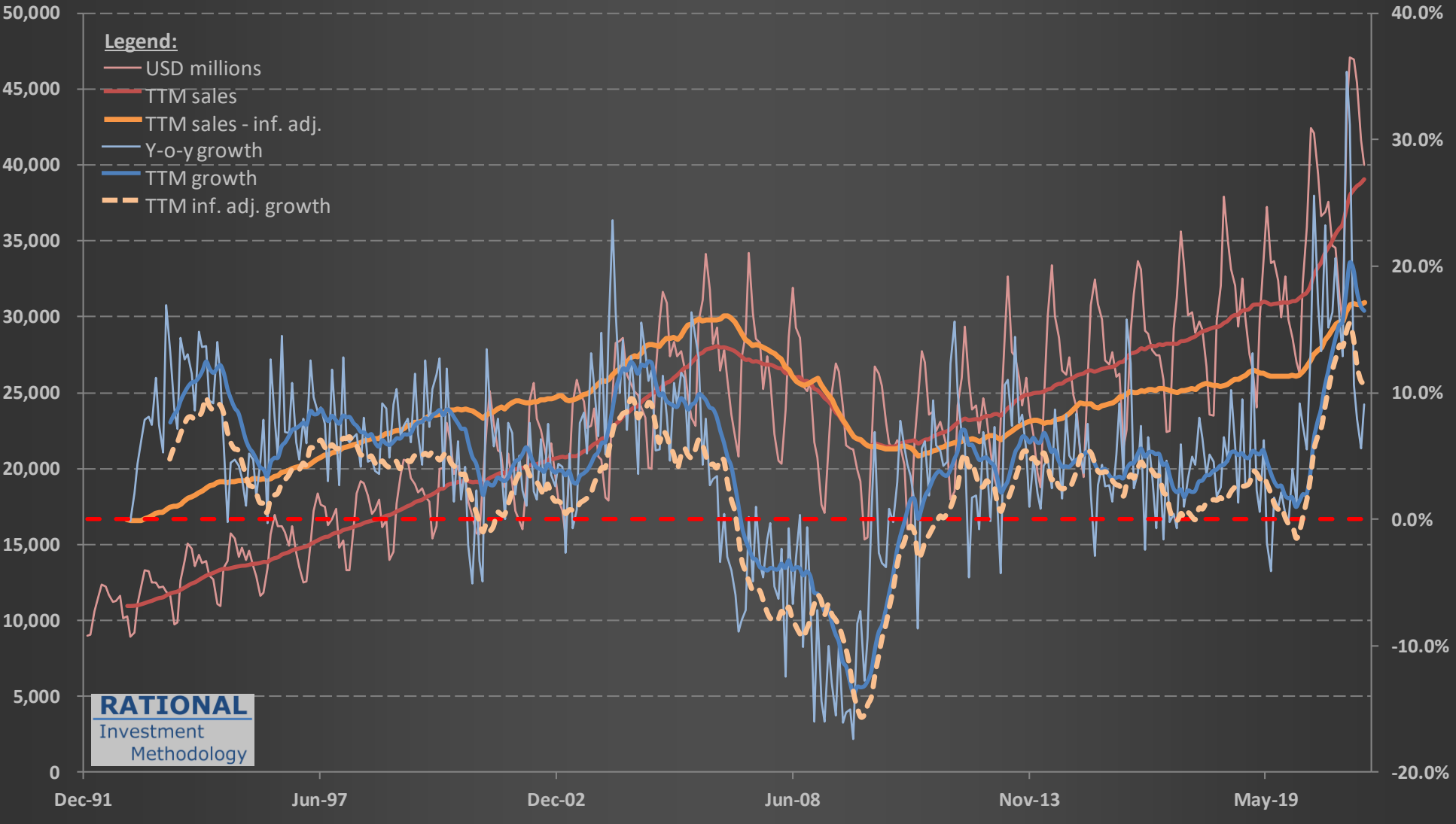
THE US CENSUS BUREAU CAPTURES DETAILED INFORMATION ON SALES; CASE IN POINT ARE MOTOR VEHICLES SALES

441: Motor Vehicle and Parts Dealers: U.S. Total — Not Seasonally Adjusted Sales - Monthly [Millions of Dollars]



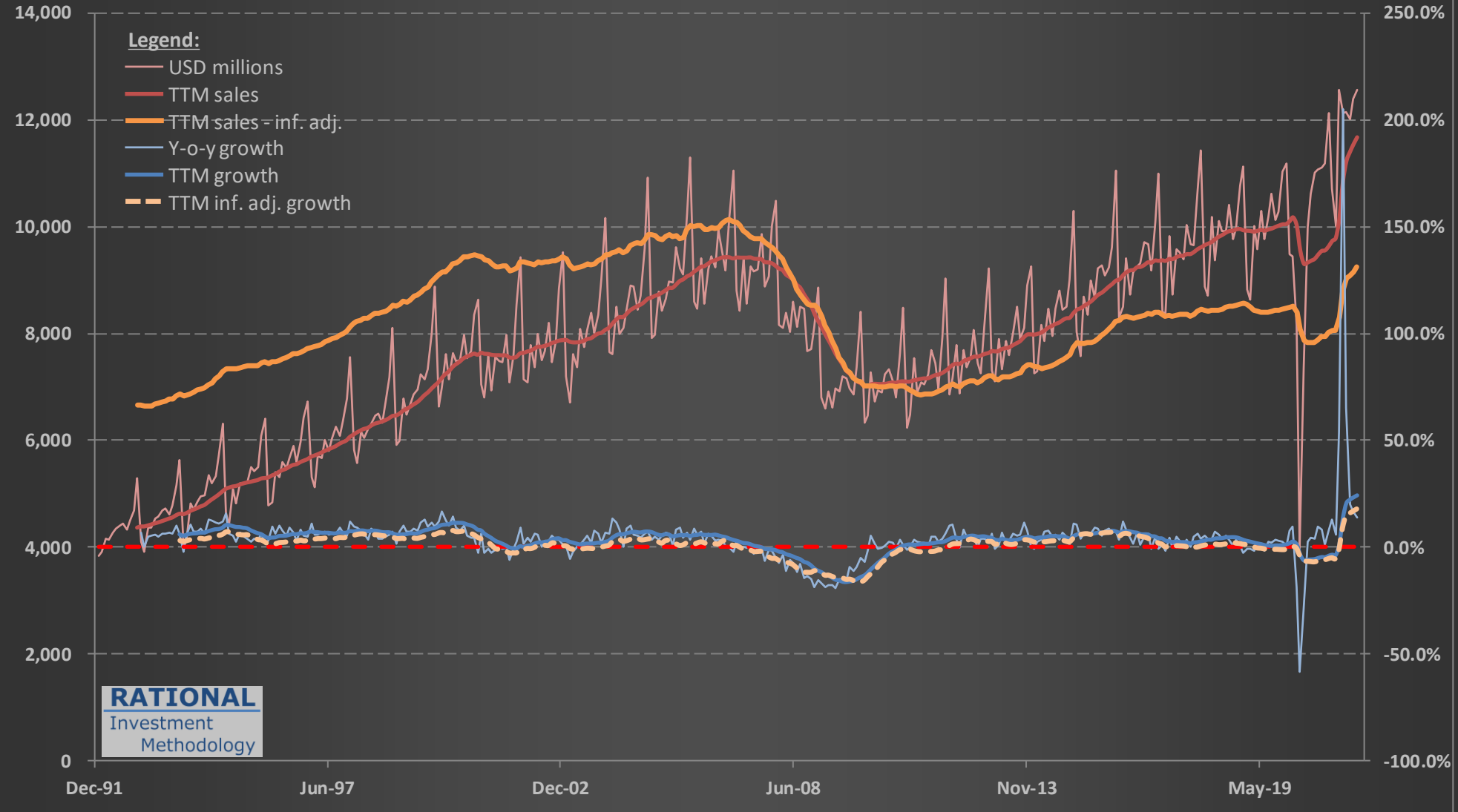
IF YOU GET STUCK AT HOME, WORKING AT YOUR HOUSE AND GARDEN MIGHT BE ONE OF THE FEW OPTIONS LEFT

444: Building Mat. and Garden Equip. and Supplies Dealers: U.S. Total — Not Seas. Adj. Sales - Monthly [Millions of Dollars]



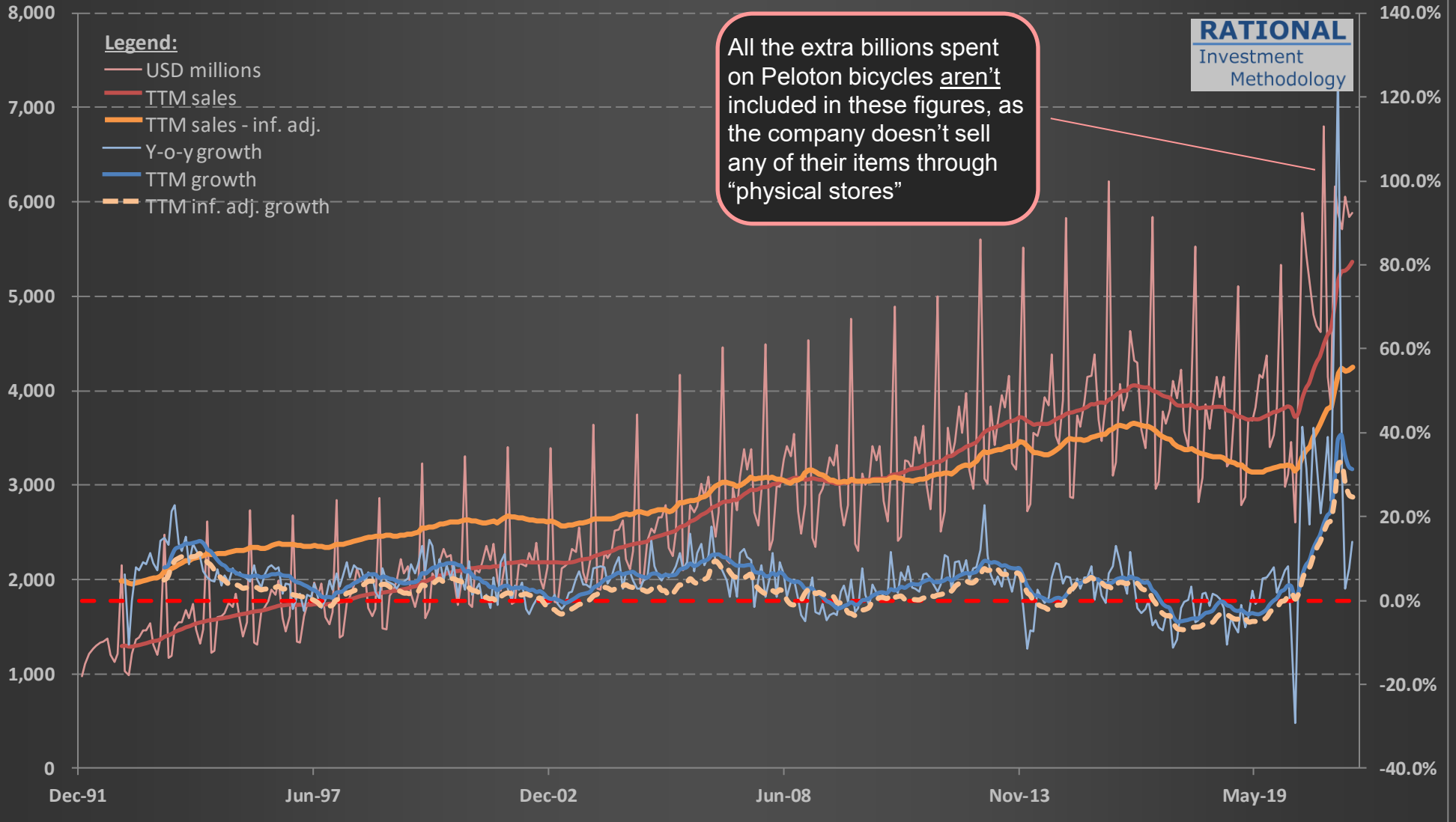
YOU MIGHT ALSO WANT TO FINALLY CHANGE THAT OLD SOFA...

442: Furniture and Home Furnishings Stores: U.S. Total — Not Seasonally Adjusted Sales - Monthly [Millions of Dollars]



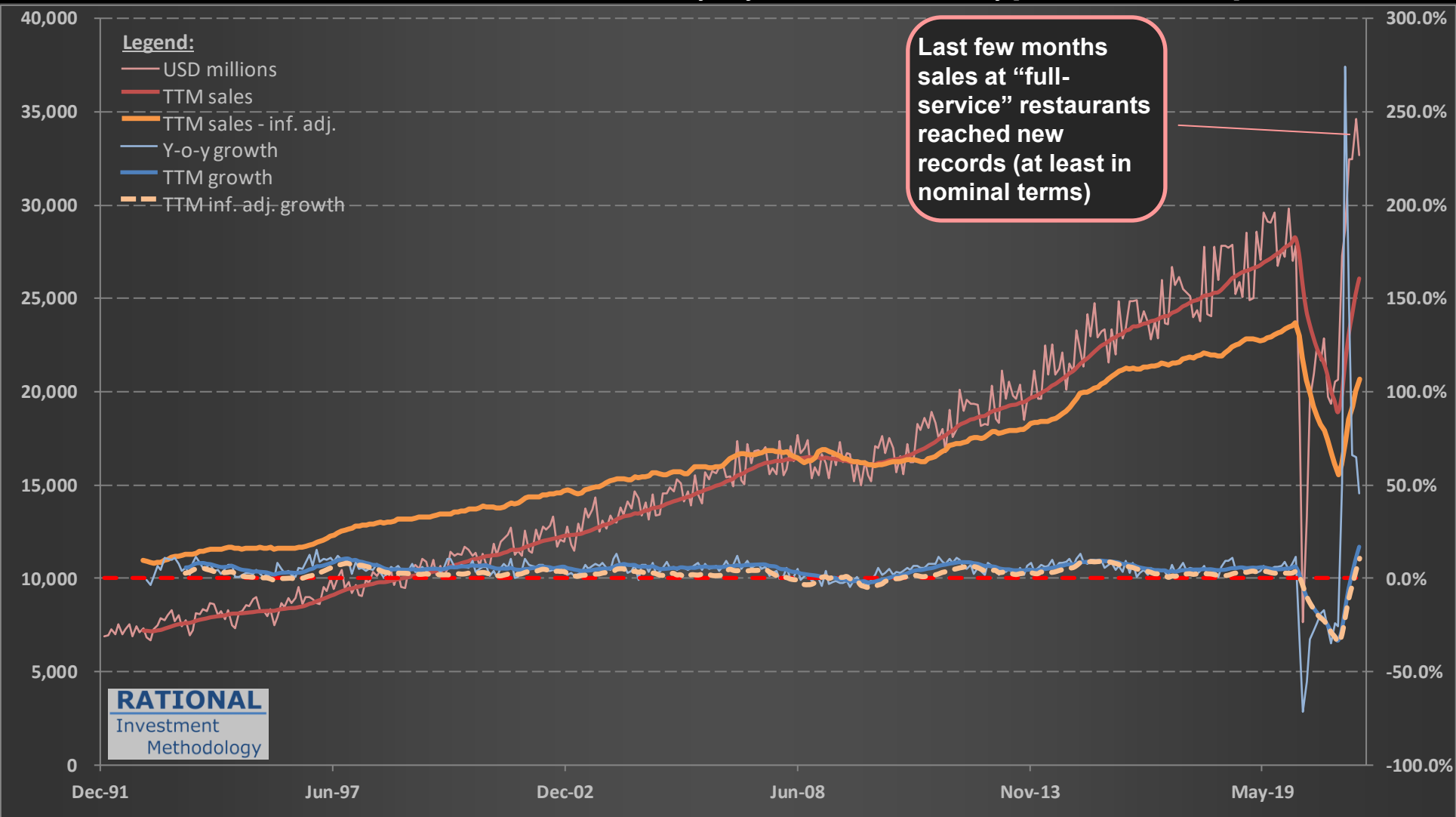
... AND TRANSFORM YOUR BASEMENT IN A FULL GYM

45111: Sporting Goods Stores: U.S. Total — Not Seasonally Adjusted Sales - Monthly [Millions of Dollars]



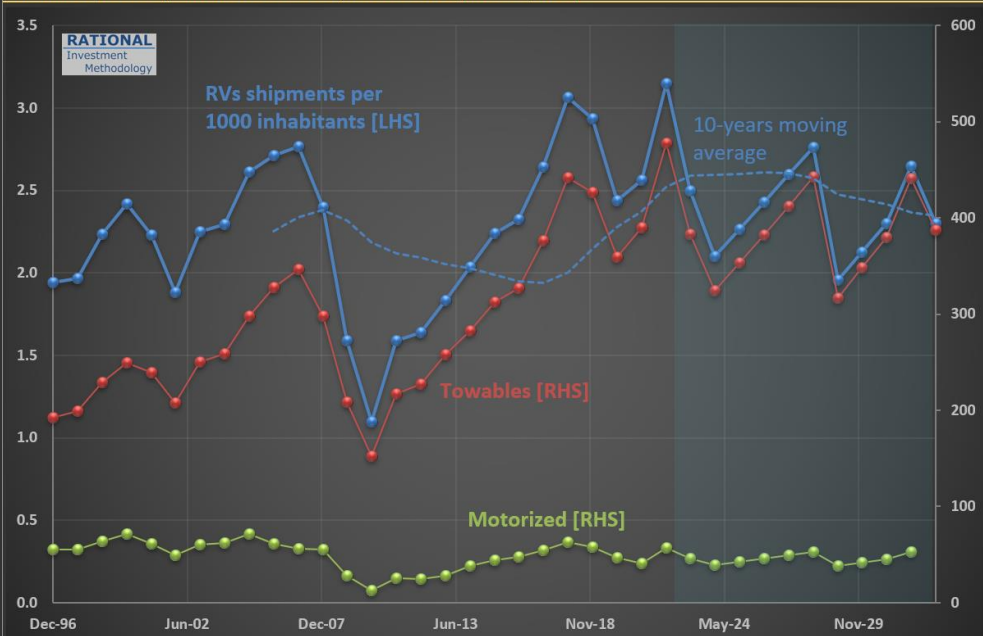
CONSUMERS, WHO ARE FEELING WEALTHY ARE – ON TOP OF BUYING A LOT OF DISCRETIONARY ITEMS – GOING BACK TO THEIR FAVORITE RESTAURANT TOO

722511: Full service restaurants: U.S. Total — Not Seasonally Adjusted Sales - Monthly [Millions of Dollars]

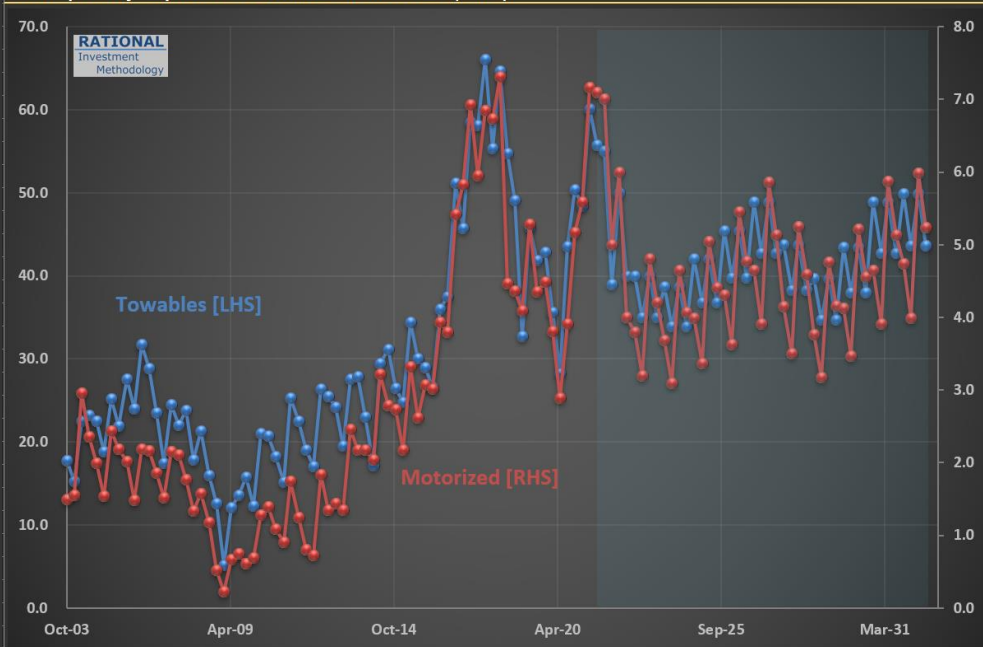


STIMULUS IMPACTS CAN ALSO BE SEEING AT THE COMPANY LEVEL: THOR INDUSTRIES

Annual Shipments (per 1000 inhabitants) and Total Shipments (000's):



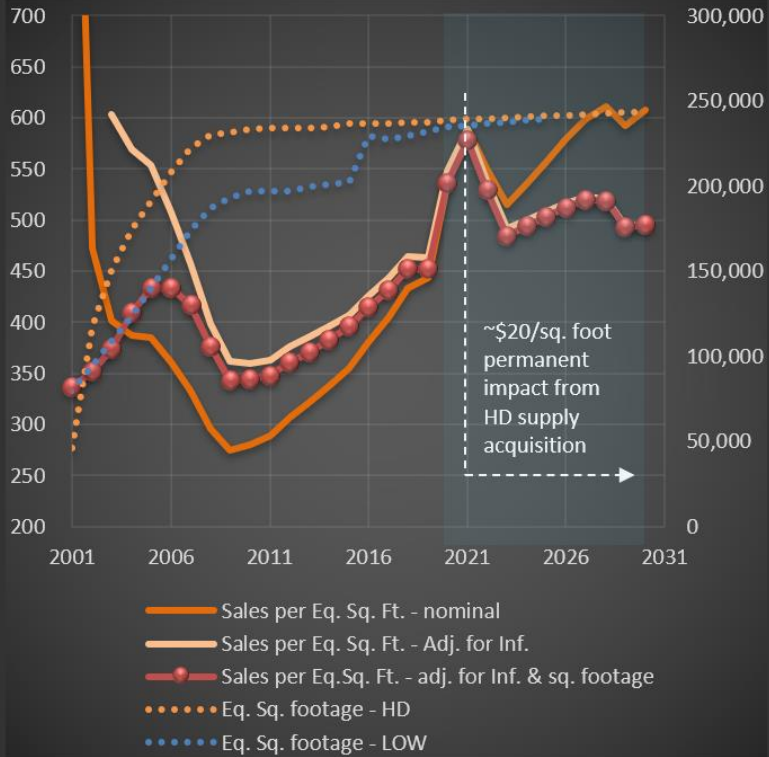
Thors quarterly shipments - Towables and Motorized (000's)



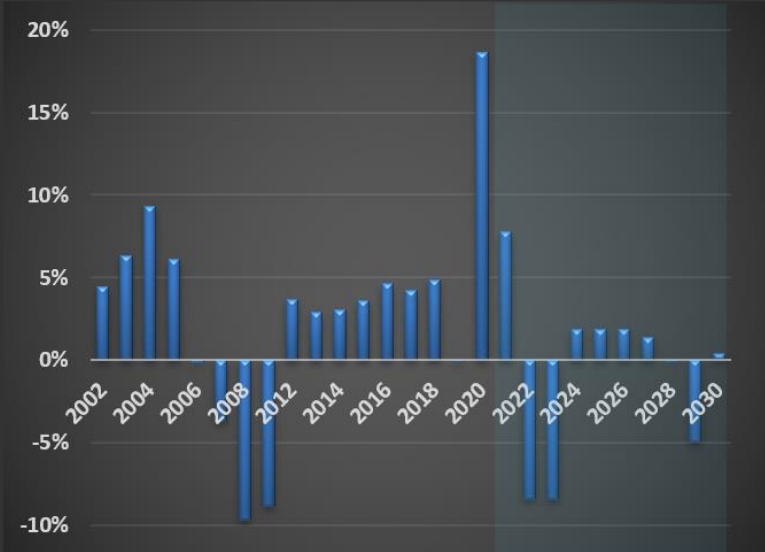
- Thro Industries is the biggest manufacturer of RVs (Recreational Vehicles) in the USA
- During 2021, sales are expected to reach record levels – on a per capita basis. The current unit sales pattern are in stark contrast with what we saw during the Great Financial Crisis in 2008-2009: it took years for the industry to recover
- Therefore, quarterly units' shipments for Thor (in the USA) has matched records (achieved during the fracking oil-boom, when workers in the filed were buying thousands of RVs to live in, due to lack of accommodations around oil wells)
- On a base case at RIM, a “reversion to the mean” in sales is expected

STIMULUS IMPACTS CAN ALSO BE SEEING AT THE COMPANY LEVEL: HOME DEPOT

HD sale per eq. sq. foot calibration:



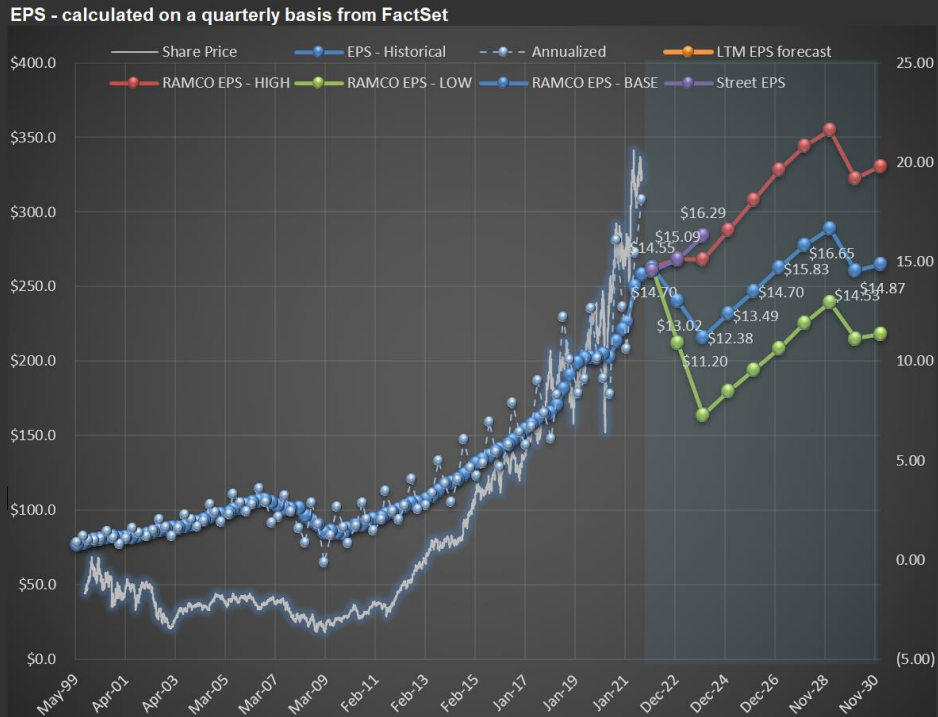
Sales per eq. sq. foot growth [adjusted for inf. & sq. footage]:



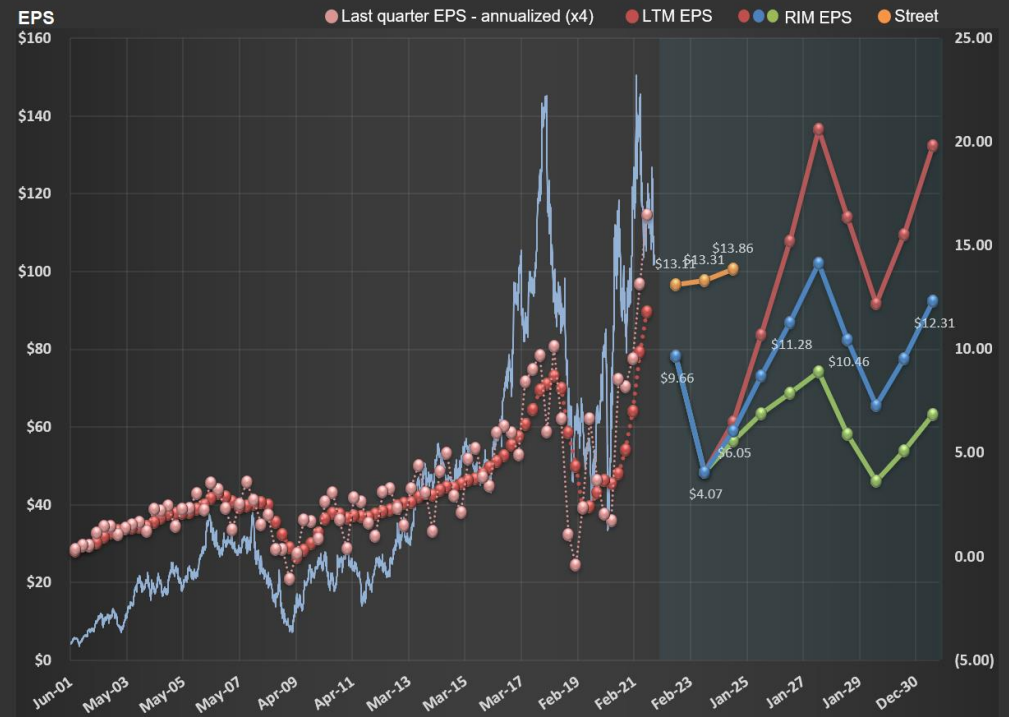
- Sales at Home-Depot, the largest retailer of construction material in the USA, saw the biggest increase in its history during 2020, towering the best years throughout the housing bubble of the mid-2000s
- Even considering permanent impact from acquisitions, sales would need to fall substantially to account for a normalization in sales per square foot

NORMALIZATION OF EARNINGS CAN LEAD TO HUGE DISCREPANCIES IN EARNINGS VS. WHAT WALLS STREET ANALYSTS ARE FORECASTING TODAY

Home-Depot



Thor Industries



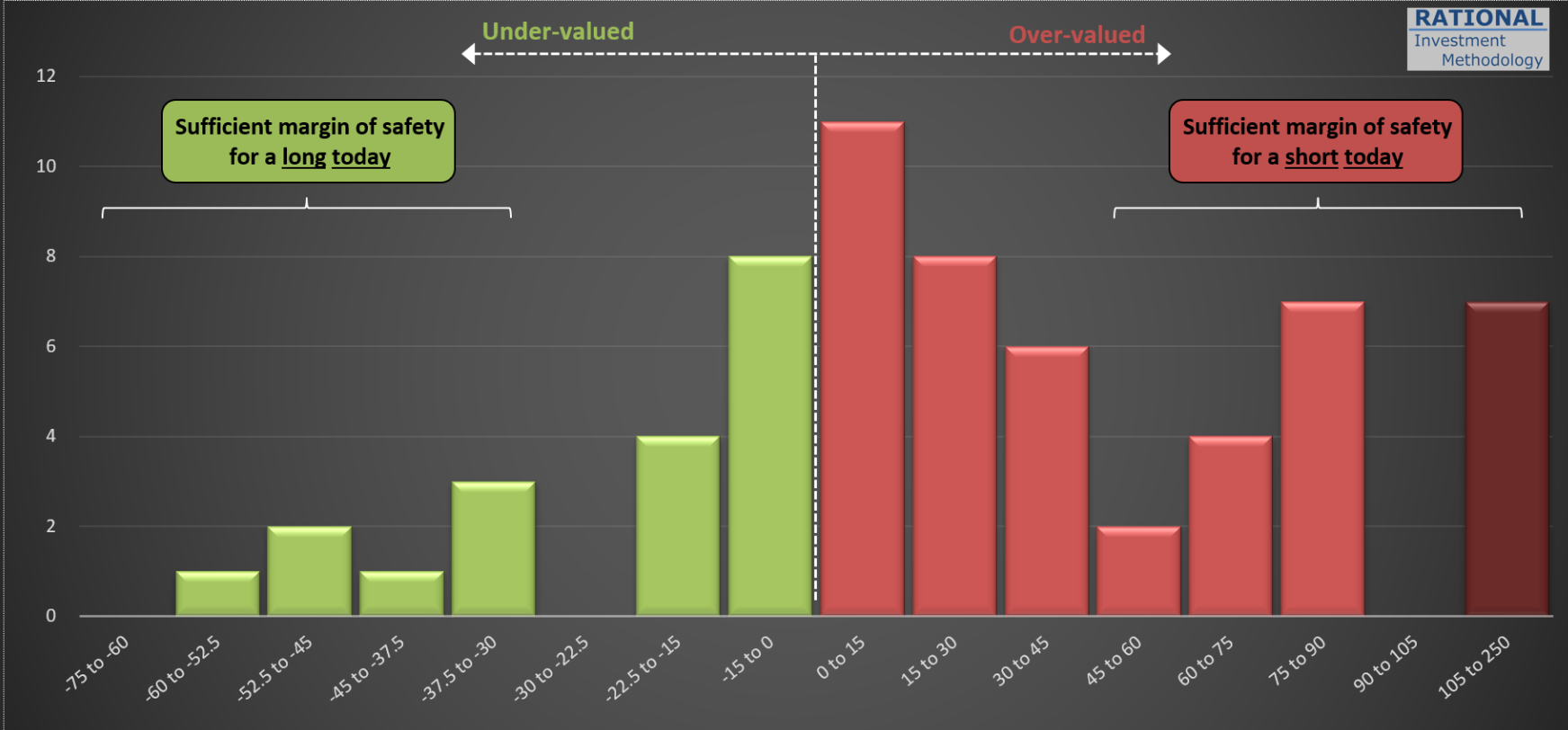
- At RIM, valuations are built assuming various scenarios for each company that are part of our Circle of Competence (CofC)
- An exercise of sales and margins normalization leads to EPS figures, in various scenarios, that are very different from what the average sell-side analyst from Wall Street is forecasting
- If such delta were to become reality, stock price reactions could be severe

CONTRARIAN VIEWS ARE ALWAYS CRITICIZED: EXAMPLE FROM THE GREAT FINANCIAL CRISIS



A SIGNIFICANT MARKET CORRECTION IS NECESSARY TO OFFER SUFFICIENT OPPORTUNITIES FOR OF A LONG-BIASED PORTFOLIO

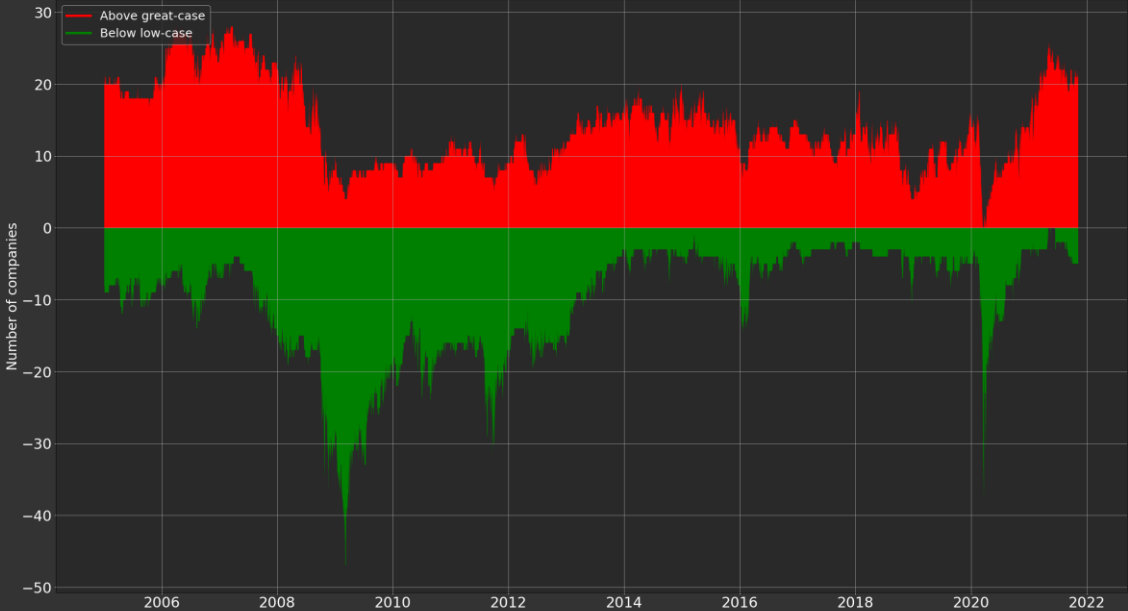
Under/over valuation distribution of Circle of Competence [CofC] Prices as of: 11/9/2021 4:30 PM
 Positive = share price above normalized fair-value of \$100 Increase to 'half of CofC above great-case': 17%
 Negative = share price below normalized fair-value of \$100 Decline to 'half of CofC below low-case': (41%)
Statistics =====> **Active names: 64** **Median: \$16.1** **Average: \$24.8**



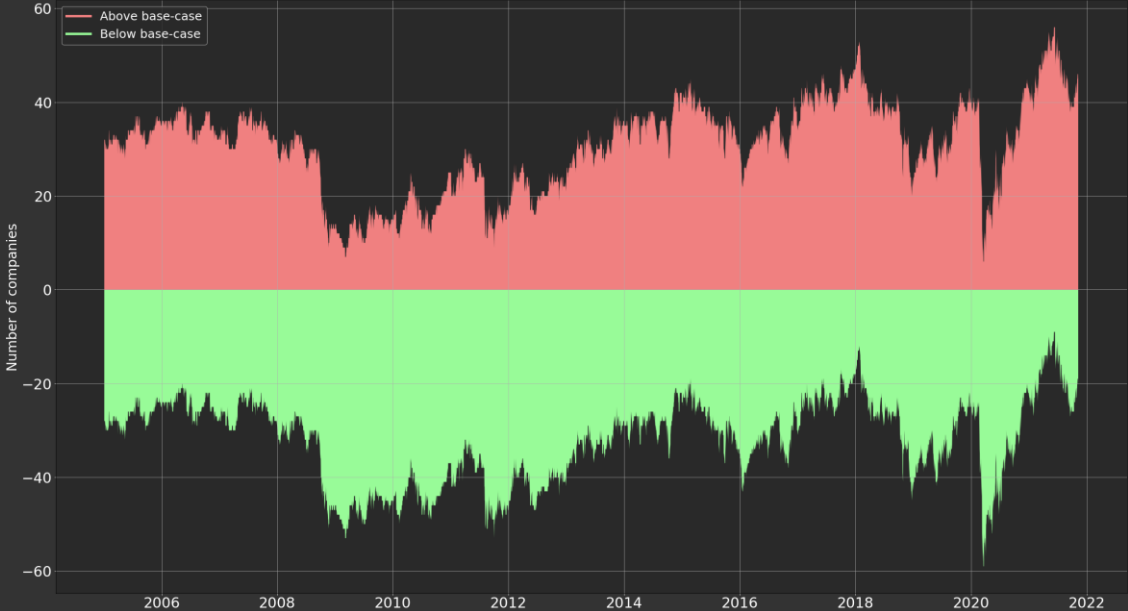
- Overall valuation levels are elevated during 2021, despite unaltered (or diminished) economic prospects for most companies after a global pandemic
- From today's price levels, a correction to achieve a typical undervalued market is significant – investors must be wise when considering how much directional risk to incur in the US equity market

ABOVE BASE-CASE NAMES – THAT ARE PART OF RIM'S CofC – ARE AT ELEVATED LEVELS

EXTREME UNDER/OVER VALUATIONS: POSITIONS ABOVE GREAT-CASE / BELOW LOW-CASE

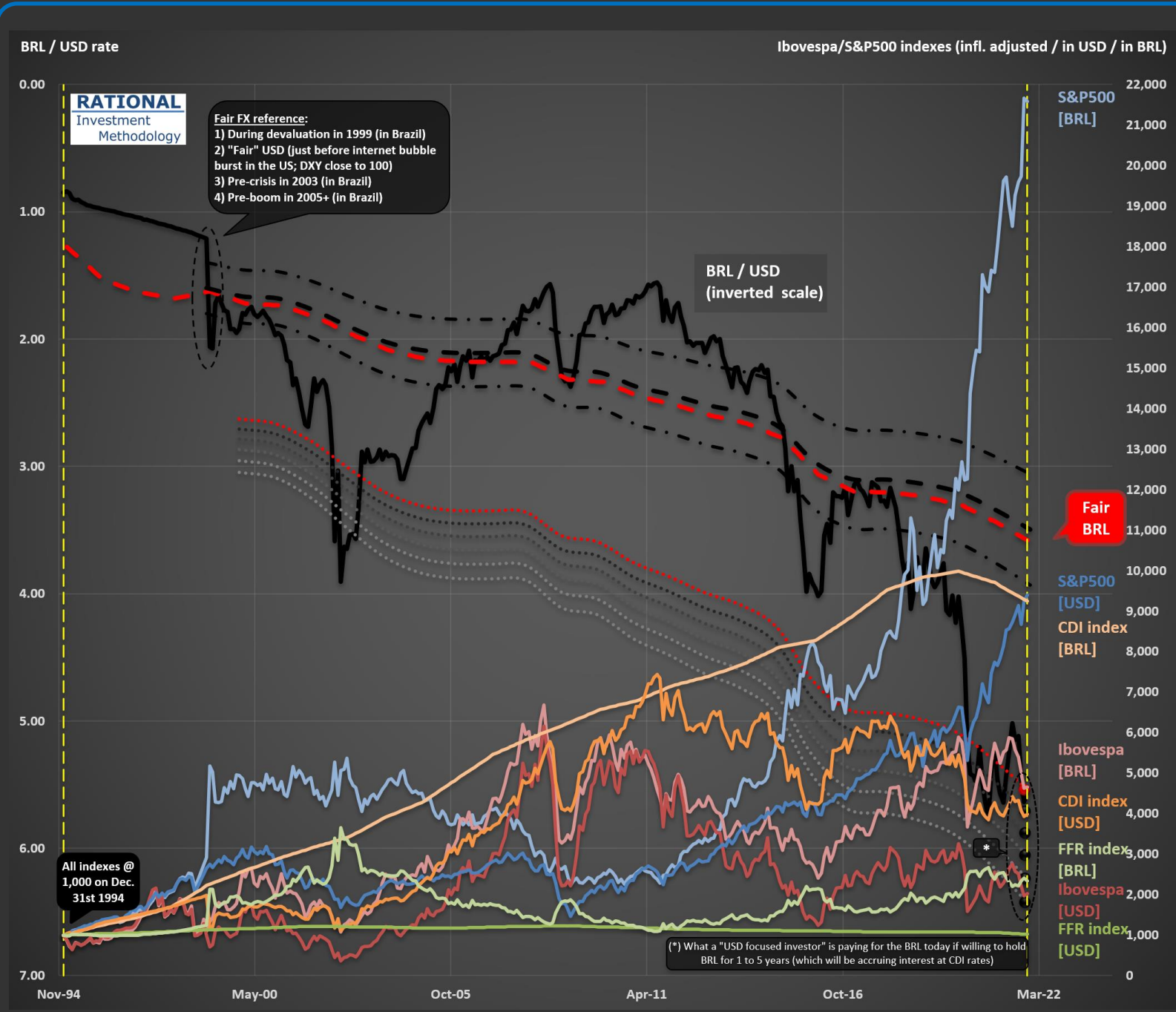


UNDER/OVER VALUATIONS: POSITIONS ABOVE BASE-CASE / BELOW BASE-CASE



- The chart at the bottom shows – since 2005 – the number of companies that are above (pink area) and below (light green area) their respective base-case fair-values (it is the equivalent of a daily count of the green/red bars on the histogram on the previous page)
- The chart at the top reflects the more extreme cases. The red area shows how many companies are above their great-case fair-value. The green area shows the ones below their low-case fair-value

WHEN ALLOCATING TO A FOREIGN ASSET, THE IMPACT OF BOTH (i) INDEX VALUATION LEVELS AND (ii) CURRENCY CAN BE EXTREME



From the perspective of a Brazilian allocator, that has the BRL as its reference currency, broad US equity indexes (like the S&P500) might be at the biggest bubble ever witnessed on this asset class

WHAT A NON-PASSIVE INVESTMENT STRATEGY, VALUE-CONSCIOUS HEDGE EQUITY, LOOKS LIKE: RIM'S LONG-SHORT CONSTRUCT

NUMBER OF LONG/SHORT POSITIONS IN THE PORTFOLIO [Long-Short strategy]



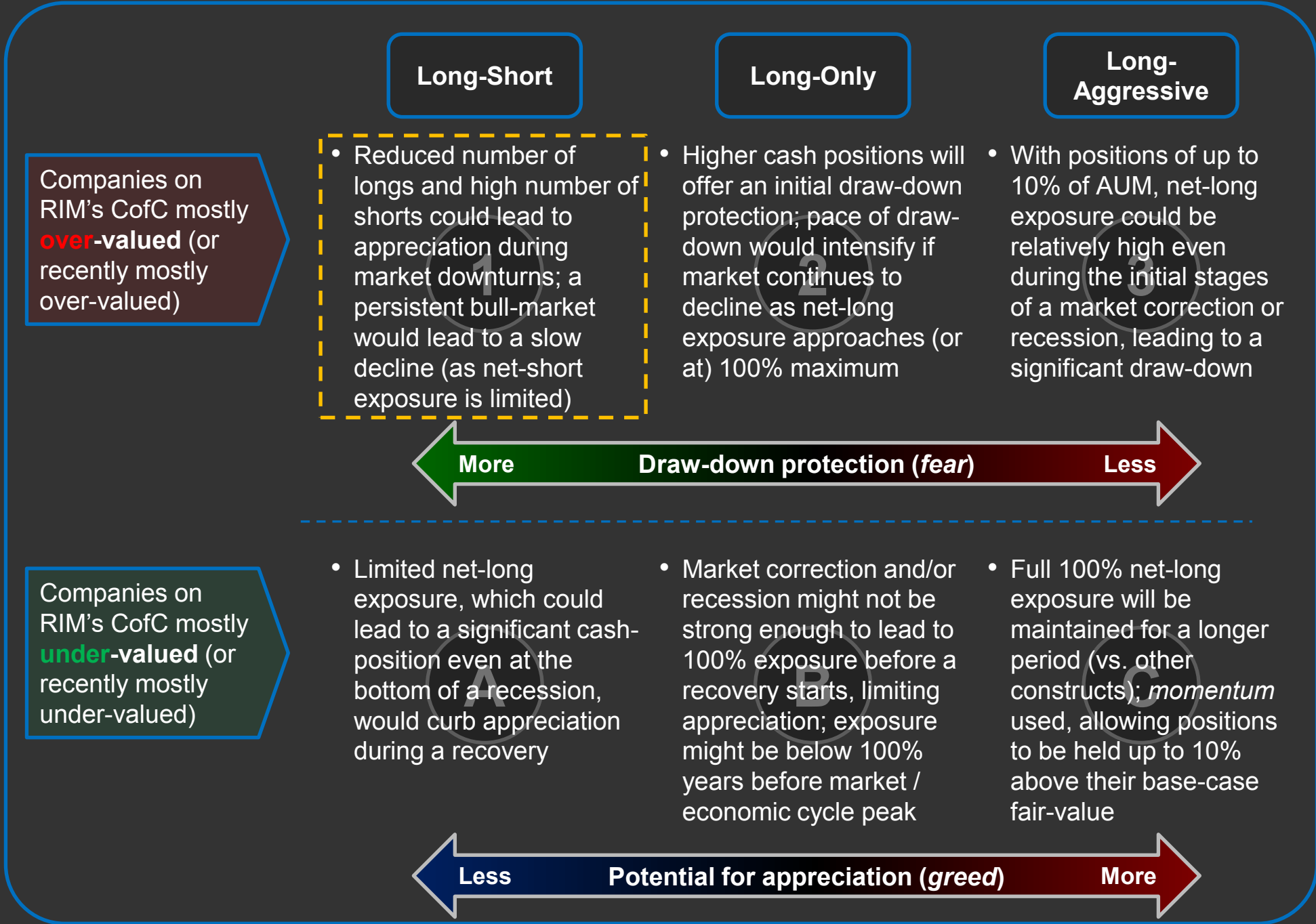
PORTFOLIO GROSS-LONG / GROSS-SHORT / NET EXPOSURES [Long-Short strategy]



"If you ask 'what alternative do I have to zero-interest cash?' my answer is this: I expect that bonds and lowly, dismal T-bills will likely outperform stocks over the coming 10-20 years, and that's a shame all around. I expect that the best refuge as the bubble collapses will be non-passive investment strategies: value-conscious hedged equity; full-cycle disciplines that have the ability to respond to changing market conditions; possibly managed futures on the commodity side. None of these are on anyone's minds here. My impression is that flexible, hedged strategies will be important, because the prospective returns for passive approaches are likely to be worse than zero."

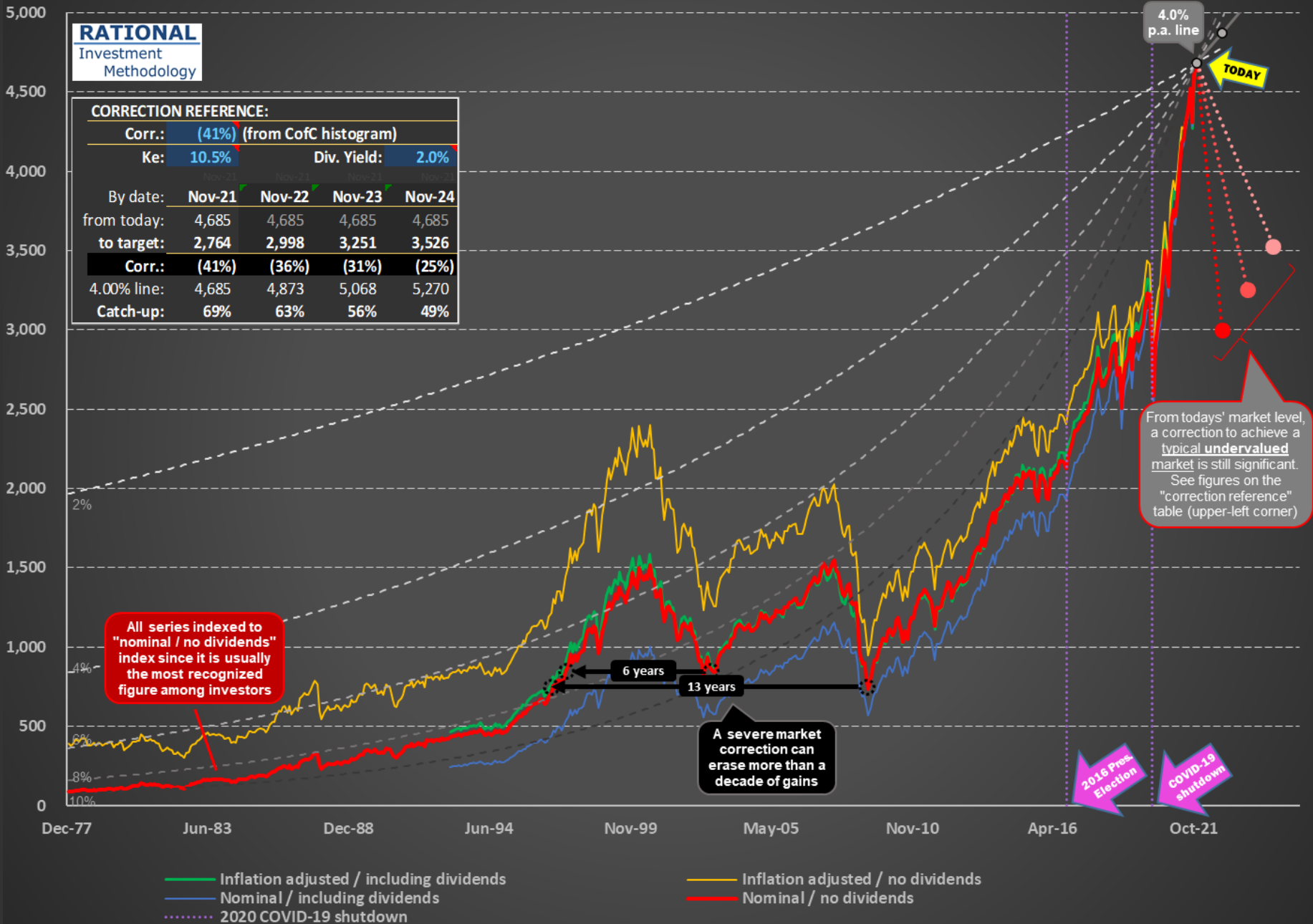
From Hussman funds memo on November 9th, 2021

A SPECIFIC PORTFOLIO CONSTRUCT SHOULD BE USED DEPENDING ON (i) RIM'S CofC VALUATION LEVELS AND (ii) RISK-SEEKING INCLINATION OF EACH INVESTOR



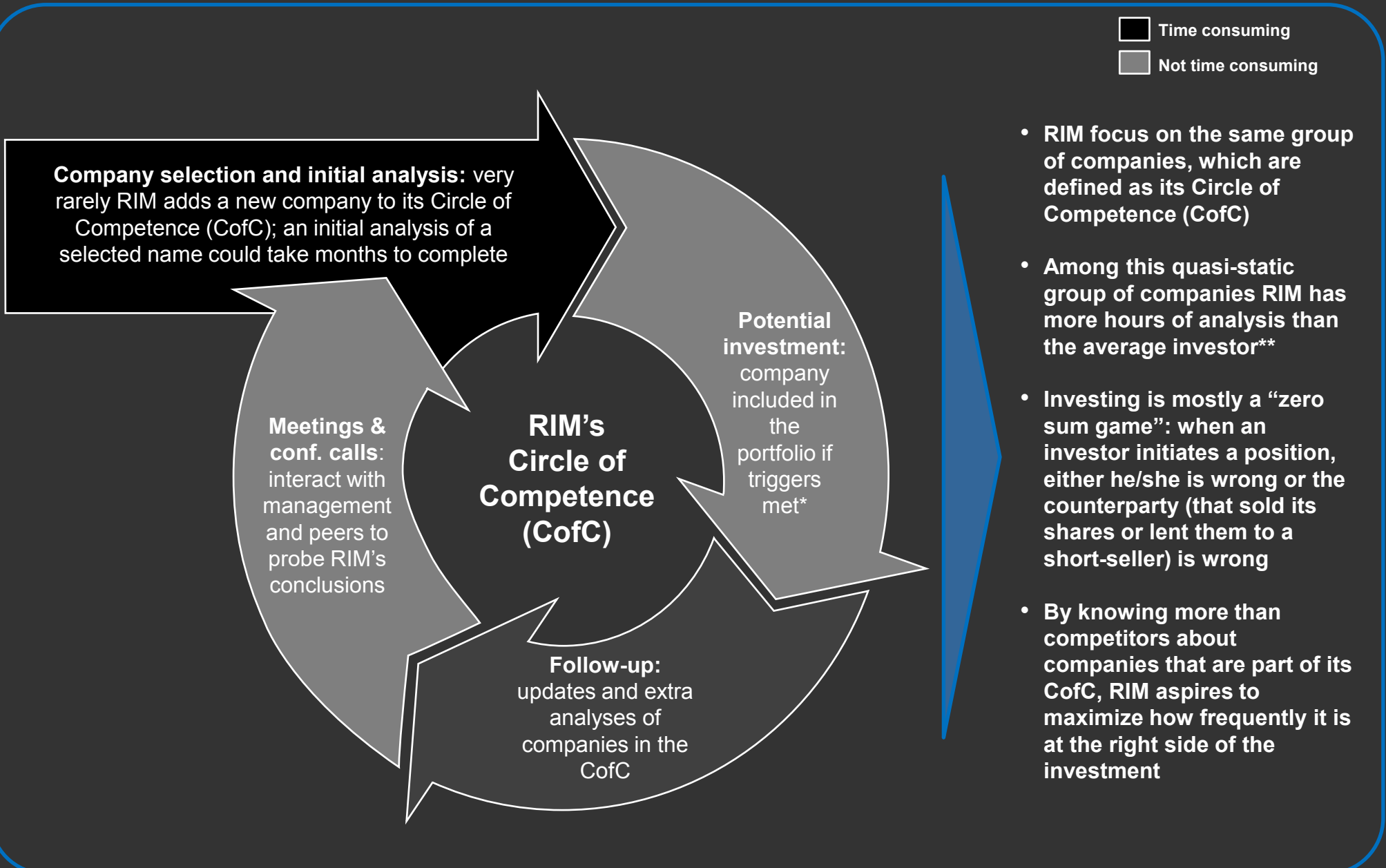
IN CASE YOU ARE WORRIED ABOUT BEING RISK-CONSCIOUS TOO EARLY: A SEVERE MARKET CORRECTION CAN ERASE MORE THAN A DECADE OF GAINS

S&P500 INDEX - RELEVANT LONG-TERM RETURNS AND STRATEGY TIMING



APPENDIX

COMPETITIVE ADVANTAGE: THE CIRCULARITY OF RIM'S INVESTMENT METHODOLOGY; NOT A FILTER/FUNNEL PROCESS



* See pages 7 and 8 for a detailed view on RIM's portfolio buildup methodology

** This statement comes from the fact that the investment process of many of RIM's competitors consists of PMs and analysts constantly searching for “new ideas”, which implies dedicating a significant amount of time to “screening”. Therefore, competitors will have less hours of analysis, than RIM, regarding the business(es) of a company that is part of RIM's CofC

SELECTED EXAMPLES OF QUANTITATIVE RISK MANAGEMENT RULES: LONG-SHORT CONSTRUCT

Rules

- No individual long position should exceed 5% at any time. No individual short position should exceed 3% at any time*
- New long positions are the smaller of (i) 5% or (ii) 1 divided by the number of longs**. New short positions are the smaller of (i) 3% or (ii) 1 divided by the number of shorts
- Maximum gross long of 120%; maximum gross short of 70%; maximum net long of 60%; maximum net short of 20%*
- Net exposure will fluctuate within the above constraints based on the under and over-valuation of stocks that are part of the firm's knowledge base
- Position size is increased if there is space in the net/gross long/short limits – “size push”
- Long positions target allocations are not increased if the stock price falls after a position is initiated; short positions target allocations are not increased if the stock rises after initiation

Benefits

- Limits exposure to any individual company. Too much exposure to a single name would bring a “gambling” aspect to the portfolio
- Avoids Portfolio Manager's unjustified favoritism / greed or excessive fear of losses
- Helps Portfolio Manager to maintain focus on fundamental analysis
- Avoids margin calls and potential forced sells/buys at the worst possible time
- Limits volatility to acceptable levels for most investors
- Directional exposure should increase absolute return over time – net long at the end of economic downturns; net short at the end of economic booms
- Maximizes exposure (and returns) as long as individual position sizes remain under specified limits
- Companies have strong “operational momentum” which impacts EPS and, therefore, prices. “Doubling down” means more money on names that will likely take more time to become profitable to the detriment of allocation to expected better performers***

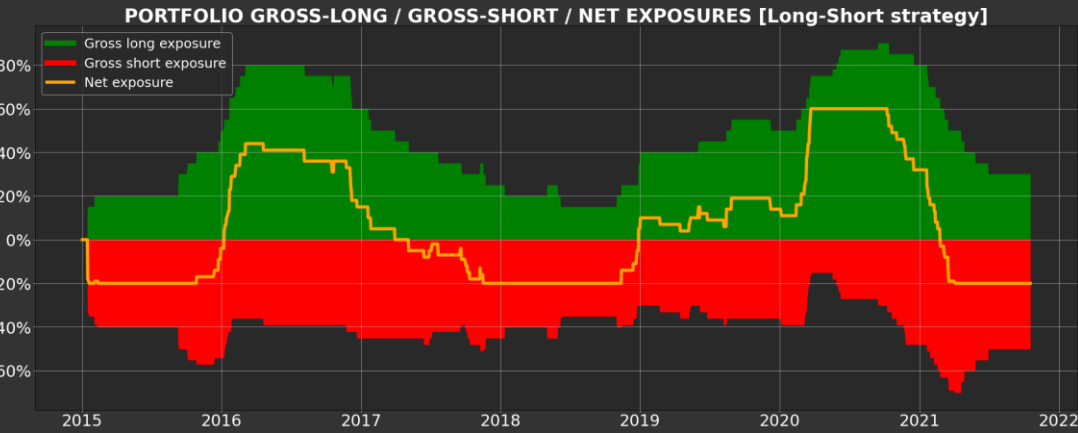
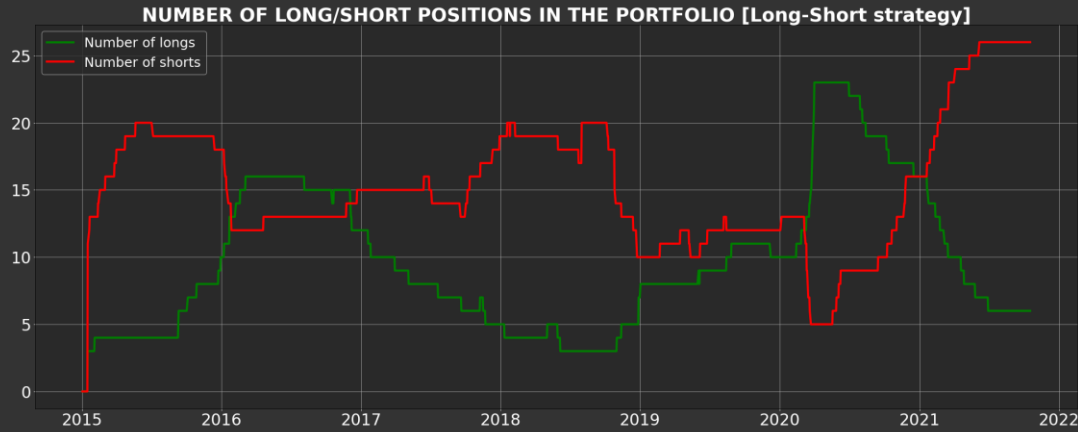
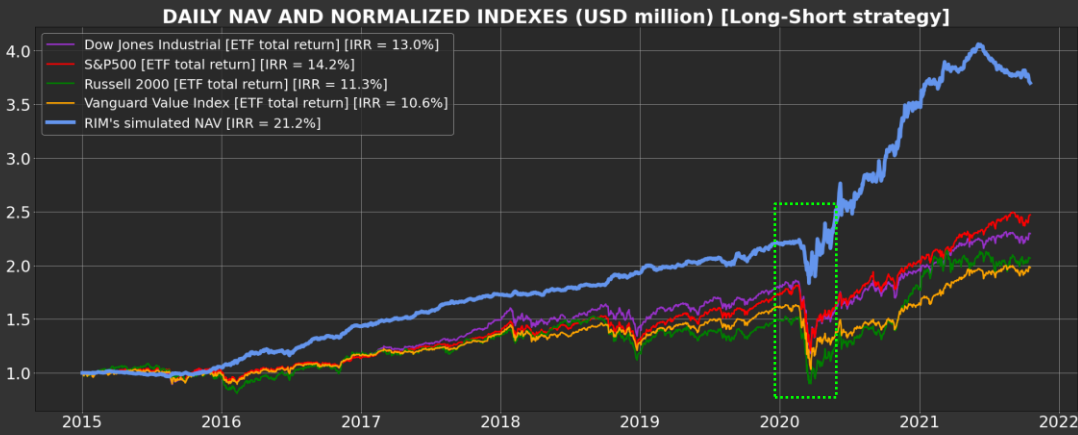
* To avoid excessive trading costs RIM might elect to allow a position or the portfolio to be a few basis points above the set limit. At the end of the month (or when the Portfolio Manager finds it necessary) the portfolio is adjusted to perfectly match the “ideal portfolio”

** For example, for a portfolio that has 29 names long, a new long position would be 1/30th (or 3.33%) of the portfolio value

*** RIM's simulation shows that when an option to “increase position with more upside” is turned on, performance decreases and volatility increases, for most periods

LONG-SHORT CONSTRUCT SIMULATION

Results are from simulation(*) using the Odysseus Portfolio Construction Tool



- There is a reason why long-short strategies were conceptualized: they usually avoid big draw-downs, which are especially damaging for pension plans/endowments and foundations, that have regular/mandatory uses of resources
- The difference in volatility between RIM's long-short construct and broad indexes, during a market correction in early 2020, is an excellent example of the extra protection offered by the strategy
- A long-short strategy could also help family-offices protect their wealth during a crisis. Preserved resources could subsequently be deployed towards private investments when asset prices, in general, become more attractive
- Long-short strategies performance could be substantially better if interest rates stop being repressed by the Fed, as cash carried on the long-short account would be justly rewarded

(*) charts purposely from a simulation (vs. actuals) to clearly show the impact of selected portfolio construction adjustments; simulated performance shown should not be seen as an indicative of future performance

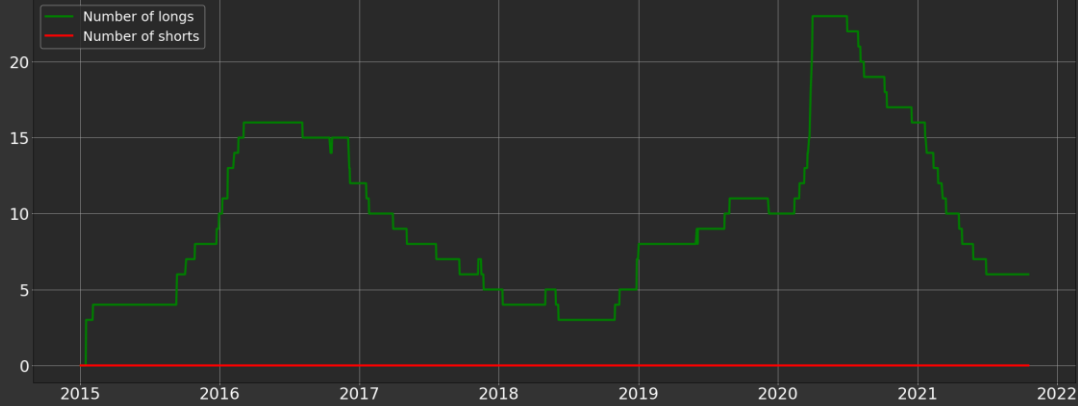
LONG-ONLY CONSTRUCT SIMULATION

Results are from simulation(*) using the **Odysseus Portfolio Construction Tool**

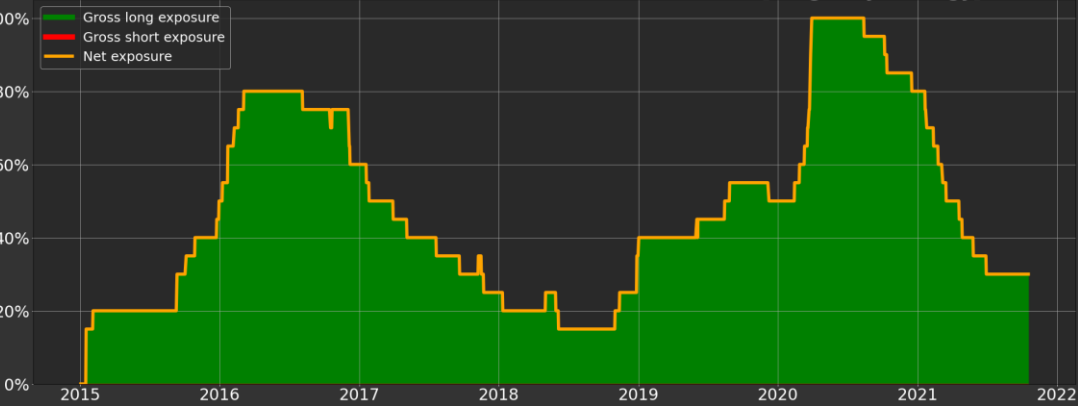
DAILY NAV AND NORMALIZED INDEXES (USD million) [Long-Only strategy]



NUMBER OF LONG/SHORT POSITIONS IN THE PORTFOLIO [Long-Only strategy]



PORTFOLIO GROSS-LONG / GROSS-SHORT / NET EXPOSURES [Long-Only strategy]

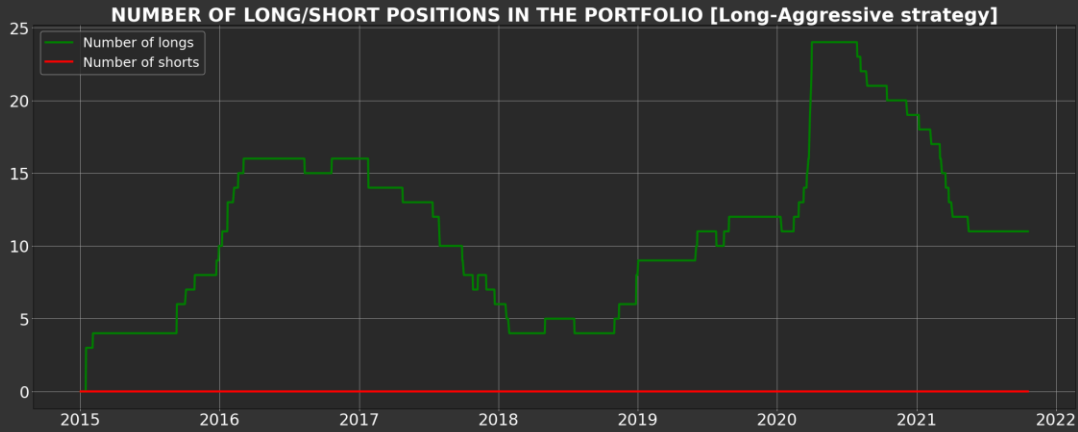
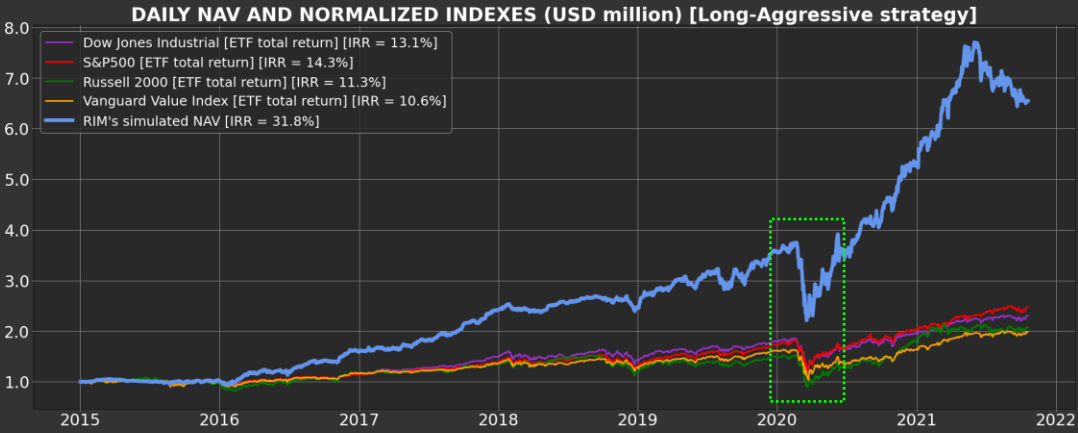


- Only two changes on RIM's risk management rules (vs. the long-short construct) leads to a long-only portfolio:
 - ✓ No shorts
 - ✓ Maximum 100% net-long
- Avoiding shorts, but still being risk-conscious and therefore carrying a high cash-balance due to the lack of cheaply priced stocks, could plausibly deliver a comparable performance with some indexes, even during a bull market
- The performance might form a plateau as the strategy accumulates a high amount of cash. However, the cash accumulation could lead to lower volatility and draw-down vs. the one observed for broad indexes (e.g., as during the correction saw in early 2019). During the more severe correction of early 2020, even a substantial amount of cash couldn't prevent a significant draw-down

(*) charts purposely from a simulation (vs. actuals) to clearly show the impact of selected portfolio construction adjustments; simulated performance shown should not be seeing as an indicative of future performance

LONG-AGGRESSIVE CONSTRUCT SIMULATION

Results are from simulation(*) using the **Odysseus Portfolio Construction Tool**



- Four changes on RIM's risk management rules (vs. the long-short construct) leads to a long-aggressive portfolio:

- ✓ No shorts
- ✓ Maximum 100% net-long
- ✓ Maximum positions of 10%
- ✓ Only sell longs when share price 10% above base-case "fair-value"

- The recent suppression of interest rates by the Fed - that punishes sensible long-short strategies - created a survivorship bias towards concentrated / less risk-conscious portfolios constructs

- Investors must be careful not to take "an aggressive portfolio construct in a bull market" for a "distinctive ability to select good investments"

- A long-aggressive portfolio will suffer during a strong market decline. The market correction in early 2020 highlights this aspect of the long-aggressive construct

(*) charts purposely from a simulation (vs. actuals) to clearly show the impact of selected portfolio construction adjustments; simulated performance shown should not be seen as an indicative of future performance