

Buy

Safran (SAF.PA)

Embarking on a superior growth and cash cycle; Buy, add to CL

SAF.PA 12m Price Target: €150.00 Price: €100.76 Upside: 48.9%

Multi-industry toolkit
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We add Buy-rated Safran to our Conviction List following its strong 1H earnings release and the better-than-anticipated evolution of Narrow Body traffic outside of China this year. Safran is still at the early stage of a very steep recovery in profitability, and we would expect meaningful upgrades to consensus estimates to drive the shares higher in the coming quarters as the company continues to exceed expectations in terms of margin expansion and cash generation.

The key drivers of our conviction thesis include:

- **Our new proprietary GS Flight Cycle Model which drives our above-consensus view**, screening aircraft for shop visits based on completed flight cycles. This detailed bottom-up model drives our above-consensus shop visit volumes view, GSe +47%/+19% for civil aftermarket growth in 2023/24 vs. Visible Alpha Consensus Data +19%/+13%. We think looking at flight cycles - as opposed to engine age more commonly - better captures the likely number of overhauls and may prove even more relevant considering the impact of pent-up demand resulting from low flight activity and asset optimisation in 2020/21 and consequent delays in service that cannot be further pushed due to regulatory maintenance requirements. Civil aftermarket is a key driver of EBIT expansion for the group given drop-through margin of c.30%, and accounts for c.2/3 of 2022-25E earnings. We are >15% ahead of consensus EBIT in 2023/24/25 and forecast Safran reaching an 18.2% EBIT margin in 2025 vs consensus at 17.3%.

Daniela Costa
+44(20)7774-8354 | daniela.costa@gs.com
Goldman Sachs International

Victor Allard
+44(20)7774-5073 | victor.allard@gs.com
Goldman Sachs International

Olivia Charley
+44(20)7051-7638 | olivia.charley@gs.com
Goldman Sachs International

Navya Singhal
+1(212)934-9391 | navya.singhal@gs.com
Goldman Sachs India SPL

Key Data

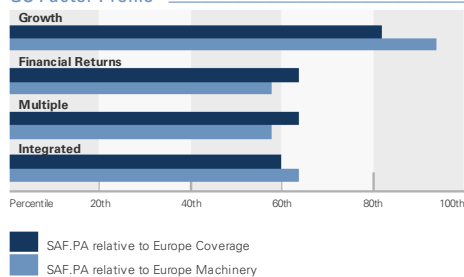
Market cap: €43.0bn / \$43.1bn
Enterprise value: €40.4bn / \$40.3bn
3m ADTV: €66.3mn / \$68.1mn
France
Europe Machinery
M&A Rank: 3
Leases incl. in net debt & EV?: Yes
Pan Europe Conviction List

GS Forecast

	12/21	12/22E	12/23E	12/24E
Revenue (€ mn) New	15,257.0	18,882.8	23,334.8	25,872.9
Revenue (€ mn) Old	15,257.0	18,510.2	21,631.7	23,805.6
EBIT (€ mn)	1,805.0	2,523.3	3,537.8	4,373.5
EPS (€) New	1.78	4.15	5.93	7.39
EPS (€) Old	1.78	4.14	5.85	7.40
P/E (X)	64.1	24.3	17.0	13.6
Dividend yield (%)	0.4	1.6	2.4	2.9
CROCI (%)	7.5	9.8	12.5	13.8
N debt/EBITDA (ex lease,X)	0.6	(0.3)	(0.5)	(0.6)

	6/22	12/22E	6/23E	12/23E
EPS (€)	1.29	2.86	2.19	3.74

GS Factor Profile



Source: Company data, Goldman Sachs Research estimates. See disclosures for details.

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Safran (SAF.PA)
Rating since Jan 14, 2020

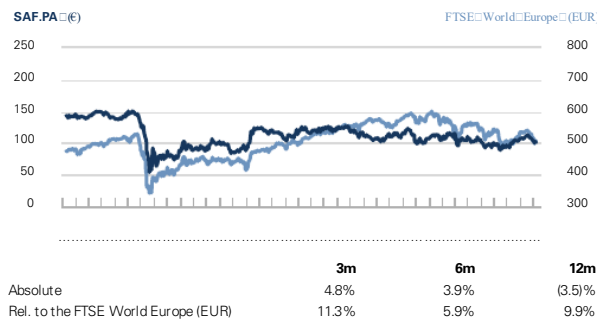
Ratios & Valuation

	12/21	12/22E	12/23E	12/24E
EV/sales (X)	3.2	2.1	1.7	1.5
EV/EBITDAR (X)	17.5	11.5	8.3	6.8
EV/EBITDA (excl. leases) (X)	17.5	11.5	8.3	6.8
EV/EBIT (X)	60.0	20.4	13.5	10.4
P/E (X)	64.1	24.3	17.0	13.6
Dividend yield (%)	0.4	1.6	2.4	2.9
EV/GCI (X)	1.6	1.3	1.2	1.1
CROCI (%)	7.5	9.8	12.5	13.8
ROIC (%)	2.9	12.8	18.6	22.7
ROA (%)	0.5	3.6	4.9	5.9
Days inventory outst, sales	123.6	103.7	93.6	90.1
Asset turnover (X)	3.3	4.2	5.2	5.7
Capex/D&A (%)	54.8	72.8	77.0	83.2
Net debt/equity (excl. leases) (%)	11.8	(6.8)	(13.5)	(18.5)
EBIT interest cover (X)	1.4	26.5	43.6	62.8
FCF cover of dividends (X)	8.1	4.0	2.3	2.2

Growth & Margins (%)

	12/21	12/22E	12/23E	12/24E
Total revenue growth	(9.0)	24.8	23.6	10.9
EBITDA growth	(5.5)	55.9	34.9	18.6
EBIT growth	(6.8)	146.3	47.7	26.6
Net inc. growth	(10.0)	133.2	42.7	24.7
EPS growth	(10.1)	133.2	42.7	24.7
DPS growth	16.3	232.3	42.7	24.7

Price Performance



Source: FactSet. Price as of 5 Sep 2022 close.

Income Statement (€ mn)

	12/21	12/22E	12/23E	12/24E
Total revenue	15,133.0	18,882.8	23,334.8	25,872.9
Total operating expenses	(7,999.0)	(10,385.5)	(12,834.1)	(14,230.1)
R&D	(678.0)	(813.6)	(1,029.0)	(1,108.3)
Other operating inc./exp.)	(5,592.0)	(5,555.4)	(6,328.8)	(6,556.0)
EBITDA	2,244.0	3,497.3	4,717.9	5,595.5
Depreciation & amortisation	(1,380.0)	(1,369.0)	(1,575.1)	(1,617.1)
EBIT	864.0	2,128.3	3,142.8	3,978.5
Net interest inc./exp.)	(596.0)	(80.3)	(72.2)	(63.4)
Income/(loss) from associates	-	-	-	-
Profit/(loss) on disposals	-	-	-	-
Total other net	-	-	-	-
Pre-tax profit	268.0	2,048.0	3,070.7	3,915.1
Provision for taxes	(200.0)	(532.5)	(798.4)	(1,017.9)
Minority interest	(25.0)	(25.0)	(25.0)	(25.0)
Preferred dividends	-	-	-	-
Net inc. (pre-exceptionals)	43.0	1,490.5	2,247.3	2,872.2
Post-tax exceptionals	717.0	281.9	281.9	281.9
Net inc. (post-exceptionals)	760.0	1,772.4	2,529.3	3,154.1
EPS (basic, pre-exception) (€)	0.10	3.49	5.27	6.73
EPS (basic, post-exception) (€)	1.78	4.15	5.93	7.39
Wtd avg shares out. (basic) (mn)	426.7	426.7	426.7	426.7
Tax rate (%)	74.6	26.0	26.0	26.0
Common dividends declared	213.3	709.0	1,011.7	1,261.7
DPS (€)	0.50	1.66	2.37	2.96

Balance Sheet (€ mn)

	12/21	12/22E	12/23E	12/24E
Cash & cash equivalents	5,247.0	7,807.3	8,915.2	9,903.7
Accounts receivable	6,504.0	6,797.8	8,400.5	9,314.2
Inventory	5,063.0	5,664.8	6,300.4	6,468.2
Other current assets	3,769.0	4,228.2	4,773.3	5,084.1
Total current assets	20,583.0	24,498.1	28,389.3	30,770.3
Net PP&E	4,543.0	4,487.6	4,514.3	4,606.9
Net intangibles	13,450.0	13,165.6	12,810.2	12,479.0
Total investments	1,969.0	1,969.0	1,969.0	1,969.0
Other long-term assets	1,171.0	1,171.0	1,171.0	1,171.0
Total assets	41,716.0	45,291.3	48,853.9	50,996.1
Accounts payable	4,950.0	5,556.8	6,829.2	7,633.7
Short-term debt	1,720.0	1,720.0	1,720.0	1,720.0
Short-term lease liabilities	-	-	-	-
Other current liabilities	13,158.0	14,724.3	15,851.1	15,953.5
Total current liabilities	19,828.0	22,001.1	24,400.3	25,307.1
Long-term debt	5,094.0	5,094.0	5,094.0	5,094.0
Long-term lease liabilities	-	-	-	-
Other long-term liabilities	3,524.0	3,644.0	3,764.0	3,884.0
Total long-term liabilities	8,618.0	8,738.0	8,858.0	8,978.0
Total liabilities	28,446.0	30,739.1	33,258.3	34,285.1
Preferred shares	-	-	-	-
Total common equity	12,841.0	14,098.2	15,115.5	16,207.0
Minority interest	429.0	454.0	479.0	504.0
Total liabilities & equity	41,716.0	45,291.3	48,853.9	50,996.1
Capital employed	20,084.0	21,366.2	22,409.5	23,525.0
Adj for unfunded pensions & GW	-	-	-	-

Cash Flow (€ mn)

	12/21	12/22E	12/23E	12/24E
Net income	43.0	1,490.5	2,247.3	2,872.2
D&A add-back	1,380.0	1,369.0	1,575.1	1,617.1
Minority interest add-back	-	-	-	-
Net (inc)/dec working capital	250.0	818.3	(384.1)	(485.6)
Other operating cash flow	763.0	125.0	125.0	125.0
Cash flow from operations	2,436.0	3,802.8	3,563.3	4,128.7
Capital expenditures	(756.0)	(996.2)	(1,213.4)	(1,345.4)
Acquisitions	(33.0)	(33.0)	(33.0)	(33.0)
Divestitures	-	-	-	-
Others	51.0	-	-	-
Cash flow from investing	(738.0)	(1,029.2)	(1,246.4)	(1,378.4)
Repayment of lease liabilities	-	-	-	-
Dividends paid (common & pref)	(188.0)	(213.3)	(709.0)	(1,011.7)
Inc/(dec) in debt	4.0	-	-	-
Other financing cash flows	(19.0)	0.0	(500.0)	(750.0)
Cash flow from financing	(198.0)	(213.3)	(1,209.0)	(1,761.7)
Total cash flow	1,500.0	2,560.3	1,107.9	988.6
Reinvestment rate (%)	34.6	33.4	30.7	29.2

Source: Company data, Goldman Sachs Research estimates.

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- **Above-consensus view on civil aftermarket is supported by resilience of traffic recovery.** Safran reported a strong 2Q, posting growth of +41% y/y in civil aftermarket vs our expectations of +28%, despite pressure on Chinese shop visits from lockdowns. This emphasises the strength of underlying demand as traffic continues to recover from the pandemic. While we acknowledge the market is focused on recession risk to traffic, we see this as limited – our downside sensitivity analysis shows a decline in traffic growth of the magnitude observed during the GFC drives EPS only -5% below our current forecasts for FY23/24. Latest data shows that we are still notably below pre-pandemic levels of traffic (at around 70% of 2019 levels), acting as a buffer to recession risk. Safran also have exposure to the fastest recovering and more insulated areas of traffic (short-haul, intra-continental rather than long-haul international).
- **We see near-term catalysts for the stock.**
 - **Potential for strong 4Q in Civil Aftermarket due to catalogue price hike.** On top of this, Safran hike spare parts pricing once a year at their catalogue review. This usually drives re-stocking for parts in 4Q before new prices come into effect in December. We would expect this effect to be even more material this year as pricing increases are likely to be even higher than usual due to cost inflation – potentially driving a bumper 4Q in aftermarket spare parts. We are 9pp ahead of consensus 4Q estimates for civil aftermarket growth and 7% at EBIT.
 - **Capital Allocation – buyback announcement likely.** We view potential for a share buyback in light of the company's superior FCF generation and very low leverage – we see room for €2bn worth of share repurchases through 2025, starting with €500mn in 2023, leading to a cash return yield of 2.8% vs. 1.9% for A&D peers next year. Management had originally suggested this announcement could come in 1H22; however, we now expect this announcement in 2H22 (or at FY22 results).

Our 12m price target moves to €150 (from €134 previously), implying 47% upside, on the back of our higher estimates and valuation roll-forward. We see valuation as compelling vs. our broader multi-industry coverage owing to more depressed comparables, also driving lower-than-sector-average PEG ratios, despite having one of the most favourable rankings in our sector screens.

Exhibit 1: Company snapshot

Data as of 2021 unless otherwise specified

Segment	Aerospace Propulsion	Aircraft Equipment, Defence and Aerosystems (AEDAS)	Aircraft Interiors
Products & Services	Manufactures engines powering single-aisle mainline commercial jets* and helicopter turbine engines. Safran is also a prime contractor for the Ariane 5 and Ariane 6 launchers.	Produces landing gear, wheels and carbon brakes for 100+ seater civil aircraft, electrical wiring, evacuation slides and oxygen systems.	Designs cabin interiors for regional and business aircraft cabin liners, galleys, trolleys, containers, onboard and waste management systems.
Demand Drivers	Passenger air travel demand, evolution of the in-service fleet, replacement and obsolescence of existing fleets, airline pricing policies, fuel price, and market evolutionary factors.	Passenger air travel demand, replacement and upgradation of existing equipment, national strategic and budgetary policies, and various other geopolitical factors.	Passenger air travel demand, airline pricing policies, replacement and obsolescence of existing fleets, market evolutionary factors.
Revenues (€ bn) and % of total	7.4 49%	6.3 42%	1.5 10%
Adj. EBITA (€ mn) and % of total	1,342 74%	650 36%	-167 -9%
Adj. EBITA margin (%)	18.0%	10.3%	-11.3%
Revenues & Adj. EBITA Split	<p>Revenues</p> <ul style="list-style-type: none"> Aerospace Propulsion: 42% AEDAS: 10% Aircraft Interiors: 49% <p>Operating profit</p> <ul style="list-style-type: none"> Aerospace Propulsion: 36% AEDAS: -9% Aircraft Interiors: 74% 	<p>Sales Geo exposure</p> <ul style="list-style-type: none"> France: 23% Europe (excl. France): 16% Americas: 33% Asia and Oceania: 21% Africa & Middle East: 7% 	<p>Est. Engine Sales Exposure (FY19)</p> <ul style="list-style-type: none"> Airbus: 2% Boeing: 32% Dassault Aviation (Rafale): 49% Other: 17%
Competitors	Pratt & Whitney, MTU Aero Engines, Japanese Aero Engines Corporation, Lufthansa Technik, Honeywell and Rolls-Royce	GE, Rolls-Royce, Collins Aerospace, GKN, Liebherr, Meggitt, Parker Hannifin, Hensoldt, Thales and Transdigm	Boeing, AVIC, Diehl, Collins Aerospace, JAMCO, RTHales and Bucher
Market position	Global #1* in commercial jet engines	Global #2 in Aircraft instruments and Electromechanical Parts (15% market share)	Among world leaders (20% market share)
2022 Financial Targets (as of July 2022)	Revenue: €18.2bn to €18.4bn; EBITA margin: c.13%; Free cash flow: c.€2.4bn; Leverage: a net debt-to-EBITDA ratio below 1x; Capital allocation policy: a dividend payout ratio of 40%		
Split of revenue (OE vs. Services)	<ul style="list-style-type: none"> OE: 38% Services: 62% 	<ul style="list-style-type: none"> OE: 34% Services: 66% 	<ul style="list-style-type: none"> OE: 28% Services: 72%

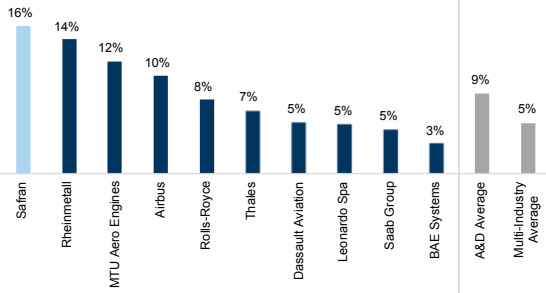
*In partnership with GE, under the CFM International joint venture.

Source: Company data, Goldman Sachs Global Investment Research

Our thesis in 11 key charts

Exhibit 2: Safran has the highest topline growth potential in the space...

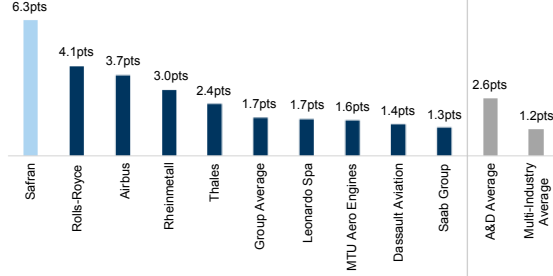
Organic Sales CAGR '21-25E



Source: Goldman Sachs Global Investment Research

Exhibit 3: ... and we forecast the greatest margin expansion potential in the cycle ahead ...

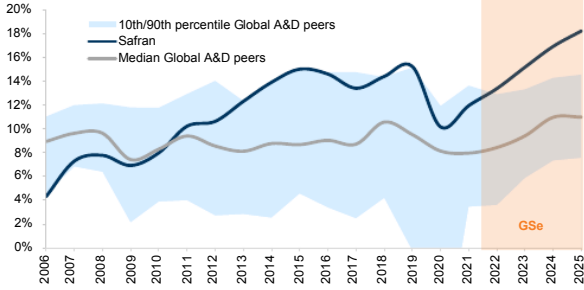
EBIT margin expansion '21-25E



Source: Goldman Sachs Global Investment Research

Exhibit 4: ... consistent with the group reaching an 18%+ margin by 2025 ...

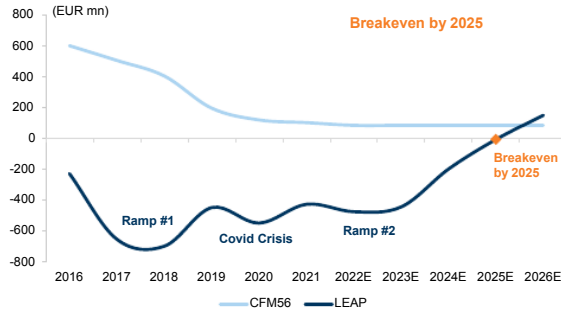
EBIT margin



Source: Company data, Goldman Sachs Global Investment Research

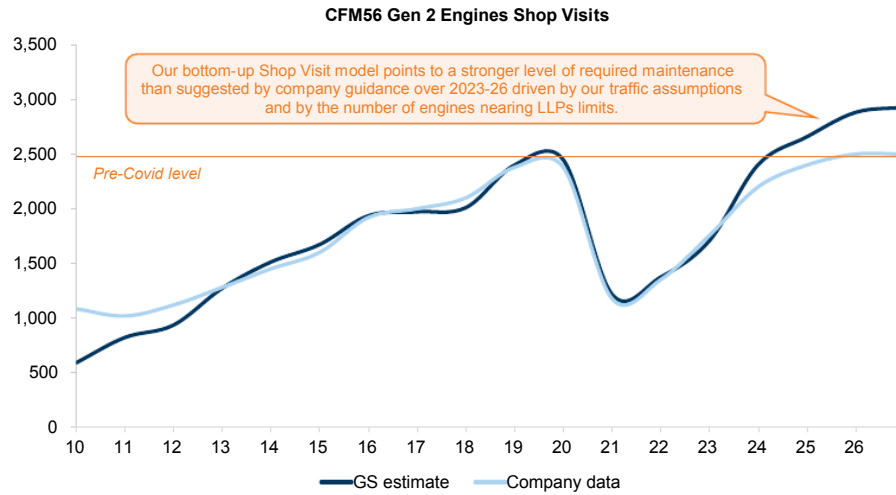
Exhibit 5: ... supported by the profitability of LEAP OE turning a corner from 2024 onward ...

Annual OE EBIT contribution (€ mn)



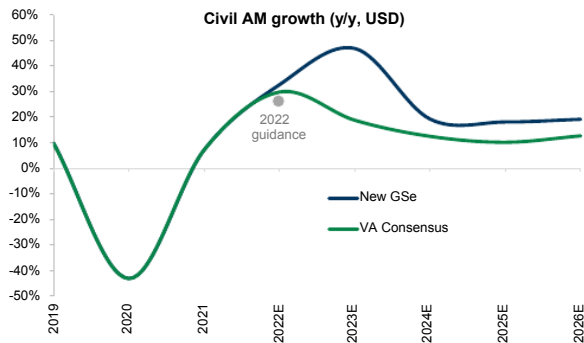
Source: Goldman Sachs Global Investment Research

Exhibit 6: ... and largely driven by strong pent-up engine maintenance ahead - as suggested by our bottom-up civil aftermarket build ...



Source: Cirium, Company data, Goldman Sachs Global Investment Research

Exhibit 7: ... leading us to expect higher top-line growth in aftermarket than consensus and guidance - even with conservative assumptions on pricing (c.4%) ...



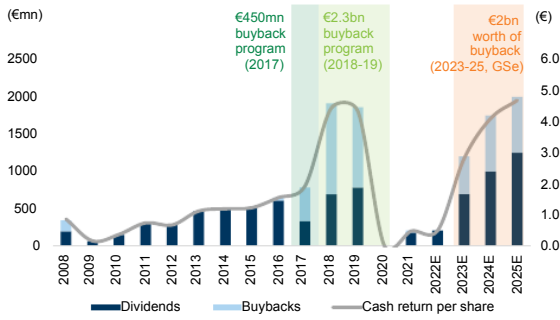
Source: Visible Alpha Consensus Data, Goldman Sachs Global Investment Research

Exhibit 8: ... which is unsurprising given Safran's track record of guiding conservatively



Source: Company data, Goldman Sachs Global Investment Research

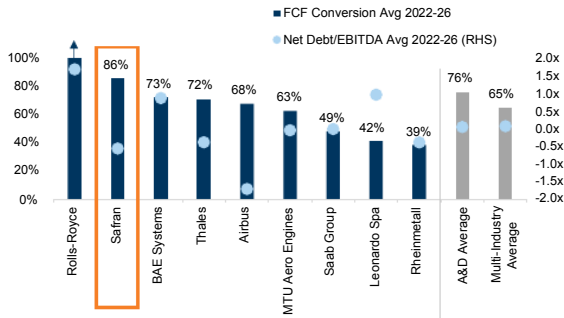
Exhibit 9: We see room for share repurchases through 2025 on top of healthy dividend growth ...



Historical buyback figures reflect the ones advised in the Annual Report and include the reallocation of shares associated with OCEANE bonds to the €2.3bn buyback program.

Source: Company data, Goldman Sachs Global Investment Research

Exhibit 11: ... with one of the healthiest financial profiles in the sector ...

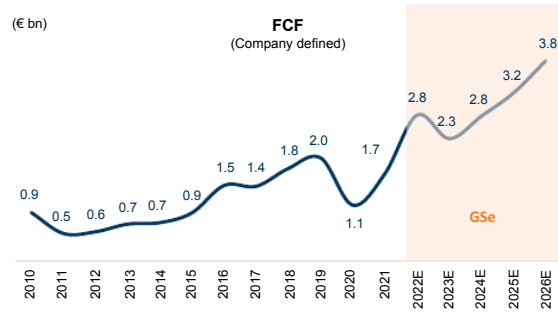


EBIT to FCF conversion

Source: Goldman Sachs Global Investment Research

Exhibit 10: ... as Safran enters the cash harvesting phase of the product cycle ...

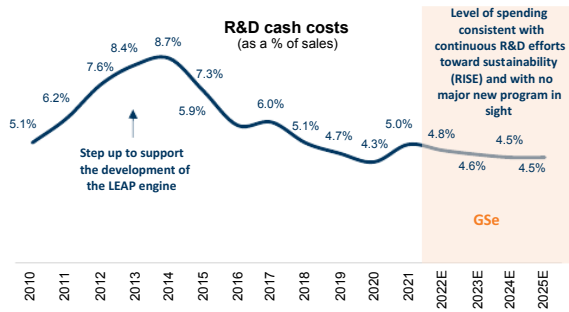
Company defined FCF, € bn



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 12: ... and with no launch of new aircraft program over the medium term

R&D cash costs (P&L-expensed and Capitalised) expressed as a % of sales



Source: Company data, Goldman Sachs Global Investment Research

PM Summary

We add Buy-rated Safran to our Conviction List following its recent strong 1H earnings release and the better-than-anticipated evolution of Narrow Body traffic outside China this year. In our view, the combination of higher aftermarket profits and the ongoing product cycle transition from CFM56 to LEAP means Safran is at the juncture of a secular cash harvesting period enabled by the successful development and entry in service of the LEAP engine.

Safran screens as set to deliver the best operating performance in our Multi-Industry coverage over the medium term. We forecast organic sales CAGR of 16% through 2025E largely driven by the ongoing swift recovery in the Civil Aftermarket and second ramp-up in LEAP OE. These two elements drive c.80% of incremental EBIT for the group over 2021-25E, equivalent to 510bps of group margin improvement. This step-up change in Aerospace Propulsion profitability, taken together with healthy improvements in Equipment and a recovery of the Aircraft Interiors division, takes our group EBIT to €5.2bn, EPS to €8.8 and FCF per share to €7.6 in 2025E; this leaves us 19%/19%/4% above Visible Alpha Consensus Data.

We introduce our new proprietary GS Shop Visit model - a major driver of our differentiated view on the stock. Our estimates differ from consensus particularly in Propulsion (>30% higher at Sales/EBIT in 2025E) owing to the fact that our new Shop Visit bottom-up build suggests a significant uptick in Safran's Civil Aftermarket revenue. Our new model screens for completed flight cycles per engine and points to a strong level of required maintenance in the next few years as engines near their regulatory lifetime limits to overhaul (i.e. LLPs). We think looking at flight cycles - as opposed to other methodologies such as the age of the engine - better captures the likely number of overhauls and may prove even more relevant in the coming years considering the Covid crisis has led to lower engine utilisation than pre crisis. Our Shop Visit estimates sit 9%/17% above guidance over 2023-26, driven by our more constructive view on Narrow Body traffic - which we expect to return to trend level by 2025. In our view, demand for travel is supported by low rates of unemployment, a shift from goods to services spending and high levels of precautionary savings accumulated during the pandemic which should continue to support the industry's recovery through the remaining phases. As a result, we would expect pent-up demand for travel to outpace the potential adverse impact of a mild recession - a scenario which our US economists think would be the likeliest were we to see a recession. Furthermore, we would expect Safran to continue outperforming under such a scenario owing to the company's historically lower earnings sensitivity to GDP growth than the industry and peers.

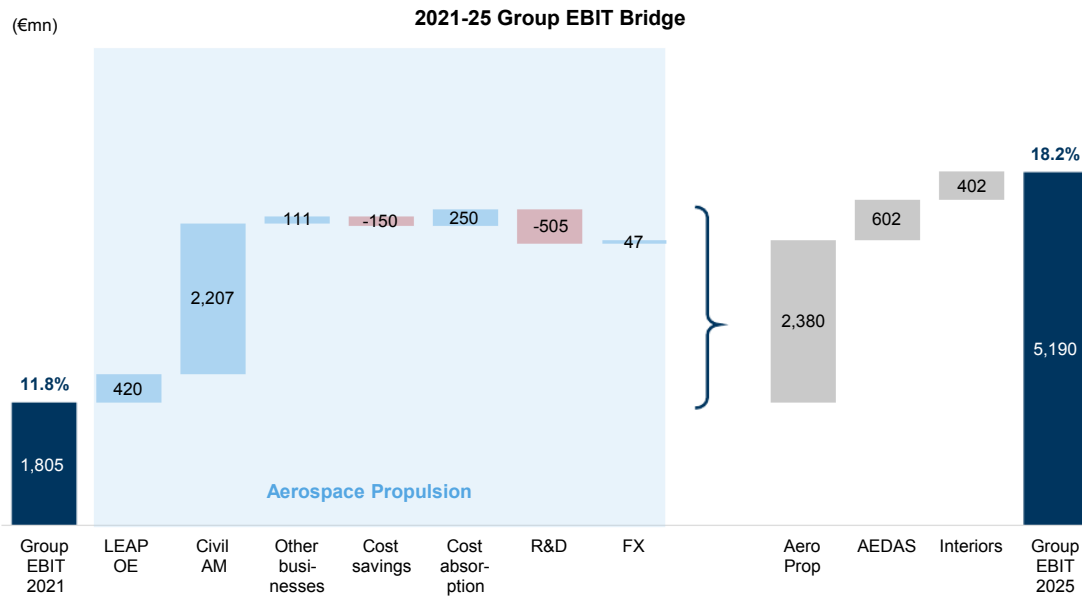
We forecast superior cash returns in the cycle ahead, leading to healthy dividend growth and share buybacks. Safran offers robust cash flow growth in the coming years with FCF set to grow by a factor of almost 2.0x by 2025E to €3.2bn, on our estimates. Strong cash generation concurrent with the build-up of a sizable net cash position leads us to expect Safran will step-up cash returns to shareholders, and we forecast €5.2 bn cash returns in 2022-25E. We expect this will be achieved through a

combination of buybacks and dividends, representing over 11% of the current market cap and equivalent to a rate of around €4 cash return per share.

Valuation - high growth potential overlooked. Safran trades in line with our Multis coverage on a 2024E EV/EBIT basis despite having one of the strongest growth profiles, in turn driving one of the most attractive PEG ratios and FCF yields in the space. We expect meaningful upgrades to consensus estimates to drive the shares higher in the coming quarters as the company continues to exceed expectations in terms of margin expansion and cash generation.

Our Safran estimates - Top 3 Multis EPS CAGR 2022-25

Exhibit 13: Our medium-term group EBIT forecast is mainly driven by higher Civil Aftermarket and improved LEAP OE



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 14: Our estimates sit well above consensus through 2025

GSe vs consensus

EUR mn (December Y/E)	Latest Cons. FY 2022E	Gse FY 2022E	Gse vs Cons. %	Guidance FY 2022E	Latest Cons. FY 2023E	Gse FY 2023E	Gse vs Cons. %	Latest Cons. FY 2024E	Gse FY 2024E	Gse vs Cons. %	Latest Cons. FY 2025E	Gse FY 2025E	Gse vs Cons. %
Revenue													
Aerospace propulsion	9,167	9,618	5%		10,816	13,337	23%	12,036	15,230	27%	13,138	17,097	30%
Equipment, Defense, Aerosystems	7,354	7,401	1%		8,291	7,951	-4%	8,948	8,412	-6%	9,467	8,902	-6%
Aircraft Interiors	1,826	1,846	1%		2,158	2,028	-6%	2,462	2,213	-10%	2,737	2,495	-9%
Group revenue	18,361	18,883	3%	€18.2-18.4bn	21,279	23,335	10%	23,460	25,873	10%	25,357	28,512	12%
EBIT													
Aerospace Propulsion	1,646	1,746	6%		2,008	2,542	27%	2,363	3,122	32%	2,774	3,722	34%
margin	18.0%	18.2%	0.2 pts		18.6%	19.1%	0.5 pts	19.6%	20.5%	0.9 pts	21.1%	21.8%	0.7 pts
Equipment, Defense, Aerosystems	844	864	2%		1,035	983	-5%	1,219	1,137	-7%	1,406	1,252	-11%
margin	11.5%	11.7%	0.2 pts		12.5%	12.4%	-0.1 pts	13.6%	13.5%	-0.1 pts	14.9%	14.1%	-0.8 pts
Aircraft Interiors	-64	-67	-4%		53	33	-38%	144	134	-7%	244	235	-3%
margin	-3.5%	-3.6%	-0.1 pts		2.5%	1.6%	-0.8 pts	5.9%	6.1%	0.2 pts	8.9%	9.4%	0.5 pts
Holding company and other	-25	-20	-21%		-23	-20	-14%	-24	-20	-17%	-25	-20	-19%
Group EBIT	2,408	2,523	5%		3,063	3,538	15%	3,702	4,373	18%	4,377	5,190	19%
margin	13.1%	13.4%	0.2 pts	c.13%	14.4%	15.2%	0.8 pts	15.8%	16.9%	1.1 pts	17.3%	18.2%	0.9 pts
FCF	2,327	2,807	21%	c.€2.4bn	2,164	2,350	9%	2,506	2,783	11%	3,113	3,229	4%
Civil AM yly sales growth (% USD)	29.8%	32.7%	2.9 pts	+25% to +30%	18.8%	46.9%	28.1 pts	12.5%	19.2%	6.8 pts	10.1%	18.1%	7.9 pts

Source: Visible Alpha Consensus Data, Goldman Sachs Global Investment Research

Exhibit 15: GSe vs. company guidance over the medium term - more constructive on Civil Aftermarket

€ mn, unless otherwise stated

Safran		2019		2021		2025E		Comments
€ mn								
Group				GSe	Guidance			
Revenue	24,640	15,257	28,512	>22,000	Figure is backed out from CAGR guidance.			
CAGR 2021-25			17%	10+%	p66 CMD21: 10+ CAGR.			
EBIT	3,820	1,805	5,190	>3,500	Figure is backed out from margin guidance and sales CAGR guidance.			
Margin	15.5%	11.8%	18.2%	16%-18%				
FCF	1,983	1,680	3,229	-				
Cumulative FCF generation across 2021-25			12,849	c.10bn	p62 CMD21 presentation.			
Average EBIT to FCF conversion across 2021-25			79%	70%				
Aerospace Propulsion			GSe	Guidance				
Revenue	12,045	7,439	17,097	>10,500	Figure is backed out from divisional EBIT guidance.			
CAGR 2021-25			23%	>9%	Figure is backed out from divisional EBIT guidance.			
EBIT	2,485	1,342	3,722	>2,100	p59 CMD21 presentation: RHS chart: c60% of EBIT.			
Margin	20.6%	18.0%	21.8%	20+%	p59 CMD21 presentation.			
LEAP OE (USD mn)			GSe	Guidance				
Deliveries (units)	1,736	845	2,246	2,000+	p77 of CMD21			
Revenue	3,212	1,656	4,860	-				
CAGR 2021-25			31%	-				
Average Cost per Engine Improvement (2021-24)			13%	>15%	p79 of CMD21 - at least 15% cost reduction from 2021 to 2024.			
EBIT	-521	-501	-8	>0	p82 LEAP OE to breakeven at the latest in 2025.			
Margin			-0.2%	>0%				
Civil AM (USD mn)			GSe	Guidance				
Revenue	5,861	3,565	9,780	6-6.5bn	GSe is recovery in 2023 vs. company guidance in 2024.			
CAGR 2021-25			29%	c.15%	p55 CMD21 presentation - c.15% CAGR 2021-25.			
% share in Civil AM revenue								
LEAP	0%	1%	16%	15%	p93 of CMD21 presentation gives an order of magnitude which IR confirmed to be sensible for Civil AM.			
Other engine programs	100%	99%	84%	85%				
AEDAS			GSe	Guidance				
Revenue	9,256	6,325	8,902	>6,500	Figure is backed out from divisional EBIT guidance.			
CAGR 2021-25			9%	>0%	Figure is backed out from divisional EBIT guidance.			
EBIT	1,209	650	1,252	>1,000	p59 CMD21 presentation: RHS chart: c30% of EBIT.			
Margin	13%	10%	14.1%	c.15%	p59 CMD21 presentation: RHS chart.			
Interiors			GSe	Guidance				
Revenue	3,321	1,475	2,495	>3,500	Figure is backed out from divisional EBIT guidance.			
CAGR 2021-25			14%	>24%	Figure is backed out from divisional EBIT guidance.			
EBIT	188	-167	235	>350	p59 CMD21 presentation: RHS chart: c.10% of EBIT.			
Margin	6%	-11%	9.4%	10+%	p59 CMD21 presentation: RHS chart.			

Source: Company data, Goldman Sachs Global Investment Research

Exhibit 16: Old vs. new Safran estimates

EUR mn	New						Old						% Change					
	2021	2022E	2023E	2024E	2025E	2026E	2022E	2023E	2024E	2025E	2026E	2022E	2023E	2024E	2025E	2026E		
Aerospace Propulsion	7,439	9,618	13,337	15,230	17,097	19,453	9,268	11,710	13,600	15,373	17,422	3.8%	13.9%	12.0%	11.2%	11.7%		
Aircraft Equipment, Defence and Aerosystems	6,325	7,401	7,951	8,412	8,902	9,488	7,375	7,716	7,968	8,323	8,660	0.4%	3.0%	5.6%	7.0%	9.6%		
Aircraft Interiors	1,475	1,846	2,028	2,213	2,495	2,701	1,849	2,036	2,220	2,503	2,680	-0.2%	-0.4%	-0.3%	-0.3%	0.8%		
Group Sales	15,257	18,883	23,335	25,873	28,512	31,661	18,510	21,632	23,806	26,284	28,888	2.0%	7.9%	8.7%	8.5%	9.6%		
		Safran guides for 18.2-18.4 in '22.						Our group sales increase mainly on the back of the revisiting of the outlook in Propulsion.										
Aerospace Propulsion	-2.9%	29.3%	38.7%	14.2%	12.3%	13.8%	24.6%	26.3%	16.1%	13.0%	13.3%	+4.7pp	+12.3pp	-2.0pp	-0.8pp	+0.5pp		
Aircraft equipment, Defence and Aerosystems	-8.2%	17.0%	7.4%	5.8%	5.8%	6.6%	16.6%	4.6%	3.3%	4.5%	4.0%	+0.4pp	+2.8pp	+2.5pp	+1.4pp	+2.5pp		
Aircraft Interiors	-23.3%	25.1%	9.9%	9.1%	12.7%	8.3%	25.4%	10.1%	9.1%	12.7%	7.1%	-0.2pp	-0.2pp	+0.1pp	-0.0pp	+1.2pp		
Group	-7.5%	23.8%	23.6%	10.9%	10.2%	11.0%	21.3%	16.0%	10.8%	10.1%	9.8%	+2.4pp	+7.5pp	+0.0pp	+0.1pp	+1.3pp		
Group organic sales growth	-1.8%	17.4%	24.1%	11.7%	10.1%	9.8%	14.8%	16.6%	11.8%	9.8%	9.6%	+2.6pp	+7.6pp	-0.1pp	+0.2pp	+0.2pp		
Aerospace Propulsion	1,342	1,746	2,542	3,122	3,722	4,751	1,730	2,421	3,128	3,789	4,512	0.9%	5.0%	-0.2%	-1.8%	5.3%		
Aircraft Equipment, Defence and Aerosystems	650	864	983	1,137	1,252	1,407	849	1,037	1,099	1,212	1,265	1.8%	-5.2%	3.5%	3.3%	11.3%		
Aircraft Interiors	-167	-67	33	134	235	308	-69	43	146	248	323	2.6%	-23.2%	-7.8%	-5.2%	-4.7%		
Group adj. EBIT	1,805	2,523	3,538	4,373	5,190	6,446	2,490	3,468	4,353	5,229	6,080	1.3%	2.0%	0.5%	-0.8%	6.0%		
		Our revisiting of cost assumptions (e.g. structural cost savings, fixed cost absorption) means typical operating leverage does not hold as part of this estimates update.																
Aerospace Propulsion	18.0%	18.2%	19.1%	20.5%	21.8%	24.4%	18.7%	20.7%	23.0%	24.6%	25.9%	-0.5pp	-1.6pp	-2.5pp	-2.9pp	-1.5pp		
Aircraft Equipment, Defence and Aerosystems	10.3%	11.7%	12.4%	13.5%	14.1%	14.8%	11.5%	13.4%	13.8%	14.6%	14.6%	+0.2pp	-1.1pp	-0.3pp	-0.5pp	+0.2pp		
Aircraft Interiors	-11.3%	-3.8%	1.6%	6.1%	9.4%	11.4%	-3.7%	2.1%	6.6%	9.9%	12.1%	+0.1pp	-0.5pp	-0.5pp	-0.5pp	-0.7pp		
Group adj. EBIT margin	11.8%	13.4%	15.2%	16.9%	18.2%	20.4%	13.5%	16.0%	18.3%	19.9%	21.0%	-0.1pp	-0.9pp	-1.4pp	-1.7pp	-0.7pp		
		Safran guides for c.13% in '22.						Safran guides for 16-18% by '25.										
Group FCF	1,680	2,807	2,350	2,783	3,229	3,845	2,287	2,930	3,642	4,352	5,038	22.7%	-19.8%	-23.6%	-25.8%	-23.7%		
		Safran guides for c.€2.4bn in '22.						The significant changes in FCF in the outer years are due to our revisiting of assumptions in our new earnings model.										
EBIT to FCF (company defined) conversion	93.1%	111.2%	66.4%	63.6%	62.2%	59.7%	91.8%	84.5%	83.7%	83.2%	82.9%	+19.4pp	-18.1pp	-20.0pp	-21.0pp	-23.2pp		
		Safran guided for 70% cash conversion rate on average over 2021-25 at their CMD21.																
Civil Aftermarket y/y sales growth (% USD)	7.1%	32.7%	46.9%	19.2%	18.1%	19.1%	27.1%	27.7%	17.8%	21.7%	21.8%	+5.5pp	+19.2pp	+1.4pp	-3.6pp	-2.6pp		

Source: Company Data, Goldman Sachs Global Investment Research

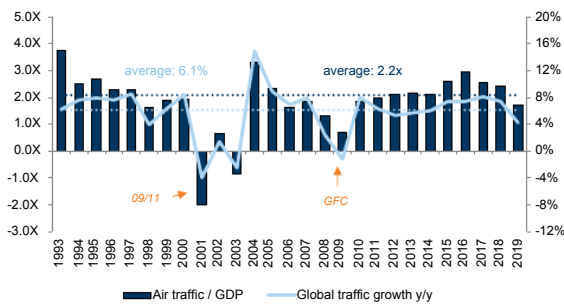
Key questions we get from investors: Recession risk, China, inflation, German Energy risk

In short: In this section, we aim at answering the key questions we get from investors including (1) the implications of a potential economic downturn, (2) China, (3) Inflation and (4) Germany Energy Supply risk. First, we find translating the impact of prior recession experiences to our traffic assumptions implies minor earnings estimate changes over the next 24 months. For example, our downside sensitivity analysis shows a decrease in traffic growth of the magnitude observed during the GFC would lead us to reduce our EPS estimates for FY23/4 by around -5%. Second, we note traffic in China remains a key watch item, and an adverse development of the economic/political situation or a Covid resurgence in the country would impact our Civil AM forecasts. Third, we discuss the implications of higher inflation at Safran and explain why we don't expect any significant impact to margins post 2023. Finally, we discuss exposure to German energy supply risk and view the risks revolving around the indirect implications of potential supply chain disruptions, not so much from the potential direct demand impact nor the German business footprint which is limited.

What can we learn from prior downturns in air traffic?

- **Since 1950, there have been only 6 instances of a significant downturn in air travel.** These are primarily linked with recessions where GDP fell by c.300bps on average (1973-5, 1980-84, 1990-91, 2008-9 and 2020) and occasionally linked to geopolitical events, e.g., the Gulf War of 1991 and September 11, 2001. The relative drops in passenger traffic were the deepest outside Covid following the combined 2000–01 shock of the dotcom bust and 9/11 - which led to a loss of 35 million passengers globally, and the 2008 shock of the global financial crisis—but in both cases, traffic had returned to its trend level within four years.
- **ASKs tend to be slightly less volatile than RPKs;** prior experiences show that Load Factors fall as demand for travel declines but ASKs typically do not decrease as much - due to airlines still servicing the same routes and a slight lag in adjusting capacity, in our view. Looking ahead, we would expect capacity to hold up better than demand were a contraction in demand to occur owing to Load Factors currently running at high levels (above 80%) and global traffic still at depressed levels (around 70% of pre-Covid level) and undergoing a steep recovery.

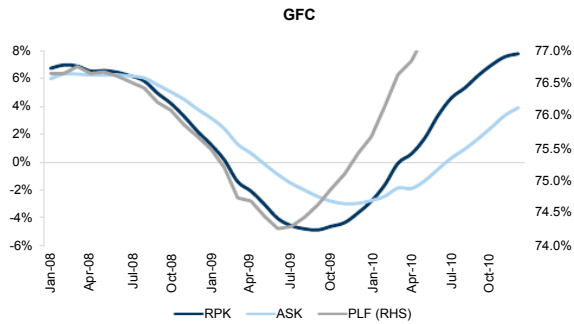
Exhibit 17: Global air passenger traffic has historically grown at a c.2x multiple to GDP but did not react as strongly to economic recessions like the GFC...



Source: IATA, World Bank

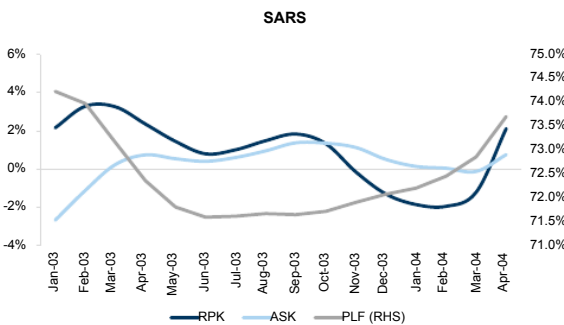
Exhibit 18: ...and capacity held up better than demand during the GFC - suggesting flight cycles were relatively more resilient than demand for travel

12-month rolling monthly year-over-year growth in RPKs and ASKs, 12-month rolling average PLF



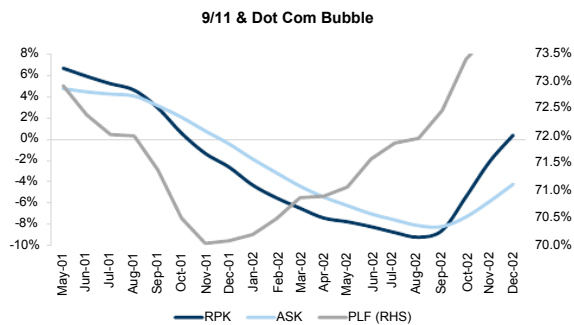
Source: IATA

Exhibit 19: ... and during the SARS episode
12-month rolling monthly year-over-year growth in RPKs and ASKs, 12-month rolling average PLF



Source: IATA

Exhibit 20: ... and the 9/11 & Dot Com Bubble experience
12-month rolling monthly year-over-year growth in RPKs and ASKs, 12-month rolling average PLF



Source: IATA

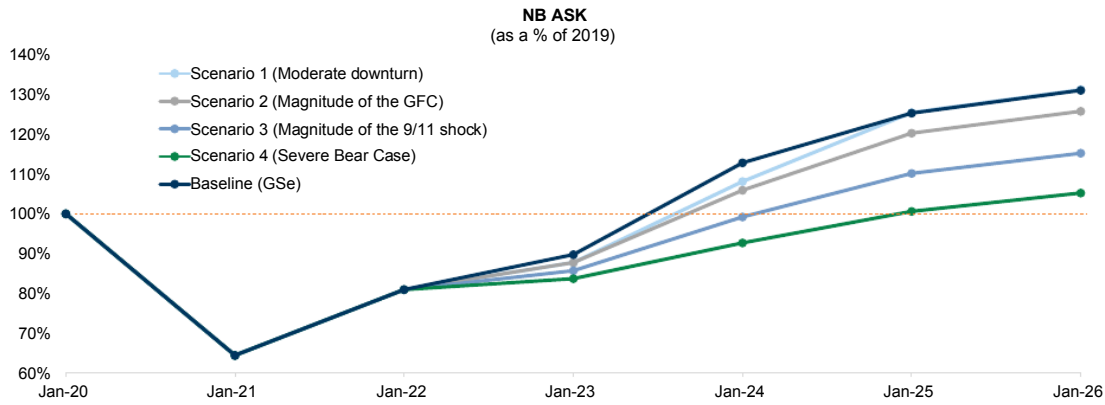
What would be the implications of an economic downturn for Safran?

- **While Civil Aerospace is a cyclical sector, in our view, the industry is still undergoing a steep recovery from the Q2 2020 trough, which means the historical correlation with GDP growth might not hold up until the sector is back on trend growth.** Latest data shows that we are still notably below pre-pandemic levels of traffic (at around 70% of 2019 levels), acting as a buffer to recession risk. As a result, we would expect airline industry data to remain supportive of both flight activity and production growth plans for the OEMs, and in turn for Safran’s business.
- **Demand for travel is supported by low rates of unemployment, a shift from goods to services spending and high levels of precautionary savings accumulated during the pandemic** which should continue to support the industry’s recovery through the remaining phases, in our view.
- **We would expect the Aerospace industry to continue recovering even in the**

event of a mild recession - a scenario which our US economists think would be the likeliest were we to see a recession. Our US economists estimate at about a one-in-three chance of a recession in the next 12 months.

- **Our downside sensitivity analysis shows a decrease in traffic growth of the magnitude observed during the GFC would lead us to reduce our EPS estimates for FY23/4/5 by around -5%.** In [Exhibit 21](#) and [Exhibit 22](#), we stress test our Safran EPS and FCF estimates to different trajectories of Narrow-Body traffic capacity growth. These illustrative scenarios are intended to represent a spectrum of potential outcomes for Safran's Civil Aftermarket revenue alone, with Scenario 4 being, in our view, the worst-case that is feasible in our current outlook. For the purpose of this analysis, these scenarios broadly reflect the magnitude of the change in growth rate of [Global](#) traffic capacity (i.e. Narrow-Body + Wide Body) during prior experiences like during the GFC. We use prior experiences of change in Global traffic growth due to limited Narrow-Body traffic data availability. We also think this results in conservative scenarios owing to the fact that Narrow-Body traffic typically hold up better than Global traffic as domestic and continental routes are more resilient than international ones.
- **Furthermore, we would expect Safran to weather the impact of a downside scenario caused by an economic recession better than peers** owing to the company's earnings sensitivity to GDP growth which has historically been less pronounced than the industry and peers ([Exhibit 24](#)). For example, Safran maintained an EBIT margin above 10% during the Covid trough in 2020, a figure superior to 75% of its Global Aerospace and Defence peers.

Exhibit 21: Our downside sensitivity analysis based on different Narrow-Body traffic growth scenarios



Scenario NB ASK growth assumptions

	2022E	2023E	2024E	2025E
Baseline	10.9%	25.8%	11.1%	5%
Scenario 1	-2.5pp	-2.5pp	+5.0pp	+0.0pp
Scenario 2	-2.5pp	-5.0pp	+2.5pp	+0.0pp
Scenario 3	-5.0pp	-10.0pp	+0.0pp	+0.0pp
Scenario 4	-7.5pp	-15.0pp	-2.5pp	+0.0pp

Civil AM Growth (\$)

	2022E	2023E	2024E	2025E
Baseline	32.7%	46.9%	19.2%	18%
Scenario 1	30.4%	41.8%	25.8%	18%
Scenario 2	30.4%	40.0%	20.8%	18%
Scenario 3	26.7%	33.7%	16.7%	19%
Scenario 4	23.1%	28.7%	9.5%	21%

Earnings Per Share

	2022E	2023E	2024E	2025E
Baseline	4.15	5.93	7.39	8.83
Scenario 1	4.10	5.71	7.40	8.82
Scenario 2	4.10	5.65	7.13	8.52
Scenario 3	4.00	5.36	6.61	7.93
Scenario 4	3.91	5.11	6.07	7.39

P/E (at share price = €100)

	2022E	2023E	2024E	2025E
Baseline	24.1x	16.9x	13.5x	11.3x
Scenario 1	24.4x	17.5x	13.5x	11.3x
Scenario 2	24.4x	17.7x	14.0x	11.7x
Scenario 3	25.0x	18.7x	15.1x	12.6x
Scenario 4	25.5x	19.6x	16.5x	13.5x

FCF (€mn)

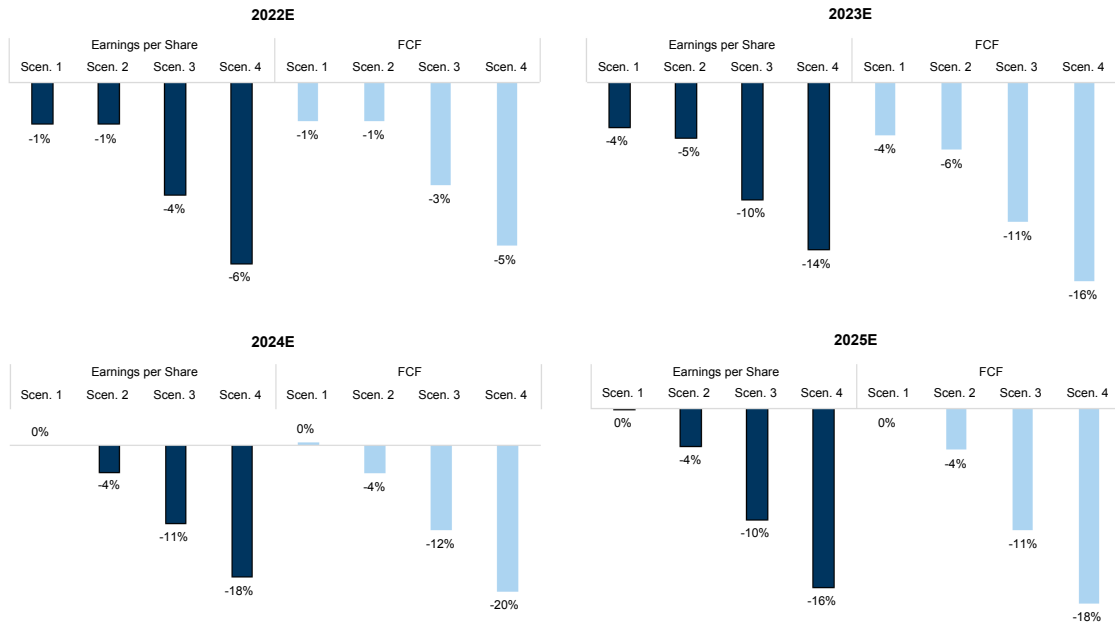
	2022E	2023E	2024E	2025E
Baseline	2,807	2,350	2,783	3,229
Scenario 1	2,771	2,246	2,795	3,227
Scenario 2	2,771	2,219	2,678	3,107
Scenario 3	2,715	2,080	2,462	2,870
Scenario 4	2,661	1,968	2,232	2,655

FCF yield (at share price = €100)

	2022E	2023E	2024E	2025E
Baseline	6.6%	5.5%	6.5%	7.6%
Scenario 1	6.5%	5.3%	6.6%	7.6%
Scenario 2	6.5%	5.2%	6.3%	7.3%
Scenario 3	6.4%	4.9%	5.8%	6.7%
Scenario 4	6.2%	4.6%	5.2%	6.2%

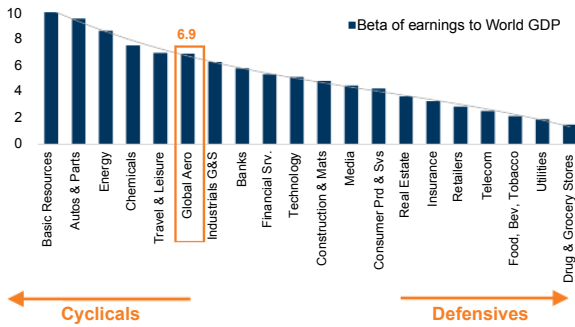
Source: Goldman Sachs Global Investment Research

Exhibit 22: Our downside sensitivity analysis shows a decline in traffic growth of the magnitude observed during the GFC (scenario 2) would lead us to reduce our EPS estimates for FY23/4/5 by around -5% Change vs. baseline (GSe) in EPS and FCF



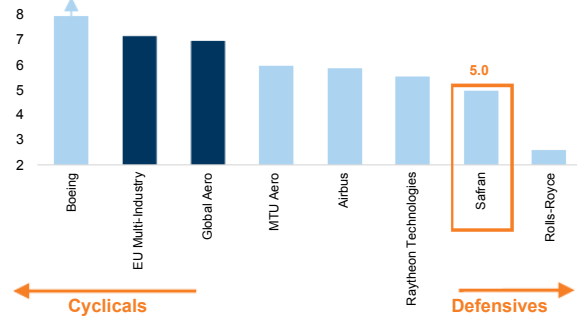
Source: Goldman Sachs Global Investment Research

Exhibit 23: Aerospace is a cyclical industry...
Beta of earnings to World GDP since 1993, q/q



Source: Datastream, Worldscope, Goldman Sachs Global Investment Research

Exhibit 24: ...but Safran earnings have historically been less exposed to economic shocks than peers and the broader industry
Beta of earnings to World GDP since 1993, q/q



Source: Datastream, Worldscope, Goldman Sachs Global Investment Research

**Can adverse developments in China derail the ongoing recovery in aftermarket?
Recent events have supported a positive evolution of traffic in the country but risks remain.**

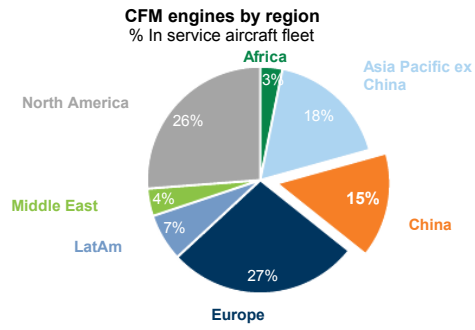
China aftermarket was 7% of Safran revenues in 2019, on our estimates (Exhibit 25). First, the latest 2Q print suggests Civil Aftermarket activity in China has held up better than the evolution suggested by traffic. Safran saw stronger-than-expected performance in Civil Aftermarket in 2Q at +41% y/y growth vs implied company-compiled consensus of +34% despite severe lockdowns in China. While the company noted lockdowns in China impacted Shop Visit volume, the print came largely above our own expectations (GSe +28%). We think the beat vs our expectation was mainly owing to the fact that our assumption on Civil Aftermarket activity in China reflected the pronounced decline in domestic traffic.

Second, recent events have supported a recovery of flight activity and suggest more room to go for domestic traffic, in our view. Since reopening its economy partially in June, China domestic traffic has bounced back to around 60% of pre-crisis levels in August compared with the trough of c.20% recorded in Q2. Our China Airlines analysts forecast domestic air travel will continue to recover going forward and expect a recovery to pre-pandemic levels next year (Exhibit 26). That said, our colleagues see the pace of the recovery to be more gradual from here as they expect policymakers to maintain the “Dynamic Zero Covid” policy stance until Q2 next year.

In parallel, China recently announced a jumbo order for 292 A320neo aircraft with deliveries starting as early as next year. **Our China airline analysts view the announcement as a positive signpost for near-term traffic evolution and think this formal contract is a signal that China is preparing for reopening.** In fact, according to CAAC’s 14th FYP (five-year-plan) for the China airlines industry published early this year, it defines 2021-22 as a recovery and accumulation period, and 2023-25 as a growth and release period when the goal is to expand the domestic market and recover the international market. Our Chinese colleagues think this Airbus contract coincides with CAAC’s 14th FYP, and reaffirms their assumption of China’s international reopening from 2023.

Eventually, we see a number of constructive developments in China and expect Chinese domestic traffic to recover to pre-pandemic levels next year in line with our China Airline team’s forecast. That said, traffic in China remains a key watch item and an adverse development of the economic/political situation or Covid resurgence in the country would impact our Civil AM forecasts.

Exhibit 25: China accounts for 15% of Safran's CFM installed base (7% of group sales on our estimates)
As of May 2022



Source: Cirium, Company data, Goldman Sachs Global Investment Research

Exhibit 26: Our China Airlines analysts expect air travel to continue to recover going forward



Source: CAAC, Gao Hua Securities Research

Inflation: can the ongoing high level meaningfully affect the margin recovery?

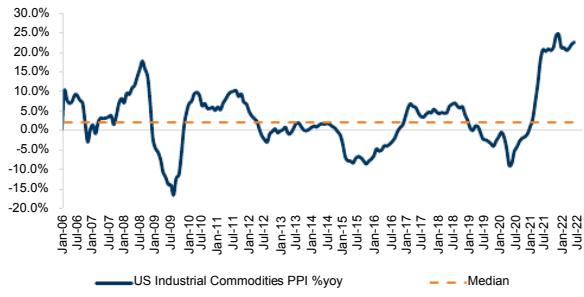
We model the impact of cost inflation to margins in line with company guidance and don't expect any significant impact to margins post 2023. Why?

- **Safran enjoys a favourable ability to pass through cost inflation.** Most contracts in Aerospace include escalation clauses for cost pass-through due to the often long lead times. In OE, the purchase agreement for new aircraft typically defines the terms for escalating the engine costs over the lifetime of the contract. In Aftermarket, Safran's leverage to pass through costs differs depending on whether the maintenance falls under Time & Materials or "Rate per the hour" agreements:
 - In T&M, Safran increases the pricing of its spare parts catalogue once a year on December 1. During their latest earnings call, management noted that **pricing of the 2023 spare parts catalogue will be up compared to previous years** considering the higher level of inflation.
 - In RPFH, the relationship with customers is governed by long-term maintenance agreements which embed escalation clauses that define the indices to be used as a benchmark for reverberating increases in the various cost items (e.g. labor, raw materials). Recently investor focus has been on the caps that these escalation mechanisms often include which imply cost inflation may be transferred up to a certain threshold. That said, our recent discussions with near peers suggest the duration matters in order to assess whether cost inflation can be passed through and indicate a short-lived surge in inflation could be absorbed. **This leads us to believe Safran should be able to pass through the lion's share of these costs** considering our macro strategists forecast inflation to unwind closer to historical average levels over the medium term in the Euro Area and in the US inflation (around 2% by 2024).

- **Safran has a solid track record in executing on cost measures since Covid and we think the new plan will mitigate higher cost inflation.** The high level of inflation over the past quarters has driven Safran to take extraordinary measures to mitigate the impact on margins. The disruptions caused by the Russia-Ukraine conflict have largely pushed energy prices higher as well as amplified the difficulties in obtaining supplies such as alloys, and the global production decline in semis has also generated additional pressure on the firm's stocks of electronic components. These headwinds had led Safran to warn at 1Q the impact to EBIT margins from supply-chain issues and purchasing could likely amount to an additional 80bps¹ impact to group margin versus their CMD guidance of a 30-40 bps impact. That said, management made clear that their revised budgeting would mitigate the incremental impact, which we expect will be the case in light of their successful track record in executing on cost measures.

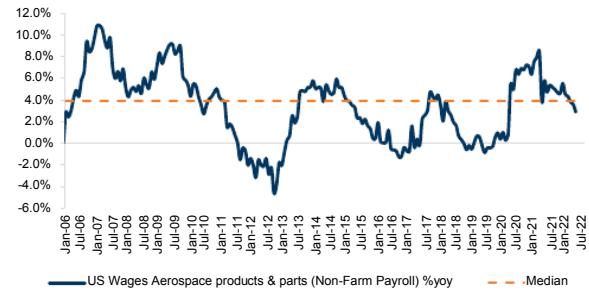
¹ This figure does not include the 70bps which relates to loss of activity in Russia.

Exhibit 27: US Industrial Commodities - an index often used as a reference for escalating costs pass-through in Aerospace - has seen a large increase recently...



Source: US Bureau of Economic Analysis (BEA), Goldman Sachs Global Investment Research

Exhibit 28: ... while increases in labour cost remain reasonable



Source: US Bureau of Economic Analysis (BEA), Goldman Sachs Global Investment Research

To what extent is Safran exposed to German Energy Supply risk?

While Safran's own business footprint in Germany is limited, we think risks lie around the indirect implications of potential supply chain disruptions, which are difficult to quantify.

- Our GS proprietary analysis shows **the company is relatively less exposed to German energy supply risk** than most Multi-Industry peers.
 - **The sites which are crucial to Safran's core activities are not in Germany.**
The group employs less than 2,000 people (2% of group) in the country and reports 14 sites out of >200 worldwide. The majority of the footprint relates to R&D and JV (e.g. ArianeSpace). The manufacturing activities located in Germany relate to the Equipment division with a site in Hamburg which assembles and delivers nacelles for the Airbus A320neo and to the Interiors division with sites which design and produce cabin equipment.
 - The group has a relatively **low sales exposure to Germany and is less exposed to energy-intensive end markets**. Safran's German sales exposure is among the lowest in our coverage (we estimate c.4%) and its end market exposure is to A&D companies which are often assemblers themselves - an activity which is less energy intensive in comparison to most industrial processes.
- That said, **we would still identify potential curtailment of energy supply as a key watch item over the near to mid term.**
 - **Safran could suffer from the indirect impact of potential supply-chain disruptions based on their exposure to inputs/value chains that might see disruption.**
 - **Safran sources around 1/3 of its direct energy consumption from gas.**

See more in [Assessing European energy risks for our Multis coverage](#).

Civil Aftermarket: Fundamental pillar of Safran's growth story

Civil aircraft engines require a high level of maintenance through their 20-25 year lifespan, much of which is mandated by regulations. As a result, aftermarket revenues are a major earnings stream for all engine manufacturers, including Safran, which generate 60% of Propulsion sales from services, approximately €4.6bn. This aftermarket business - and in particular Safran's Civil Engine aftermarket business and the CFM56 - is the single largest pillar of the growth story at Safran, in our view. Overall we expect 29% revenue CAGR in the Civil Aftermarket business out to 2025E, working out to €6.8bn of incremental revenues. Given the high margins that are generated in the aftermarket, this feeds through to €2.2bn of additional EBIT by 2025E, a 32% incremental margin.

While the details are complex, the basic principle of the aftermarket revenue stream is simple: the larger the installed base, the higher the revenue that can be generated through maintenance work. For Safran, given the size and success of Boeing's 737 programme and the Airbus A320, this means that the key driver by far is the CFM56 engine family. While Safran do not disclose the breakdown of aftermarket sales, we estimate that c.80% of Propulsion aftermarket sales are from civil aircraft, of which around 2/3 are attributable to the CFM56 alone, c.€2.1bn. The average age of the CFM56 installed engine fleet is approximately 11 years, which means aftermarket sales are set to grow significantly for the engine family until the mid-2020s. As the CFM56 aftermarket fades in the late 2020s, we believe the LEAP aftermarket will have grown large enough to replace the lost revenues, with [Exhibit 36](#) showing the upward trend of CFM Shop Visits that Safran expects out to 2025.

See more details about how the Engine Aftermarket works in the appendix section.

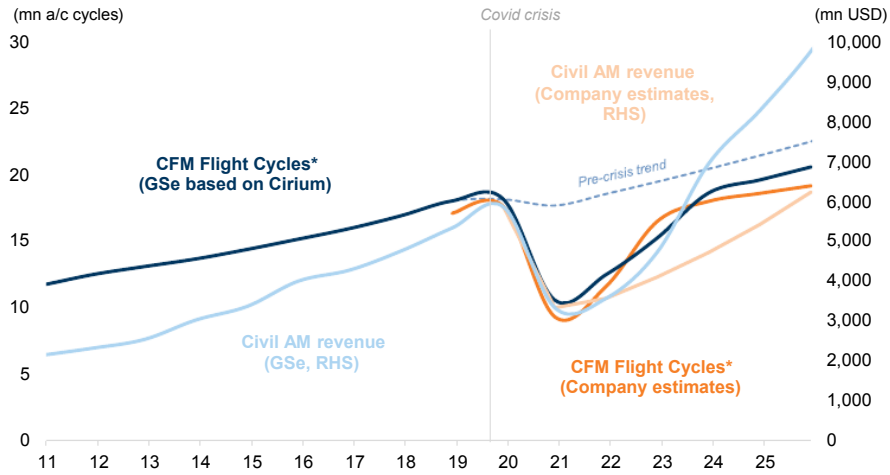
Exhibit 29: We continue to see Safran Civil AM recover strongly...

Light blue line: our yearly revenue estimates for Safran's Civil Aftermarket.

Light orange line: based on the company's medium term growth guidance i.e. a 15% CAGR over 2021-25. We use consensus \$ figure as a base.

Dark blue line: represents our expectation on the reactivation of CFM engines in the recovery. We have based our estimate on our Narrow Body ASKs forecast and we adjust the engine fleet over time, in particular: (1) we retire CFM56 'Gen 2' engines if their age becomes >20y - in-line with the company's guidance given at the 2021 CMD; (2) we add scheduled deliveries to the fleet.

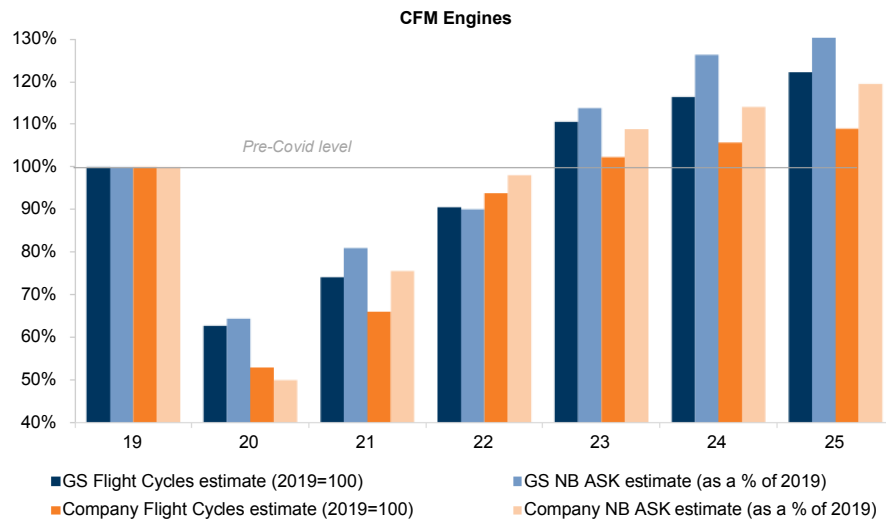
Orange line: represents Safran's expectations on the reactivation of Gen 2 and LEAP engines in the recovery.



Company data from CMD'21. *CFM fleet is only second-generation CFM56 and LEAP engines from 2020 onward given legacies are now marginal.

Source: Company data, Cirium, Goldman Sachs Global Investment Research

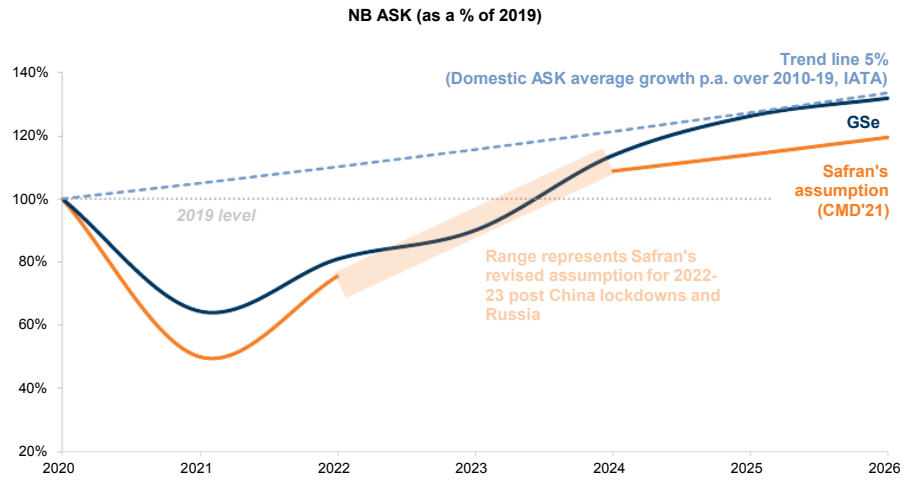
Exhibit 30: ...driven by our above-guidance view on Narrowbody traffic ...



Company data from CMD'21.

Source: Company data, Goldman Sachs Global Investment Research

Exhibit 31: ... as we expect Narrowbody traffic to return to trend by 2025
Narrowbody ASK as a % of 2019



Source: IATA, Company data, Goldman Sachs Global Investment Research

CFM56 remains quintessential in Safran's aftermarket growth story through 2025: introducing our new Shop Visit model

As of 2021, there were approximately 23,000 second-generation CFM56 engines in service with an average age of 11 years. Of these engines, 50% have had no shop visit (SV) performed as yet. As these engines begin to undergo their first SVs in the coming years, we would expect a significant uptick in Safran's civil aftermarket revenue. We expect the number of SVs to increase by around 20% pa on average over 2021-25E, with the number of annual CFM56 SVs reaching a peak of 2,929 in 2026E (vs. guidance for a peak of around 2,500 per year in 2025-26).

We find the primary reason for our higher SVs estimates than guidance is due to our more positive view on NB traffic, which we expect will return to trend level by 2025. Safran's current estimates assume 4.8% annual traffic growth in 2023-25, which is roughly in line with the pre-covid trend of 5% traffic growth but imply NB traffic will not return to trend level. A reversion to trend level of traffic growth would imply around 350 additional engines reaching cycle limits per year, driving our above guidance and consensus view.

Besides this, we would note our SV estimates reflect the company indication that 'green time'² will likely remain until 2024 and should gradually unwind as traffic recovers. While Safran has not provided a quantitative guidance on the effect, we estimate around 230 SVs per year (c.10%) will shift to the right in 2022-23 due to green time and model 80% of these delayed SVs will take place in 2024-25.

With this increased level of SVs, we expect a notable uptick in civil aftermarket revenues. The first SV is also the most valuable SV for Safran, and as 50% of the installed base undergoes its first SV in the coming years coupled with the pent-up maintenance accumulated during the Covid crisis, we expect particularly strong revenue growth and faster recovery than company guidance. We model Civil Aftermarket revenue to recover in 2023 (in line with SV recovery) compared with Safran's expectations of revenue and SV recovery in 2024, a divergence which is primarily owing to our expectation of stronger NB traffic. Even with a conservative assumption on pricing (3.5-4% vs. Safran indication of 5-7%) and with our mapping of the company's communication on content per shop visit, we arrive at a 29% revenue CAGR over 2021-25E vs. guidance of c.15% and expect revenue growth to be 33% in 2022 and 47% in 2023.

For LEAP, we model shop visits in line with CMD'21 guidance given the degree of unpredictability around forecasting a new engine platform and given recent exogenous shocks such as the MAX grounding and Covid which render modelling future LEAP aftermarket activity even more challenging. That being said, we would expect a meaningful amount of earlier shop visits to likely take place as it has historically been the case with previous engine platforms. Our modelling shows the LEAP engines fleet will have an average age of 4 years by the end of this year with the oldest engines

² "Green time" refers to the shortest life remaining of all LLPs installed in a specific engine. In other words, it refers to the engine stub-life until overhaul. Over the past two years, a number of operators decided to postpone their shop visits and relied on "green time" engines by swapping those engines having more lifetime with those approaching overhaul to continue operating flights while reducing OpEx.

(around 6 years old) the likeliest to enter the shop first. This compares to second-generation CFM56 engines entering their first shop visit with an average of 12 years in 2022E, per our modelling.

We forecast LEAP SVs to grow steadily over 2022E-25E from 60 SVs in 2022E to 550 SVs in 2025E. **LEAP should account for 16% of Safran Civil Aftermarket sales by 2025E, on our estimates.** We find the share would likely be meaningfully higher (above 20%) if LEAP aftermarket profitability were fully recognised - see more in appendix (A2).

Per our forecasts, aftermarket revenues from the GE90 engines are also set to gradually grow over the coming years echoing our expectations for a slower recovery in widebody traffic. We estimate GE90 spares revenues at €385 mn in 2021, rising to just over €550mn by 2025E. Growth is particularly fast (c.14%) in 2022E, driven by favourable FX (6% impact) and moderate SV growth (4.5% on our estimate).

New CFM56 bottom-up shop visit model

With this note, we introduce our new bottom-up shop visit model, which attempts to predict CFM56 shop visit events by screening for the cumulative number of flight cycles³ per aircraft equipped with CFM56 engines.

Why screen for flight cycles?

Engines today are maintained on an on-condition monitoring basis, a continuous monitoring process where engines are removed only when an internal component reaches its individual life limit, or when performance monitoring suggests that the engine is operating outside manufacturers' suggested parameters. These two main drivers of a shop visit are often referred to as: a) Life-limited parts or 'LLPs' - key components of the engine which are generally close to the hotter sections of the engines and which cannot be contained if they fail, hence being governed by the number of flight cycles operated. 50% of Safran's spare parts sales are these so-called LLPs, per company data provided at CMD'21; and b) Exhaust Gas Temperature margin (EGT margin) – a measure of an engine's efficiency in producing its design level thrust, where a lower margin indicates more wear and deterioration for the engine.

Our bottom-up model acts upon the first cause of engine removal (when parts reach their life limit), given most repair shops assess the life remaining on LLPs when an engine is inspected for maintenance and manage time limited components to coincide with subsequent shop visits. More specifically, Airlines and repair shops typically ensure that LLP stub-lives closely match the expected time on-wing from EGT margin erosion e.g. if an engine's LLP stub-life is 5,000 cycles then the repair centre will ensure that the engine has sufficient EGT margin to stay on-wing for 5,000 cycles. This is consistent with Safran's communication and literature which list LLPs among the most frequent causes for engine removal in the context of short-haul operation. Over short-haul routes, LLPs need to be replaced two or three times on average over the lifetime of the engine and, consequently, contribute a relatively high cost of a given shop visit. This stems from Narrowbody planes departing and landing more frequently (i.e. more flight cycles) than Widebody planes, which typically do so less frequently but fly longer hours. When removed from operation for a shop visit, an engine will typically receive a full inspection and other parts will be replaced along with LLPs. Airlines have flexibility in terms of the extent of the replacement of non-crucial parts (typically those that are not governed by flight cycles limit). This maintenance flexibility is often referred to as "work scope" or "content per shop visit". In our model, we assume first LLP replacement occurs after 17,000 cycles, second replacement after 21,000 and third after 28,000.

³ 'Flight Cycle' means the complete running of an Engine from start through any condition of flight and ending at Engine shutdown.

How do we forecast future CFM56 shop visits?

We perform our forecasting of Gen 2 engines shop visits in 2 broad steps: (1) we model our expectations for yearly flight cycles for the engine platform, and (2) we perform a screening of engines⁴ reaching their pre-determined LLP limit. [Exhibit 29](#) summarises our modelling of CFM flight cycles in the outer years and shows how this compares with Safran's guidance.

(1) In our modelling of flight cycles we consider the whole CFM fleet (Gen 2 + LEAP engines) as a better reflection of the overall Narrow body market evolution as opposed to each platform individually. This assumption means we reflect our Narrow Body ASK forecasts in the utilisation of the overall CFM fleet.

(2) In this second step of our modelling of SV, we look at the cumulative flight cycles of each aircraft equipped with Gen 2 engines and trigger a shop visit event when the cumulative number of flight cycles reaches a pre-determined threshold. For example, we assume first overhaul occurs after 17,000 cycles, which equated to an average age of 9.9 years in 2019. This is consistent with GE saying in 2017 the CFM56 engine can stay on wing for as many as 20,000 cycles, with an average time on wing of 18,000 cycles to its first overhaul (approximately nine years without removing the engine for heavy maintenance).

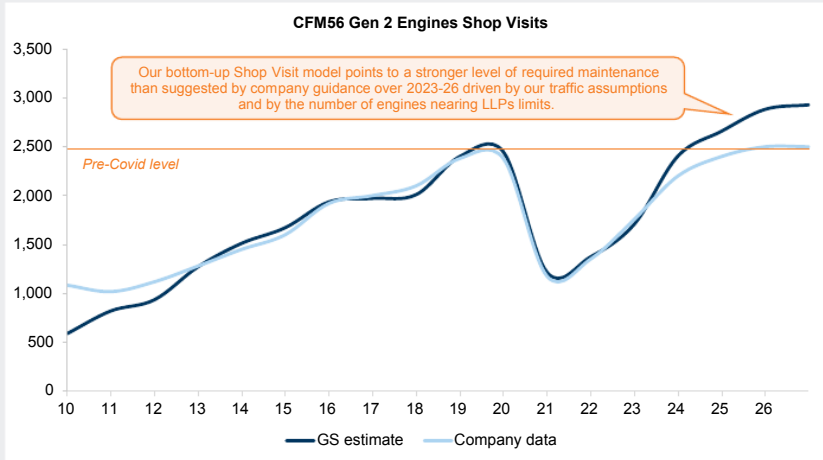
Once we obtain a 'gross' number of shop visits following this screening phase, we adjust our estimates to account for a few effects.

- First, we correct for the size of the fleet - not every airline reports their flight cycles on a regular basis on Cirium and a limited number of airlines simply don't. As a result, we adjust for the size effect and bridge the gap with the expected fleet size over time.
- Second, we also correct for 'green time' engine: a number of operators decided to postpone their shop visits over the past 2 years and have often relied on spare engines and green time to continue operating flights while reducing OpEx. We apply a 'green time' adjustment from 2020 to 2025E; this adjustment entails fading out 'green time' as traffic recovers (i.e. in line with Safran CMD'21 communication). While Safran did not provide a quantitative guidance on the effect, we estimate around 230 SVs per year will shift to the right in 2022-23 due to green time and model 80% of these delayed SVs will take place in 2024-25.

[Exhibit 32](#) shows our modelling and backtesting of shop visits for the second-generation of CFM56 engines.

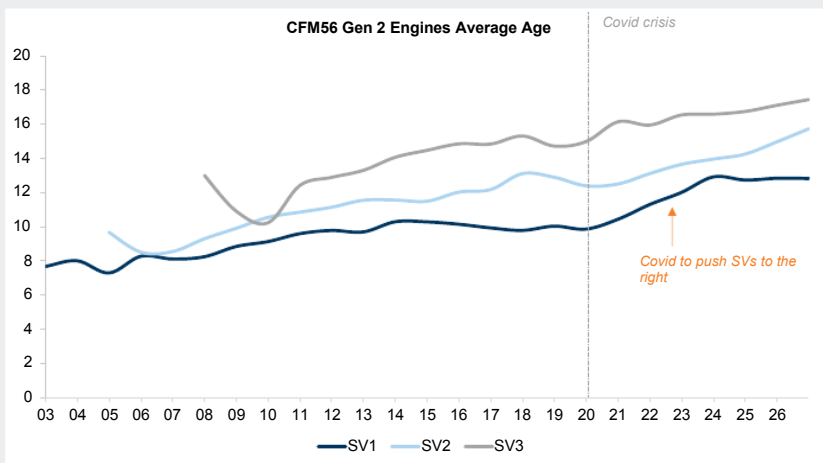
⁴ Aircraft equipped with CFM56 second-generation aircraft

Exhibit 32: Backtesting shows our bottom-up model tracking closely with actual historical shop visits



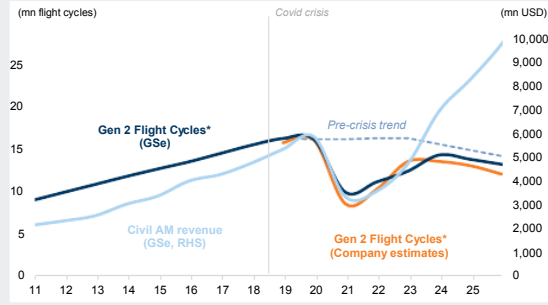
Source: Company data, Cirium, Goldman Sachs Global Investment Research

Exhibit 33: Our model is consistent with an extending average lifetime before overhauls due to the lower utilisation and the conservative behaviour toward maintenance from operators during Covid



Source: Company data, Cirium, Goldman Sachs Global Investment Research

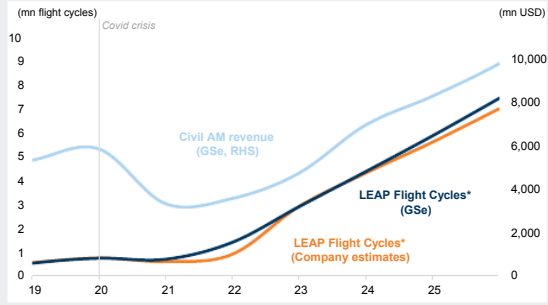
Exhibit 34: Our expectation for CFM56 Gen 2 engines utilisation vs. CMD guidance



Company data from CMD'21.

Source: Cirium, Company data, Goldman Sachs Global Investment Research

Exhibit 35: Our LEAP flight cycles estimates are in line with guidance

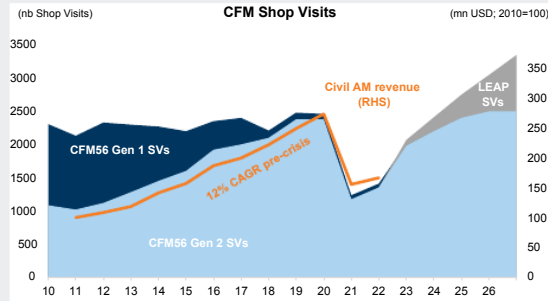


Company data from CMD'21.

Source: Cirium, Company data, Goldman Sachs Global Investment Research

Exhibit 36: Gen 2 were already driving sales growth pre-crisis at CFM

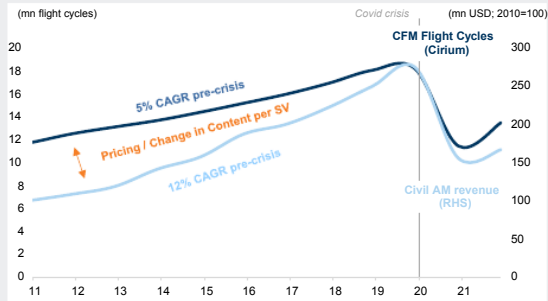
Shows Safran's expectation of CFM shop visits in the coming years; Orange line shows our rebased Civil AM sales estimate.



Company data from CMD'21.

Source: Company data, Goldman Sachs Global Investment Research

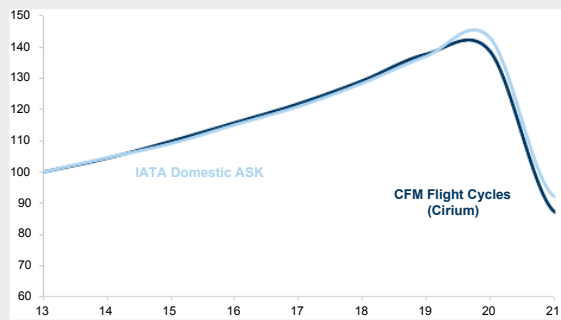
Exhibit 37: Flight cycles have historically been a good predictor of future shop visit volume at CFM ...



Company data from CMD'21. All CFM engines.

Source: Cirium, Goldman Sachs Global Investment Research

Exhibit 38: ... and correlate very closely with Domestic ASKs
Rebased, 2013 = 100



Source: Cirium, Goldman Sachs Global Investment Research

What are the considerations for retirements?

- **What age?** Our modeling assumes 20 years for retirement of aircraft equipped with CFM56 engines - in line with CMD guidance. Even though 20 years implies earlier retirements than pre-Covid, which was on average 23 years, we expect most of the shop visits will be preserved in the future; in particular, we estimate 93% of Gen 2 SVs will be preserved over 2022-2025.
- **Can earlier retirements of aircraft meaningfully impact Safran?** We do not think so. Used Serviceable Material (USM)⁵ risk is relatively low as we believe that Safran is relatively shielded from that risk given the variants most critical to AM performance (CFM56-5B and -7B or CFM56 'Gen 2') are not the variants likely to be retired over the next few years, spares from older variants cannot typically be used on these newer variants, and new spares usage on late-life shop visits is low. This is consistent with Safran mentioning 50% of their spare parts sales are insulated from any USM inflow given these are Life-limited parts ("LLPs") or high consumption parts that have to be replaced by new parts. Furthermore, our analysis shows that USM risk is unlikely to surface in the next few years:
 - **Our modelling shows that one would need to see aircraft retirements at an all-time high combined with an above-average spare parts salvage rate on retired engines for USM to offset Safran's favourable market positioning.** In [Exhibit 39](#), we show that the recovery in Safran's aftermarket revenue would lag the recovery in shop visit volume only under an extreme scenario: one where all aircraft older than 15 years would be retired with an achieved spare parts salvage rate superior to 30% on the engine (there is not a clean historical average readily available, but based on our discussions with companies and research we estimate that the hist. avg has been <20%). Our modelling is based upon the assumption that the firm enjoys favourable pricing dynamics in its aftermarket business: Safran has historically been able to increase pricing by around 5% p.a. on our estimates and management indicated that this should continue going forward.
 - **CFM56 Gen 2 engines are being brought back into service with c.90% of the fleet currently flying.** At their latest CMD, Safran mentioned that there had only been 78 CFM56 second-generation powered aircraft being retired in the first 11 months of 2021 (85 in 2020) - out of a fleet of 11,000+ CFM56 2nd Gen powered aircraft currently in-service or parked. The company continues to expect a limited number of aircraft retirements along with limited 'USM content increase' stemming from limited availability of used LLPs and high consumption parts. We also think that meaningful USM penetration is unlikely for the CFM56 aftermarket over the medium term mainly owing to the CFM56 engine fleet being largely brought back into service (88% of the total fleet is already back in service - see [Exhibit 40](#) and [Exhibit 41](#)).

⁵ Used spare parts obtained from retired engines in period of elevated retirements

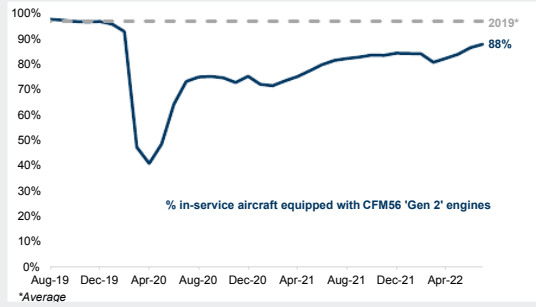
Exhibit 39: Given the current trend in retirements, it appears unlikely that spare parts stemming from retired engines can offset Safran's favourable pricing dynamics on their own

Scenario analysis: all engines above x years are retired and x% spare parts are salvaged on the engine. Assumptions: (a) Salvaged parts to supply engine maintenance over a 3-year horizon (representing decision time range around SV1 or SV2); (b) 2,500 Gen 2 SV1&2 pa (company data).

		Estimated USM supply as a % of annual SVs (1&2)				
		Spare parts salvaged on retired engine (%)				
		5%	10%	20%	30%	40%
Retirement of all Gen 2 engines older than ...	15y	1.0%	1.9%	3.8%	5.7%	7.6%
	16y	0.8%	1.6%	3.2%	4.9%	6.5%
	17y	0.7%	1.4%	2.9%	4.3%	5.7%
	18y	0.6%	1.3%	2.5%	3.8%	5.0%
	19y	0.6%	1.1%	2.2%	3.3%	4.4%
	20y	0.4%	0.9%	1.8%	2.6%	3.5%

Scenarios under which Safran's pricing would be offset by USM supply

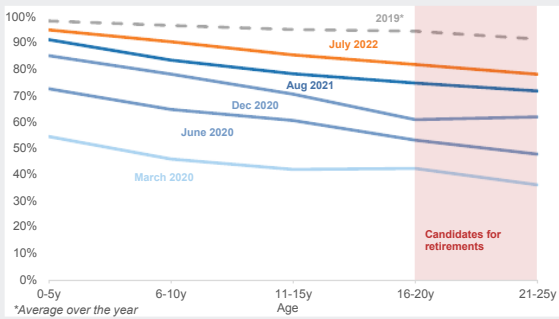
Exhibit 40: CFM56 Gen 2 have largely been brought back into service ...



Source: Cirium, Goldman Sachs Global Investment Research

Source: Cirium, Goldman Sachs Global Investment Research

Exhibit 41: ... with younger engines close to pre-crisis level of in-service activity
 % of in service aircraft equipped with 'Gen 2' CFM56 engines



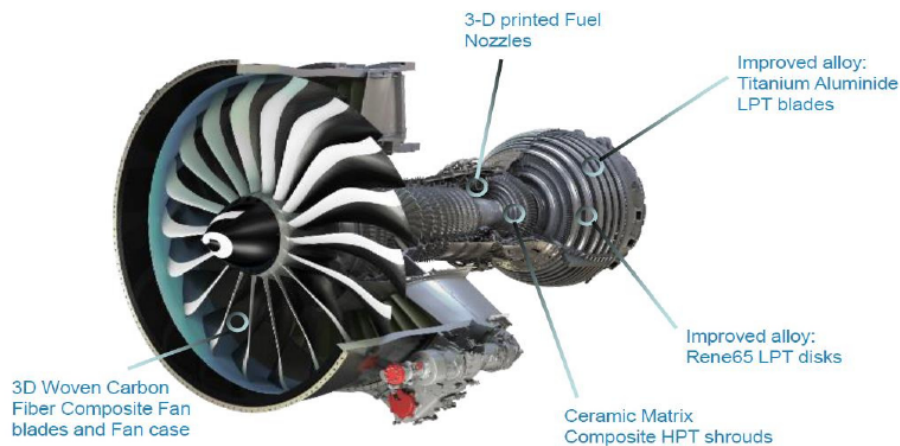
Source: Cirium, Goldman Sachs Global Investment Research

Civil OE: The LEAP ramp-up remains key for margin expansion at Safran

In the OE segment (c.40% of Propulsion sales), the key driver of (1) near-term margin expansion and (2) future growth is the ramp-up of the LEAP engine, which Safran manufactures through CFM International with GE. LEAP is 15% more fuel efficient and produces 50% less NOx emissions than the CFM56, the engine it replaces, and it has an 80%+ market share in the narrowbody segment thanks to its exclusive position on Boeing's 737MAX and >50% share on the A320neo. On the A320neo, Safran competes with Pratt and Whitney's PurePower PW1000G. Along with the key Airbus and Boeing programmes, the LEAP is also the sole-source engine for COMAC's C919.

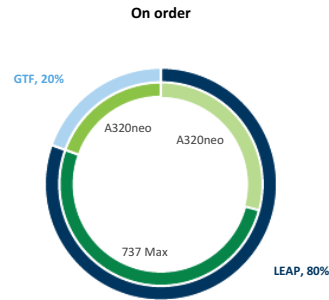
Thanks to the success of both the new Airbus and Boeing narrowbody offerings, **there are 10,000+ orders and commitments for LEAP engines with a backlog stretching over the decade.** Management have not provided guidance for this year due to the widely reported supply-chain issues, but still guide that around 2,000 LEAP engines will be delivered in 2023, followed by moderate increases out to 2,000+ in 2025. By 2025 we expect the LEAP engine to have gone from heavily loss making to roughly breaking even, a steep volume growth driving a €420mn benefit to EBIT on our estimates.

Exhibit 42: The LEAP engine



Source: Safran

Exhibit 43: LEAP is dominating the Narrow Body engine market
LEAP vs. GTF powered A320s/737s, backlog as at August 2022

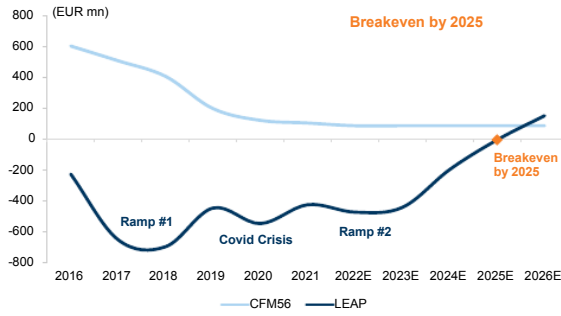


Source: Cirium

We are slightly less optimistic in profit ramp up on LEAP OE than guidance. As with all new engine programmes, LEAP is initially loss making as Safran works its way up the learning curve to improve unit costs and early customers receive discounts on the new engine ('launch pricing'). The company has guided to >15% reduction in production costs by 2024 vs. 2021, noting that higher volumes should allow the engine to move down the cost curve faster than was the case for the CFM56. We think recent LEAP delivery delays which contributed to Airbus pushing to the right its A320 production ramp-up mean that the accumulated learning experience is likely going to be lower than originally assumed and will eventually likely slow the cost reduction evolution. As such, **we forecast slower unit costs improvement than guided by Safran through 2024** and estimate the cost per engine to fall from c.\$5.1mn in 2021 to \$4.4mn in 2024E - equivalent to a 13% cost per engine reduction vs. guidance of at least 15%. We model revenue per engine to increase concurrently from \$3.9mn to \$4.2mn over the same period as pricing improves. In 2025, we expect close to 0% EBIT margin for LEAP OE, slightly below Safran's ambition of breaking even at the latest by 2025. We model -€476mn in losses this year, deteriorating slightly from -€428mn in 2021 due to higher volume coming at a loss per engine, but then progressing to roughly 0% margin in 2025 implying c.€500mn in EBIT growth.

Exhibit 44: We model LEAP to remain loss making through 2025 with the program turning into a key driver of margin expansion over 2024-25...

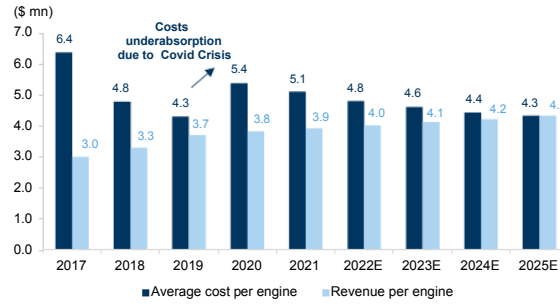
GSe annual OE EBIT contribution (€ mn)



Source: Goldman Sachs Global Investment Research

Exhibit 45: ...as cost per engine falls while revenue per engine increases

GSe average cost and revenue per LEAP engine, \$mn



Source: Goldman Sachs Global Investment Research

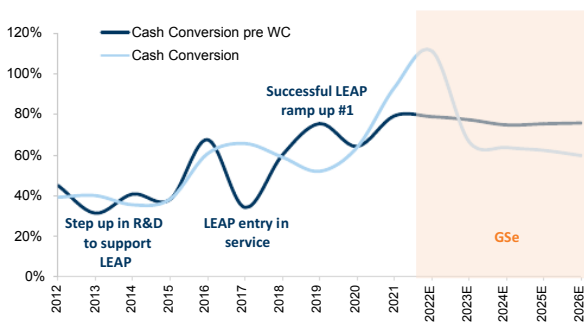
Sweet spot in the product cycle to drive meaningful cash returns to shareholders

Safran offers consistently above-sector-average returns, as well as robust cash flow growth in the coming years, with FCF set to grow by a factor of almost 2.0x by 2025 to €3.2bn, on our estimates. Strong cash generation concurrent with the build-up of a sizable net cash position leads us to expect Safran will step-up cash returns to shareholders, and we forecast €5.2 bn cash returns in 2022-25E. We expect this will be achieved through a combination of buybacks and dividends, representing over 11% of the current market cap. In our view, the combination of higher aftermarket profits and the ongoing product cycle transition from CFM56 to LEAP means Safran is at the juncture of a secular cash harvesting period enabled by the successful development and entry in service of the LEAP engine with no major issues.

Strong FCF generation ahead

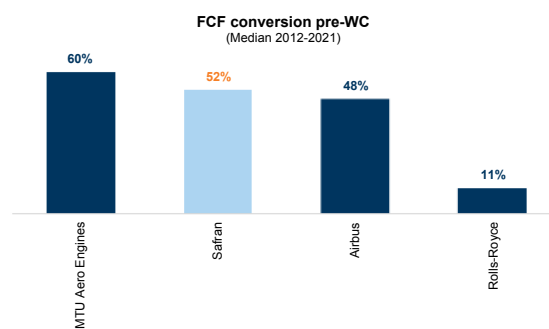
Safran have generated good cash flow over the past decade despite a meaningful step up in costs in order to support the successful entry in service of the LEAP engine, with FCF conversion of around 55% of EBIT over the period. Looking ahead, we expect another consecutive strong year for cash conversion in 2022 at around 100%, driven by large prepayments associated with recent Rafale export contracts (e.g. UAE). From 2023 onward, we model the conversion to normalise at around 70-80% as Safran do not see major one-off items. Higher cash generation in the next few years is consistent with our view that Safran is still in the early innings of a secular cash harvesting period which has been enabled by the successful development and entry in service of the LEAP engine with no major issues. This underlies our FCF estimates of €2.8bn in 2022E, increasing to €3.2bn in 2025E - equivalent to FCF per share scaling up from €6.6 to €7.6 over the period.

Exhibit 46: Despite costs stepping up in order to support the LEAP engine entry into service, Safran have posted good cash conversion in the past decade, averaging 55% of EBIT
FCF as a % of EBIT



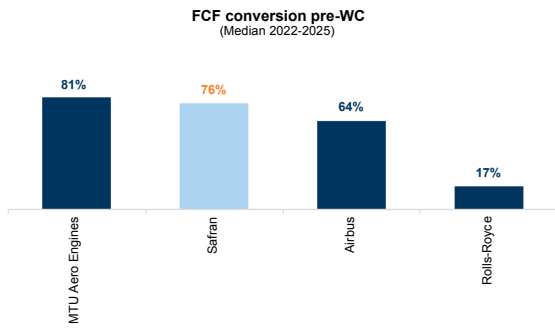
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 47: Safran have had a solid FCF conversion ratio pre working capital over the past decade considering the step-up in costs to support the LEAP engine entry in service...
EBIT to FCF conversion ratio, median 2012-2021



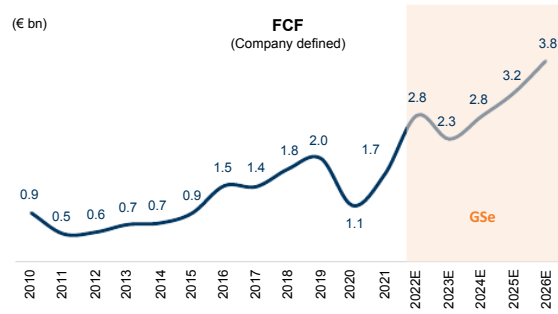
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 48: ... and we expect stronger cash conversion going forward as Safran enters the cash harvesting phase of the cycle
 EBIT to FCF conversion ratio, median 2022-2025E



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 49: We estimate FCF to rise from €1.7bn in 2021 to €3.8bn in 2026
 Company defined FCF, € bn



Source: Company data, Goldman Sachs Global Investment Research

What uses of cash through 2025?

We expect the group to generate €11.2 bn of cumulative FCF in 2022-25E, resulting in a net cash position of €4.3bn by 2025. Below we discuss and outline five key potential uses of cash in the coming years.

1) R&D: Could it meaningfully step up?

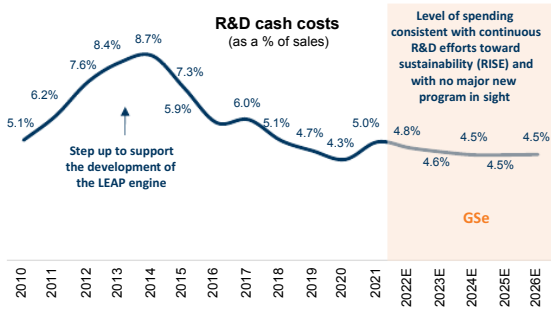
We think this is unlikely through 2025.

Safran laid out their expectations of R&D through 2025 as part of their 2021 CMD and assume spend remains broadly constant as a % of sales at around 4.5% - a level which we think is consistent with continuous efforts to support innovation in sustainable aviation (RISE program) and with no new major aircraft program in sight. Furthermore, we think it is unlikely that a new program is launched imminently from either Airbus or Boeing. Adoption incentives for the latest product on sale are already very high, as evidenced by the large backlogs and ambitious build rates on the latest generation aircraft, and it is unlikely that the competitive landscape will force either manufacturer to launch an aircraft.

That being said, one pushback could be the recent success of the A321neo which has raised questions from investors as to whether Boeing may look to launch a direct competitor. Discussions with our Boeing analyst (Noah PoPONAK, CFA) suggest this would not be the case for several reasons. First, the 737Max family backlog is large at 4,000+ units for all customer types, representing >10 years of annual production assuming 31/mo. Recent order momentum has also been good, with the Max booking close to 800 orders in 2021 and c.400 ytd for all customer types. Second, Boeing do not have the available capital that a new clean sheet program would require. The US airframer has a sizable net debt position of \$45.8bn (as of end of June 2022). Third, there is a degree of inertia in the market due to switching costs. This means any new product would need to offer exceptional improvement vs the A321neo in order to convince A320neo family operators to switch from A321neo. Finally, engine technology is crucial in delivering incremental efficiency improvements for new aircraft programs. Both the LEAP and the GTF have delivered impressive performance improvements vs the CFM56 and the V2500 – it's unlikely any similar size gain could be delivered on a new program today. A new aircraft program launched today would likely take 5-6 years until first delivery (as with the A320neo and the 737max). All in all, this means our modelling of R&D is in line with CMD guidance at around 4.5% of sales through 2025.

Exhibit 50: We forecast a significantly lower R&D impact to profitability in the next few years compared with the previous decade

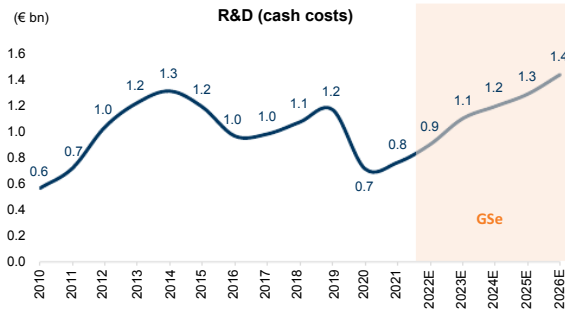
R&D cash costs (P&L-expensed and capitalised) expressed as a % of sales



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 51: However, we still expect a step-up in absolute R&D spending to support innovations in sustainability

R&D cash costs (P&L-expensed and capitalised) in € billions



Source: Company data, Goldman Sachs Global Investment Research

2) CapEx: What will the trajectory look like?

A fast resumption through 2023 followed by a stable spending profile.

After two years of strict cash cost control due to the Covid crisis, Safran is resuming tangible CapEx spending this year, with the key focus on supporting future growth in LEAP aftermarket by bringing additional MRO capacities. The firm plans to step up CapEx through 2023 with this year seeing the fastest increase (c.40%). The expense position is guided to grow from 3% to 3.5% of sales from '21 to '23. This is consistent with the recent announcement of the construction of a vast MRO workshop dedicated to LEAP engines in India. This MRO centre, which will become the largest within Safran's global maintenance network, is due to enter service in 2025 and will eventually have a capacity of 250 to 300 engines per year. In addition to MRO, Safran also plan to set up in India an in-house entity tasked with the development of digital systems for the group, which were announced to start operations in the summer of 2022. The unit will recruit 1,000 people over the next five years by sourcing labour with expertise in the development of digital applications and systems, as well as cybersecurity. Digital projects is a key pillar of Safran's CapEx plans through 2025 and should account for more than €700 million of spending, as per the company.

3) M&A: What are the considerations?

Potential bolt-on acquisitions and execution of the portfolio optimisation plan.

In its 2021 CMD, Safran shared their plans vis-a-vis M&A - the firm seeks to implement an active portfolio management approach which entails both selective divestments and bolt-on acquisitions. The new plan includes the review of 30% of Zodiac Aerospace activities - of which Safran have so far fulfilled at least 10% with the EVAC, Arresting System and Ventilation System divestments which were announced early this year. In parallel, the acquisitions of Orolia and Aubert & Duval are recent examples of bolt-on acquisitions which aim at fast tracking the group into new markets/technologies or to secure an upstream critical part. Safran have guided that the portfolio optimisation plan

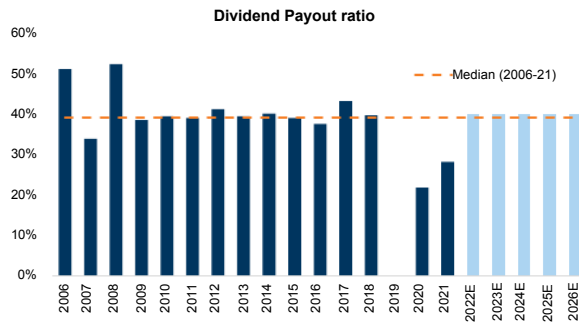
should be globally accretive to group margins, driving potential further upside to our estimates.

4) Dividend: Any change?

We expect Safran to resume its historical practice.

Safran have historically grown dividends with earnings by maintaining a steady payout ratio of around 40%. Following a temporary halt of the typical practice due to Covid, the group announced it will restore its 40% payout policy this fiscal year (to be paid in FY23) to support attractive shareholder returns going forward. Our forecasts are aligned with company guidance and imply €1.66/2.37/2.96 DPS in 2022/23/24E and a dividend yield of 1.5%/2.1%/2.7%.

Exhibit 52: Safran have historically maintained a payout of around 40%; we expect this to continue going forward



Source: Company data, Goldman Sachs Global Investment Research

5) Buyback: Is there room through mid-decade?

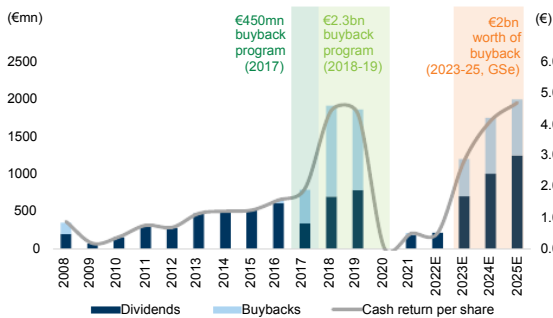
We believe we could see a buyback announcement in 2H of this year.

With Safran set to expand group margins to all-time highs through 2025, on our forecasts (GSe 18.2%, Visible Alpha Consensus Data 17.3%, guidance of 16-18%) concurrently with FCF conversion likely in excess of 70% on average over 2021-2025E (GSe is 79%, consensus at 80%, guidance of 70%), there are high expectations around additional cash returns to shareholders. This is notwithstanding the company's financial leverage (as measured by Net Debt/EBITDA) which is firmly on track to remain negative as Safran enters the cash harvesting period. We were previously expecting a decision on share repurchases this summer but management have recently postponed a potential announcement to later this year. In our view, the postponement may partly reflect the recent challenges Safran have faced with unions in France. At the 2021 CMD, the CFO stressed on the focus on moderation vis-à-vis shareholder returns given the efforts agreed by the firm's employees to cap a part of their benefits until 2023 ("Accord de sortie de crise"). At the time, this meant Safran would only pay out 28% of its earnings in 2022 - despite a robust earnings and FCF performance in FY21 - and would resume its historical dividend payout practice of 40% in FY22. More recently, this spring's Union strikes at Villaroche (which contributed to the 6-8 week engine delays

reported in the press) may partly explain the lack of announcement for additional cash returns thus far this year.

Going forward, the key focus is likely to revolve around the successful execution of the LEAP ramp-up through the end of the year as the group seek to meet the targets it agreed on with customers (Airbus and Boeing) to catch up on a part of the delays reported in H1. That being said, we think the 'catch-up' plan would not preclude a decision on buyback by year-end and forecast €500mn of share repurchases to be announced this year (executed next year). This equates to 21% of 2023E FCF to be distributed through buyback. Looking into 2025, we see room for a cumulative €2bn share buyback to support shareholder returns during what is likely to be the most cash lucrative period of the current cycle. This size is comparable to the buyback programme announced in late 2017 (€2.3bn over 2 years, [Exhibit 53](#)) and means Safran would return c.60% of cumulative FCF to shareholders, with 35% through dividends at a payout ratio of 40% and the remaining c.25% through buybacks. While we expect the overall cash payout to shareholders (60% of cumulative FCF) will likely be lower than pre-crisis (75%), we assume a potential buyback would likely come in line with the firm's pre-crisis guidance of 25% of cumulative FCF. Our modelling implies €500mn/€750mn/€750mn of share repurchases to be executed in 2023/2024/2025E. On our estimates, leverage would remain meaningfully negative at -0.5x/-0.6x/-0.7x in 2023/2024/2025 and would enable the build-up of a solid net cash position - a buffer which provides flexibility with swings in working capital and would enable the group to absorb the step up in investment which the launch of a new aircraft program would require (unlikely in the near term in our view - see R&D section above).

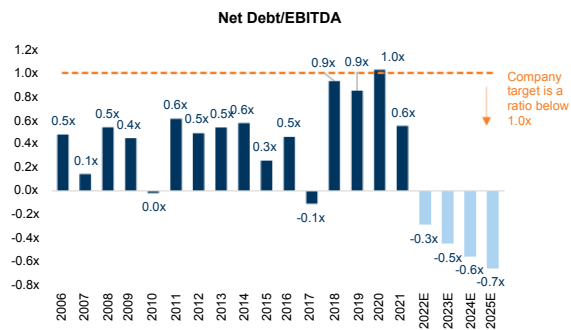
Exhibit 53: We see room for €2bn worth of share repurchases through 2025, starting with €500mn in 2023



Historical buyback figures reflect those advised in the Annual Report and include the reallocation of shares associated with OCEANE bonds to the €2.3bn buyback program.

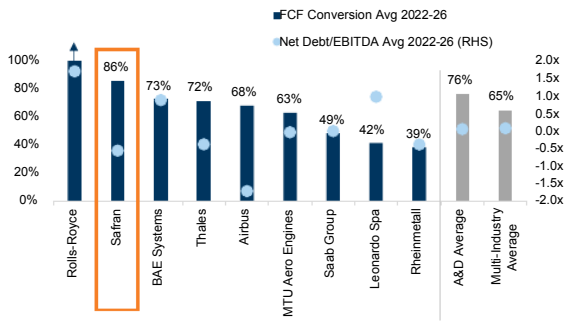
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 54: We forecast Safran would remain significantly below its leverage target of 1.0x in the event of €2bn worth of share repurchases through 2025 ...
Net Debt/EBITDA ratio



Source: Company data, Goldman Sachs Global Investment Research

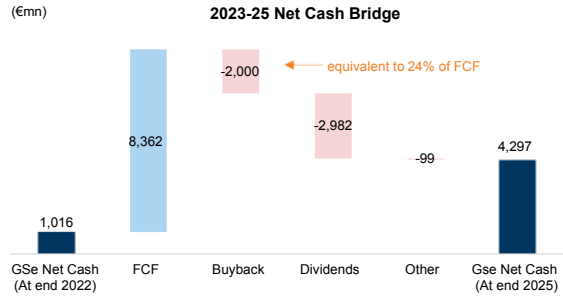
Exhibit 55: ... and would still screen as having one of the healthiest financial profiles among peers and the sector



EBIT to FCF conversion

Source: Goldman Sachs Global Investment Research

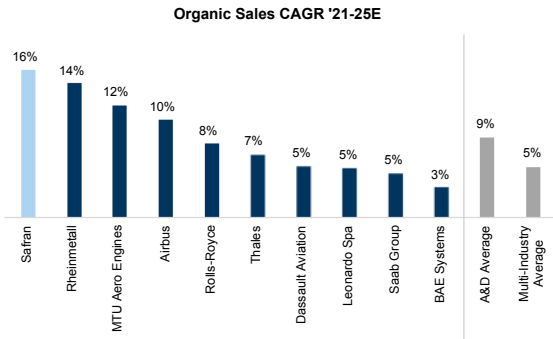
Exhibit 56: We estimate the net cash position will grow by more than €3bn over the next three years



Source: Goldman Sachs Global Investment Research

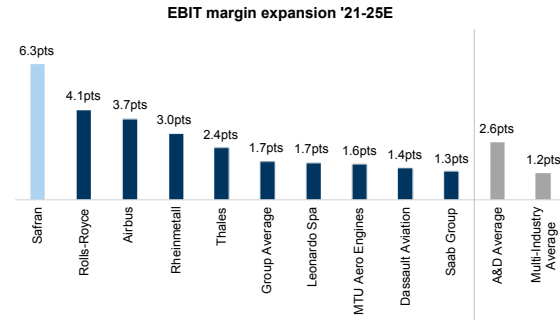
Valuation - high growth potential overlooked

Exhibit 57: Safran has the highest topline growth potential in the space...



Source: Goldman Sachs Global Investment Research

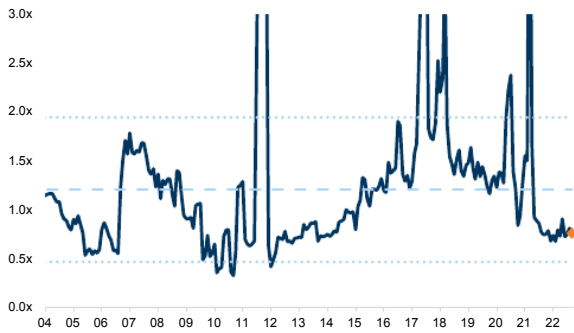
Exhibit 58: ... and by far the greatest margin expansion potential in the cycle ahead



Source: Goldman Sachs Global Investment Research

Exhibit 59: The stock still trades close to 10-year lows on a PEG ratio basis, underlining its undervalued growth profile ...

Historical PEG ratio 12m fwd

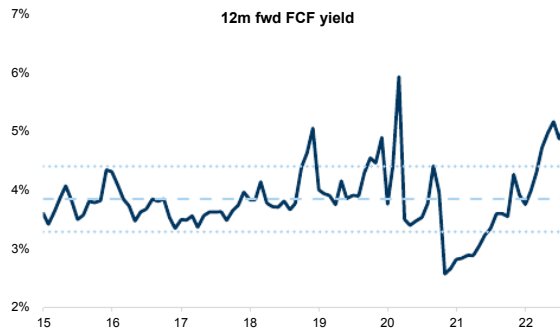


Dotted lines show average +/- 1 standard dev.

Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 60: ...and its FCF yield is high and screens in the top quartile of our coverage ...

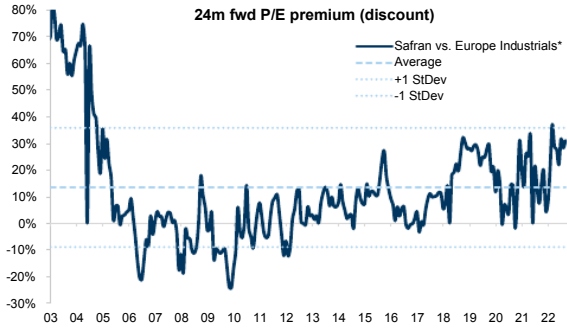
12m fwd FCF yield



Dotted lines show average +/- 1 standard dev.

Source: FactSet, Goldman Sachs Global Investment Research

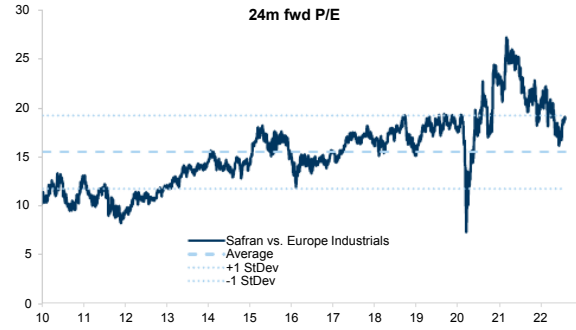
Exhibit 61: ... however, P/E valuation remains elevated by historical standards in relative terms ...



*MSCI Europe Industrials Index. Dotted lines show average +/- 1 standard dev.

Source: FactSet, Goldman Sachs Global Investment Research

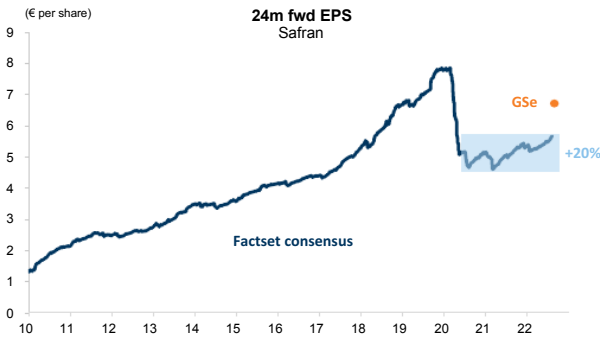
Exhibit 62: ... and on absolute terms ...



Dotted lines show average +/- 1 standard dev.

Source: FactSet, Goldman Sachs Global Investment Research

Exhibit 63: ... as consensus has only increased their 24m fwd EPS estimates by <10% p.a. since the Covid trough



Source: FactSet, Goldman Sachs Global Investment Research

Safran vs. Multi-Industry - #1 operating performance with growth potential overlooked

Exhibit 64: Safran is the strongest operational performance in our coverage...

Operating rank based on equal-weighting of rankings of the 5 metrics screened; ranks in brackets; 1 = strongest in the category

Rank	Company	ROIC 2025	ROIC chg. 21-25*	EPS CAGR 21-25	Avg. FCF/adj. EBIT 22-25	chg. WC days 21-25
1	Safran	31% (7)	204% (2)	49% (1)	90% (2)	-51 (2)
2	Airbus	30% (8)	146% (3)	23% (7)	68% (18)	-30 (3)
3	Volvo Group	37% (3)	57% (16)	14% (17)	82% (4)	-28 (4)
4	MTU Aero Engines	23% (16)	87% (8)	21% (9)	61% (29)	-55 (1)
5	Atlas Copco	32% (6)	19% (29)	15% (14)	68% (17)	-21 (7)
6	Nexans	26% (11)	138% (4)	35% (3)	50% (40)	-6 (17)
7	Duerr AG	13% (40)	66% (12)	18% (11)	75% (9)	-26 (5)
8	Weir Group	16% (30)	96% (7)	24% (6)	55% (39)	-11 (10)
9	Schindler Holding	86% (2)	36% (19)	5% (40)	78% (6)	0 (31)
10	KONE Corp.	192% (1)	58% (15)	0% (51)	86% (3)	0 (29)
11	Thales	29% (9)	80% (10)	12% (19)	72% (12)	17 (49)
12	Assa Abloy B	15% (34)	25% (23)	12% (20)	70% (13)	-10 (11)
13	Siemens AG	15% (33)	30% (20)	15% (15)	77% (7)	-2 (27)
14	Halma	18% (23)	17% (31)	10% (22)	75% (8)	-6 (19)
15	Smiths Group	16% (31)	81% (9)	13% (18)	63% (28)	-4 (21)
16	Geberit Holding	36% (4)	24% (26)	4% (42)	80% (5)	1 (33)
17	Renishaw Plc	24% (14)	8% (37)	9% (26)	65% (26)	-9 (13)
18	Andritz AG	25% (12)	26% (22)	6% (37)	73% (10)	2 (36)
19	Rotork Plc	27% (10)	24% (24)	8% (31)	69% (16)	3 (41)
20	Epiroc	33% (5)	-3% (48)	7% (35)	65% (24)	-10 (12)
21	FLSmidth & Co.	10% (50)	102% (6)	21% (8)	68% (22)	2 (39)
22	Iveco Group	11% (47)	115% (5)	31% (5)	-28% (53)	-6 (18)
23	ABB Ltd.	22% (19)	24% (25)	10% (24)	55% (38)	-3 (24)
24	Prysmian	15% (32)	58% (14)	18% (10)	59% (33)	4 (42)
25	Rheinmetall	25% (13)	42% (17)	32% (4)	37% (47)	23 (52)
26	Daimler Truck	11% (46)	64% (13)	9% (29)	56% (37)	-16 (9)
27	Carel Industries	22% (18)	1% (46)	9% (27)	64% (27)	-1 (28)
28	IMI Plc	20% (21)	2% (44)	3% (46)	72% (11)	-3 (25)
29	Ariston Holding	24% (15)	6% (40)	7% (33)	61% (30)	1 (35)
30	Signify NV	18% (22)	17% (32)	9% (28)	65% (25)	11 (46)
31	Spirax-Sarco	23% (17)	13% (35)	6% (36)	61% (31)	1 (34)
32	Saab Group	10% (49)	28% (21)	11% (21)	45% (42)	-4 (22)
33	Traton	11% (44)	73% (11)	45% (2)	-31% (54)	13 (48)
34	Sandvik	16% (28)	-7% (51)	15% (16)	56% (36)	0 (30)
35	Konecranes	13% (39)	19% (30)	4% (43)	68% (19)	1 (32)
36	Spectris	21% (20)	38% (18)	2% (48)	58% (34)	4 (43)
37	Legrand	11% (45)	2% (43)	10% (23)	69% (15)	2 (38)
38	GVS	13% (41)	-41% (54)	5% (41)	66% (23)	-26 (6)
39	Metso Outotec Oyj	17% (27)	16% (34)	9% (25)	43% (44)	2 (37)
40	Dassault Aviation	5% (54)	2% (45)	15% (13)	449% (1)	50 (54)
41	BAE Systems	18% (25)	5% (42)	7% (34)	70% (14)	33 (53)
42	Schneider Electric	13% (38)	16% (33)	8% (30)	68% (20)	12 (47)
43	Rexel S.A.	11% (48)	9% (36)	4% (44)	68% (21)	-5 (20)
44	Leonardo Spa	14% (37)	22% (27)	16% (12)	39% (45)	19 (50)
45	Storskogen Group AB	9% (51)	-9% (52)	8% (32)	59% (32)	-21 (8)
46	CNH Industrial	18% (26)	6% (39)	1% (50)	56% (35)	-3 (26)
47	SKF	16% (29)	5% (41)	3% (45)	35% (48)	-8 (14)
48	NKT A/S	12% (43)	547% (1)	()	19% (51)	19 (51)
49	Alfa Laval	15% (35)	-4% (49)	5% (39)	38% (46)	-6 (16)
50	KION Group	8% (52)	7% (38)	3% (47)	48% (41)	-7 (15)
51	Wartsila	12% (42)	22% (28)	6% (38)	20% (50)	11 (45)
52	Alstom	5% (53)	-1% (47)	()	28% (49)	-3 (23)
53	Electrolux	18% (24)	-37% (53)	-3% (52)	-6% (52)	3 (40)
54	GEA Group	15% (36)	-6% (50)	1% (49)	45% (43)	10 (44)

*Refers to change in ROIC over the period relative to the starting ROIC

Source: Goldman Sachs Global Investment Research

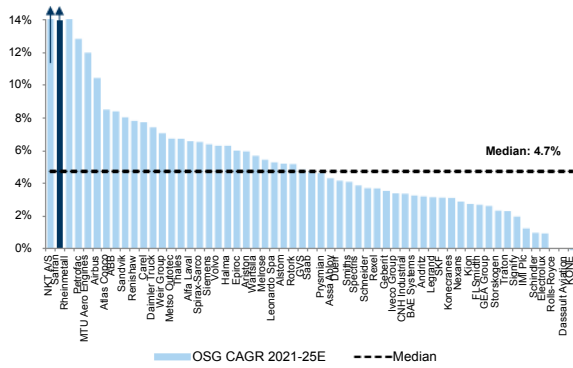
Exhibit 65: ...while valuation looks relatively less compelling than other industrial stocks, we note that the PEG ratio taking into account future growth as well as cash return-based metrics stand out as more favourable than those of the broader space

Based on an equal-weighting of the 7 metrics shown; 1= strongest in category

Rank	Company	FCF yield 2025	Div. & buyb. yield 2025	PEG ratio (EPS CAGR 21 - 25)	EV/EBIT vs 10y avg. prem./disc.	L12M price performance	RSI 30D	% of buy ratings
1	Traton	22% (2)	8% (3)	0.1x (2)	-13.8pp (14)	-43% (3)	58 (21)	45% (12)
2	Signify NV	17% (3)	12% (1)	0.6x (14)	-13.2pp (16)	-35% (8)	49 (5)	54% (23)
3	Electrolux	6% (27)	5% (6)	-3.2x (1)	-14.5pp (12)	-25% (15)	53 (10)	44% (10)
4	Duerr AG	13% (9)	4% (15)	0.5x (8)	-14.4pp (13)	-43% (2)	62 (28)	71% (34)
5	Volvo Group	16% (4)	10% (2)	0.5x (10)	-20.6pp (7)	-9% (31)	65 (33)	64% (31)
6	SKF	6% (33)	5% (8)	23.8x (47)	-27.0pp (4)	-27% (13)	52 (9)	48% (14)
7	Konecranes	14% (8)	6% (5)	1.8x (29)	-26.2pp (5)	-29% (12)	62 (29)	80% (43)
8	KONE Corp.	5% (37)	4% (13)	500.0x (48)	-13.7pp (15)	-42% (5)	35 (1)	48% (15)
9	KION Group	14% (5)	3% (23)	2.9x (35)	-6.5pp (23)	-50% (1)	57 (18)	68% (32)
10	Dassault Aviation	25% (1)	3% (31)	0.7x (15)	-53.4pp (1)	51% (49)	56 (15)	64% (30)
11	Geberit Holding	5% (39)	5% (7)	4.2x (43)	-2.0pp (27)	-35% (9)	56 (16)	14% (3)
12	Siemens AG	12% (10)	6% (4)	0.6x (11)	+3.1pp (33)	-24% (16)	63 (30)	79% (41)
13	Rheinmetall	6% (25)	4% (12)	0.3x (4)	-15.2pp (10)	110% (50)	45 (2)	81% (45)
14	FLSmidth & Co.	9% (13)	4% (17)	0.6x (12)	-8.8pp (21)	-10% (29)	66 (37)	50% (19)
15	Schindler Holding	6% (29)	2% (35)	4.0x (42)	-4.6pp (24)	-42% (4)	49 (6)	42% (9)
16	Sandvik	6% (24)	4% (10)	0.7x (17)	-2.2pp (26)	-18% (22)	57 (20)	73% (36)
17	Assa Abloy B	5% (38)	2% (36)	1.3x (21)	-14.6pp (11)	-19% (21)	55 (12)	50% (19)
18	BAE Systems	8% (14)	4% (18)	1.8x (28)	+3.0pp (32)	38% (45)	46 (3)	50% (19)
19	Alstom	11% (11)	2% (44)	n.a. ()	+7.8pp (37)	-38% (6)	50 (8)	70% (33)
20	Rexel S.A.	14% (6)	5% (9)	2.0x (30)	-31.4pp (3)	2% (39)	69 (42)	71% (35)
21	Legrand	7% (23)	3% (22)	1.6x (23)	+2.0pp (31)	-18% (23)	66 (38)	35% (6)
22	Rotork Plc	6% (34)	3% (21)	2.1x (32)	-10.8pp (18)	-26% (14)	57 (19)	63% (28)
23	Leonardo Spa	14% (7)	2% (45)	0.3x (6)	-12.4pp (17)	32% (44)	49 (7)	81% (45)
24	Wartsila	2% (50)	3% (29)	2.7x (34)	-16.9pp (8)	-30% (10)	61 (25)	50% (19)
25	Renishaw Plc	4% (42)	2% (43)	2.1x (31)	-21.8pp (6)	-23% (19)	58 (22)	56% (24)
26	Weir Group	7% (22)	3% (28)	0.5x (9)	-7.8pp (22)	-2% (35)	62 (26)	83% (46)
27	Metso Outotec Oyj	5% (35)	3% (26)	1.7x (26)	-38.6pp (2)	-11% (27)	62 (27)	89% (48)
28	Thales	8% (21)	3% (19)	1.1x (18)	+19.0pp (46)	45% (46)	60 (24)	53% (22)
29	IMI Plc	8% (16)	2% (40)	3.6x (38)	-10.5pp (20)	48% (47)	54 (11)	61% (27)
30	ABB Ltd.	6% (28)	3% (25)	1.4x (22)	+18.2pp (45)	-17% (24)	68 (40)	48% (16)
31	Airbus	8% (15)	3% (20)	0.5x (7)	+4.2pp (34)	-5% (32)	70 (44)	95% (49)
32	Andritz AG	8% (18)	4% (14)	1.6x (25)	-16.4pp (9)	2% (38)	80 (50)	100% (50)
33	Epiroc	4% (43)	2% (41)	3.4x (36)	+7.7pp (36)	-11% (28)	57 (17)	22% (4)
34	Nexans	8% (20)	2% (38)	0.3x (5)	+16.5pp (44)	16% (43)	71 (47)	42% (8)
35	GEA Group	5% (36)	3% (30)	12.2x (46)	-10.6pp (19)	-3% (34)	65 (34)	4.0% (7)
36	Atlas Copco	5% (41)	3% (33)	1.1x (19)	+24.1pp (48)	-21% (20)	66 (36)	46% (13)
37	Safran	8% (19)	4% (11)	0.3x (3)	+39.6pp (50)	5% (40)	78 (49)	77% (39)
38	Schneider Electric	6% (26)	4% (16)	1.8x (27)	+12.7pp (41)	-12% (26)	71 (46)	63% (29)
39	Prysmian	8% (17)	2% (37)	0.6x (13)	+11.7pp (40)	0% (36)	69 (43)	60% (26)
40	Spirax-Sarco	4% (48)	2% (46)	4.0x (41)	+46.8pp (51)	-29% (11)	55 (13)	6% (2)
41	Halma	4% (46)	1% (49)	2.5x (33)	+37.2pp (49)	-23% (17)	60 (23)	29% (5)
42	Spectris	4% (47)	3% (27)	8.0x (44)	+8.7pp (38)	-23% (18)	56 (14)	79% (40)
43	CNH Industrial	10% (12)	3% (32)	9.8x (45)	-4.5pp (25)	0% (37)	65 (32)	86% (47)
44	MTU Aero Engines	6% (30)	2% (34)	0.7x (16)	+20.8pp (47)	-3% (33)	70 (45)	59% (25)
45	Smiths Group	6% (32)	3% (24)	1.2x (20)	-0.9pp (28)	9% (41)	72 (48)	75% (38)
46	Alfa Laval	4% (45)	2% (42)	3.6x (39)	+6.0pp (35)	-16% (25)	68 (39)	44% (11)
47	GVS	5% (40)	1% (47)	3.8x (40)	+15.1pp (43)	-37% (7)	68 (41)	50% (19)
48	Saab Group	4% (44)	2% (39)	1.6x (24)	+10.4pp (39)	50% (48)	48 (4)	80% (43)
49	Carel Industries	3% (49)	1% (50)	3.4x (37)	+12.8pp (42)	-9% (30)	65 (35)	0% (1)
50	NKT A/S	6% (31)	1% (48)	n.a. ()	+136.4pp (52)	13% (42)	64 (31)	75% (38)

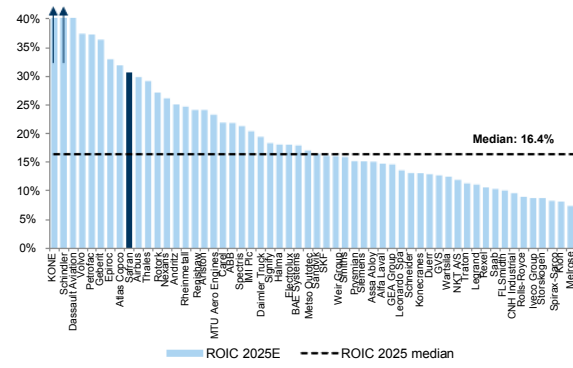
Source: Thomson Reuters, Goldman Sachs Global Investment Research

Exhibit 66: Safran is our second-strongest conviction in terms of OSG CAGR in Multis...
OSG CAGR 2021-25E



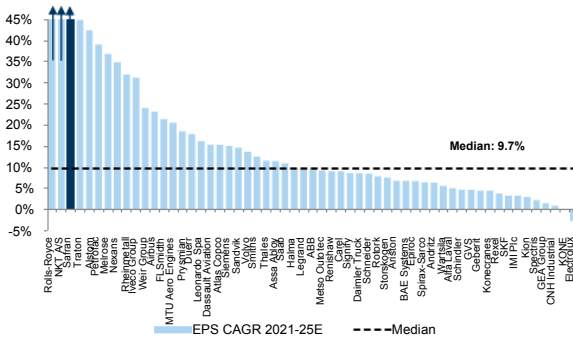
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 67: ...and medium-term returns are among the strongest ROIC 2025E



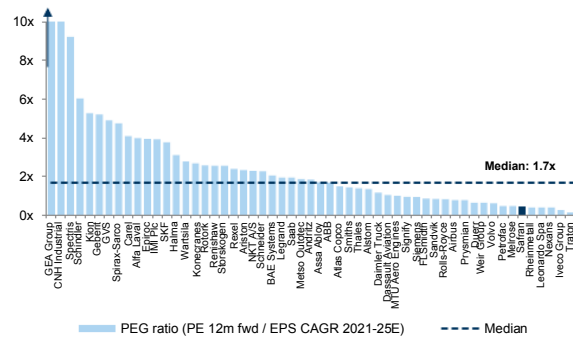
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 68: Safran also screens among the top performers in terms of EPS CAGR potential...
EPS CAGR 2021-25E



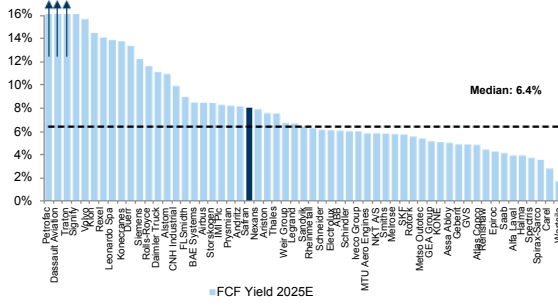
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 69: ...and the stock is cheap when considering its medium-term growth potential
PEG ratio



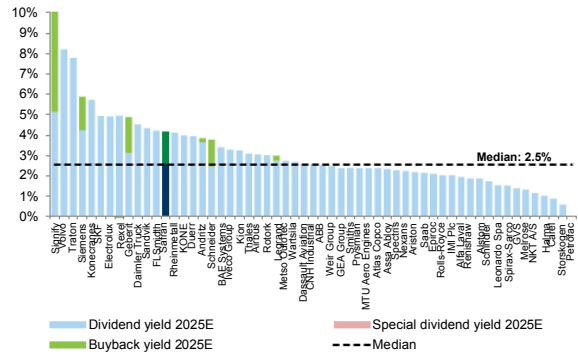
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 70: Safran's medium-term FCF yield is above our coverage median... FCF yield 2025E



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 71: ... and cash return to shareholders looks compelling over the medium term Dividend and buyback yield 2025E



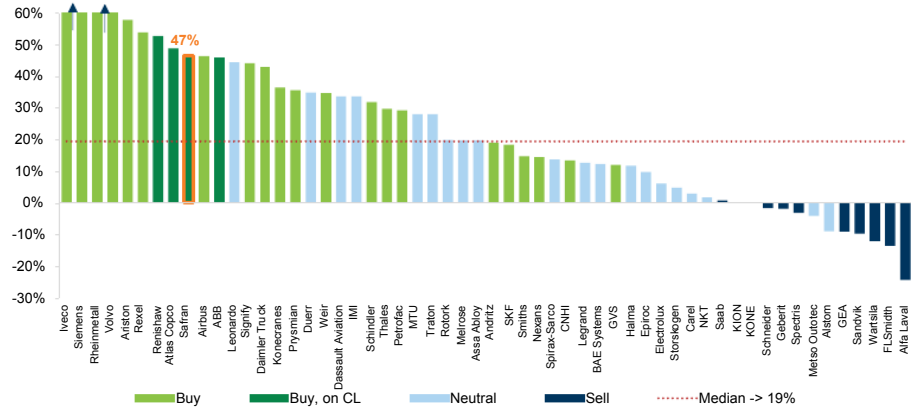
Source: Company data, Goldman Sachs Global Investment Research

How we reach our PT

We value Safran on our sector rolling EV/IC to ROIC/WACC methodology (24m fwd), in line with the rest of our European multi-industry universe to reach our 12-month price target of €150. Our TP increases to €150, from €134 on the back of higher estimates and our price target rolling forward by a quarter (to 6m 2023E/6m 2024E from 9m 2023E/3m 2024E). We see 47% upside vs sector average of 19%.

Exhibit 72: We see close to 50% upside on Safran

Multi-Industry upside downside



Prices as of last close of Sept 2, 2022

Source: Goldman Sachs Global Investment Research

Exhibit 73: Our 12-month price target increases to €150, from €134 previously.

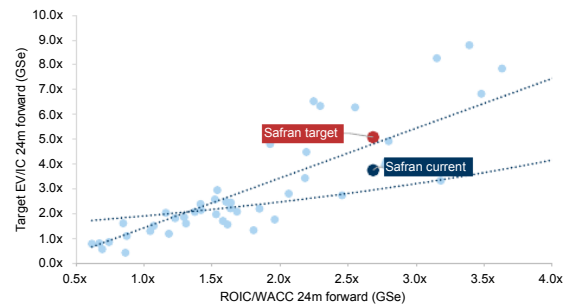
Safran target price calculation

Safran Target Price Calculation	
Implied LT growth rate	5.2%
ROIC 6m 2023/6m 2024 Gse	24.2%
WACC GSe	9.0%
ROIC/WACC 6m 2023/6m 2024 GSe	2.7x
Invested Capital 6m 2023/6m 2024 GSe	12,275
Multiplier	1.9x
EV implied by EV/IC-ROIC/WACC	61,486
Net debt (cash)	-1,574
Pension liabilities	778
Minority interests	1,467
Other EV adjustments	-3,085
EV adj. 6m 2022/6m 2023 GSe	-2,414
Market Cap implied by EV/IC-ROIC/WACC	63,900
NOSH	427
GS Target Price	150
EBIT 6m 2023/6m 2024 GSe	3,956
Implied EV/EBIT	15.5x

Source: Company data, Goldman Sachs Global Investment Research

Exhibit 74: Given its margin accretive assets, we think Safran should trade at a higher multiple

EV/IC to ROIC/WACC, linear and exponential trendlines



Source: Goldman Sachs Global Investment Research

Exhibit 75: We expect superior growth and returns to drive a meaningful re-rating vs historical and sector levels

Current and price target-implied multiples

Safran PT implied multiples					Safran trading multiples				10 yr historical median	
	2022E	2023E	2024E	24m fwd	2022E	2023E	2024E	24m fwd		12m forward
EV/EBIT	24.1x	17.2x	13.9x	15.4x	16.6x	11.8x	9.6x	10.6x	EV/EBIT	12.3x
EV/Sales	3.2x	2.6x	2.4x	2.5x	2.2x	1.8x	1.6x	1.7x	EV/Sales	1.8x
P/E	36.1x	25.3x	20.3x	22.5x	24.3x	17.0x	13.6x	15.1x	P/E	18.6x
P/B	4.5x	4.2x	3.9x	4.1x	3.0x	2.8x	2.7x	2.7x	P/B	3.6x
Dividend yield	1.1%	1.6%	2.0%	1.8%	1.6%	2.4%	2.9%	2.6%		
FCF yield	4.4%	3.7%	4.3%	4.0%	6.5%	5.5%	6.5%	6.0%		
PT Implied multiples vs. EU Multi-Industry median					Trading multiples vs. EU Multi-Industry multiples				Safran hist. vs EU Multi-Industry hist.	
	2022E	2023E	2024E	24m fwd	2022E	2023E	2024E	24m fwd		12m forward
EV/EBIT	81.4%	49.3%	42.4%	48.6%	24.7%	2.6%	-2.1%	2.1%	EV/EBIT	-2.5%
EV/Sales	150.2%	124.0%	121.4%	122.6%	71.9%	53.9%	52.1%	53.0%	EV/Sales	49.2%
P/E	130.5%	72.3%	54.9%	56.3%	54.8%	15.7%	4.0%	5.0%	P/E	15.0%
P/B	80.3%	86.0%	88.4%	87.6%	21.1%	24.9%	26.5%	26.0%	P/B	24.1%
Dividend yield	-1.4pp	-1.1pp	-1.0pp	-1.0pp	-0.9pp	-0.3pp	0.0pp	-0.2pp		
FCF yield	0.7pp	-2.4pp	-2.7pp	-2.3pp	2.9pp	-0.6pp	-0.5pp	-0.4pp		

Source: Datastream, Goldman Sachs Global Investment Research

Key Risks

Key risks to our rating include:

1) **Further weakening in traffic growth** causing a slowdown in aftermarket growth. The outlook for traffic growth over the coming months remains sensitive to disruption from a severe recession or COVID-19 - as outlined by the latest effects of the Omicron variant in China earlier this year. We expect traffic and aftermarket spending to continue to improve sequentially as travel restrictions are eased and pent-up demand for travel outpaces the potential adverse impact of a mild recession. Should restrictions be reinstated or a severe recession takes place, total traffic growth, airline profits and investment in maintenance spending would all suffer.

2) **Worse-than-expected performance in seats and cabins.** Historically, this segment has experienced operational issues. Going forward, we continue to model headwinds from increasing production costs but assume that execution remains on track. Previous challenges have largely been caused by ramp-ups, and could likely repeat in the increasing volume environment we currently expect.

3) **Raw material access issues.** The sector is heavily reliant on titanium for aircraft and engine production, and if this supply dries up, we would expect a squeeze on availability and pricing across the whole industry. However, recent comments from the company suggest Safran is still able to source titanium from Russia and has secured alternative titanium supplies - meaning it would likely still get titanium were sourcing from Russia were to cease. That said, if there were limited titanium exports, we believe the impact could still be significant; we would expect a tightening of availability of Aerospace-grade titanium and a corresponding price rise.

4) **A reduction in European defence spending.** Across Europe, we believe Defence spending is set to increase on the back of ambitious pledges as governments re-prioritise investments toward sovereignty following Russia's invasion of Ukraine. Defence makes up a relatively small portion of Safran's business, but any deep and sudden cuts would present downside risk to estimates.

5) **FX.** Safran has significant net USD exposure and a US\$45 bn hedge book (as of July 2022). It therefore benefits from a stronger USD; a significant weakening in the USD would present a material risk to Safran's medium-term EBIT and FCF outlook (beyond 2025), as this flows through the hedgebook.

6) **Germany Energy Supply risk.** While Safran's own business footprint in Germany is limited, we think risks lie around the indirect implications of potential supply chain disruptions. With 14,000 suppliers worldwide, Safran could suffer from the indirect impact of potential supply-chain disruptions based on the exposure to inputs/value chains that might see disruption.

Exhibit 76: We also note rising rates could pose a risk to valuation for Safran - even though this has not been the case so far this year
 Safran historical 12m fwd EV/EBIT premium (discount) to current at various US 10yr yield levels

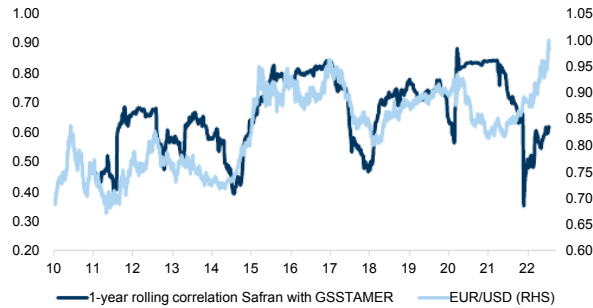
Safran - Premium (discount) to current 12m fwd EV/EBIT multiple in periods when US 10y yield was between ...										
	0% - 1%	1% - 1.5%	1.5% - 2%	2% - 2.5%	2.5% - 3%	3% - 3.5%	3.5% - 4%	4% - 4.5%	4.5% - 5%	5% - 5.5%
All history	0%		-40%	-33%	-38%	-44%	-47%	-26%	-44%	-37%
Last 10 years	0%	17%	-37%	-31%	-30%	-15%				
Last 7 years	0%	17%	-13%	-28%	-17%	-15%				
Last 5 years	0%	19%	3%	-24%	-17%	-15%				
Last 2 years	11%	20%	21%	3%						
Last year		12%	13%	3%						

*Computations are based on median of sample.

Our GS GIR macro colleagues forecast US 10y yield to reach 3.30%/3.15% in 2022/23

Source: Datastream, I/B/E/S, Goldman Sachs Global Investment Research

Exhibit 77: We find the stock has historically been trading closer to those EU companies with high US business exposure as the USD strengthened

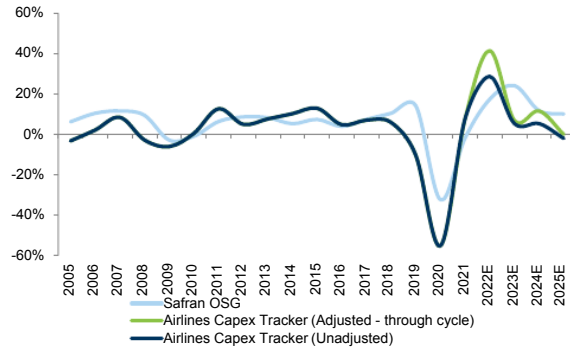


Source: Bloomberg, Goldman Sachs Global Investment Research

Key Financials

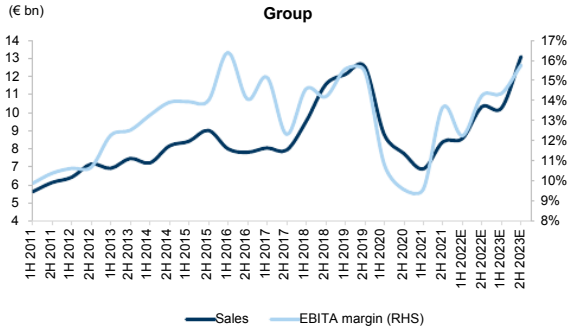
Exhibit 78: Our capex tracker for Airline correlates well with Safran's organic sales growth

GS Airlines Capex Tracker vs. Safran sales growth



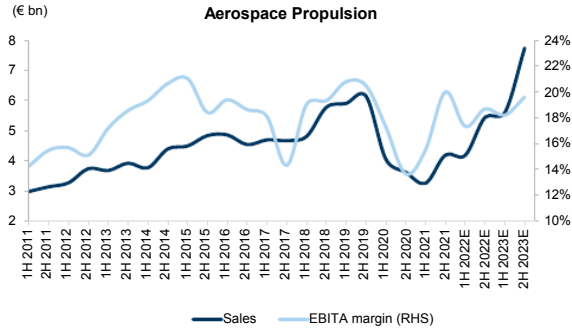
Source: Company data, Bloomberg, Goldman Sachs Global Investment Research

Exhibit 79: Safran Group's profitability should continue to recover strongly going forward...



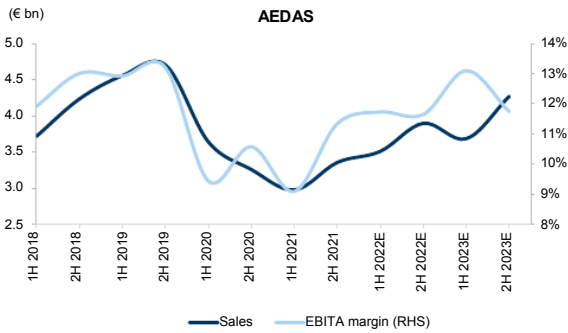
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 80: ... as its Propulsion division is on track for a strong recovery ...



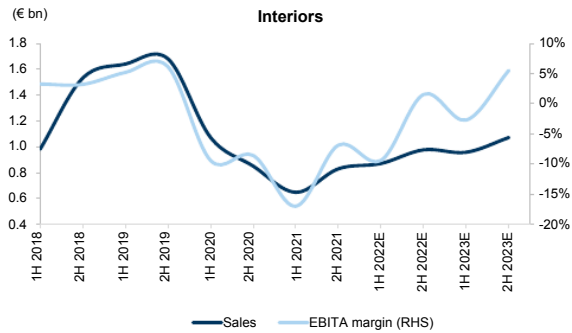
Source: Company data, Goldman Sachs Global Investment Research

Exhibit 81: ... with the AEDAS business recovering rapidly ...



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 82: ...and the Interiors division set to turn a corner



Source: Company data, Goldman Sachs Global Investment Research

Exhibit 83: Overview of our Safran estimates, 2018-26E

Safran	2018	2019	2020	2021	2022E	2023E	2024E	2025E	2026E	15Y CAGR*	NSY CAGR*
Sales											
Aerospace Propulsion	10,579	12,045	7,663	7,439	9,618	13,337	15,230	17,097	19,453	-5%	21%
Aircraft Equipment, Defence, Aerosystems	7,942	9,256	6,893	6,325	7,401	7,951	8,412	8,902	9,488	-7%	8%
Aircraft Interiors	2,511	3,321	1,922	1,475	1,846	2,028	2,213	2,495	2,701	-16%	13%
Other	18	18	20	18	18	18	18	18	18	-	-
Group	21,050	24,640	16,498	15,257	18,883	23,335	25,873	28,512	31,661	-1%	16%
Sales growth											
Aerospace Propulsion	13.1%	13.9%	-36.4%	-2.9%	29.3%	38.7%	14.2%	12.3%	13.8%	-	-
Aircraft Equipment, Defence, Aerosystems		16.5%	-25.5%	-8.2%	17.0%	7.4%	5.8%	5.8%	6.6%	-	-
Aircraft Interiors		32.3%	-42.1%	-23.3%	25.1%	9.9%	9.1%	12.7%	8.3%	-	-
Group	32.0%	17.1%	-33.0%	-7.5%	23.8%	23.6%	10.9%	10.2%	11.0%	-	-
Group organic	10.4%	14.2%	-32.5%	-1.8%	17.4%	24.1%	11.7%	10.1%	9.8%	-	-
Company defined underlying EBITA											
Aerospace Propulsion	2,030	2,485	1,192	1,342	1,746	2,542	3,122	3,722	4,751	-6%	29%
Aircraft Equipment, Defence, Aerosystems	992	1,209	687	650	864	983	1,137	1,252	1,407	-13%	17%
Aircraft Interiors	81	188	-174	-167	-67	33	134	235	308	-227%	13%
Other	-80	-62	-19	-20	-20	-20	-20	-20	-20	-	-
Group	3,023	3,820	1,686	1,805	2,523	3,538	4,373	5,190	6,446	-6%	29%
EBITA margin											
Aerospace Propulsion	19.2%	20.6%	15.6%	18.0%	18.2%	19.1%	20.5%	21.8%	24.4%	-1.0 pp	6.4 pp
Aircraft Equipment, Defence, Aerosystems	12.5%	13.1%	10.0%	10.3%	11.7%	12.4%	13.5%	14.1%	14.8%	-2.2 pp	4.6 pp
Aircraft Interiors	3.2%	5.7%	-9.1%	-11.3%	-3.6%	1.6%	6.1%	9.4%	11.4%	-14.5 pp	22.7 pp
Group	14.4%	15.5%	10.2%	11.8%	13.4%	15.2%	16.9%	18.2%	20.4%	-3.4 pp	8.5 pp
EBITA growth											
Group	37.9%	26.4%	-55.9%	7.1%	39.8%	40.2%	23.6%	18.7%	24.2%	-	-
Underlying Net Income	1,981	2,665	844	760	1,772	2,529	3,154	3,765	4,703	-15%	44%
Underlying EPS - basic	4.60	6.20	1.98	1.78	4.15	5.93	7.39	8.83	11.02	-15%	44%
Working Capital	-27	-897	-8	250	818	-384	-486	-679	-1,034	-208%	-233%
D&A	1,209	1,463	1,447	1,380	1,369	1,575	1,617	1,782	1,979	14%	7%
Other	-92	-86	-417	46	-157	-157	-157	-157	-157	-28%	-228%
Operating Cash Flow	3,071	3,145	1,866	2,436	3,803	3,563	4,129	4,712	5,492	0%	18%
Capex	-1,290	-1,162	-793	-756	-996	-1,213	-1,345	-1,483	-1,646	-6%	17%
as % sales	-6.1%	-4.7%	-4.8%	-5.0%	-5.3%	-5.2%	-5.2%	-5.2%	-5.2%	-	-
Company Defined FCF	1,781	1,983	1,073	1,680	2,807	2,350	2,783	3,229	3,845	3%	18%
conversion (vs. EBIT)	59%	52%	64%	93%	111%	66%	64%	62%	60%	-	-

*L3Y for AEDAS and Interiors divisions. pp improvement for margins.

Source: Company data, Goldman Sachs Global Investment Research

Exhibit 84: Safran's Income Statement

€ mn

Income Statement (€ mn)	2018	2019	2020	2021	2022E	2023E	2024E	2025E	2026E
Sales	21,025	25,098	16,631	15,133	18,883	23,335	25,873	28,512	31,661
Other Income	321	297	267	373	378	467	517	570	633
Changes in Inventories of finished goods and WIP	3	453	-865	-199	189	233	259	285	317
Capitalised production	447	438	329	372	566	700	776	855	950
Raw materials and Consumables used	-12,440	-14,448	-8,450	-7,999	-10,386	-12,834	-14,230	-15,681	-17,413
Personnel Costs	-5,665	-6,349	-5,028	-4,919	-5,803	-6,891	-7,147	-7,465	-7,563
Taxes	-295	-388	-326	-257	-378	-467	-517	-570	-633
Depreciation, Amortization and provision	-1,176	-1,600	-1,212	-1,509	-1,133	-1,400	-1,552	-1,711	-1,900
Asset impairment	62	57	-149	78	-283	-117	-129	-143	-158
Other recurring operating income and expense	-191	102	148	156	94	117	129	143	158
Share in profit from joint ventures	189	164	48	40	57	70	78	86	95
Recurring operating Income	2,280	3,824	1,393	1,269	2,185	3,213	4,056	4,880	6,146
Other non-recurring operating income and expenses	-115	13	-466	-405	0	0	0	0	0
EBITDA	3,374	5,300	2,374	2,244	3,497	4,718	5,596	6,577	8,030
EBIT	2,165	3,837	927	864	2,128	3,143	3,978	4,795	6,051
Financing expense	-476	-363	-357	-596	-80	-72	-63	-54	-42
Share in profit from associates	0	0	0	0	0	0	0	0	0
PBT	1,689	3,474	570	268	2,048	3,071	3,915	4,741	6,009
Tax	-348	-962	-184	-200	-532	-798	-1,018	-1,233	-1,562
Net Income	1,341	2,512	386	68	1,516	2,272	2,897	3,508	4,446
Non Controlling Interest	58	65	34	25	25	25	25	25	25
Underlying EPS - Basic	4.60	6.20	1.98	1.78	4.15	5.93	7.39	8.83	11.02
Average Share count - diluted (thousands)	436,336	434,977	440,460	440,087	440,087	440,087	440,087	440,087	440,087
DPS	1.8	0.0	0.4	0.5	1.7	2.4	3.0	3.5	4.4
Payout ratio (as % of underlying EPS)	40%	0%	22%	28%	40%	40%	40%	40%	40%
Margin Analysis									
EBIT Margin	10%	15%	6%	6%	11%	13%	15%	17%	15
EBITDA Margin	16%	21%	14%	15%	19%	20%	22%	23%	2
Underlying Tax Rate	24%	27%	28%	34%	26%	26%	26%	26%	26
Net Margin	6%	10%	2%	0%	8%	10%	11%	12%	14%

Source: Company data, Goldman Sachs Global Investment Research

Exhibit 85: Safran's Balance Sheet

€ mn

Balance Sheet	2018	2019	2020	2021	2022E	2023E	2024E	2025E	2026E
Goodwill	5,173	5,199	5,060	5,068	5,085	5,101	5,118	5,134	5,151
Intangible Assets	9,757	9,479	8,676	8,382	8,081	7,709	7,361	6,978	6,553
PP&E	4,454	4,398	4,055	3,937	3,882	3,908	4,001	4,101	4,211
Non-current financial assets	416	429	431	688	688	688	688	688	688
Investments in associates	2,253	2,211	2,126	1,969	1,969	1,969	1,969	1,969	1,969
Non-current derivatives	13	33	52	23	23	23	23	23	23
Deferred tax assets	391	251	316	449	449	449	449	449	449
Right of use asset	0	732	623	606	606	606	606	606	606
Non-current assets	22,461	22,736	21,343	21,133	20,793	20,465	20,226	19,959	19,660
Current financial assets	185	143	126	104	104	104	104	104	104
Current derivatives	740	674	694	705	705	705	705	705	705
Inventories and work-in-progress	5,558	6,312	5,190	5,063	5,665	6,300	6,468	6,558	6,649
Trade and Other receivables	6,580	7,639	5,769	6,504	6,798	8,401	9,314	10,264	11,398
Tax assets	752	458	481	555	555	555	555	555	555
Cash and Cash equivalents	2,330	2,632	3,747	5,247	7,807	8,915	9,904	11,088	13,394
Contract assets	1,544	1,743	1,695	1,853	2,312	2,857	3,168	3,491	3,877
Current Assets	18,159	20,072	18,188	20,583	24,498	28,389	30,770	33,317	37,233
Provisions	-1,588	-2,093	-1,942	-1,798	-1,898	-1,998	-2,098	-2,198	-2,298
Borrowings subject to specific conditions	-585	-505	-426	-327	-327	-327	-327	-327	-327
Non-current interest-bearing financial liabilities	-3,384	-3,239	-4,082	-5,094	-5,094	-5,094	-5,094	-5,094	-5,094
Deferred tax liabilities	-1,662	-1,340	-1,285	-1,275	-1,295	-1,315	-1,335	-1,355	-1,375
Other non-current financial liabilities	-2	-2	-2	-116	-116	-116	-116	-116	-116
Non-current liabilities	-7,228	-7,184	-7,755	-8,618	-8,738	-8,858	-8,978	-9,098	-9,218
Provisions	-1,189	-990	-905	-1,058	-1,058	-1,058	-1,058	-1,058	-1,058
Interest-bearing current financial liabilities	-2,221	-3,540	-2,509	-1,720	-1,720	-1,720	-1,720	-1,720	-1,720
Trade and other payables	-5,650	-6,164	-4,353	-4,950	-5,557	-6,829	-7,634	-8,424	-9,166
Tax liabilities	-210	-111	-118	-109	-109	-109	-109	-109	-109
Current derivatives	-1,255	-1,033	-1,244	-1,788	-1,788	-1,788	-1,788	-1,788	-1,788
Contract Liabilities	-10,453	-10,923	-9,838	-10,141	-11,707	-12,834	-12,936	-12,830	-12,664
Other	-113	-115	-59	-62	-62	-62	-62	-62	-62
Current liabilities	-21,091	-22,876	-19,026	-19,828	-22,001	-24,400	-25,307	-25,991	-26,567
Share capital	87	85	85	85	85	85	85	85	85
Retained Earnings	10,585	9,839	11,912	12,713	12,523	12,784	13,250	14,090	16,048
Net unrealised gain on available-for-sale financial assets	0	0	0	0	0	0	0	0	0
Profit for the period	1,283	2,447	352	43	1,491	2,247	2,872	3,483	4,421
Non-controlling interests	346	377	401	429	454	479	504	529	554
Total Equity	12,301	12,748	12,750	13,270	14,552	15,596	16,711	18,188	21,108

Source: Company data, Goldman Sachs Global Investment Research

Exhibit 86: Safran's Cash Flow Statement

€ mn

Cash Flow Statement (€ mn)	2018	2019	2020	2021	2022E	2023E	2024E	2025E	2026E
Reported Net Income	1,283	2,447	352	43	1,491	2,247	2,872	3,483	4,421
Depreciation	541	655	647	617	614	700	712	784	871
Amortisation	668	808	800	763	755	875	906	998	1,108
Impairment	-19	-42	377	91	0	0	0	0	0
Change in Provisions	45	168	-259	171	100	100	100	100	100
Share of profit in associates (net of dividends received)	-124	-87	22	702	0	0	0	0	0
Change in fair value of derivatives	316	-152	209	538	0	0	0	0	0
Capital gains on asset disposals	12	-41	20	-57	0	0	0	0	0
Profit attributable to non-controlling interests	58	65	34	25	25	25	25	25	25
Co-detailed Other	318	221	-328	-707	0	0	0	0	0
Cash Tax adjustment	0	0	0	0	0	0	0	0	0
Change in Inventory and Work in Progress	-393	-590	1,016	296	-602	-636	-168	-89	-91
Change in operating receivables and payables	-280	-563	41	-53	313	-330	-109	-160	-391
Change in contract assets and liabilities	748	229	-999	88	1,107	582	-208	-429	-552
Change in other receivables and payables	-102	27	-66	-81	0	0	0	0	0
Cash flow from Operations	3,071	3,145	1,866	2,436	3,803	3,563	4,129	4,712	5,492
Purchase of Intangible assets (net of disposals)	-510	-467	-344	-369	-454	-503	-558	-615	-683
Purchase of PP&E (net of disposals)	-780	-695	-449	-387	-542	-710	-788	-868	-964
Proceeds/(Payments) from Investments	-4,172	-29	-21	-33	-33	-33	-33	-33	-33
of which additions to PP&E	-2,086	-15	-11	-17	-17	-17	-17	-17	-17
of which additions to Intangibles (Goodwill)	-2,086	-15	-11	-17	-17	-17	-17	-17	-17
Proceeds/(Payments) from Financial Assets	1,950	39	14	-212	0	0	0	0	0
Cash flow from Investing	-3,494	-1,105	-799	-738	-1,029	-1,246	-1,378	-1,516	-1,679
Change in Share Capital	-1	-7	0	1	0	0	0	0	0
Net Change in LT Borrowings & Debt	-415	-851	817	779	0	0	0	0	0
Change in short term borrowings & repayable advances	-472	1,261	-831	-775	0	0	0	0	0
Dividends Paid	-695	-785	0	-183	-213	-709	-1,012	-1,262	-1,506
Share Buybacks	0	0	0	0	0	-500	-750	-750	0
Cash flow from Financing	-2,158	-1,740	68	-268	-213	-1,209	-1,762	-2,012	-1,506
Change in Cash	-2,581	300	1,135	1,430	2,560	1,108	989	1,184	2,306
FX	-3	2	-20	70	0	0	0	0	0
Cash at the beginning of the year	4,914	2,330	2,632	3,747	5,247	7,807	8,915	9,904	11,088
Cash at the end of the year	2,330	2,632	3,747	5,247	7,807	8,915	9,904	11,088	13,394

Source: Company data, Goldman Sachs Global Investment Research

Appendix

A1: How does the Engine Aftermarket work?

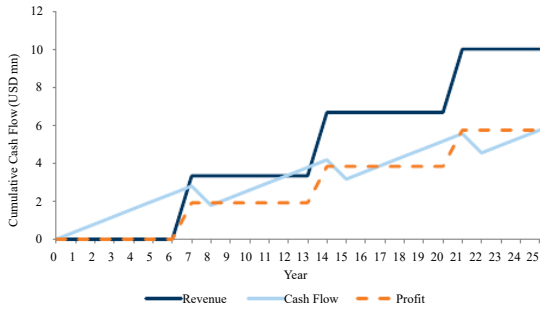
As engines are utilised, they require regular maintenance work, some of which happens 'on wing' (i.e., without removing the engine from the aircraft) but the most significant work happens at occasional large 'shop visits' where the engines are removed and sent for a major overhaul. These shop visits typically happen every 6-9 years on average, even though we would expect these intervals to lengthen going forward due to lower utilisation during Covid. While the mechanical process of maintenance is consistent across engine types, the customer relationship and accounting that underpins this process is not. Currently, there are three major approaches to handling the aftermarket:

- 1. Time & Materials (T&M):** Whereby the customer pays at the point of a maintenance event (e.g., engine overhaul), generating a high-value revenue stream for material spare parts (often >50%) and a lower margin revenue for labour (<10%). Until relatively recently, 'T&M' was the default maintenance relationship between aftermarket providers and the airlines, and it still constitutes the vast majority of services sales for the CFM56 (c.85% as of end 2021).
- 2. Engine Service Per Hour (ESPH):** Under ESPH, the airline is billed per hour that the engine is flown and these payments are settled monthly or quarterly; in return, the engine manufacturer covers the cost of maintenance, depending on the extent of coverage. Essentially this is a form of insurance contract, whereby the engine maker underwrites the engine's reliability and maintenance cost. This aligns the airline's interests with that of the engine manufacturer. They provide the airline with regular, predictable maintenance costs, while for the engine OEMs they offer better predictability and allow for a greater share of aftermarket sales (vs. c.35% third-party competition under T&M).
- 3. Engine Service Per Overhaul (ESPO):** Essentially the same as an ESPH contract, where the airline is charged per hour the engine is flown. Unlike ESPH contracts, however, under an ESPO contract the airline only hands over the cash for these billed hours at the point of the maintenance event. We estimate an 80/20 split within LTSA contracts on the LEAP engine between ESPO and ESPH-style contracts per CMD'21.

Under IFRS 15, revenues and EBIT on aftermarket contracts can only be booked as cost is incurred. This means that for ESPH-style contracts, any cash received from flight hour payments before maintenance has occurred will have to be treated as a working capital inflow, with revenue/profit only being booked once cost is incurred at the shop visit.

Exhibit 87: Safran build up a payable/receivable position under ESPH contracts...

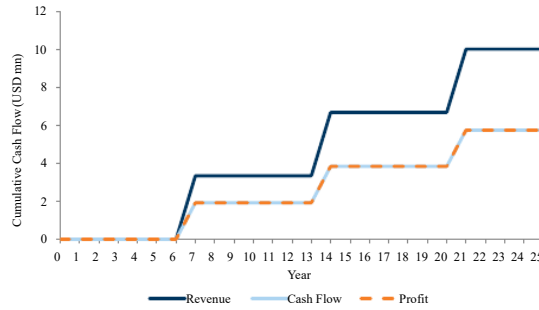
Cumulative revenue, cash flow, and profits for an ESPH contracted engine (Illustrative)



Source: Goldman Sachs Global Investment Research

Exhibit 88: ... whereas under ESPO and T&M contracts P&L recognition mirrors cash

Cumulative revenue, cash flow and profits under ESPO and T&M contracts (Illustrative)



Source: Goldman Sachs Global Investment Research

Flight hour contracts implications on modelling

Under IFRS 15, revenues and profit from aftermarket activities are booked only as costs are incurred. For Time & Materials and Engine Service Per Overhaul contracts (ESPO) cash comes in when shop visits occur, and so revenue and profit are booked concurrently with cash generation. Under Engine Service Per Hour contracts (ESPH), however, cash comes in from flight hour payments on a regular basis, usually monthly or quarterly. This cannot be booked as revenues are not recognised until costs are incurred, and so must be treated as a payable within working capital. For both CFM56 engines under ESPH contracts (we estimate c.75% of the fleet) and LEAP engines (we estimate c.10%), we model incoming flight hour payments (\$134 for the CFM56 and \$147 for the LEAP) and assume each engine flies approximately 4,000 hours per year. Any cash generated in excess of bookable revenues is added to the payables balance. In 2021-25E the combined CFM56/LEAP payable is expected at €409mn/458mn/529mn/648mn/725mn.

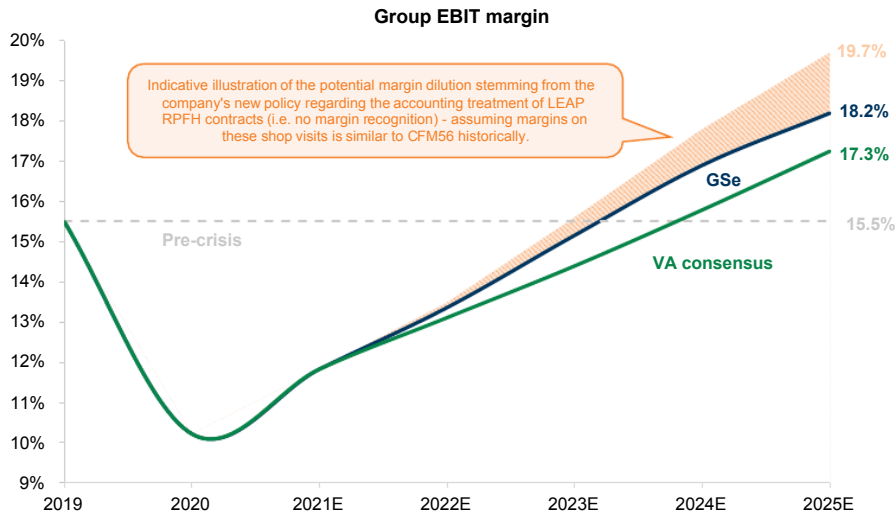
As a working capital inflow, these cash flows are included in our FCF forecasts; deducting these payables would reduce our 2022E FCF from €2.8bn to €2.3mn, lowering the FCF yield from 6.5% to 5.5%.

A2: What are the implications of recognising aftermarket revenue at cost for LEAP engines governed by rate-per-the-hour contracts?

We find the conservative accounting approach means medium-term margins would likely be meaningfully higher if LEAP aftermarket profitability were fully recognised.

At its latest CMD, Safran announced that it will adopt a conservative approach to margin recognition for LEAP RPFH contracts until 2025 as it seeks sufficient SV experience on the platform first. While management pointed that LEAP engines will not account for a significant share of commercial shop visits in the coming 5 years, our modelling shows the policy can have a significant drop-through effect on medium-term margins, even with LEAP accounting for a small share of civil aftermarket revenue. We find 150bps upside potential to our 2025E group EBITA margins were LEAP aftermarket profitability to be fully recognised (Exhibit 89). We arrive at this figure using our Civil Aftermarket bottom-up build which assumes (1) LEAP will represent c.15% of civil aftermarket revenue (in line with CMD’21 indication), (2) LEAP engines which are governed by RPFH contracts account for around 50% of the overall LEAP fleet (latest company guidance) and (3) margins booked under LEAP T&M should be similar to those historically booked on the CFM56 engine (company assumption).

Exhibit 89: We find Safran’s conservative accounting approach of RPFH contracts means medium-term margins would likely be meaningfully higher if LEAP aftermarket profitability were fully recognised



Source: Company data, Visible Alpha Consensus Data, Goldman Sachs Global Investment Research

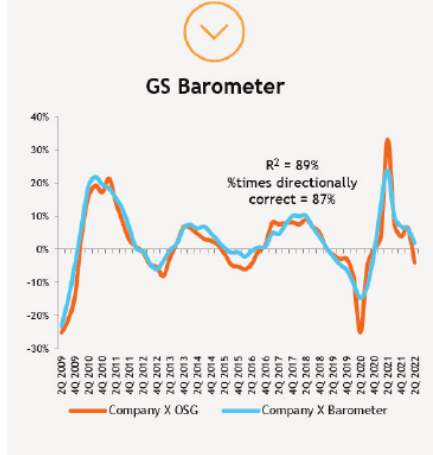
Exhibit 90: Our Multi-Industry Single Stock Toolkit

Our toolkit for picking stocks in multi-industry: Barometers, Screens and Capex Tracker

BAROMETERS (short term)

450+ high frequency indicators

Indicator	Region	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021
Germany Heavy Truck Sales	Europe	-102%	-102%	-102%	-102%	-102%	-102%	-102%	-102%
France Heavy Truck Sales	Europe	-25%	-25%	-25%	-25%	-25%	-25%	-25%	-25%
Italy Heavy Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
Spain Heavy Truck Sales	Europe	-17%	-17%	-17%	-17%	-17%	-17%	-17%	-17%
UK Heavy Truck Sales	Europe	-28%	-28%	-28%	-28%	-28%	-28%	-28%	-28%
Turkey Heavy Truck Sales	Europe	-17%	-17%	-17%	-17%	-17%	-17%	-17%	-17%
Germany Light Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
France Light Truck Sales	Europe	-25%	-25%	-25%	-25%	-25%	-25%	-25%	-25%
Italy Light Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
Spain Light Truck Sales	Europe	-17%	-17%	-17%	-17%	-17%	-17%	-17%	-17%
UK Light Truck Sales	Europe	-28%	-28%	-28%	-28%	-28%	-28%	-28%	-28%
Turkey Light Truck Sales	Europe	-17%	-17%	-17%	-17%	-17%	-17%	-17%	-17%
France Medium Truck Sales	Europe	-25%	-25%	-25%	-25%	-25%	-25%	-25%	-25%
Italy Medium Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
Spain Medium Truck Sales	Europe	-17%	-17%	-17%	-17%	-17%	-17%	-17%	-17%
UK Medium Truck Sales	Europe	-28%	-28%	-28%	-28%	-28%	-28%	-28%	-28%
Turkey Medium Truck Sales	Europe	-17%	-17%	-17%	-17%	-17%	-17%	-17%	-17%
Germany Heavy Duty Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
France Heavy Duty Truck Sales	Europe	-25%	-25%	-25%	-25%	-25%	-25%	-25%	-25%
Italy Heavy Duty Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
Spain Heavy Duty Truck Sales	Europe	-17%	-17%	-17%	-17%	-17%	-17%	-17%	-17%
UK Heavy Duty Truck Sales	Europe	-28%	-28%	-28%	-28%	-28%	-28%	-28%	-28%
Turkey Heavy Duty Truck Sales	Europe	-17%	-17%	-17%	-17%	-17%	-17%	-17%	-17%
Germany Light Duty Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
France Light Duty Truck Sales	Europe	-25%	-25%	-25%	-25%	-25%	-25%	-25%	-25%
Italy Light Duty Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
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Turkey Light Duty Truck Sales	Europe	-17%	-17%	-17%	-17%	-17%	-17%	-17%	-17%
Germany Medium Duty Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
France Medium Duty Truck Sales	Europe	-25%	-25%	-25%	-25%	-25%	-25%	-25%	-25%
Italy Medium Duty Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
Spain Medium Duty Truck Sales	Europe	-17%	-17%	-17%	-17%	-17%	-17%	-17%	-17%
UK Medium Duty Truck Sales	Europe	-28%	-28%	-28%	-28%	-28%	-28%	-28%	-28%
Turkey Medium Duty Truck Sales	Europe	-17%	-17%	-17%	-17%	-17%	-17%	-17%	-17%
Germany Heavy Truck Sales	Europe	-102%	-102%	-102%	-102%	-102%	-102%	-102%	-102%
France Heavy Truck Sales	Europe	-25%	-25%	-25%	-25%	-25%	-25%	-25%	-25%
Italy Heavy Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
Spain Heavy Truck Sales	Europe	-17%	-17%	-17%	-17%	-17%	-17%	-17%	-17%
UK Heavy Truck Sales	Europe	-28%	-28%	-28%	-28%	-28%	-28%	-28%	-28%
Turkey Heavy Truck Sales	Europe	-17%	-17%	-17%	-17%	-17%	-17%	-17%	-17%
Germany Light Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
France Light Truck Sales	Europe	-25%	-25%	-25%	-25%	-25%	-25%	-25%	-25%
Italy Light Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
Spain Light Truck Sales	Europe	-17%	-17%	-17%	-17%	-17%	-17%	-17%	-17%
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Germany Medium Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
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Germany Light Duty Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
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Italy Light Duty Truck Sales	Europe	-11%	-11%	-11%	-11%	-11%	-11%	-11%	-11%
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Turkey Medium Duty Truck Sales	Europe	-17%	-17%	-17%	-17%	-17%	-17%	-17%	-17%



SCREENS (medium term)

Screens on fundamentals, consensus, corporate actions, valuation and ESG

Operational metrics	GS vs consensus
ROIC 2022	2022 EBIT vs. Visible Alpha consensus data
ROIC chg. 21-23	Corporate actions
EPS CAGR 21-23	IRR under basic LBO assumptions
Cash returns 22-23	SOTP valuations
Avg. FCF/adj. EBIT 22-23	Screen on ESG
chg. WC days 21-23	Governance Rank - Global
Valuation metrics	Operational Headline E&S Rank
FCF yield 2022	Operational E&S Momentum Rank
Div. & buyb. yield 2022	Total E&S Disclosure %
PEG ratio 2022	Headline Controversy Rank
EV/EBIT vs 10y avg. prem./disc.	Governance Rank - Global
L12M price performance	
RSI 30D	
% of buy ratings	

Screens

Bull/Bear/Normalization scenarios

- Peak/trough/normalized EV/Sales
- Peak/trough/normalized EV/EBIT
- Peak/trough/normalized P/B

Capex Tracker (long term)

GS Capex Tracker: 4000 companies, 5yr capex forecasts, 25 end-markets

5-yr Capex CAGR

Green Capex/ (left arrow), Old economy (right arrow)

End Market Capex Tracker (blue line), Company X OSG (orange line)

Source: Goldman Sachs Global Investment Research

Disclosure Appendix

Reg AC

We, Daniela Costa, Victor Allard, Olivia Charley and Navya Singhal, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

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GS Factor Profile

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Growth is based on a stock's forward-looking sales growth, EBITDA growth and EPS growth (for financial stocks, only EPS and sales growth), with a higher percentile indicating a higher growth company. **Financial Returns** is based on a stock's forward-looking ROE, ROCE and CROCI (for financial stocks, only ROE), with a higher percentile indicating a company with higher financial returns. **Multiple** is based on a stock's forward-looking P/E, P/B, price/dividend (P/D), EV/EBITDA, EV/FCF and EV/Debt Adjusted Cash Flow (DACF) (for financial stocks, only P/E, P/B and P/D), with a higher percentile indicating a stock trading at a higher multiple. The **Integrated** percentile is calculated as the average of the Growth percentile, Financial Returns percentile and (100% - Multiple percentile).

Financial Returns and Multiple use the Goldman Sachs analyst forecasts at the fiscal year-end at least three quarters in the future. Growth uses inputs for the fiscal year at least seven quarters in the future compared with the year at least three quarters in the future (on a per-share basis for all metrics).

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Prices as of last close of September 5, 2022

ABB Ltd. (SFr26.73), Airbus (€96.86), Alfa Laval (Skr281.90), Alstom (€19.86), Andritz AG (€45.00), Ariston Holding (€720), Assa Abloy B (Skr214.40), Atlas Copco (Skr108.64), BAE Systems (787.4p), CNH Industrial (\$12.13), CNH Industrial (€12.18), Carel Industries SpA (€21.05), Daimler Truck Holding (€24.71), Dassault Aviation (€137.20), Duerr AG (€20.10), Electrolux (Skr127.16), Epiroc (Skr161.75), FLSmidth & Co. (Dkr190.40), GEA Group (€32.14), GVS (€8.91), Geberit Holding (SFr442.60), Halma (2,047p), IMI Plc (1,090p), Iveco Group (€4.94), KION Group (€38.09), KONE Corp. (€38.80), Konecranes (€21.70), Legrand (€72.50), Leonardo SpA (€7.84), MTU Aero Engines (€171.10), Melrose (132.25p), Metso Outotec Oyj (€7.55), NKT A/S (Dkr376.80), Nexans (€91.55), Petrofac (115.6p), Prysmian (€30.90), Renishaw Plc (3,500p), Rexel S.A. (€15.88), Rheinmetall (€156.60), Rotork Plc (239.6p), SKF (Skr155.25), Saab Group (Skr361.90), Safran (€100.76), Sandvik (Skr161.80), Schindler Holding (SFr168.75), Schneider Electric (€118.40), Siemens AG (€102.06), Signify NV (€28.20), Smiths Group (1,485p), Spectris (2,790p), Spirax-Sarco (10,275p), Storskogen Group AB (Skr11.16), Thales (€123.00), Traton (€13.43), Volvo Group (Skr165.60), Wartsila (€7.97) and Weir Group (1,448p)

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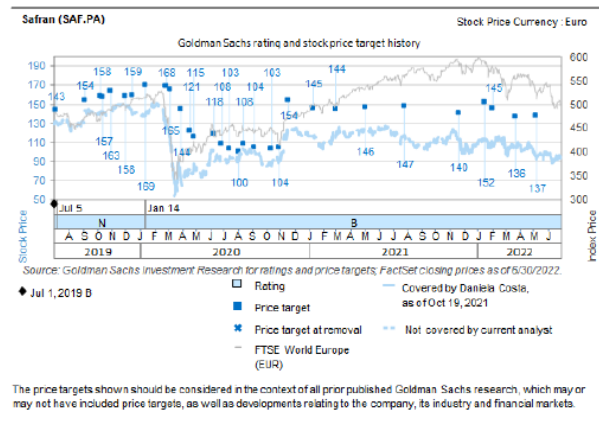
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