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Formula One:
US Expansion on Track
For The Grand Prize

July 30, 2023

F1 shareholders have historically achieved highly attractive incremental economics by the sale of broadcast rights to large new geographic regions, and by the appropriate use of leverage

In April 2021, when we published our first in-depth review of Formula One "F1"[1], a central observation was its exceptional business standing. A long-held, close-to-monopoly position at the pinnacle of motorsport racing, combined with high returns on equity, long-term contractually escalating revenues which demonstrated robustness through historical recessions, and as such the optionality for appropriate financial leverage. This was combined with both low capital expenditures and high tax efficiency leading to a history of highly attractive and consistent long-term equity compounding. Since our April 2021 analysis, the Formula One share price has delivered shareholder returns exceeding 22% annualised, however, our appraisal today is not only that continuing progress will be forthcoming, but that there is a good probability that F1's economics may accelerate.

The sale of broadcast rights to a new geographic region

At the outset of our updated analysis, it is instrumental to review how – and just how much – the F1 business model has achieved its profit uplift in the past. The first observation is that there has been an upward transformation of F1 economics whenever television rights for new geographic regions have been commercialised.

F1's future changed forever in 1972 when British businessman Bernie Ecclestone bought the Brabham team after he had built up one of the country's largest used car dealerships. At the time, F1 races ran as ad hoc, almost amateur, events. Each team made separate deals with each event promoter and TV coverage was patchy as races could be cancelled at the last moment if there weren't enough cars to fill the grid. However, Mr Ecclestone in 1981 convinced the teams to sign a contract, the Concorde Agreement, committing them to race. He took this to TV companies and could then guarantee them coverage. The teams controlled F1's commercial rights but Mr Ecclestone's company FOPA negotiated the deals for them and took a share of the proceeds.

Then, in 1982, Ecclestone signed a three-year deal with the European Broadcasting Union which would ensure consistent coverage in F1's biggest markets in Europe. In 1990 FOPA had revenues of just $12.5 million but by 1996 the television rights deal had transformed F1's economics by more than 10x, to revenues of $127.6 million[2], and Mr Ecclestone's salary of $83.7 million made him the world's highest-paid executive[3]. In 1995 Ecclestone negotiated further broadcast rights to F1 for 14 years beginning on 1 January 1997. Focusing on the value of television rights for F1 was the best business move of Mr Ecclestone's career: by 1999 Ecclestone had become the richest man in Britain[4].

Appropriate leverage secured against long-term contracted revenues

The sale of broadcast rights has not been the sole driver of F1's periods of upward transformation in economics. However, they have been both the initial driver and then provided the financial infrastructure for the second upward accelerant. More specifically, it has been the long-term nature of the company's contractually binding and escalating broadcast revenues – combined with the contracts for race promotion signed by racetrack owners possessing similar duration, binding and escalating attributes – that have provided the second elevation scenario in F1's economics. That is, by imposing appropriate financial leverage that remains readily serviceable even through recessionary periods.

In 2005, CVC Capital Partners took control of F1 with the purchase of a 63% shareholding[5]. CVC used F1's long-term contracted revenue combined with close to zero capex requirement to secure debt at up to 7.2x F1's EBITDA[6], and by 2015 F1 had delivered to CVC a more than 10x financial return, making it the most profitable investment in CVC's 34 year history[7].

CVC operated F1 according broadly to the investment model of John Malone, whose business strategy has been to find growing and yet predictable businesses, with dominant positions within their industry and low capex requirements, and – due to their business robustness – whose cashflows are also leverageable. This "Maloneian" investment model, applied by Malone to cable company Tele-Communications Inc or "TCI", produced a shareholder return averaging 30% per annum from 1973 to 1998[8], when TCI was sold to AT&T.

It is also Malone who today has control of F1, since 2017, through super-voting shares in its listed equity[9]. Therefore, should the business again face a scenario where it has the opportunity to achieve both the sale of new broadcast rights to a large new geographic region, whilst its controlling shareholder uses F1's long-term contracted revenues to secure appropriate financial leverage from an unleveraged position, combined with its equity being available for participation at a reasonable valuation ratio – then the "grand prize" may again await participating shareholders.

F1's underlying earnings are concealed by acquisition amortisation charges and an inefficient gross debt / gross cash position

A cursory glance at F1's valuation results in initial confusion as to whether a value-minded investor can consider allocation. According to consensus estimates, F1, whose market capitalisation is $16.5bn, trades at 54x consensus PE for the FY2024[10], a rich valuation in comparison to the S&P500 which trades at 20x PE for the same period. However, it is also notable that in January 2023, Bloomberg News reported that Saudi Arabia's sovereign wealth fund had assessed a takeover offer for F1 at "well above" $20bn[11], implying that F1's current valuation appears – at least in the eyes of some astute and global investors – reasonable.

To resolve the dichotomy F1's PE ratio requires a rebuild. The analysis involves stripping out the non-cash P&L charges (largely acquisition amortisation charges relating from Malone's purchase of F1 in 2017[12]), and adding in their place a deduction for the maintenance cash expenditure that F1 requires on an average annual basis. When this adjustment is made, F1's FY2024 P&L net income rises from $311m by a further $377m, and as such implies a cashflow equivalent net income of $688m[13]. Following the adjustment F1's cash PE ratio falls to 24.1x. However, as at year end 2024, F1 also has a forecast net cash position almost equal to its net debt – and as such its interest charge is voluntary, because the inefficient gross debt /

gross cash position exists either because the company is accumulating cash for future and accretive deployment, or because it plans to return it to shareholders through special dividends. To simplify the valuation, we can look at F1's EV as a multiple of the net income if the gross cash was used to offset its corresponding proportionate debt. The output is a cashflow equivalent net income of $807m (due to net cash usage in debt paydown reducing interest charge) and a cashflow equivalent PE ratio of 21.3x.

In other words, F1 trades at a 5% premium to the S&P500 when a rational accounting analysis is applied to its current profitability, and this is before we consider the current evidence for the two scenarios that accelerate economics.

Malone's business opportunity with F1 is US market penetration and achieving the associated broadcast contract uplift value; however, and first, F1's own sporting shortcomings have had to be addressed

F1's penetration of the US market is not only an exercise in execution, it is also an exercise in displacement of US viewership from competing broadcasts. As such, in order to successfully begin its penetration of the US market, the team led by John Malone, post their acquisition for control of F1 in 2017, first had to commence a review of F1's sporting shortcomings and a comprehensive addressing of them. The time lag to achieve this has been in part a result of the duration of F1's Concorde Agreement, the contract between the racing teams and F1 which determines the commercial terms under which the race series occurs. Whilst Malone acquired control of F1 in 2017, the Concorde Agreement did not expire until end 2020[14], and only upon the new Concorde Agreement being signed were stringent budget caps finally imposed on the teams. As per Figures 1 & 2, closeness of budgets is highly correlated to competitive racing and therefore to sporting spectacle, and a major shortcoming of F1 was the impossibility of competitive racing when one team was spending $600m and another spending $100m.

Figure 1: F1 races had become uncompetitive – competitive racing is highly correlated to closeness of budgets, and was impossible when one team spends $600m and another spends $100m[15]

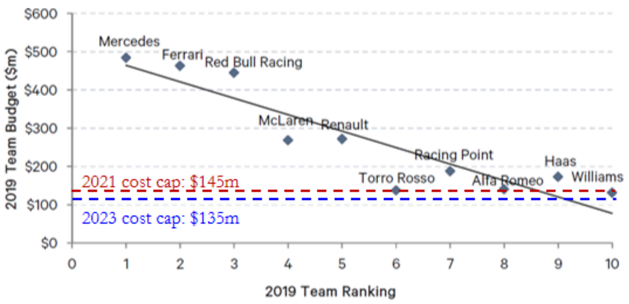
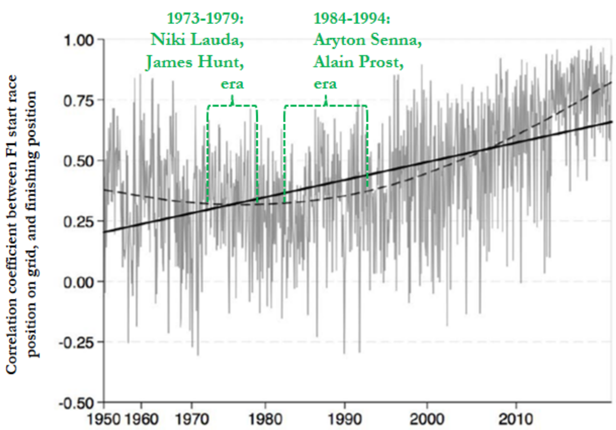


Figure 2: The correlation coefficient between F1 start race position, and finishing position, had increased from 0.30x in the 1970s and 80s, to 0.75x by 2017[16]



As part of Malone's determination to create meaningfully improved on-track competition between the F1 race teams, his management team also negotiated with F1's regulator, the FIA, for the mandating of new car designs that reduce the loss of downforce handicap that was previously experienced by chasing cars as a result of air turbulence from the leading car[17]. From 2022 these design changes reduced the loss of downforce handicap experienced by the chasing car from more than 40%, to 5-10%[18], allowing – in a race series now free from the constraints of uncompetitive budgets – also much closer wheel-to-wheel racing and battling of the cars also and therefore what has become a far more engaging sport.

> *"Liberty [Malone] wants growth and needs more eyeballs watching. They're only going to get that if there is a chance for anybody to win on any given Sunday."*
>
> Lawrence Stroll, Aston Martin F1 team owner, GQ profile, March 2021[19]

F1's new management team furthermore worked to successfully address F1's other core shortcoming: lack of social and digital media penetration, disengagement of young fans, and a lack of ancillary media products promoting the sport. As per Figure 3, since Malone became F1's controlling shareholder in 2017, F1's viewership on linear broadcast networks has modestly grown – a meaningful outperformance of both its peer group and of the linear broadcast networks themselves[20]. It is on digital and social media, however, as per Figure 4, that F1 has excelled under Malone.

Since 2017, F1's total social media followers have increased by 500%, a rise that continued in 2022, with F1's total video views across F1.com, the F1 App and social media up 44% from 2020 to 7.04bn[21], and with unique users up 63% to 113m and page views up +23% to 1.6bn[22]. F1's unique user social media engagement now exceeds the growth rate of all other marque sports franchises including the UFC[23].

Figure 3: Since Malone took control of F1 in 2017, linear broadcast television viewership of the sport has modestly grown, a meaningful outperformance of broadcast comparators such as UFC and WWE[24]

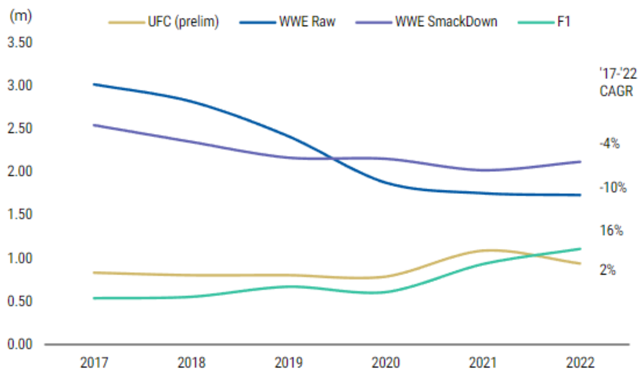
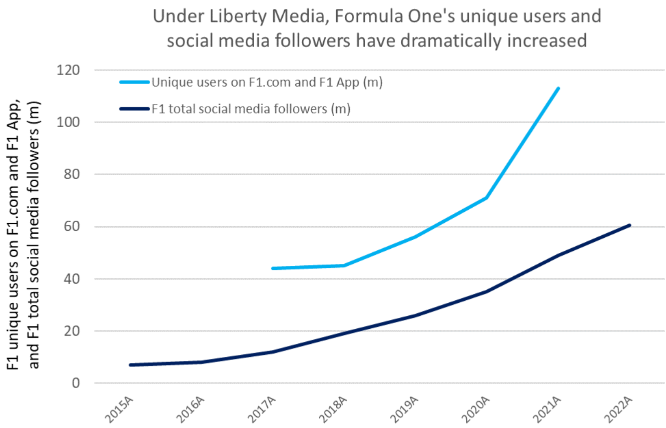


Figure 4: Malone has also overseen F1's shift into social and digital media: since 2017, F1's total social media followers have increased by 500% and unique users on F1's dedicated sites are up 63% to 113m[25]



From 2021, following the strict budget caps being imposed on the F1 teams, a corollary impact has been a meaningful increase in F1 team profitability. The higher profitability of the teams thereon has also provided additional funding for their independent marketing activities, including social media and video broadcast activities[26], further attracting overall fan interest to the sport. As per Figure 5 below, the average profit of the Red Bull, McLaren, Mercedes and Renault (Alpine) teams has risen from £1m in 2017 to £28.5m in 2021 according to disclosures from the UK's Companies House. F1's teams are now producing a significant volume of their own media content[27], sustainably funded by this surplus profitability and without impacting the capped monies from which their investment into racing activities remain limited to.

Figure 5: The average profit of the Red Bull, McLaren, Mercedes and Renault (Alpine) teams has risen from £1m in 2017 to £28.5m in 2021 according to disclosures from the UK's Companies House[28]

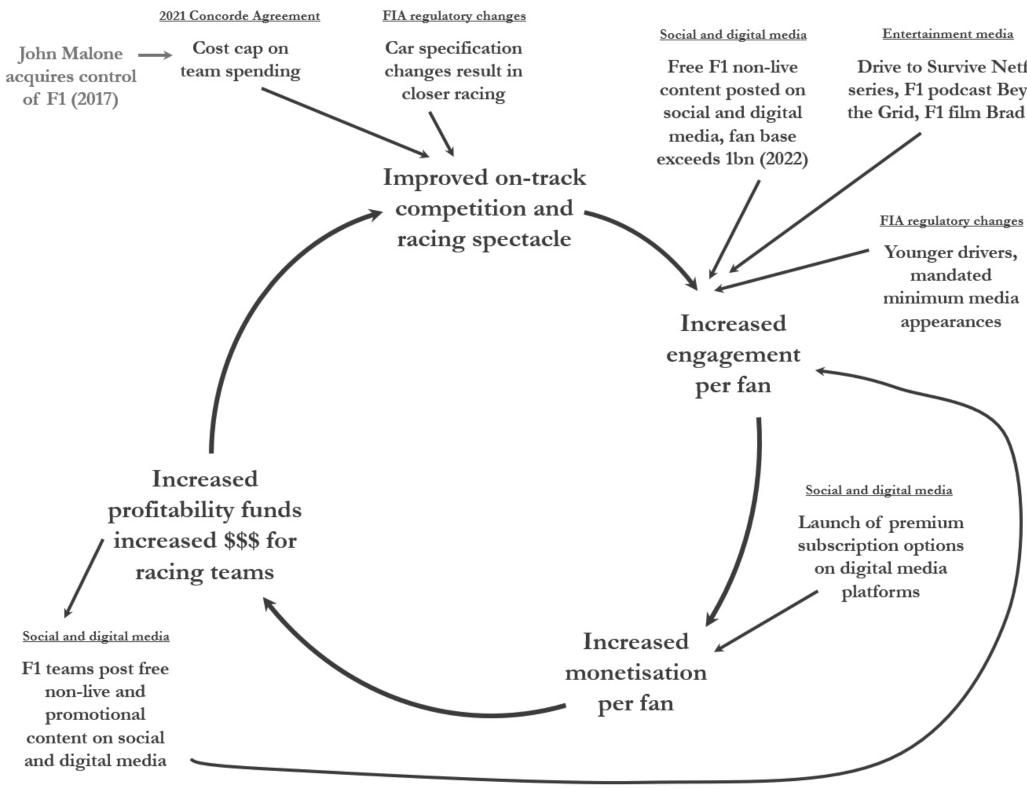
Average of F1 teams [Red Bull Racing, McLaren Racing, Mercedes, Renault/Alpine]

	2017	2021	change
Average revenue	225.3	276.0	1.23x
Average cost base	224.3	247.5	1.10x
Average operating profit	1.0	28.5	28.50x

Finally, F1's transition to the forefront of capturing the interest of audiences has been significantly accreted by John Malone's expertise across ancillary media channels, including documentaries, films and podcasts, to catalyse the promotion of the sport. In 2022 the Netflix series following F1's drivers – "Drive to Survive" – became the most watched show on Netflix in more than 33 countries, including the US[29]. F1 has also partnered with Apple and has commenced production of a F1 film, staring Brad Pitt and Lewis Hamilton, and directed by Top Gun Maverick director Joseph Kosinski[30]. And F1's podcast "Beyond the Grid" has become the most listened to (30m) motorsports podcast, surpassing any Nascar equivalent podcast[31].

The combination of these ancillary media strategies, combined with F1's eSports events[32], have re-engaged a younger fan base to the sport. According to SportCal, a sports market intelligence service, 46% of F1's fans are now under 35, a higher proportion than football (43%)[33].

Figure 6: Under John Malone's oversight, F1 has comprehensively addressed the issues holding back audience engagement and has now positioned the motorsports series in a virtuous circle[34]



<u>The strengthening of F1's US-facing racing product is coincident with weakening in Nascar and Indycar</u>

Concurrent with F1's strengthening attributes favourable for greater US market penetration, viewership of US-dedicated race series Nascar and Indycar has been weakening.

Both Nascar and Indycar, as the incumbent US motorsports entities, have declining viewership[35], as per Figure 7, despite prime time slots, compared to F1 which has growing US viewership despite the majority of F1 races still being handicapped by a live air time of 6-8am for US audiences[36]. It is also notable that despite only having two US-domiciled races currently, F1's US per race attendance figures have reached 440,000[37] and growing, far exceeding the average attendance at any Nascar or IndyCar event at any point in the US calendar[38], or for that matter, any other global F1 race attendance figure.

Figure 7: The US television viewership of Nascar and IndyCar continues to decline[39]

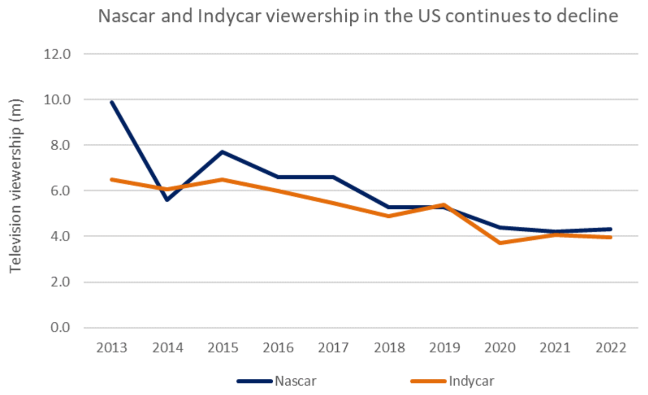
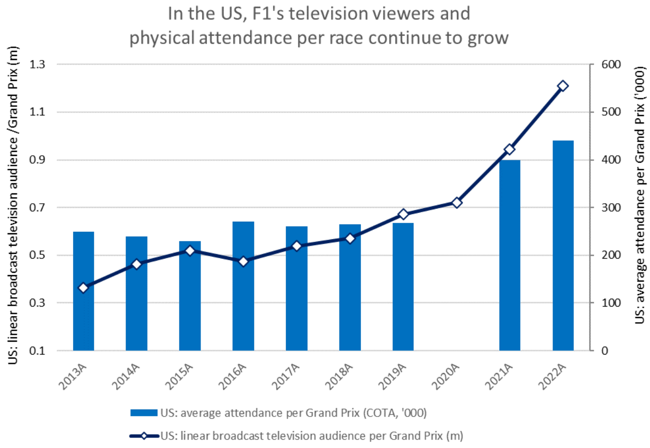


Figure 8: The US television viewership of F1 continues to grow, as does physical attendance of US F1 races[40]



The launch of additional US-based races can achieve a significant profitability uplift for F1 even before the US broadcast contract side is monetised

F1 stepped up its drive for greater on-the-ground US penetration in 2022 with a new Grand Prix in Miami, adding to the only previously existing US race in Austin, Texas. Both of these races were negotiated on the basis of the same economic model possessed by all ex-US F1 races: that is, F1 signs with a local race promoter long-term contracts in return for a race promotion fee that is payable annually to F1, and with the race promotion entity then granted the right to race ticket revenues (F1 still collects all race sponsorship revenue directly). The race promotion fee payable to F1 averages $36m (2023) per race[41], and is structured such that the race promoter achieves broadly a 50:50 profit split with F1. That is, if F1's race promotion fee is $36m then the race promotion entity who also typically owns the racetrack, would also be expected to make a profit in the region of $36m.

An observation from this structuring is that F1's cashflow net income of $807m is actually as high as $1.6bn if the total profitability of F1 is assessed as that shared by both F1 equity holders and the sum of the holders of the race promotion equity. In other words, for 2024, $807m + 22 races x $36m = $1.6bn. The larger profit figure also speaks to the business opportunity available to F1 should it achieve the direct promotion and management of a greater number of its own race events.

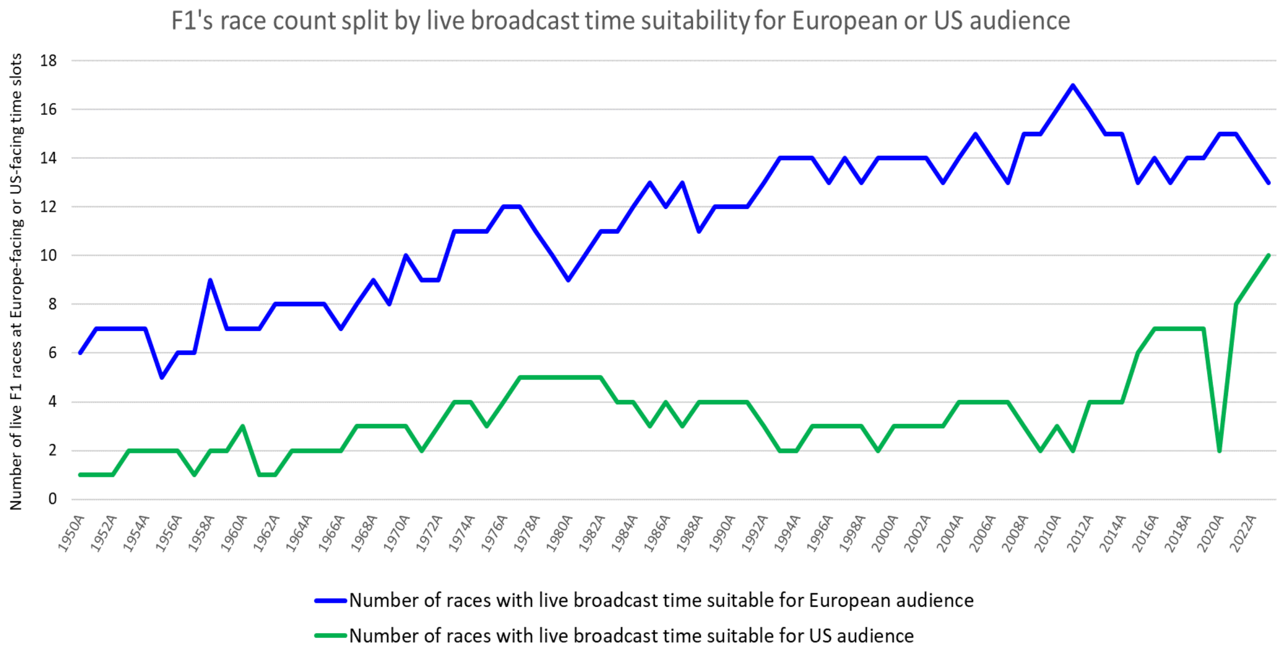
Such a path, whereby F1 would displace the economics from its existing race promoter partners, would incur frictional cost if F1 were to attempt this route in regions where it has achieved high penetration, for example in Europe and Asia. However, for a market with low penetration, such as the US, the route to F1 operating at the race promoting level offers F1 a far more profitable path than it has achieved in other regions, as well as direct control over the organisation of the race events.

In 2022, F1 signed a 10-year deal with the state of Nevada for a Las Vegas street race, in which F1 will act in the more profitable role as race promoter, and therefore collect the entirety of event-related revenues, estimated at $0.5bn per Grand Prix. Consensus estimates are for F1 to achieve a net profit from the Vegas race of $75m in its first year (i.e. more than double F1's average race promotion fee of $36m), growing to surpass $100m per annum thereon[42].

F1 has indicated an intent to secure additional US races over the coming years. Venues so far publicly disclosed as either under negotiation or stipulated include Manhattan[43], Indianapolis[44] and Long Beach California[45]. Introducing these additional races not only offers further economic uplift to F1, but also results in up to 13 races with US air times, from only 10 races in 2023 (including Latin American and Canadian races, and the Saudi Arabia, Bahrain and Abu Dhabi evening races, whose broadcast slot also places them within US time suitability). This scenario provides for successful broadcast revenue uplift as the product better suits the American audience.

There also is no reason why F1 cannot at the same time shift several of its key European races from 2pm to 6pm local race start times, making them more suitable for US prime time viewing[46]. In combination, these options available to F1 would readily provide for a scenario of more than 15 US time suited races in the future, which would be more US time suitable races per annum than the entire F1 series held globally 1960-1980[47] and allow significant US-audience capture.

Figure 9: Historically, F1 race times have been organised to target a European audience. However, more recently an increasing number of US-time suitable races have been agreed, and there is no reason why this cannot be accompanied by a shifting of key European races to later start times, making them suitable for US audience daytime viewing and European evening viewing[48]



US market penetration provides for F1 to achieve significant broadcast revenue and sponsorship revenue uplift

It is the broadcast economics available to F1 in the US penetration scenario however that offers the more dramatic transformation scenario – and to give a sense of the monetisation potential – the US National Football League in 2021 negotiated a US broadcast contract paying it $10bn per annum[49]. The comparison to NFL broadcast revenues is not unreasonable: F1 has three quarters of the viewership for every Grand Prix as the NFL achieves at its peak with the Super bowl, and, whilst F1's overall viewership has already shifted from stability to growth, NFL's viewership levels are stagnant to declining[50].

However, in considering a more conservative base case estimate for the broadcast revenues achievable we can look to the broadcast equivalents achieved by F1 as a percent of total sports broadcast revenues on each ex-US per country basis. As can be seen from Figure 10 below, in the UK, Germany and Italy, F1 typically achieves broadcast revenues in the region of 6% of the total sports broadcast revenues of each country. For the US, this would imply a prospective broadcast revenue of $1.25bn per annum, and result in the US broadcast revenues rising to close to 50% of F1's total global broadcast revenues.

Figure 10: F1 typically achieves broadcast revenues in the region of 6% of the total sports broadcast revenues of each country. For the US, this would imply a prospective broadcast revenue of $1.25bn per annum[51]

United States	Avg. annual price $m	%
NFL	9,727.0	46.5%
NBA	2,613.0	12.5%
Olympics - Summer	1,516.0	7.3%
MLB	1,785.0	8.5%
NCAA	1,098.0	5.3%
Olympics - Winter	1,033.0	4.9%
NASCAR	822.0	3.9%
PGA Tour	681.0	3.3%
World Cup	637.0	3.0%
NHL	576.0	2.8%
Premier League	167.0	0.8%
MLS	250.0	1.2%
	20,905.0	100.0%
Formula 1 (prospective)	1,254.3	6.0%

United Kingdom	Avg. annual price $m	%
Premier League	1,548.0	56.3%
UEFA	400.0	14.6%
ECB	170.0	6.2%
Formula 1	167.0	6.1%
FIFA World Cup	120.0	4.4%
Football League	119.0	4.3%
GA Cup	52.0	1.9%
Six Nations Rugby	50.0	1.8%
Wimbledon Tennis	42.0	1.5%
Super League Rugby	40.0	1.5%
La Liga	20.0	0.7%
ATP Masters	10.0	0.4%
US Open Tennis	6.0	0.2%
NFL	3.0	0.1%
NBA	2.0	0.1%
	2,749.0	100.0%

Germany	Avg. annual price $m	%
Bundesliga	1,100.0	68.7%
UEFA	200.0	12.5%
FIFA World Cup	200.0	12.5%
Formula 1	90.0	5.6%
Premium League	12.0	0.7%
	1,602.0	100.0%

Italy	Avg. annual price $m	%
Serie A	973.0	72.2%
UEFA	267.0	19.8%
Formula 1	93.0	6.9%
Premier League	14.0	1.0%
	1,347.0	100.0%

By comparison the US stock car race series Nascar has broadcast revenues of $822m per year[52]. However, the Nascar deal was struck from 2015 and expires next year. Since 2015, broadcast rights have, on average, compounded in value by 12% per year[53]. Assuming the same compounding is applied to Nascar's broadcast contract – with 2019 as the mid-point year of its ten year duration – a $1.3bn figure is also outputted as to a reasonable estimate of the renegotiation value upon next year's renewal.

Successful US market entry also provides for greater sponsorship revenue for F1. For conservatism, assuming F1's US sponsorship revenue rises – as F1 achieves greater US viewership – by 20% of that of the average of the US sponsorship revenues of NFL and NBA, this results in a rise in F1 sponsorship revenue to $989m by FY2026, from an estimated $553m in FY2023.

Incorporating these inputs relating to US broadcast revenues, and sponsorship, into existing F1 consensus estimates results in a cashflow equivalent net income for F1, assuming the US penetration scenario, rising from $807m in FY2024 to $1.5bn in FY2026 and implying a cashflow equivalent PE ratio of 12x, or an approximate 40% discount to the PE ratio of the S&P500. This PE ratio thereon would fall to 9.8x if F1's gross $1.6bn cash position at YE2026 were paid as dividend to shareholders and as such the post-dividend market capitalisation of the company reduced by the size of this dividend.

Re-leverage potential thereon accretes further F1's earnings relative to its market capitalisation

However, and as noted, under CVC, as well as immediately following Malone's acquisition of control of F1, the long-term contracted nature of F1's revenues enabled not simply the above level of special dividend relating to F1's surplus gross cash, but net debt as high as 7.2x F1's EBITDA. For our analysis we assume a more conservative re-leverage to 4x net debt to EBITDA, which, combined with F1's higher EBITDA in line with the US penetration estimates so far detailed, would instead enable a special dividend at YE2026 of $8.2bn, or half of F1's current $16.5bn market capitalisation.

The implication of the re-leverage on F1's profitability is of course increased interest charges, which reduce the cashflow equivalent net income, assuming FY2026, to $1,200m[54]. However, this still implies a cash PE ratio as low as 7x relative to F1's post special dividend market capitalisation.

This valuation, of course, compares to the current PE ratio of the S&P500, at 20x, and as such might be considered as indicating conservative pricing for F1, particularly given F1's far superior business characteristics to most US businesses. However, in this context, it is also reasonable to ask what valuation multiple should be contended as the reasonable base case for a close-to-monopoly sports rights owner such as F1, combined with its universal appeal and global growth characteristics.

As a white paper we make no contention in response to this question, however, it is observable that as the world becomes more polarised – sports rights appear to be achieving a differentiated value status as they remain one of the few events or broadcasts that can aggregate tens of millions of people in one place at one time. As such, sports rights seem to be beginning to possess a super-premium aggregator value (either in their value for political advertising, or for their purchase by platform companies such as Apple or Amazon). This can already be observed in the increasing premium valuations attached to sports rights, their value compounding having significantly exceeded index performance, as the polarisation of the modern world has increased over the last 20 years.

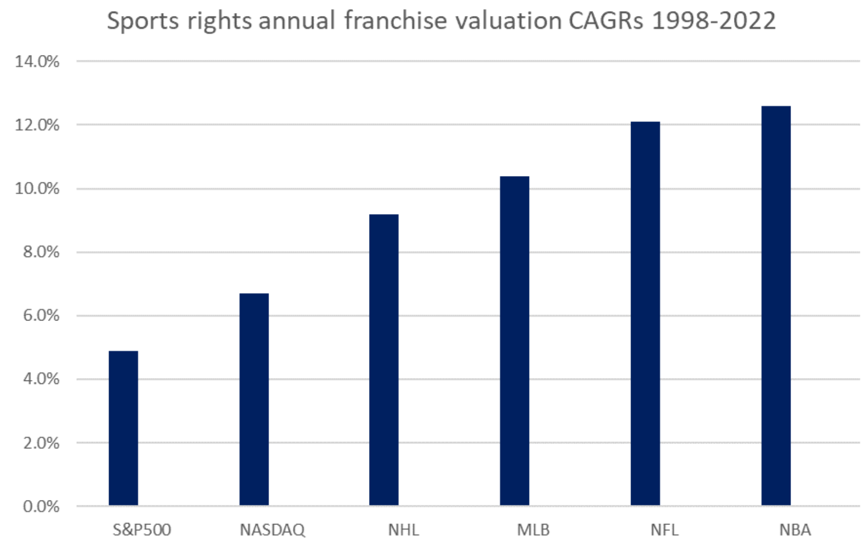
> *"As the world fragments, we [sports rights] actually become more valuable because we are one of the only things left that can aggregate tens of millions of people in one place at one time."*
>
> Brian Rolapp, NFL's head of media, September 2018[55]

Since 1998, the Forbes annual sports franchise valuation publication has reviewed valuations for the four major U.S. sports leagues (NBA, NFL, MLB, and NHL)[56]. These annual valuation lists incorporate qualitative value judgements by Forbes' analysts as well as input from multiple-of-revenue transaction multiples when equity sales occur at the sports league team level.

According to the Forbes analysis, the average annual US sports league valuation's compound annual growth rate over 1998-2022 has been, for the NBA 12.6%, NFL 12.1%, MLB 10.4%, and NHL 9.2%, and all outperformed the S&P 500 4.9% and NASDAQ 6.7% compounding rates over the same period. Revenue growth was only responsible for 37% of the increased average franchise value for the NFL, 25% for NBA, 30% for MLB, and 38% for NHL. By contrast, the increase in the average revenue multiple per franchise over 1999-2022 for the NFL was 3.5x to 8.3x, NBA 2.6x to 8.3x, MLB 2.5x to 6.4x, and NHL 2.6x to 5.4x, and was the primary valuation driver.

In May this year, Washington Commanders owner Dan Snyder sold the franchise to a group led by Philadelphia 76ers owner Josh Harris for $6.1bn[57] which represents an 11.1x revenue multiple on Forbes 2022 estimates. By comparison, F1 trades at just 5.0x consensus revenues FY2024, and at just 2.6x revenues FY2026 assuming our estimates for the successful US market penetration scenario[58].

Figure 11: the average annual U.S. sports league valuation compound annual growth rate over 1998-2022 has been, for the NBA 12.6%, NFL 12.1%, MLB 10.4%, and NHL 9.2%, and all outperformed the S&P 500 4.9% and NASDAQ 6.7% compounding rates over the same period[59]



Footnotes

1. For our first in-depth review of Formula One – see SSF shareholder letter April 2021
2. The Visionary Strategist: Bernie Ecclestone and the Birth of Formula 1 (link)
3. How Bernie Ecclestone Steered F1 To Make $1 Billion More Than Star Wars, Forbes (link)
4. 1999: Ecclestone 'richer than the Queen', BBC (link)
5. CVC Capital to Buy Majority Stake In Formula One, WSJ (link)
6. Liberty Media slides relating to acquisition of F1, slide 20, F1's net debt was 7.2x EBITDA (link)
7. CVC's ROI on F1 was over 1,000%, making it the most profitable deal in the investment house's 34-year history, Guardian (link)
8. Source: Centre for Research in Security Prices (CRSP) and TCI annual reports
9. John Malone controls 97% of Formula One's super voting "B" shares, and through this structure controls a 51% voting interest in F1, source: Bloomberg
10. Source: Bloomberg consensus estimates
11. Saudi Arabia Explored Bid to Buy F1 for Over $20 Billion, Bloomberg (link)
12. F1's non-cash amortisation $353m, depreciation $31m, capex $45m (FY2023E, ex one-off Las Vegas capex), source: corporate disclosures, Odey Research
13. Source: Odey Research
14. Formula 1: All 10 teams sign new Concorde Agreement, committed until 2025, Sky Sports (link)
15. Source: Forbes, F1, Berenberg;
16. Measuring competitive balance in F1, Ilmenau University of Technology (link)
17. Aerodynamic Study of the Wake Effects on a Formula 1 Car (link)
18. 2021 F1 Rules: The Key Changes Explained (link)
19. How Aston Martin got back on track in Formula One, GQ (link)
20. Source: Company data, Morgan Stanley Research
21. Formula 1 announces TV, race attendance and digital audience figures for 2021 (link)
22. Formula One Q1 2023 earnings conference call, source: Capital IQ
23. F1's unique social and digital media engagement growth exceeds the growth of all other marque sports franchises including the UFC (link)
24. Source: Company data, Morgan Stanley Research
25. Source: Formula One corporate disclosures
26. Verstappen, Red Bull Racing see huge social media spike during F1 season (link)
27. Mercedes, Ferrari or Red Bull: Here's the list of most followed Formula 1 teams on social media (link)
28. Source: UK Companies House
29. The most watched show on Netflix in 2022 in more than 33 countries, including the US, was F1's Drive to Survive (link)
30. F1 prepares for Brad Pitt movie action, ESPN (link)
31. F1 Beyond The Grid podcast - over 30 million listeners worldwide (link)
32. Leclerc, Albon and Russell join F1 Esports Virtual Grand Prix (link)
33. F1 has the greatest proportion of under 25s of all global sports leagues, 62% of new fans are under 35 (link)
34. Source: Odey Research
35. Source: broadcast viewership disclosures, Nascar and Indycar
36. Worldwide F1 race times in US timezones (link)
37. F1's 2022 US GP sets new record with 440k fans at COTA (link)
38. No Nascar nor Indycar race has attendance exceeding 350,000, and most have significantly below this figure (link)
39. Source: broadcast viewership disclosures, Nascar and Indycar
40. Source: F1 broadcast disclosures and attendance disclosures
41. Source: F1 race promotion revenues, corporate disclosures, Odey Research
42. Source: Cowen Las Vegas GP economic estimates
43. Christian Horner: F1 race in New York 'would be amazing' (link)
44. Penske would "love" for F1 to return to Indianapolis (link)
45. Long Beach Considering Hosting Formula One Race (link)
46. A shift away from a 2pm schedule to 3pm was also brought about because F1 owners Liberty Media felt it would boost US television audiences (link)
47. Source: F1 disclosures, list of all Formula One seasons (link)
48. Odey Research aggregation of all Formula One seasons
49. N.F.L. Signs Media Deals Worth Over $100 Billion, NYTimes (link)
50. NFL Superbowl viewership 2021 95m, in decline since 2015 (link), average F1 Grand Prix viewership 2021 70m (link)
51. Broadcast revenue disclosures per country per sport, source: corporate, public domain disclosures
52. Fox and NBC currently pay a combined US$820 million annually for Nascar broadcast rights (link)
53. Broadcast revenue disclosures, source: corporate, public domain disclosures, Odey Research aggregation
54. Source: Odey Research
55. Brian Rolapp, NFL's head of media, September 2018, speaking to Bloomberg (link)
56. Forbes: The World's 50 Most Valuable Sports Teams 2022 (link)
57. Billionaire Josh Harris Buys Washington Commanders, Ending Dan Snyder's Controversial Run (link)
58. Source: Bloomberg consensus valuation estimates, Odey Research estimates
59. Forbes: The World's 50 Most Valuable Sports Teams 2022 (link)

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