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Global Analog Semis

Global Analog Semis: How to explain, and what could potentially close, the valuation gap


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The valuation gap between Renesas & IFX and US peers has long been a key investor question. We studied the market over the past 10 years and found strong correlation between P/E and margins, returns, payout, and EPS growth. We see an opportunity for these metrics and hence valuation multiple to expand from here, especially for Renesas & IFX.

Margin and EPS growth: We're optimistic about the analog semis industry and anticipate revenue to rebound at 12% CAGR 25-28, driven by demand recovery, while margins are structurally higher than in the previous upcycle. Both numbers are with upside if shortages result in more price hikes. As a result, **we see industry EPS to grow at a 30% CAGR25-28E, supporting valuation rerating; Renesas has the lowest multiple relative to EPS growth**. In terms of market share, TI's market leadership has come under growing pressure as IFX has rapidly gained share.

Payouts: we see greater upside potential for Infineon and Renesas, driven by significant scope to raise their low payout ratios, which should support multiple expansion. Infineon and Renesas average payout ratios are ~20%, while US peers are at ~90%. We would call for both to consider increasing capital returns, particularly following improvements in profitability and FCF, which should narrow the valuation gap.

Returns expansion: In contrast, ROE and ROIC have declined since 2022, reflecting slower asset turnover following aggressive capacity expansion, M&A activity, and reduced leverage. **We expect adj. ROE to return to growth reaching 35% in 2028, driven by higher margins and slower asset growth due to lower capex.**

We see most valuation upside in Renesas, currently trading at only 15x P/E. Renesas should benefit from a tightening supply-demand backdrop and potential price hike. It is also well positioned with ~10-15% share in AI power and ~36% share in memory interface IC, which sees soaring demand due to agentic AI. Potential higher shareholder return, pricing increases, margin expansion and memory interface IC growth would all be catalysts for rerating. **IFX also stands out due to a clear margin improvement strategy and significant scope to increase capital returns.** Margins should benefit from a richer mix toward analog/mixed-signal, MCUs, fast-growing and margin accretive AI power, declining IGBT exposure, improving utilization, and the ongoing Step-up program.

We have been neutral on our US names (TXN, ADI, NXPI), mostly on valuation, though the industrial recovery appears to be upon us. Among the three, TXN has reached the end of their capex cycle and hence is seeing an inflection in FCF/share and datacenter (DC) (while only ~10% of revenue) is growing rapidly, though increased depreciation continues to weigh on margins. ADI probably has the best industrial mix (defense, ATE etc) as well as a (small) DC narrative, and has been more cautious on auto outlook (with numbers there is a better place). NXPI is cheaper than the others, though with a much smaller DC exposure (~3% or so), and has shown (to us surprising) auto strength (that is different from others, and raises some sustainability concerns for us).

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BERNSTEIN TICKER TABLE

			6 May 2026		TTM	Adjusted EPS				Adjusted P/E (x)	
			Closing	Price	Rel.						
Ticker	Rating	Cur	Price	Target	Perf.	Cur	2025A	2026E	2027E	2025A	2026E	2027E
IFX.GR (Infineon)	O	EUR	59.57	74.00	79.1%	EUR	1.38	1.72	2.63	43.1	34.7	22.7
6723.JP (Renesas)	O	JPY	3,623.00	4,200.00	72.7%	JPY	181.61	242.22	270.50	19.9	15.0	13.4
TXN (Texas Instruments)	M	USD	289.44	250.00	44.3%	USD	5.45	7.62	8.22	53.1	38.0	35.2
ADI (Analog Devices)	M	USD	415.63	375.00	76.6%	USD	7.79	11.62	13.38	53.3	35.8	31.1
NXPI (NXPmiconductors)	M	USD	303.55	270.00	31.1%	USD	11.81	14.58	16.45	25.7	20.8	18.5
EDME			1,543.74									
JPL			2,417.92									
SPX			7,365.12									

O - Outperform, M - Market-Perform, U - Underperform, NR - Not Rated, CS - Coverage Suspended

TXN estimate is Reported EPS; TXN valuation is Reported P/E (x);

Source: Bloomberg, Bernstein estimates and analysis.

INVESTMENT IMPLICATIONS

ADI (Market-Perform, $375.00): ADI is executing well with both cyclical and idiosyncratic drivers, though the shares remain expensive

NXPI (Market-Perform, $270.00): The pace of recovery remains open for debate.

TXN (Market-Perform, $250.00): TXN shares feel fully valued in the current environment.

Infineon: We rate Infineon **Outperform**, PT=**€**74.00.

Renesas: We rate Renesas **Outperform**, PT=**¥4,200.00**.

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VALUATION COMPS TABLE

EXHIBIT 1: **Analog Valuation Comparison Table**

	Last price	Crncy	Market cap (USD Mn)	Adj P/E FY+1	Adj P/E FY+2	Adj P/E FY+3	P/B FY+1	P/B FY+2	P/B FY+3
Global Analog									
Infineon	59.6	EUR	90,839	34.7x	22.7x	17.8x	4.4x	3.8x	3.2x
Renesas	3,623.0	JPY	43,363	15.0x	13.4x	11.8x	2.3x	2.0x	1.7x
Texas Instrument	289.4	USD	263,417	38.0x	35.2x	32.0x	14.4x	13.4x	14.0x
Analog Devices	415.6	USD	202,912	35.8x	31.1x	27.7x	5.9x	5.4x	5.5x
NXP	303.6	USD	76,638	20.8x	18.5x	15.4x	6.4x	5.5x	4.6x
STM	48.5	EUR	51,905	48.7x	25.4x	17.8x	2.8x	2.6x	2.3x
Onsemi	105.8	USD	41,452	34.3x	24.8x	18.9x	5.7x	5.2x	4.5x
Monolithic Power	1,652.4	USD	81,180	68.8x	54.8x	46.4x	20.1x	16.1x	12.6x
Rohm	3,487.0	JPY	8,971	112.6x	42.2x	27.6x	1.6x	1.6x	1.5x
Analog Peers Average				**45.4x**	**29.7x**	**23.9x**	**7.1x**	**6.2x**	**5.6x**

Based on May 6th Price. Renesas based on May 7th Price
Source: Company reports, Bloomberg, Bernstein analysis and estimates

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DETAILS

After the sharp correction in 2024 and only a modest recovery in 2025, analog companies are attracting increased attention from investors looking to capitalize on the next up-cycle and the AI opportunity. **We are becoming increasingly positive on the analog semis sector as we anticipate revenue to rebound in 2026, with margins now structurally higher than in the previous upcycle. As a result, we expect EPS growth to accelerate from here growing at a 30% CAGR over the next three years. While return ratios such as ROE and ROIC dipped due to high capex, we expect them to rebound over the next three years.**

In the following sections, we analyze what has historically driven the valuation gap and how this gap could potentially narrow. We then examine the major financial metrics that have the greatest impact on multiples and provide our outlook and expectations for the companies under coverage:

- **For revenue growth, we expect acceleration to an 12% CAGR over the next three years.** The fastest-growing company in our coverage is Infineon at 15% CAGR, followed by Renesas and ADI, both growing at 13% CAGR.

- Analog profitability has improved materially over the past decade with margins now structurally higher than in the previous upcycle. **Average adjusted GM increased from 45% in 2015 to 51% in 2025, peaking at 57% in 2022, and we expect it to reach ~56% by 2028.** High operating leverage drove even stronger gains in OpM, which rose from 19% in 2015 to 26% in 2025, with a peak of 37% in 2022. We anticipate operating margins will move back close to post covid levels, reaching 35% in 2028. Adj. net income margins expanded similarly, rising from 14% to 21% and reaching 30% in 2023. ADI and TI consistently outperform peers by approximately 12pp, while European IDMs remain structurally less profitable. **We expect adj. net income margins to rebound after 2025, reaching ~29% by 2028 and supporting ~30% EPS CAGR over the next three years.**

- For returns, the average adjusted ROE has been quite volatile over the past ten years. It stood at around 20% in 2015, peaked at approximately 45% in 2022, and declined to 24% in 2025. This sharp decline was partially driven by lower profitability in the recent downcycle but was also caused by a strong increase in assets, and therefore equity, due to capacity expansion. **We anticipate adjusted ROE will return to growth over the next three years, reaching 35%, driven by higher margins and a slowdown in asset growth due to lower capex.**

Among analog names, we prefer Infineon and Renesas, which offer more room for improvement. Although we believe it will be very challenging for these companies to reach the net income margin levels of their most profitable peers, given the large profitability gap that is likely to persist in the short to medium term, they have meaningful scope to increase payout ratios by returning more cash to investors. This should support multiple expansion. **Focusing on the PEG ratio, IFX and Renesas also stand out as the most attractive names in our coverage, and we rate both Outperform.**

By contrast, their American peers already distribute most of their earnings and have potentially less room to further improve already high margins over the long term. ADI in particular already enjoys gross margins well into the 70s. TXN margins may have some room to come up over time as their accelerated capex strategy reaches its end, though the depreciation load from the last 5 years will linger, with gross margins likely settling out well below where they ran a few years back.

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EXHIBIT 2: **2025 Summary Table**

2025 Data	Adj NI Margin%	Adj. ROE	Adj. ROIC	FCFF/SALES	Payout ratio	Current P/E	EPS CAGR 2025-28E	PEG
Infineon	12%	14%	16%	10%	25%	28x	35%	0.8x
Renesas	25%	30%	29%	30%	15%	15x	19%	0.8x
Texas Inst.	28%	35%	23%	12%	129%	35x	18%	1.9x
Analog Devices	36%	29%	33%	46%	96%	33x	24%	1.4x
NXP	24%	47%	33%	28%	64%	19x	19%	1.0x
STMicro	4%	3%	3%	-2%	109%	37x	82%	0.4x
Onsemi	16%	15%	12%	32%	146%	30x	33%	0.9x
Average	**22%**	**26%**	**21%**	**23%**	**109%**	**31x**	**35%**	**0.9x**

STMicro and Onsemi not covered, Bloomberg estimates

Price based on May 6th 2026, Renesas based on 7th May. Payout ratio = Capital Return / Adj. NI
Source: Company reports, Bloomberg, Bernstein analysis and estimates

EXHIBIT 3: **5-year average Summary Table**

5-year average	Adj NI Margin%	Adj. ROE	Adj. ROIC	FCFF/SALES	Payout ratio	Average P/E	EPS CAGR 2020-25
Infineon	16%	21%	23%	10%	20%	19x	14%
Renesas	26%	36%	36%	33%	19%	11x	15%
Texas Inst.	36%	51%	36%	19%	94%	26x	-2%
Analog Devices	38%	25%	30%	49%	94%	24x	10%
NXP	27%	69%	45%	29%	81%	16x	14%
STMicro	16%	18%	17%	4%	41%	18x	-15%
Onsemi	23%	30%	24%	19%	46%	18x	23%
Average	**26%**	**36%**	**30%**	**23%**	**57%**	**19x**	**8%**

STMicro and Onsemi not covered, Bloomberg estimates

Payout ratio = Capital Return / Adj. NI
Source: Company reports, Bloomberg, Bernstein analysis

THE VALUATION GAP

Historically, analog players have had very different profitability and capital return policies. Excluding onsemi, American IDMs (TI, ADI and NXP) historically had higher margins and profitability ratios (ROE/ROIC) and also higher capital return to shareholders. On the contrary, European IDMs have experienced low profitability and also considerably low payout ratio. Renesas, has been slightly more profitable over the last 10 years but had the lowest payout ratio by far. As a result, ADI and TI have traded at higher multiples, which has also been partially driven by US investor home bias. Looking at the historical 1-Year Forward P/E of analog companies we observe four major positive correlation:

1. **EPS Growth:** Needless to say, a key factor influencing the current multiple is the expected growth over the next three years. Looking at the EPS CAGR, STMicro shows the highest CAGR, primarily driven by the very low EPS delivered in 2025. We expect Infineon and Renesas to deliver a 35% and 19% EPS CAGR 2025-28, respectively, which makes them look relatively cheaper than ADI and TI on this metric.(Exhibit 4).

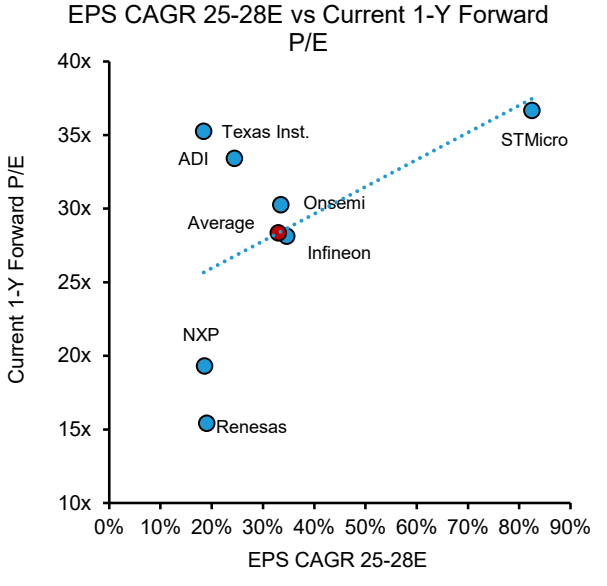
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2. **Margins:** Over the past 10 years, TI and Analog Devices achieved an average adj. net income margin of ~35%, more than 20 percentage points higher than power semis players such as Infineon, STMicro, and Onsemi, which averaged around 14%. Renesas and NXP performed slightly better, with margins of ~20%. There is a clear positive correlation between higher margins and higher valuation multiples. TI and ADI, with their superior margins, traded at an average P/E ratio above 20x (Exhibit 5).

3. **Returns ratio:** The correlation between adj. ROE, ROIC, and forward P/E shows a similar pattern, with a positive relationship, though somewhat weaker, mainly for two reasons. ADI, which has the highest adj. NI margin over the past 10 years, lags slightly in terms of ROE and ROIC because the acquisitions of Maxim and Linear Tech. weighted on its balance sheet. On the other hand, NXP exhibits a considerably high ROE, supported by strong margins, relatively high leverage, and asset turnover. However, it trades at a low P/E multiple as investors penalize it for the weak organic growth over the last decade, coupled with market share loss, especially in Auto MCU (Exhibit 6, Exhibit 7).

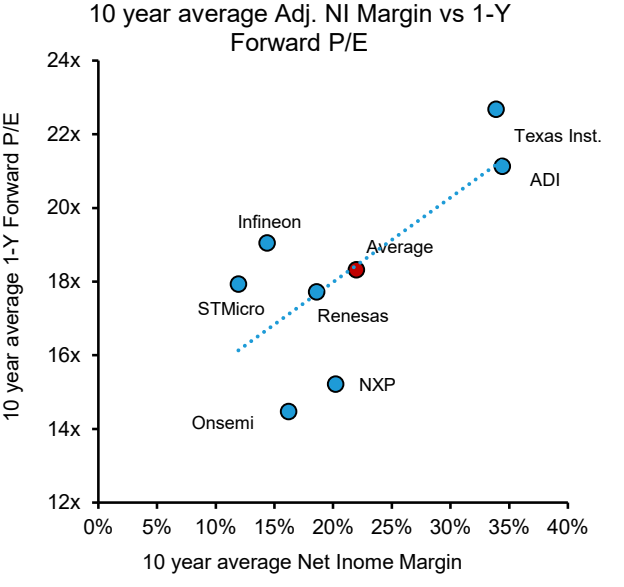
4. **Payout:** Likewise, there is a positive correlation between capital returns to shareholders and the 10 year average 1Y forward P/E, although NXP is once again an exception. Naturally, there is also a very strong relationship between the payout ratio and both ROE and ROIC, since capital return policies reduce equity and therefore mechanically increase ROE and ROIC (Exhibit 8, Exhibit 9).

EXHIBIT 4: **STMicro shows the highest EPS CAGR, largely due to very low EPS in 2025. We expect Infineon and Renesas to deliver 35% and 19% EPS CAGR over 2025 to 2028, respectively, making them look relatively cheaper than ADI and TI.**



Source: Company reports, Bloomberg, Bernstein analysis and estimates

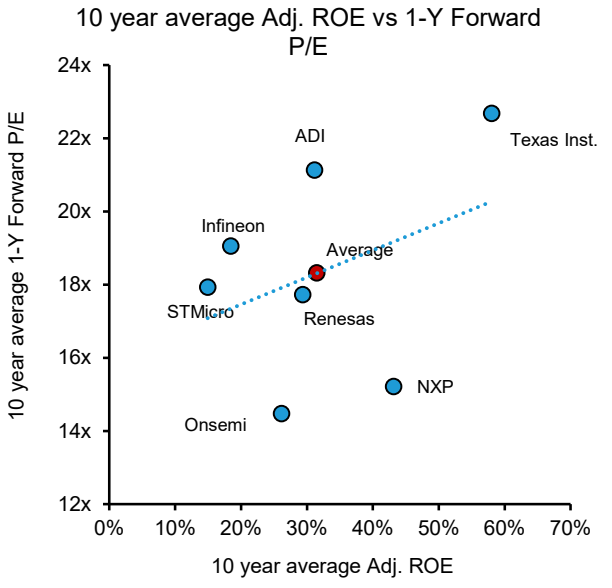
EXHIBIT 5: **Historically, there is a clear positive correlation between higher margins and higher valuation multiples. TI and ADI, with their superior margins, traded at an average P/E ratio above 20x**



Source: Company report, Bloomberg, Bernstein analysis

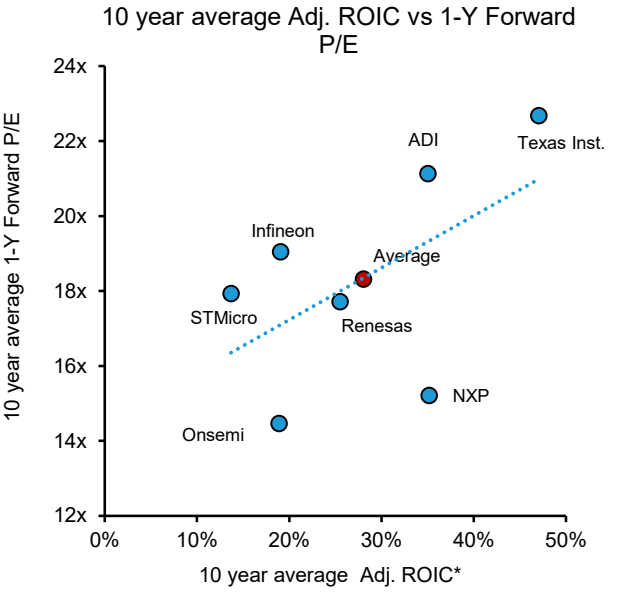
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EXHIBIT 6: **The correlation between adj. ROE and forward P/E shows a similar pattern, with a positive relationship, though somewhat weaker.**



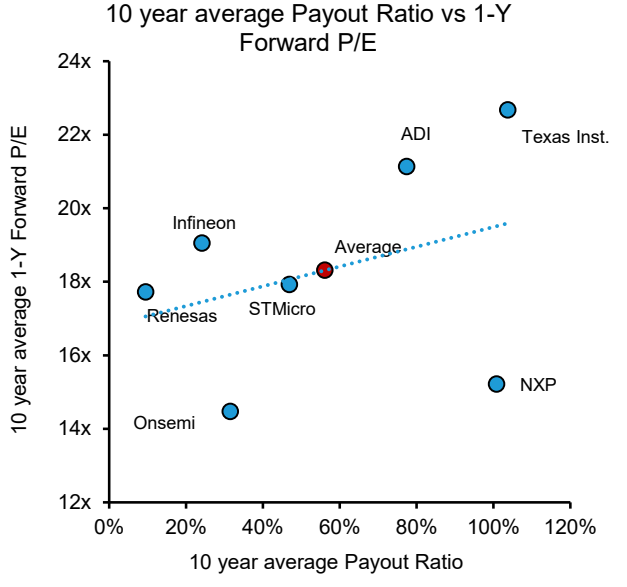
Source: Company report, Bloomberg, Bernstein analysis

EXHIBIT 7: **Adj. ROIC also shows a positive relationship with P/E multiple.**



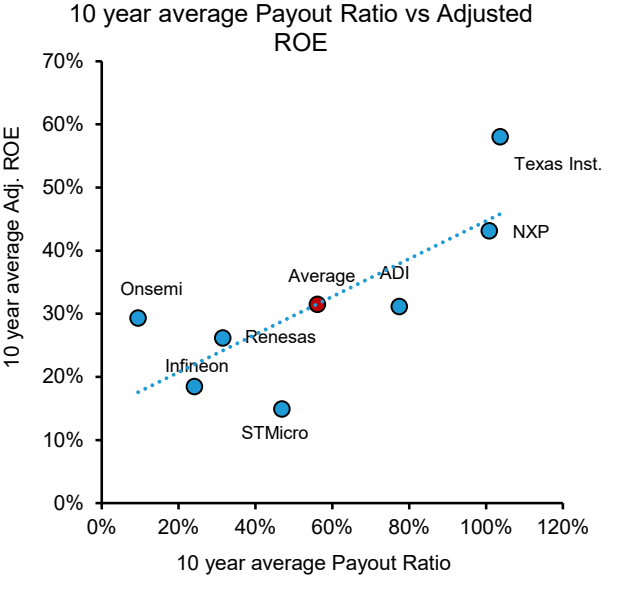
Source: Company report, Bloomberg, Bernstein analysis

EXHIBIT 8: **Likewise, there is a positive correlation between capital returns to shareholders and the 1Y forward P/E, although NXP is once again an exception**



Source: Company report, Bloomberg, Bernstein analysis

EXHIBIT 9: **Naturally, there is also a very strong relationship between the payout ratio and both ROE and ROIC, since capital return policies reduce equity and therefore mechanically increase ROE and ROIC.**



Source: Company report, Bloomberg, Bernstein analysis

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FINANCIAL ANALYSIS

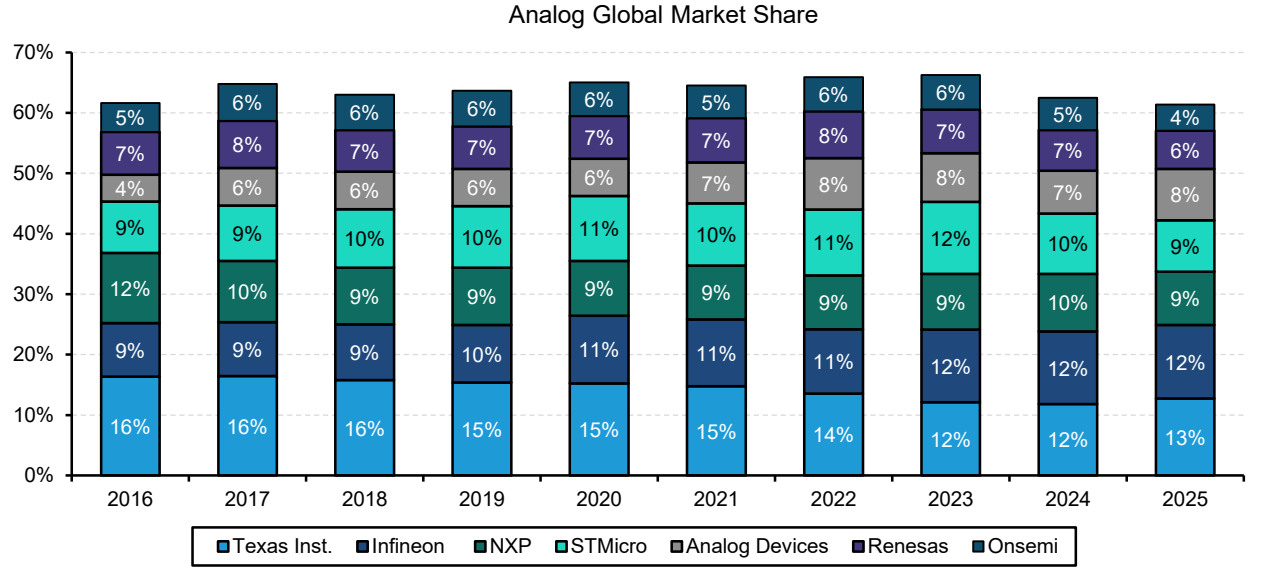
MARKET SHARE AND REVENUE GROWTH - INFINEON LEADING SHARE GAINS

The analog market, which encompasses three distinct sub-sectors —analog and mixed-signals, power/discrete, and MCU— has traditionally been more fragmented than the larger advanced logic and memory markets. On average, the top seven players collectively held above 60% market share and now account for 61%, the lowest level over the past decade, primarily due to increasing competition from China. Texas Instruments has historically been the undisputed leader in analog, commanding a 16% market share in 2018, 7 percentage points ahead of the runner-up. However, after gradually losing ground primarily to Infineon, Texas Instruments slipped to second place in 2024, with the German company taking the lead. **Infineon's strong market share gains, increasing from 9% to 12%, suggest a strong product portfolio and solid execution, particularly in MCUs.** While TI regained leadership in 2025, Infineon remains very close behind and is rapidly gaining market share in MCU and AI power. STMicro (not covered) also made considerable gains in market share over the past few years but experienced a setback in 2024, with revenue declining sharply by 23% (Exhibit 10).

Total revenue from the seven largest players increased from USD 47 Bn in 2015 to USD 96 Bn in 2023, growing at a CAGR of 9%. This period saw a significant sales surge in 2021, following the downturn in 2019 and the impact of COVID-19. The fastest-growing companies during this timeframe were Infineon, STMicro, and Analog Devices, with CAGRs of 12%, 12%, and 16%, respectively. Notably, Analog Devices' revenue surged in 2021/22, driven largely by its USD 28 Bn acquisition of Maxim. On the other hand, Texas Instruments and Renesas recorded the slowest growth, with CAGRs of 4% and 5%, respectively. Importantly, over the 2015–25 time period, Infineon experienced the fastest organic revenue growth.

After a sharp 14% decline in 2024 that affected all players, followed by only a modest recovery in 2025 (+3% YoY), growth is expected to accelerate over the next three years. **We forecast 12% CAGR over 2025-28E, with Infineon, Analog Devices and Renesas expected to lead growth, posting projected CAGRs of 15%, 13%, and 13%, respectively** (Exhibit 11, Exhibit 12, Exhibit 13).

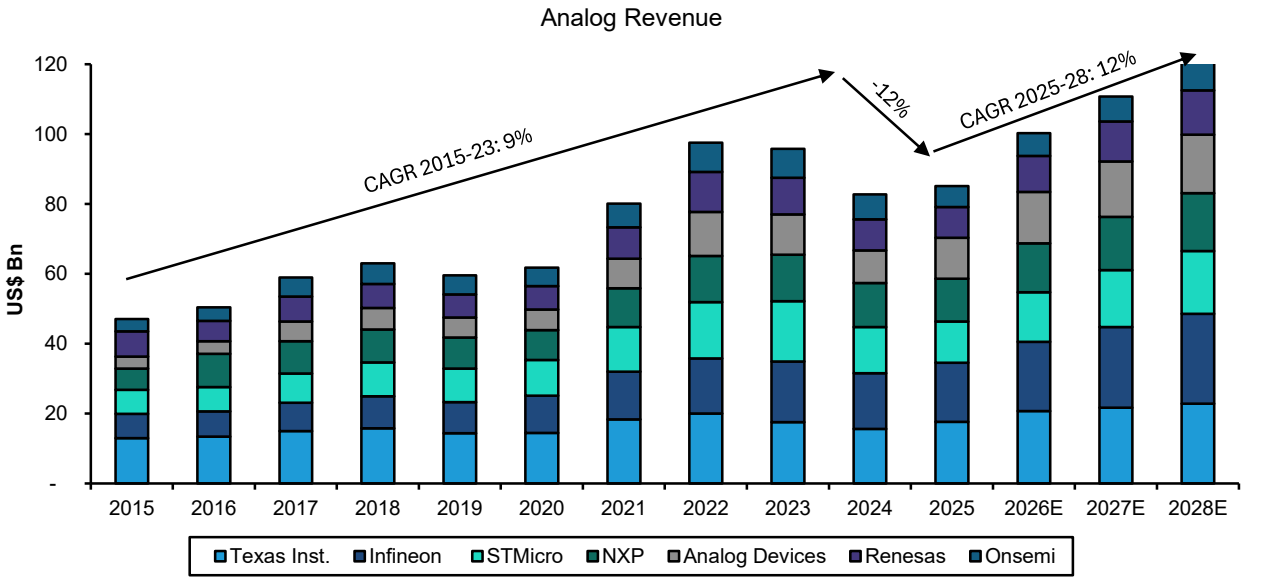
EXHIBIT 10: **TI has been the market leader in Analog for decades. However, in recent years IFX has been gaining ground and temporarily surpassed TI in 2024. Although TI regained leadership in 2025, Infineon remains very close behind.**



Source: Company reports, Bernstein analysis

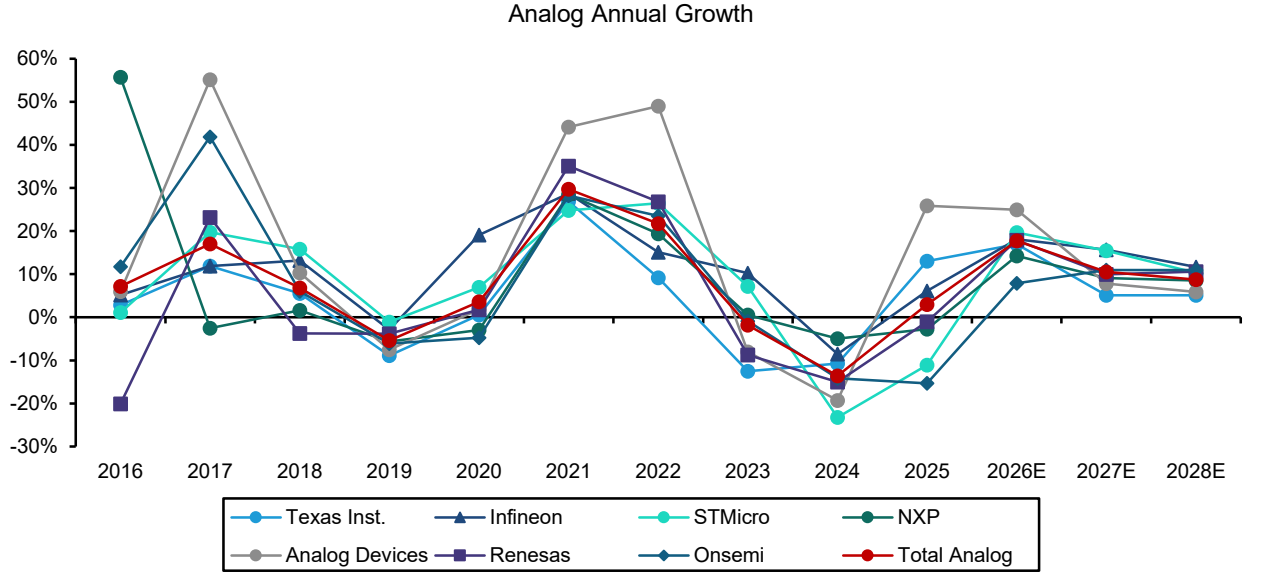
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EXHIBIT 11: **Analog sales grew at a 9% CAGR from 2015 to 2023, primarily driven by Infineon, STMicro, and ADI. Following only a modest recovery in 2025, we expect growth to accelerate over the next 3 years. We expect IFX to have the fastest growth at 15% CAGR.**



IFX and ADI revenue calendar adjusted
Source: Company reports, Bloomberg, Bernstein analysis

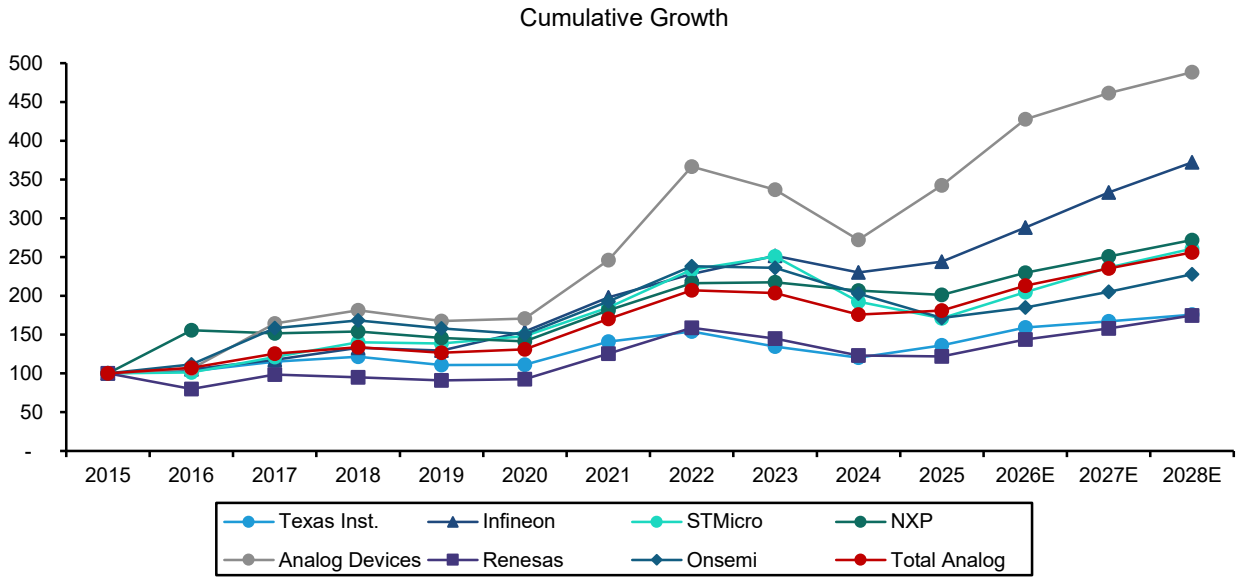
EXHIBIT 12: **While annual growth was quite volatile over the past decade, with two downcycles, analog revenue grew at a 6% CAGR 2015-25.**



STMicro and Onsemi not covered, Bloomberg estimates
Source: Company reports, Bloomberg, Bernstein analysis and estimates

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EXHIBIT 13: **The fastest growers in 2015–25 were ADI, Infineon, and NXP, with CAGRs of 12%, 9%, and 7%. ADI's 2021/22 surge was driven by the USD 28 Bn Maxim acquisition. NXP was also active in M&A (Freescale). On an organic basis, IFX grew fastest.**



STMicro and Onsemi not covered, Bloomberg estimates
Source: Company reports, Bloomberg, Bernstein analysis and estimates

PROFITABILITY

Over the past decade, analog profitability has increased significantly, and we believe it is now structurally higher. The average Adjusted Gross Margin rose from 46% in 2015 to 51% in 2025, reaching a peak of 57% in 2022. **We expect Adj. GM to rebound this year and reach 56% by 2028. From a cyclical perspective, we believe this represents a good entry point to invest in analog.** However, differences in product mix, geographic and end market exposure, and manufacturing structures result in very different margin profiles, ranging from around 70% GM for ADI to approximately 40% GM for Infineon, STMicro (not covered), and onsemi (not covered) (Exhibit 14).

The variation in COGS as a percentage of revenue originates from several factors:

1. **Product Mix:** The most important factor impacting profitability is the product mix, as power/discrete semiconductors are considerably less profitable than Analog, Mixed-signal and MCU products. European players and onsemi have the highest exposure to power, with Infineon historically deriving more than half of its revenue from power semiconductors. On the other hand, ADI produces almost only Analog, and TI is mainly exposed to Analog and MCU.

2. **Depreciation:** Over the last decade, ADI and TI have reinvested less in manufacturing expansion than onsemi, IFX, and STM, benefiting from highly depreciated capacity on their balance sheets. However, Texas Instruments' depreciation increased significantly in 2023 following a massive capex increase as they embarked on a substantial capacity expansion strategy (though one now reaching its end). (Exhibit 15).

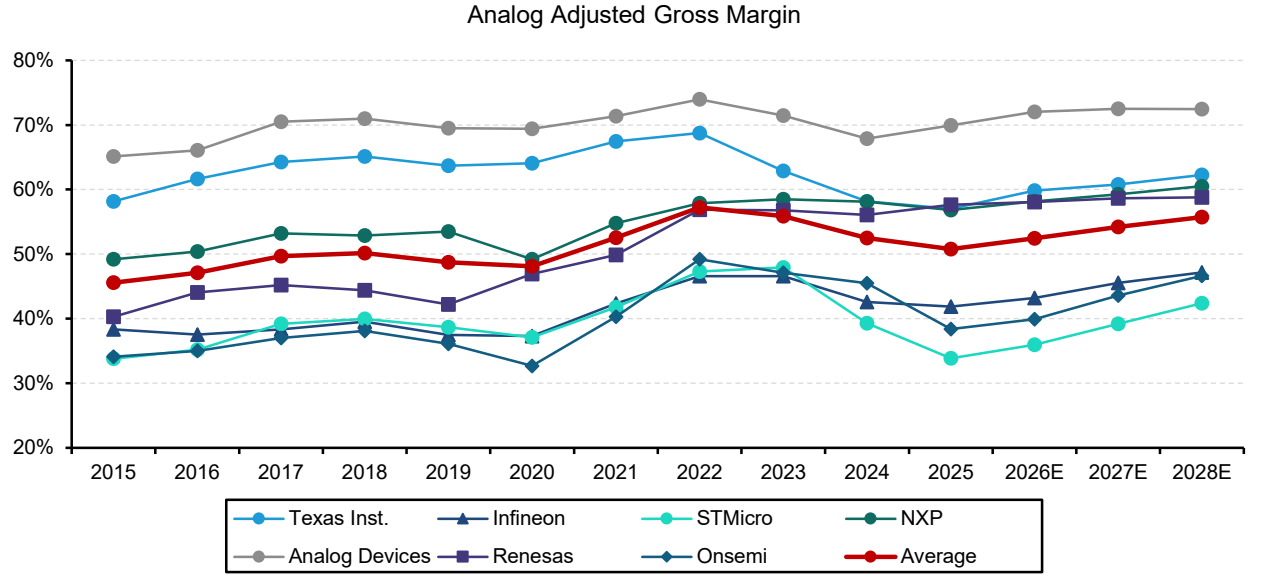
3. **Manufacturing Efficiency:** TI produces almost entirely in-house, lowering COGS by avoiding foundry markups, leveraging depreciated fabs, and maintaining supply control, with a goal of sourcing more than 95% of wafers internally. Analog Devices applies a hybrid model, splitting production 50/50 between internal and outsourced, using flexibility to optimize fab loading while tapping partners for advanced nodes. Infineon keeps core analog/power in-house but outsources approximately 40% of volumes, mainly advanced CMOS, which raises costs. STMicro remains largely internal but outsources advanced digital.

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4. **300mm Capacity:** TI has been a pioneer in 300mm wafers, with the larger wafer size translating into more chips per wafer and cost advantages around 40% less than chips built on 200mm wafers. TI targets over 80% wafer produced on 300mm by 2030. While most of their peers are also investing in the transition to 300mm, they are still far behind.

5. **Energy Cost:** European and Japanese players have historically paid considerably higher energy prices than their American peers. Furthermore, the outbreak of the war in Ukraine and, more recently, the war in Iran have caused energy prices to surge, severely affecting this highly energy-intensive industry.

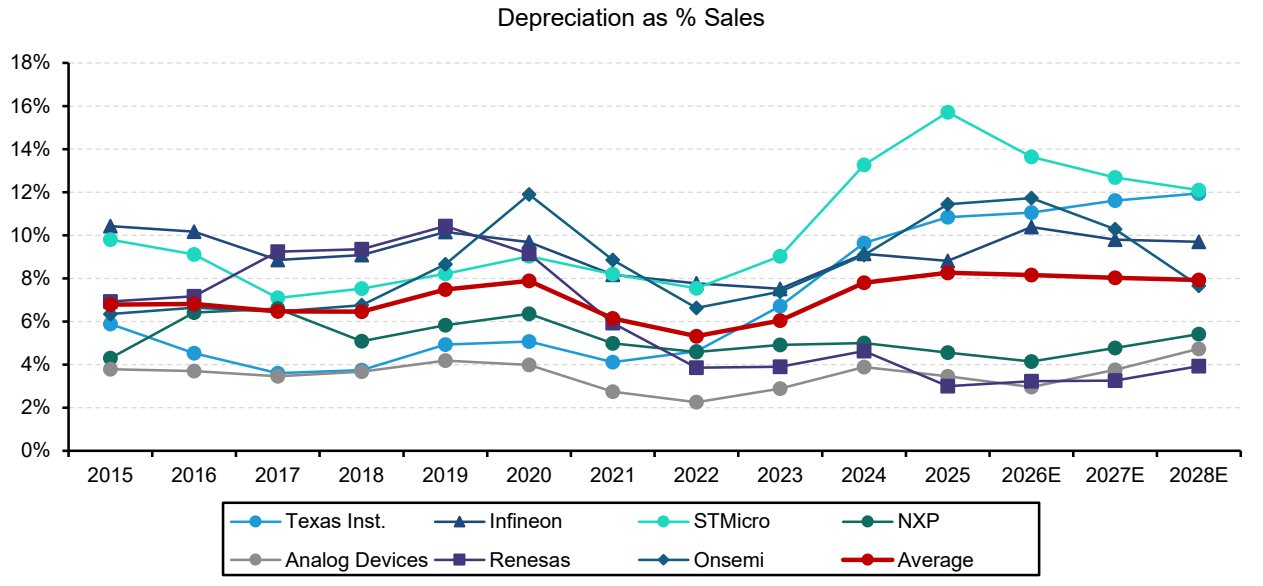
EXHIBIT 14: **Analog profitability has increased, with Adj. GM rising from 46% in 2015 to 51% in 2025, peaking at 57% and expected to reach ~56% by 2028. Margins range from ~70% GM at ADI to ~40% at Infineon, STMicro, and onsemi.**



STMicro and Onsemi not covered, Bloomberg estimates
Source: Company reports, Bloomberg, Bernstein analysis and estimates

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EXHIBIT 15: **Depreciation partly explains the GM gap. Over the past decade, ADI and TI reinvested less in manufacturing than onsemi, IFX, and STM, benefiting from largely depreciated assets. TI's depreciation rose sharply in 2023 after a major capex increase.**



STMicro and Onsemi not covered, Bloomberg estimates
Source: Company reports, Bloomberg, Bernstein analysis and estimates

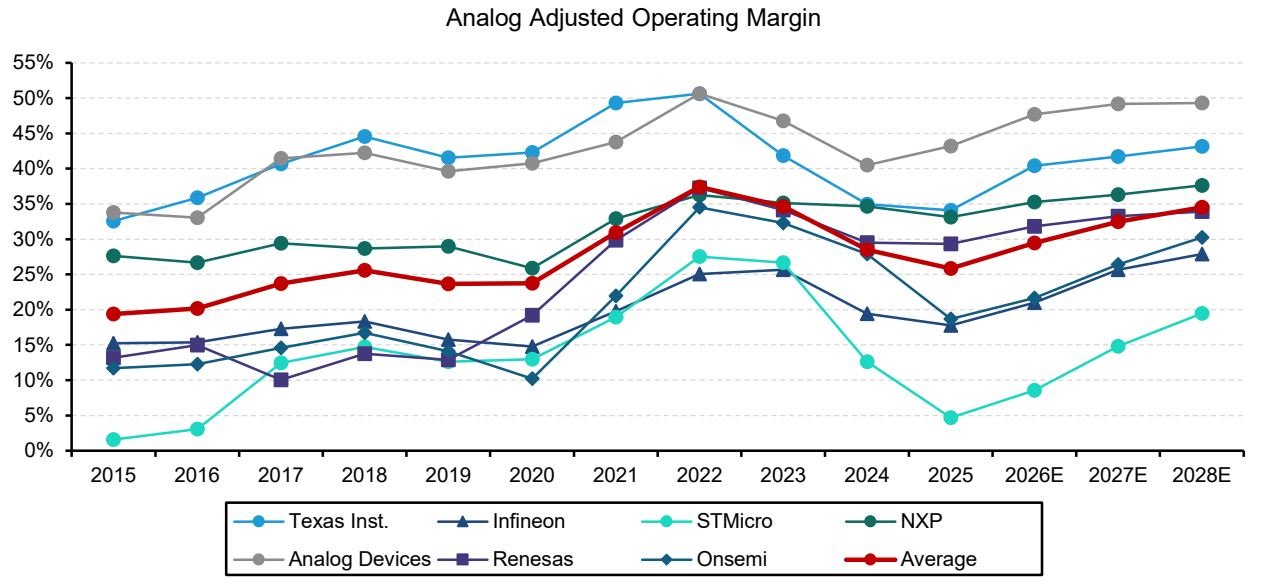
Thanks to relatively high operating leverage, the adjusted operating margin experienced an even more impressive growth, climbing from 19% in 2015 to 26% in 2025, peaking at 37% in 2022. We expect Adj OpM to rebound this year and reach 35% in 2028. When examining Opex, SG&A as a percentage of sales has steadily declined and remains relatively consistent across companies, ranging between 9-11% in 2025. We anticipate SG&A will resume its downward trend after a slight uptick in 2024 and 2025. In contrast, R&D spending has been more stable, averaging around 15%, though there are notable differences among players. Historically, NXP, Renesas, ADI, and STMicro have invested more heavily in R&D, and we estimate they will continue to outspend the average. (Exhibit 16, Exhibit 17, Exhibit 18).

Similarly, Adjusted Net Income rose from 14% in 2015 to 21% in 2025, reaching a peak of 30% in 2023. ADI and TX consistently posted Net Income figures on average about 12 percentage points higher than their peers. In contrast, European IDMs exhibited significantly lower profitability, with no clear signs of the gap narrowing. **We expect adj. Net Income to rebound sharply after bottoming out in 2025, reaching an average margin of 29% by 2028** (Exhibit 19).

While we expect Infineon and Renesas to improve profitability in coming years as industrial and automotive demand recovers and excess capacity declines, reaching peer-leading levels will be difficult. The large profitability gap, which has remained almost constant over the past 10 years, will likely persist in the medium to short term. Although Infineon is improving product mix and enhancing manufacturing efficiency, these shifts take time and cannot be achieved within a few years. Similarly, Renesas is working to improve profitability through a richer product mix, the divestment of non-core businesses, and potential price hikes. Still, any meaningful improvement in profitability is likely to take a few years.

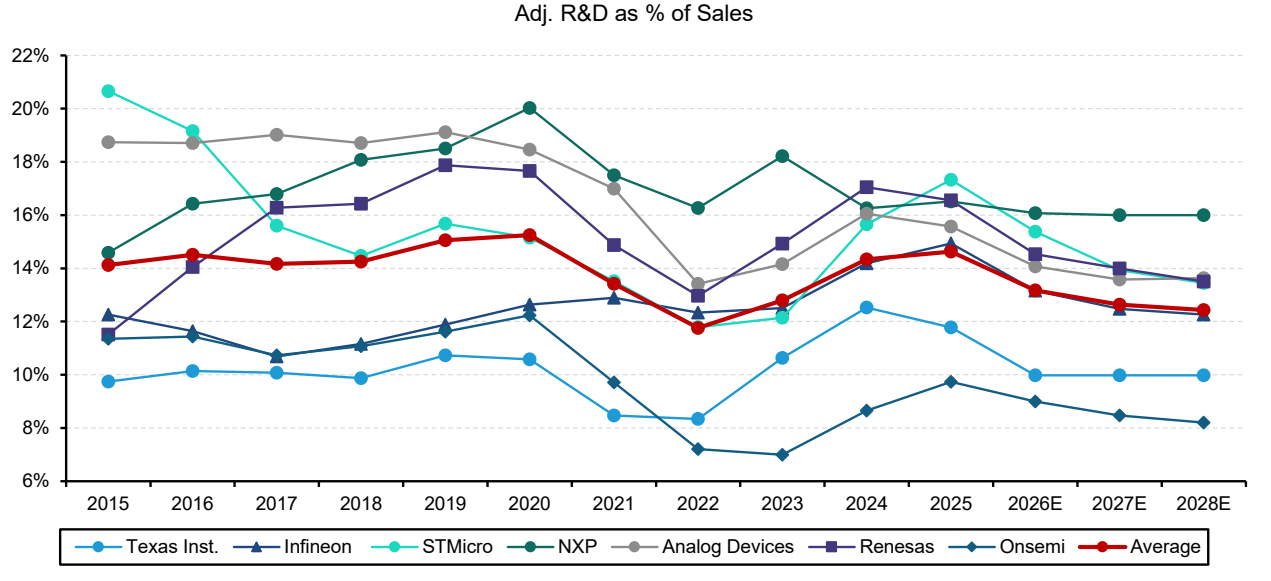
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EXHIBIT 16: **Adjusted operating margin rose strongly, from 19% in 2015 to 26% in 2025, peaking at 37% in 2022. The spread is wide, with ADI above 40% and STMicro below 10%. We expect average adj. OpM to increase to 35% in 2028.**



STMicro and Onsemi not covered, Bloomberg estimates
Source: Company reports, Bloomberg, Bernstein analysis and estimates

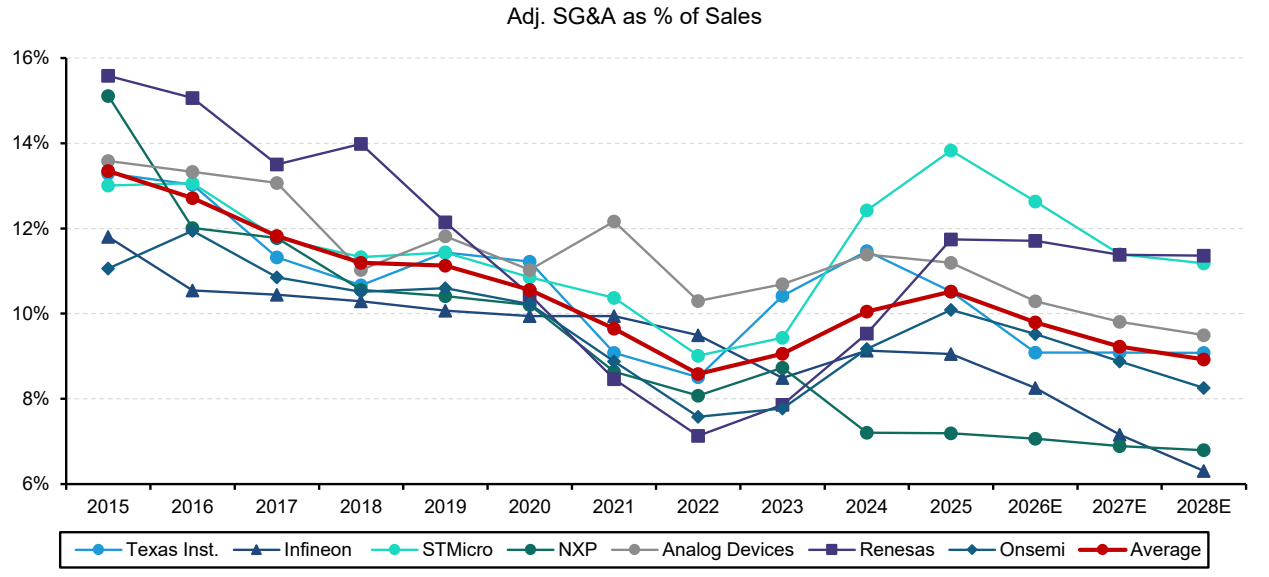
EXHIBIT 17: **R&D spending has been stable at ~15%, with NXP, Renesas, ADI, and STMicro consistently above average and expected to remain so. In contrast, onsemi and IT spend well below average on R&D as a % of revenue.**



STMicro and Onsemi not covered, Bloomberg estimates
Source: Company reports, Bloomberg, Bernstein analysis and estimates

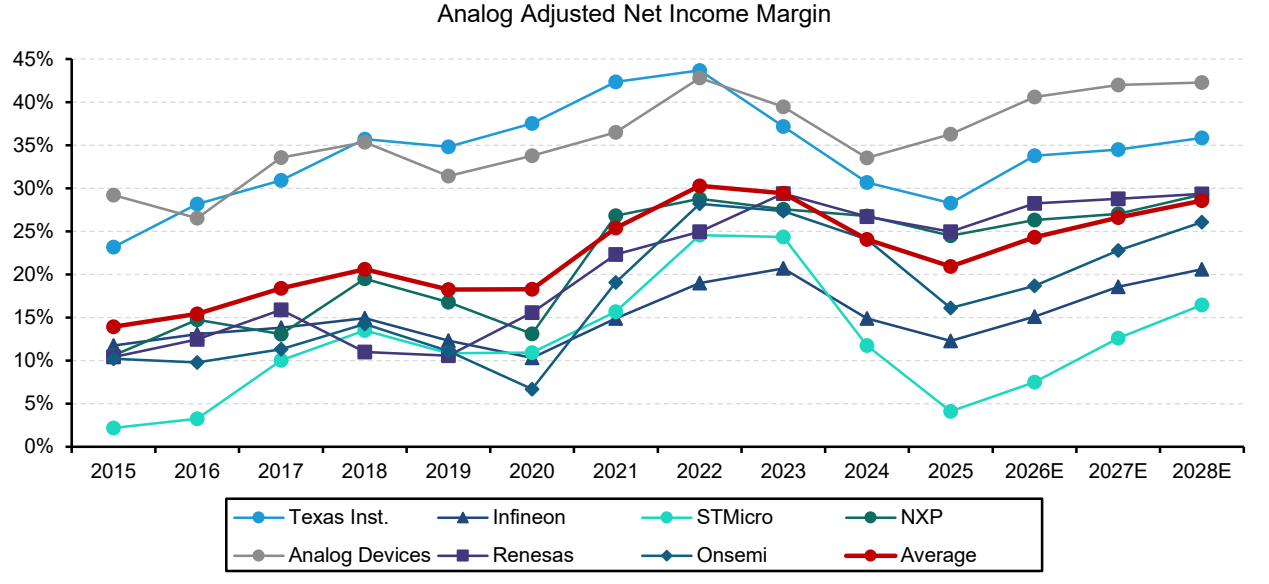
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EXHIBIT 18: **SG&A as a share of sales has steadily declined, from 14% in 2015 to 9–11% in 2025, with limited variation across companies. We anticipate the downward trend to resume after a modest uptick in 2024–25.**



STMicro and Onsemi not covered, Bloomberg estimates
Source: Company reports, Bloomberg, Bernstein analysis and estimates

EXHIBIT 19: **Adj. Net Income rose from 14% in 2015 to 21% in 2025, peaking at 30% in 2023. ADI and TX outperformed peers by ~12 pp. European IDMs lagged, with no narrowing gap. We forecast a rebound to ~29% by 2028.**



STMicro and Onsemi not covered, Bloomberg estimates
Source: Company reports, Bloomberg, Bernstein analysis and estimates

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DUPONT ANALYSIS

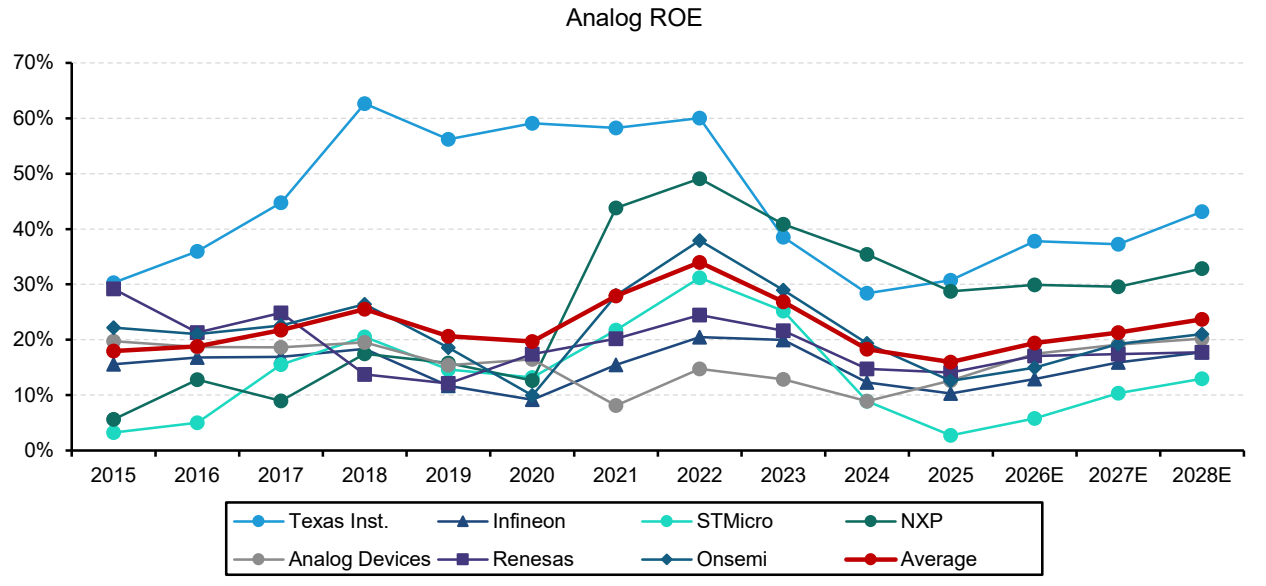
By performing a DuPont analysis, **we observe that the improvement in profitability seen over the past decade has been more than offset by a deterioration in asset turnover, driven by higher capex, and lower financial leverage**. Analog IDMs ROE stood at around 20% before COVID, increased to approximately 30% in 2022, and then declined sharply, bottoming out at 16% in 2025. **However, as demand improves, we expect returns to expand, supported by structurally higher margins compared to the last cycle. In addition, a slowdown in capex should help lift ROE to around 24% by 2028** (Exhibit 20).

- **Lower asset turnover:** Despite revenue increasing at a 6% CAGR between 2015 and 2025, assets grew at a faster pace, with a 10% CAGR over the same period. This pushed asset turnover down from 0.7x in 2015 to 0.4x in 2026, a decline of 40%. The rapid expansion of IDMs' balance sheets was mainly driven by growth in PPE and intangibles, with inventory contributing only marginally (Exhibit 21, Exhibit 22).
    - **PPE** grew at a 13% CAGR, accelerating significantly after 2021, driven by capacity expansion across the board. NXP and Renesas experienced lower growth, while ADI had the highest growth, partially driven by the acquisition of Maxim. Texas, Infineon, STMicro, and onsemi also saw meaningful PPE expansion, especially in the last two years (2021-23), during which PPE nearly doubled. Power Semis players invested heavily in SiC capacity expansion (Exhibit 23).
    - **Intangibles** increased at a 11% CAGR, primarily inflated by ADI's acquisition of Maxim in 2021, where ADI's goodwill rose from USD 12Bn to USD 27Bn, and total intangibles increased from USD 16Bn to USD 42Bn. On average, intangibles are double the size of PPE and represent half of total assets. Apart from ADI, intangibles grew considerably among all players except NXP and TI, where they declined (Exhibit 24).
- **Lower financial leverage:** Similarly, financial leverage declined by 10% from 2015 to 2025, as equity increased at a higher pace than assets (12% vs. 10%). Equity growth was mainly driven by retained earnings. Total debt did not grow at the same pace, increasing only 10%, with net debt remaining relatively low (Exhibit 25, Exhibit 26, Exhibit 27)

Looking at company-specific performance, while almost all companies experienced a decline in ROE, Texas and STM saw the sharpest declines due to meaningful decrease in profitability as well as lower asset turnover and leverage. In contrast, NXP saw an increase in ROE, driven by an increase in net profit margin, improved asset turnover, and higher gearing. We expect a gradual recovery in 2026-28 across the board.

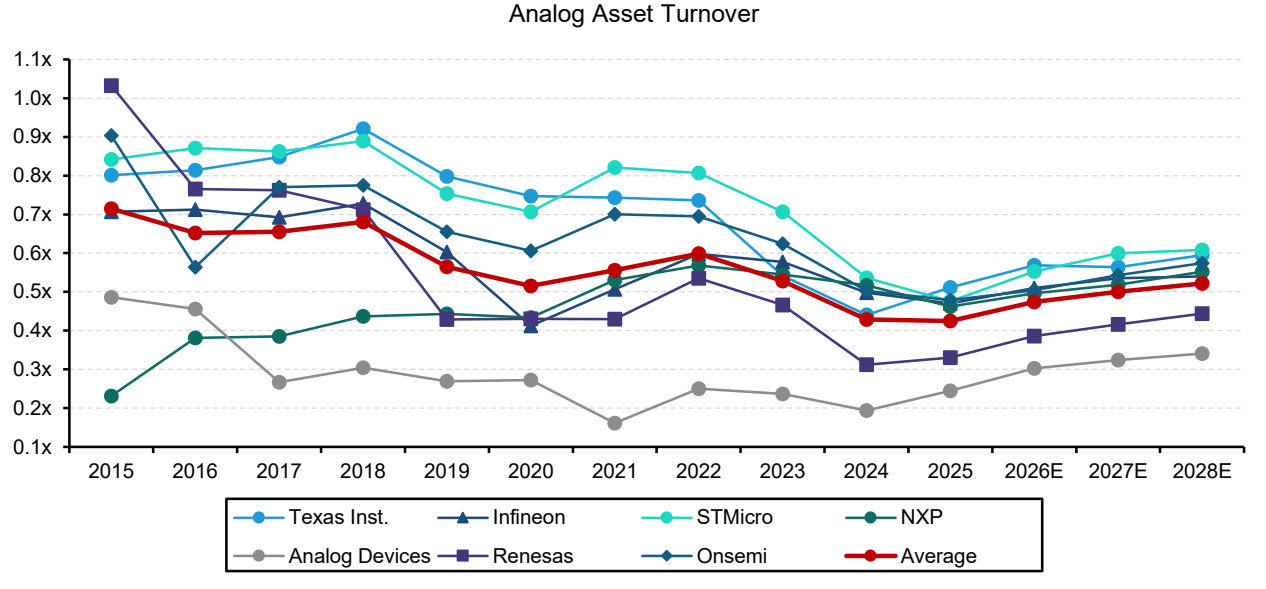
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EXHIBIT 20: **Analog IDMs' ROE was ~20% pre-COVID, rose to ~30% in 2022, then fell to 16% in 2025. Most companies declined, with Texas and STM hit hardest. NXP was the only one to improve. We expect a gradual recovery in 2026–28.**



Source: Company reports, Bloomberg, Bernstein analysis and estimates

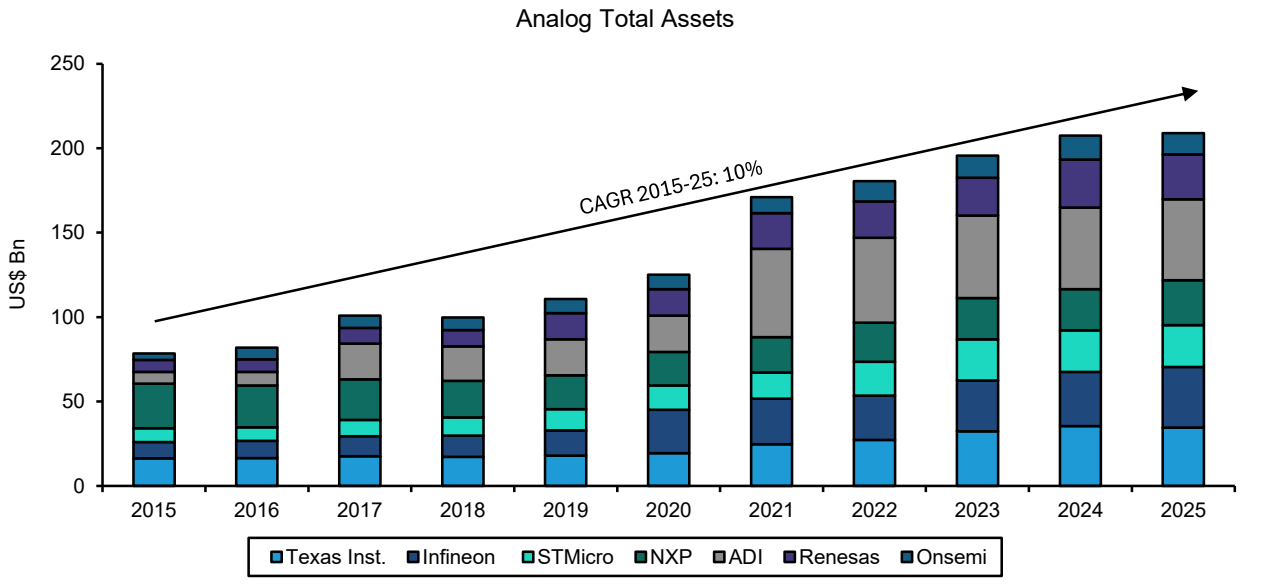
EXHIBIT 21: **While revenue grew at a 6% CAGR from 2015 to 2025, assets expanded faster at a 10% CAGR, driving asset turnover down from 0.7x to 0.4x by 2026. Balance sheet growth was mainly driven by PPE and intangibles, with inventory playing a limited role.**



Source: Company reports, Bloomberg, Bernstein analysis and estimates

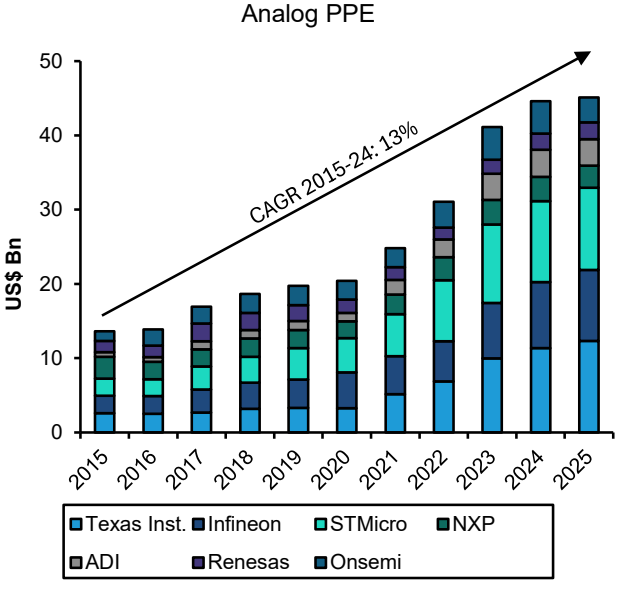
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EXHIBIT 22: **Total Asset**



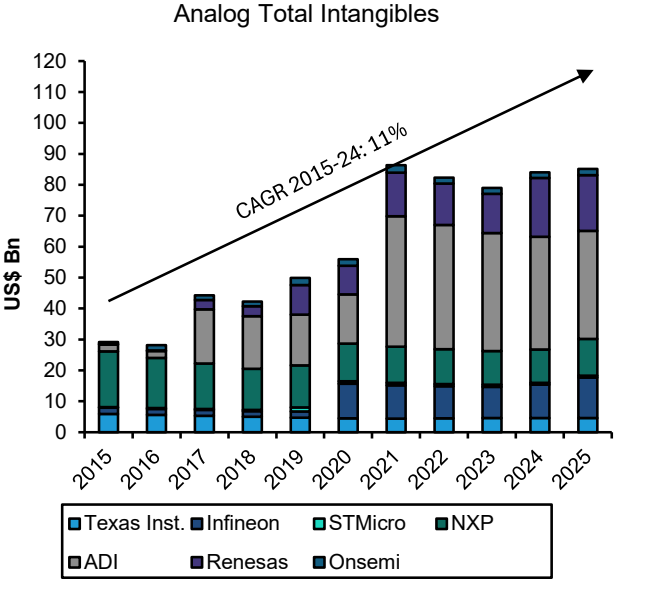
Source: Company reports, Bloomberg, Bernstein analysis

EXHIBIT 23: **Analog PPE**



Source: Company reports, Bloomberg, Bernstein analysis

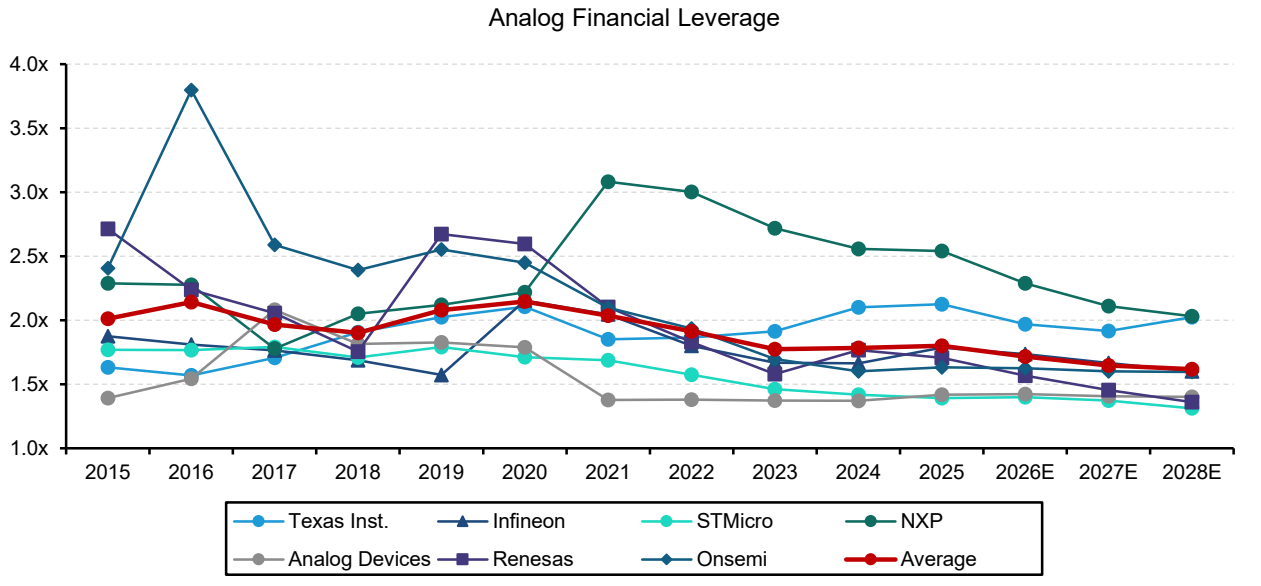
EXHIBIT 24: **Analog Total Intangibles**



Source: Company reports, Bloomberg, Bernstein analysis

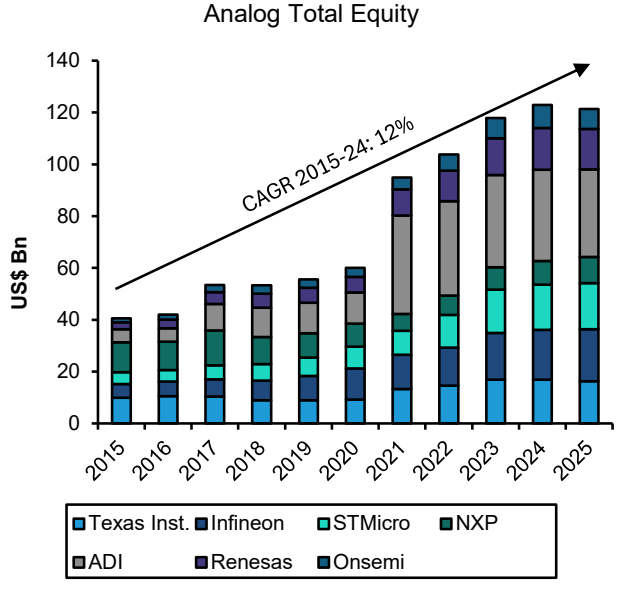
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EXHIBIT 25: **Financial leverage declined by 10% from 2015 to 2025 as equity grew faster than assets at 12% versus 10%, driven mainly by retained earnings growing at a 27% CAGR. Debt increased only modestly, leaving net debt relatively low.**



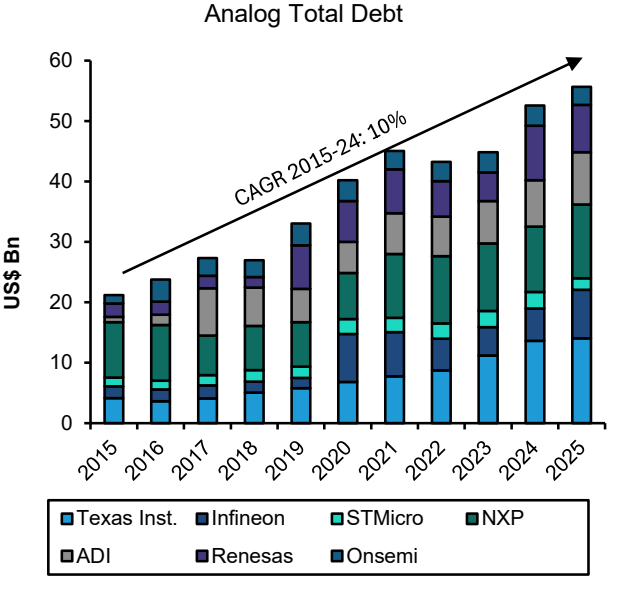
Source: Company reports, Bloomberg, Bernstein analysis

EXHIBIT 26: **Total Equity**



Source: Company reports, Bloomberg, Bernstein analysis

EXHIBIT 27: **Total Debt**



Source: Company reports, Bloomberg, Bernstein analysis

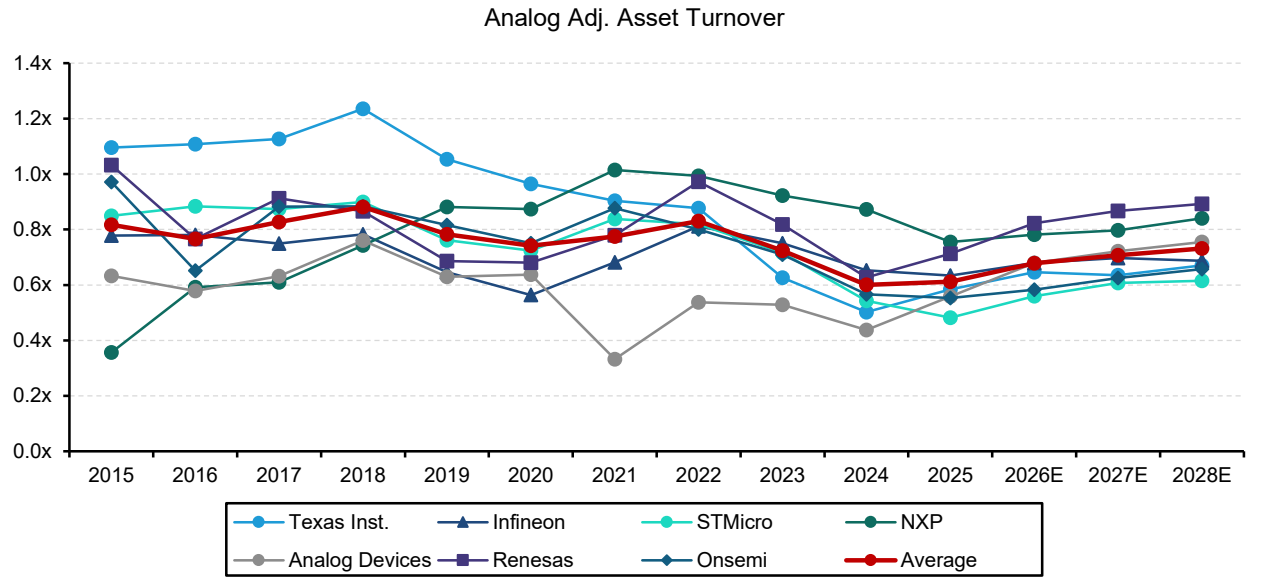
In order to compare operational efficiency across analog players, we also computed an adjusted asset turnover by removing the impact of goodwill to focus solely on productive assets. Although the adjusted asset turnover has also declined over the last decade, the decrease has been more gradual. After COVID, NXP has clearly utilized its assets more efficiently, outperforming its peers, while the other players remain relatively close to the average (Exhibit 28).

The average adjusted ROE, calculated using the adjusted asset turnover, has been quite volatile over the past 10 years. It was around 20% in 2015, peaked at approximately 48% in 2022, and declined to 25% in 2025, but we expect it will gradually recover and reach 35% in 2028. Although a similar pattern is observed across all companies, the level of

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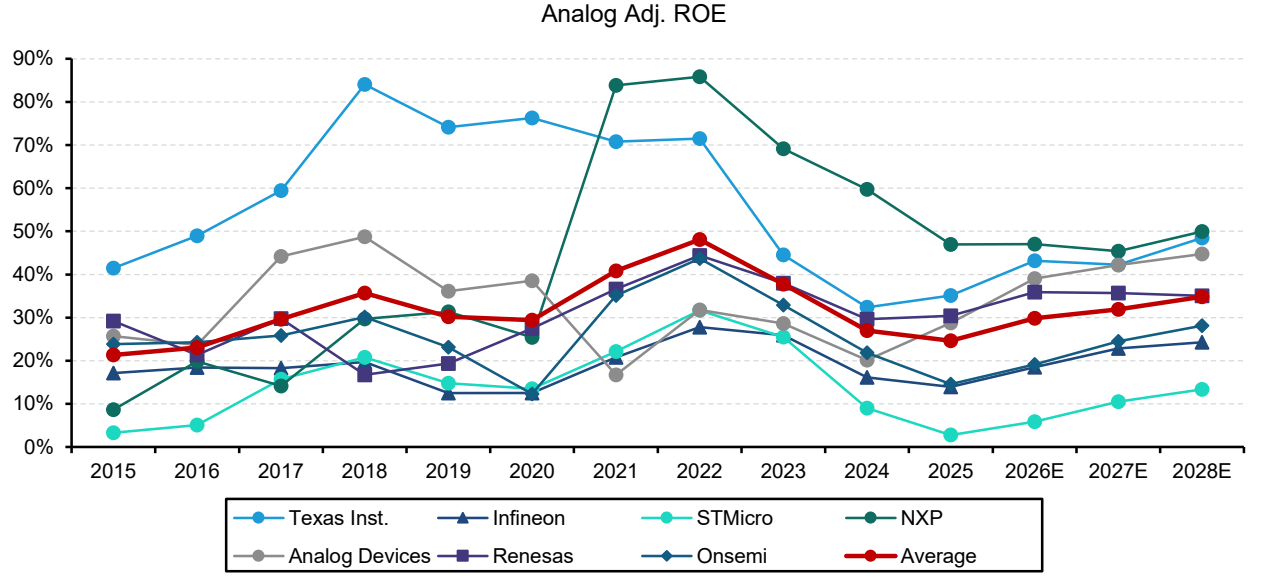
adjusted ROE varies significantly among them. TI outperformed peers in the first five years but declined post-COVID due to higher capex. On the other hand, NXP, benefiting from considerably higher leverage and more efficient asset turnover, has emerged as the most profitable company among analog IDMs. STM, Infineon, and onsemi have shown the lowest ROE on average over the last decade, primarily due to lower adjusted net income and, to some extent, lower leverage (Exhibit 29).

EXHIBIT 28: **To compare operating efficiency across analog players, we calculated an adjusted asset turnover excluding goodwill to focus on productive assets. While this adjusted metric has declined over the past decade, the drop has been more gradual.**



*Removing Goodwill Impact
Source: Company reports, Bloomberg, Bernstein analysis and estimates

EXHIBIT 29: **The average adjusted ROE has been quite volatile over the past 10 years. It was around 20% in 2015, peaked at approximately 45% in 2022, and declined to 24% in 2025, but we expect it will gradually recover and reach 35% in 2028.**



*Removing Goodwill impact
Source: Company reports, Bloomberg, Bernstein analysis and estimates

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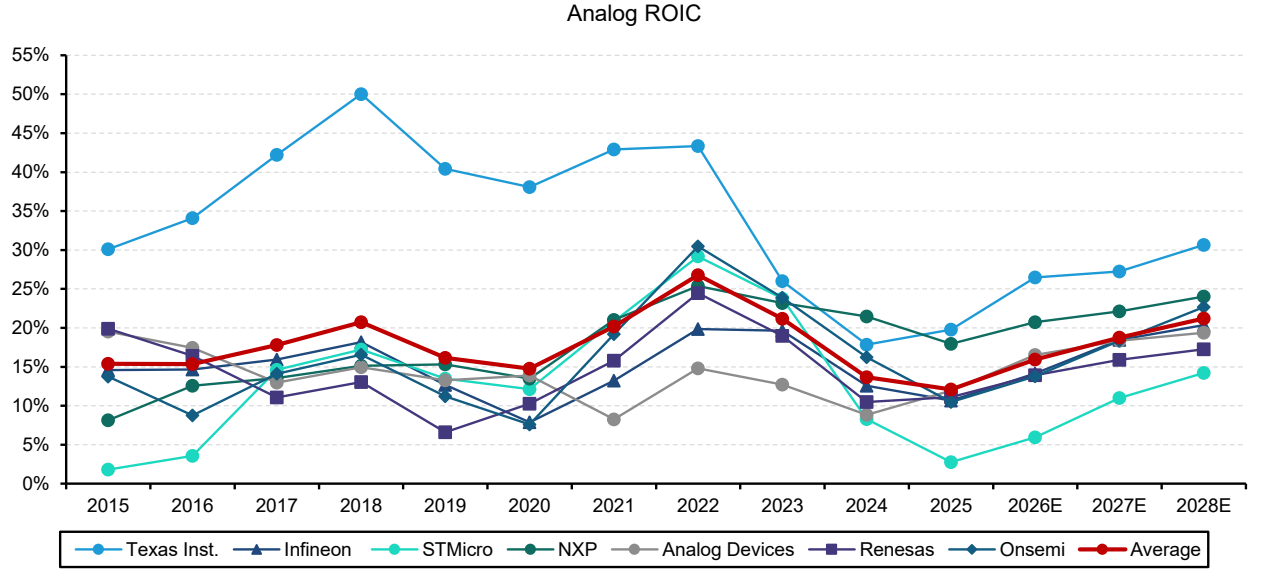
Return on invested capital (ROIC)

Examining the return on invested capital (ROIC), we observe that its trajectory has been even less favorable than what we saw with ROE. In 2025, ROIC declined to 12%, slipping slightly below the 2015 level of 15%. We anticipate a modest growth thereafter, projecting ROIC to rise to 16% in 2026 and reach 21% by 2027E (Exhibit 30).

Although profitability improved and NOPAT grew at an 9% CAGR from 2015 to 2025, invested capital grew at a slightly faster pace of 11%. This increase in invested capital was primarily driven by Equity, which grew at a 12% CAGR, while Debt expanded more slowly at 10%, as previously noted. Texas Instruments strongly outperformed its peers until 2022, benefiting from higher profitability and more effective capital management. However, with capacity expansion, both debt and equity increased substantially. STM and Infineon remained below average, whereas NXP showed considerable improvement.

Similarly to our approach with asset turnover, we adjusted invested capital by removing the impact of goodwill to calculate an adjusted ROIC. While the average adjusted ROIC is naturally higher than the un-adjusted figure, the overall pattern remains largely the same. Notably, there is significantly more heterogeneity among the analog peers. Companies such as Analog Devices, Renesas, and NXP, which have been particularly active in M&A, exhibit considerably higher adjusted ROIC. Using the adjusted ROIC, Analog Devices emerges as the most profitable company, ahead of NXP, reflecting the removal of significant goodwill related to the Maxim acquisition compared with the un-adjusted metric (Exhibit 31).

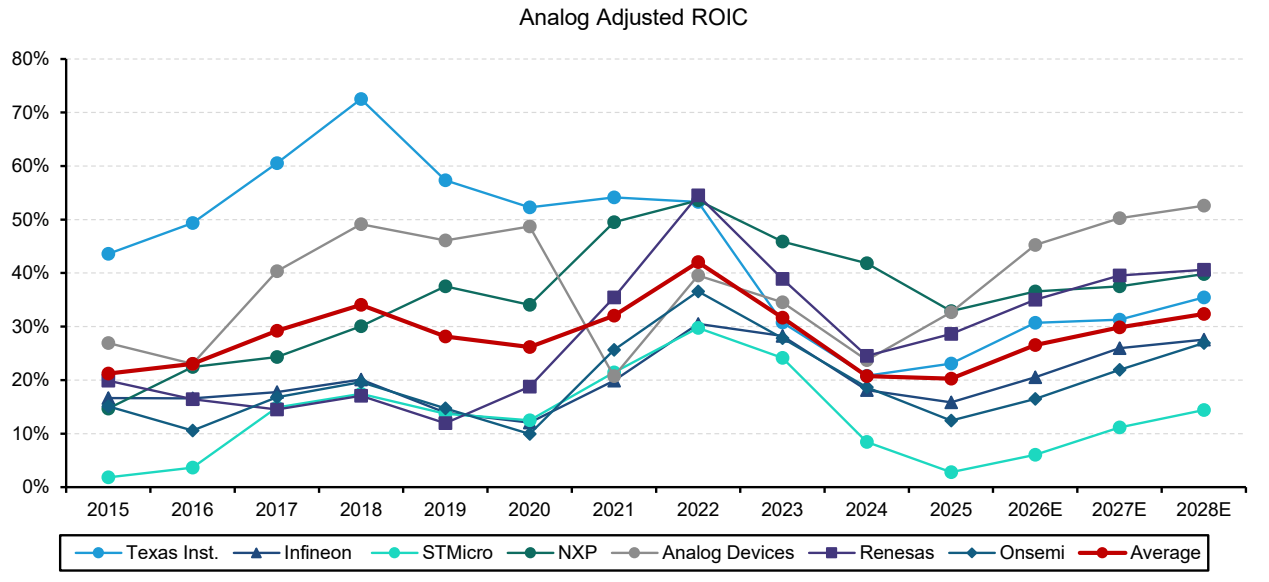
EXHIBIT 30: **Despite improved profitability and NOPAT growing at a 9% CAGR 2015-25, invested capital rose faster at 11%, driven mainly by equity growth of 12%, which pushed ROIC down. TI outperformed until 2022, but capacity expansion increased its IC.**



STMicro and Onsemi not covered, Bloomberg estimates
Source: Company reports, Bloomberg, Bernstein analysis and estimates

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EXHIBIT 31: **Adjusting invested capital by excluding goodwill to calculate adj. ROIC reveals greater heterogeneity among analog peers. Companies such as Analog Devices, Renesas, and NXP—more active in M&A—show significantly higher adj. ROIC.**



STMicro and Onsemi not covered, Bloomberg estimates
Source: Company reports, Bloomberg, Bernstein analysis and estimates

FREE CASH FLOW

In line with profitability trends, FCFF peaked in 2022 and began to decline in 2023 following substantial capacity expansion. Capital expenditure tripled versus pre-COVID levels, reaching around USD 17 Bn in 2023. Texas Instruments, Infineon, and STMicro accounted for the majority of this investment and drove most of the capacity build-out. FCFF rebounded modestly in 2025, and **we expect to accelerate in the next three years surpassing US$ 35Bn in 2028, while capex is projected to further decline in 2026, bottom that year, and modestly increase thereafter** (Exhibit 32, Exhibit 33).

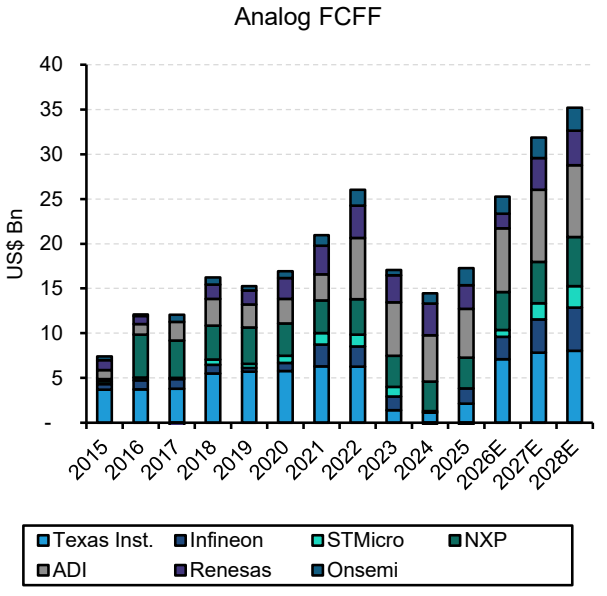
ADI, TXN, and NXP have consistently represented the majority of total analog FCFF, maintaining strong cash flow levels over the past decade. Renesas has also demonstrated relative consistency. In contrast, the cash generation from STMicro, Infineon, and onsemi has been rather disappointing. This outperformance has been driven by higher profitability, lower depreciation, and reduced capex. European IDMs have consistently spent significantly more than their peers, with capex averaging around 15% of total sales, compared to less than 10% for other companies. Renesas, on average, recorded the lowest capex levels. However, over the last two years, TI's capex surged, reaching USD 5Bn annually, around 25% of sales in 2025 (Exhibit 34).

When examining FCFF yield, the picture shifts. The high enterprise value (EV) of ADI and TXN suppresses their FCFF yield, placing them slightly below or roughly in line with the average. IFX and STMicro also fall below average, reflecting their previously mentioned weak FCFF. Conversely, Renesas and NXP have achieved better-than-average FCFF yields, partly due to their lower EV (Exhibit 35).

We believe that all analog IDMs should now adopt a more cautious approach to their investments. Following the significant increase in both M&A and capex, we believe management should exercise greater prudence on capex, as they should currently have sufficient capacity to meet the higher demand in the upcycle. Returning more cash to investors through buybacks and dividends would help improve profitability ratios.

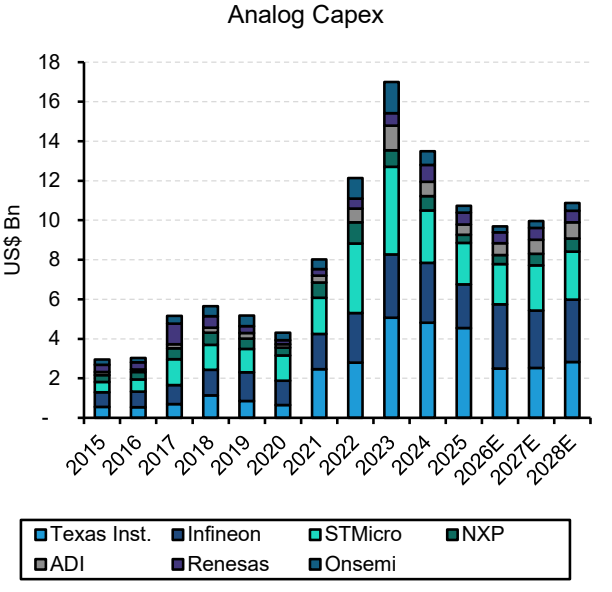
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EXHIBIT 32: **ADI, TXN, and NXP account for the bulk of analog FCFF, consistently generating strong cash flows over the past decade, with Renesas also showing relative stability. In contrast, STMicro, Infineon, and onsemi have delivered weaker cash generation.**



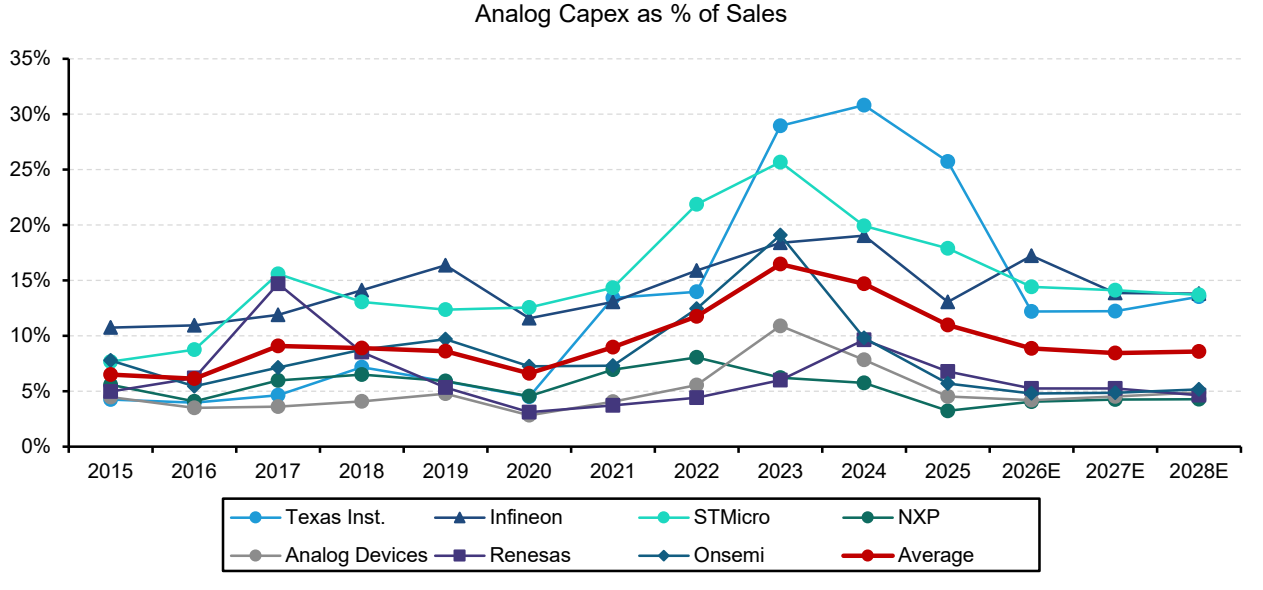
Source: Company reports, Bloomberg, Bernstein analysis

EXHIBIT 33: **Capex tripled versus pre COVID levels, reaching USD 17 Bn in 2023. TI, IFX and STMicro accounted for the majority of this investment. Capex is projected to continue its downward trend in 2026, bottoming that year, and increasing only modestly therafter.**



Source: Company reports, Bloomberg, Bernstein analysis

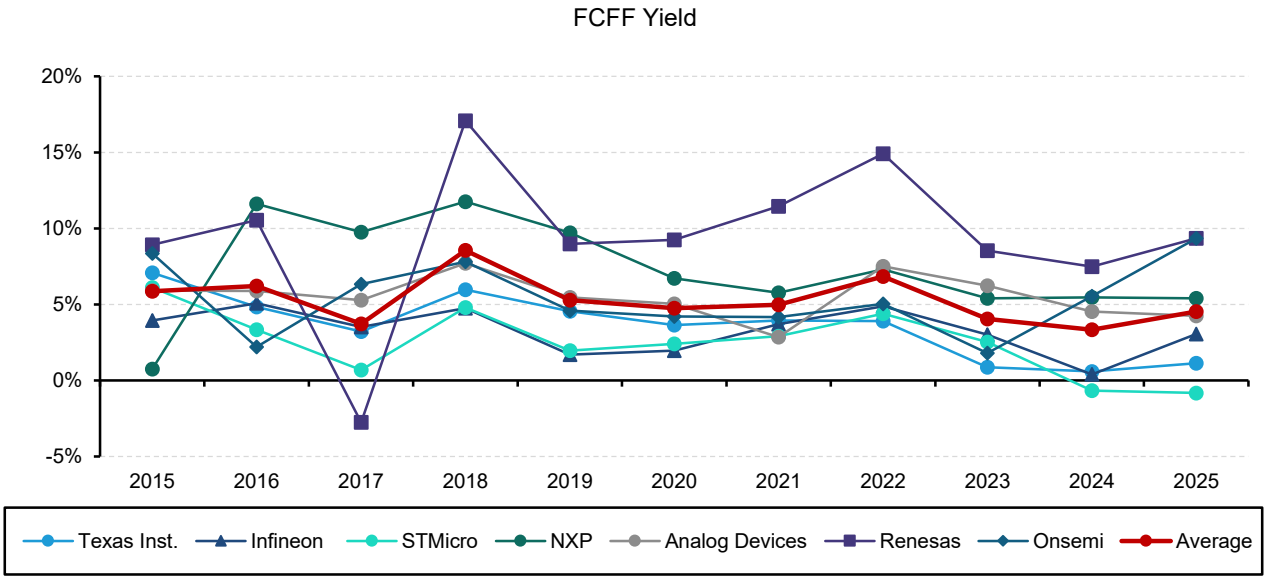
EXHIBIT 34: **Analog Capex as % of Sales**



Source: Company reports, Bloomberg, Bernstein analysis

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EXHIBIT 35: **FCFF yield tells a different story. ADI and TXN screen slightly below average due to their high EV, while IFX and STM also sit below average given weaker FCFF. In contrast, Renesas and NXP deliver above average FCFF yields, partly supported by lower EV**



Source: Company reports, Bloomberg, Bernstein analysis and estimates

CAPITAL RETURN TO SHAREHOLDERS - INFINEON AND RENESAS HAVE SIGNIFICANT HEADROOM TO INCREASE PAYOUTS

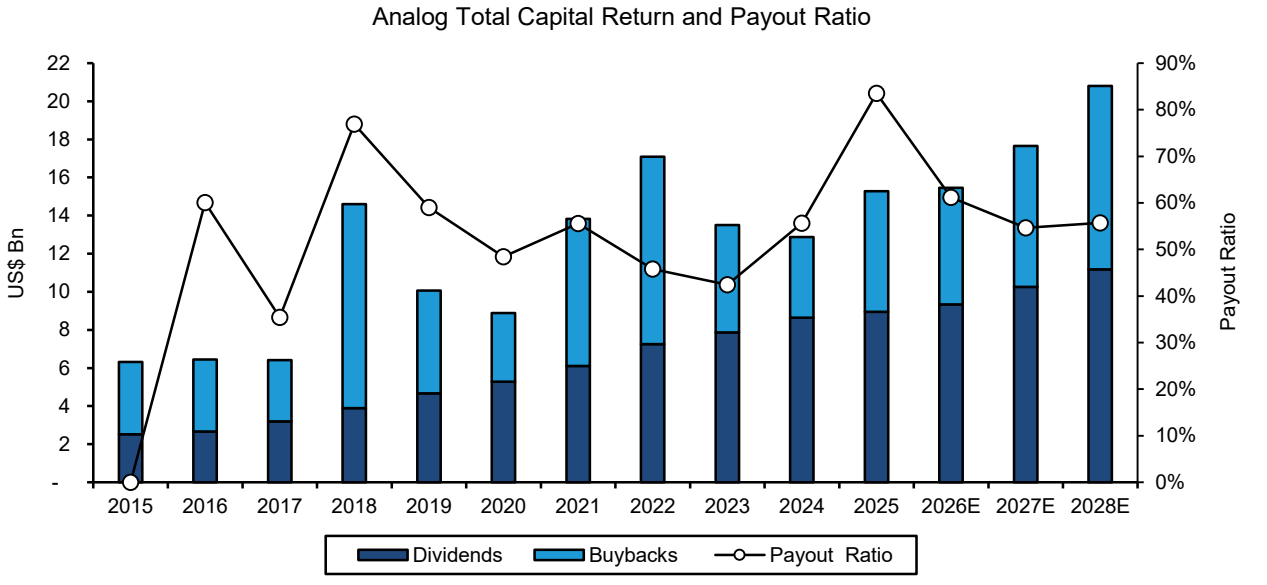
Capital return to shareholders has exhibited annual volatility. While dividends have shown a steady upward trend, buybacks have experienced fluctuations. After a slight increase in capital return in 2025, consensus expect this modest growth trend to continue over the next three years. Historically, the average payout ratio has hovered around 60%, primarily driven by three companies: Texas Instruments, NXP, and ADI. In contrast, European and Japanese IDMs contribute less than 20% of the total capital return (Exhibit 36, Exhibit 37).

Looking at individual companies, Texas Instruments has redistributed slightly more than 100% of its earnings on average. NXP and ADI have returned approximately 90% and 80%, respectively. STMicro has redistributed about 60%, which is in line with the overall average, while **Infineon and Renesas are well below average, having returned over the past 10 years approximately 24% and 9%, respectively. For this reason, we believe both companies should consider increasing shareholder returns, particularly following improvements in profitability and FCF (Exhibit 38).**

The FCFF payout ratio has been highly volatile over the past decade, particularly for Texas Instruments, which has consistently distributed significantly more than its FCFF (though this has been mostly a function of high capex substantially reducing the FCF baseline). ADI has distributed around 90% of its free cash flow. All other companies have maintained considerably lower FCFF payout ratios, with Renesas at the lowest end, around 8% (Exhibit 39).

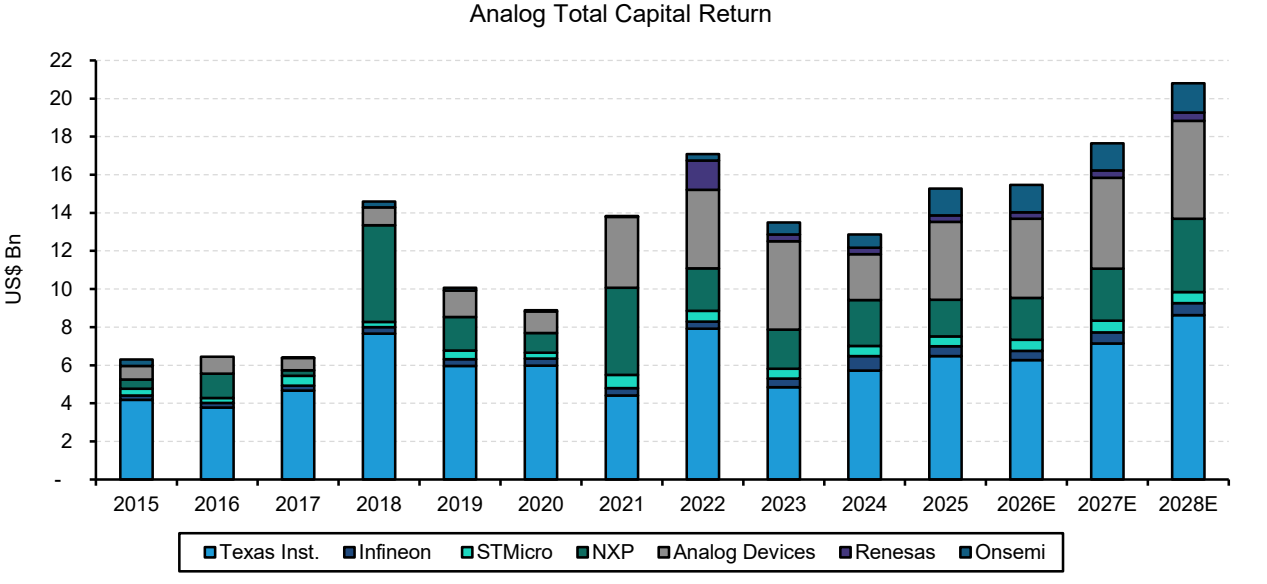
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EXHIBIT 36: **Capital returns to shareholders have shown year to year volatility. While dividends have followed a steady upward trend, buybacks have fluctuated. Consensus expects this growth trend to continue.**



Source: Company reports, Bloomberg, Bernstein analysis

EXHIBIT 37: **Texas Instruments has returned just over 100% of earnings on average, followed by NXP at ~90% and ADI at ~80%. STMicro is in line with the average at ~60%, while Infineon and Renesas lag significantly at ~25% and ~8%, respectively.**



Source: Company reports, Bloomberg, Bernstein analysis

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EXHIBIT 38: **Payout Ratio table**

Payout Ratio	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026E	2027E	2028E
Texas Inst.	100%	101%	136%	119%	110%	57%	90%	75%	119%	129%	91%	97%	109%
Infineon	26%	24%	25%	31%	34%	19%	13%	12%	32%	25%	17%	14%	13%
STMicro	111%	61%	21%	45%	26%	35%	14%	12%	35%	109%	54%	29%	21%
NXP	91%	24%	277%	118%	93%	154%	59%	56%	71%	64%	59%	66%	79%
Analog Devices	92%	34%	42%	77%	57%	121%	77%	102%	77%	96%	70%	72%	74%
Renesas	0%	0%	0%	0%	0%	1%	53%	12%	14%	15%	12%	12%	12%
Onsemi	0%	4%	38%	23%	19%	3%	14%	28%	41%	146%	105%	82%	80%
Average	**60%**	**35%**	**77%**	**59%**	**48%**	**56%**	**46%**	**42%**	**56%**	**84%**	**58%**	**53%**	**55%**

Source: Company reports, Bloomberg, Bernstein analysis

EXHIBIT 39: **FCFF Payout Ratio**

FCFF Payout Ratio	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026E	2027E	2028E
Texas Inst.	101%	123%	139%	105%	104%	70%	126%	342%	508%	303%	89%	93%	111%
Infineon	25%	25%	35%	83%	40%	16%	17%	29%	400%	30%	21%	16%	14%
STMicro	78%	386%	47%	101%	38%	54%	42%	48%	n.a	n.a	75%	34%	26%
NXP	27%	7%	135%	43%	29%	126%	57%	59%	73%	56%	52%	59%	70%
Analog Devices	74%	31%	31%	54%	41%	126%	60%	77%	47%	75%	58%	59%	65%
Renesas	0%	0%	0%	0%	0%	0%	42%	12%	9%	13%	21%	11%	11%
Onsemi	0%	3%	39%	27%	9%	3%	19%	102%	62%	74%	65%	58%	65%
Average	**44%**	**82%**	**61%**	**59%**	**37%**	**57%**	**52%**	**96%**	**183%**	**92%**	**55%**	**47%**	**52%**

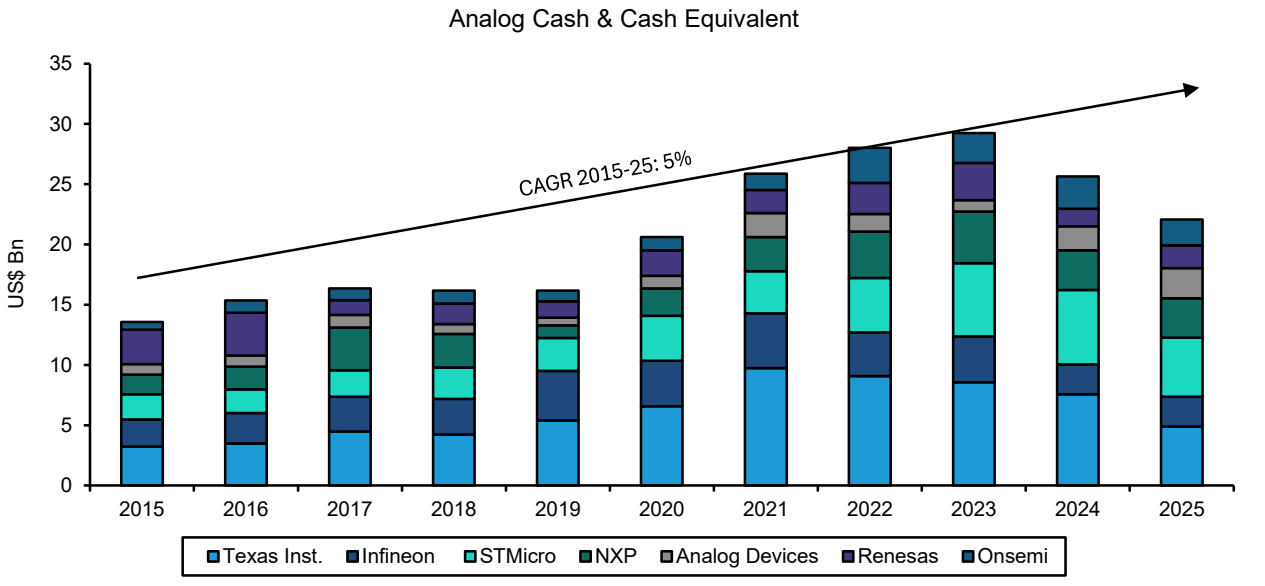
Source: Company reports, Bloomberg, Bernstein analysis

Returning more cash to shareholders is clearly one of the fastest ways to improve ROE and ROIC by reducing equity. However, American IDMs cannot increase cash returns significantly, as they already distribute the majority of their earnings. Over the long term, a payout ratio above 100% is unsustainable. Consensus expects their payout ratio to decline in the coming years due to recent higher investments and reduced available cash.

While Infineon and Renesas have more capacity to raise their payout ratios to enhance profitability, they currently lack sufficient cash to increase considerably buybacks and dividends in the short term. In fact, although assets have grown substantially, cash has only increased at a 5% CAGR, constrained by heavy capacity investments. STM, TI, and to some extent NXP are the only companies with meaningful liquidity on their balance sheets. **In the medium term, conserving cash by cutting capex —considering the massive investments already made over the past few years— could be a very effective strategy to improve profitability and unlock value (we note that TXN in particular has now entered this phase). We believe Infineon and Renesas stock prices could benefit significantly from higher cash returns to investors, potentially supporting multiple expansion** (Exhibit 40).

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EXHIBIT 40: **Cash & Cash Equivalent**



Source: Company reports, Bloomberg, Bernstein analysis

INFINEON CLEARLY STANDS OUT, WITH A WELL-DEFINED MARGIN IMPROVEMENT STRATEGY AND GREATER ROOM TO INCREASE CAPITAL RETURNS.

We expect Infineon to deliver the fastest revenue growth among analog names, with a 15% CAGR over the next three years. This strong acceleration is primarily driven by rapid AI Power revenue growth, expected at a 60% CAGR (2025–28E), alongside the upcycle in automotive and industrial end markets.

IFX margins are expected to benefit from several drivers:

- Product mix is shifting toward higher-margin analog and MCU products and away from low-end power discrete. As observed over the past two years, Infineon's exposure to low-end IGBT has declined, while analog, mixed-signal sensors, and MCUs have continued to grow, supported by strong market share gains.
- AI power is becoming an increasingly important revenue contributor. We expect it to reach around 17% of revenue by FY28, equivalent to roughly US$ 3.3 Bn. This business is significantly margin-accretive, with GM of ~55–60% versus an overall GM of around 40%.
- Underutilization charges should decline meaningfully as utilization improves in the next upcycle, supported in part by capacity being reallocated from low-end products to AI power.
- IFX's Step-up cost-reduction program has already delivered tangible profitability improvements and is expected to reach its full impact over the next two years.

Finally, as we mentioned before, Infineon has one of the lowest payout ratios, at around 20%, as most earnings have been reinvested in capacity expansion, M&A, and R&D. **This creates a clear opportunity to increase buybacks and improve ROE and ROIC. Combined with higher margins and greater exposure to the less cyclical AI business, this should support a re-rating of Infineon's multiple above its historical average.** Our latest Infineon company model and AI Power Industry model can be downloaded here: IFX.GR, AI Server power Model

WE LIKE RENESAS IN JAPAN, AS WE SEE DEMAND IS OUTPACING CAPACITY ALONG WITH PRICE HIKE IS IN SIGHT.

Demand is outpacing capacity, and price hike is in sight.

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- **Solid Demand.** Outside of AI, auto demand has turned stronger as well, while supply is tight for both in-house and partner foundries. Gen 4 R-Car demand is ramping smoothly, while Gen 3 R-Car and 40nm MCUs are also performing well. Non-AI industrial demand (including server infrastructure benefiting from the broader Intel ecosystem) is also quietly but steadily growing. Renesas is proactively securing capacity across both AI and non-AI product lines to avoid missing out.

- **Supply Shortage.** Renesas' in-house capacity will not come online until early next year, meaning no step-function supply increase is expected in the near term. Renesas' Taiwan foundry partners was affected by the earthquake and power outage in December 2025, creating wafer-level bottlenecks for certain products. UMC (2303.TT, covered by Mak Li), one of Renesas' foundry partners, already raised price to reflect the supply shortage. Wafer supply is being pulled in gradually, and the situation is expected to improve progressively from Q2 onwards. The current binding constraint is tester machines. That being said, as testers come online, this bottleneck is expected to gradually ease. Taiwan supplier capex is also being raised to expand capacity. Meaningful additions are expected to come online in 3Q26 and again in 1Q27, providing a more substantial supply uplift in 2H26 and into 2027.

- **Potential Price Hike.** Raw materials (including memory price) and manufacturing costs (e.g., logistics and energy costs) are all rising heading into 2H26, putting pressure on COGS. Competitors are already raising prices, and management acknowledged it would be very difficult for Renesas to be the only company not adjusting pricing. Some price hike at some point of time in certain magnitude is likely, per management, which will help its margins.

Well-positioned in AI data center power semiconductors. Renesas is a key DC-DC power supplier to NVIDIA's GPUs and has been gaining content share at Amazon (AWS) since late 2025. The company's AI-related revenue doubled in 2025, reaching 4% of Renesas' revenue in 2025. Management guides its AI sales to double again in 2026E. Beyond 2026, we forecast AI sales to grow a further 50% and 40% in 2027E and 2028E, respectively, lifting AI exposure to ~13% (~JPY230bn) of total revenue by 2028E. Beyond AI power solutions, Renesas also supplies memory interface ICs and timing/clock ICs to AI platforms. In 2025, digital power products accounted for ~50-60% of AI sales, memory interface ICs for 30%+, and timing/clock ICs for 10%+. Beyond 2026, Renesas is well positioned in AI server power given its position in GaN, and potentially can leverage its relationship with Wolfspeed for SiC. It has the potential to be one of the few companies with a full set (Si, SiC, GaN) of AI power offerings.

We raised our PT on **Renesas** to **¥4,200.00** from ¥3,300 last week (refer to *Renesas 1Q26: "Demand is strong, production is limited"; raising PT to ¥4,200*), to reflect the stronger auto demand with the larger potential in AI. We continue to like the stock.

WE HAVE BEEN NEUTRAL ON OUR US NAMES (TXN, ADI, NXPI), MOSTLY ON VALUATION, THOUGH THE INDUSTRIAL RECOVERY APPEARS TO BE UPON US

Among the three TXN has reached the end of their capex cycle and hence is seeing an inflection in FCF/share and datacenter (while only ~10% of revenue) is growing rapidly, though increased depreciation from their fab spending over the last several years continues to weigh on margins. ADI probably has the best industrial mix (defense, ATE etc) as well as a (small) datacenter narrative, and has been more cautious on auto outlook (with numbers there is a better place). NXPI is cheaper than the others, though with a much smaller datacenter exposure (~3% or so), and has shown (to us surprising) automotive strength (that is different from others, and raises some sustainability concerns for us).

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VALUATION METHODOLOGY

Infineon Technologies AG

For Infineon, we apply a 25x multiple to our Q5-Q8 EPS estimate of €2.93 to get a PT of €74.

Renesas Electronics Corp

We set a ¥4,200 target price using a P/E multiple of 15x against our forward Q5-Q8 EPS estimate of ¥279.

Texas Instruments Inc

For TXN, we assign a ~30x multiple to our FY27 GAAP dil. EPS estimate ($8.22) to arrive at a price target of $250.

Analog Devices Inc

For ADI, we apply a ~28x multiple to our FY2027 Non-GAAP EPS estimate of $13.38, equating to a ~ $375 price target.

NXP Semiconductors NV

For NXPI, we apply a ~16x multiple to our FY27 pro-forma EPS estimate of $16.45 yielding a price target of $270.

RISKS

Infineon Technologies AG

Downside risks to our price target for Infineon include slower automotive demand or EV penetration, push-out of anticipated recovery, price-erosion and oversupply of SiC solutions, lower semiconductor demand broadly as well as valuation multiple compression.

Renesas Electronics Corp

There are a number of downside risks to our Renesas target price: (1) Prolonged delay in the Analog market recovery (2) Weaker-than-expected market share gain in both Automotive MCU and AI power markets (3) Exchange rate fluctuation with upside / downside risk to overall Japan market.

Texas Instruments Inc

Upside risks include better than expected recovery, higher gross margins, or better cash generation and return. Downside risks include worse than expected recoveries, share losses (in China and/or elsewhere), or further gross margin degradation.

Analog Devices Inc

Beyond the macro, downside risks to our price target include the possibility of poor execution on gross margins or FCF, poor opex control, general mismanagement of the MXIM integration, or share losses in core business to competitors / China. Upside risks

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to our price target include better than expected recovery, gross margin expansion, and/or better than expected MXIM revenue synergies.

NXP Semiconductors NV

Downside risks to our price target on NXPI include macro degradation, inventory flush, socket losses at key customers (mobile or otherwise), and/or failure to execute on long-term growth and margin targets. Upside risks include continued strong demand, share gains, or margin upside.

RATINGS DEFINITIONS, BENCHMARKS AND DISTRIBUTION

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- Market-Perform: Stock will perform in line with the market index to within +/-15 pp
- Underperform: Stock will trail the performance of the market index by more than 15 pp

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Not Rated: A rating assigned when the stock cannot be accurately valued, or the performance of the company accurately predicted, at the present time. The covering analyst may continue to publish research reports on the company to update investors on events and developments.

Not Covered (NC) denotes companies that are not under coverage.

Bernstein brand stock ratings are based on a 12-month time horizon.

Autonomous brand – common stocks

The Autonomous brand rates common stocks as indicated below. As our benchmarks we use the Bloomberg Europe 500 Banks And Financial Services Index (BEBANKS) and Bloomberg Europe Dev Mkt Financials Large and Mid Cap Price Ret Index EUR (EDMFI) index for developed European banks and Payments, the Bloomberg Europe 500 Insurance Index (BEINSUR) for European insurers, the S&P 500 and S&P Financials for US banks and Payments coverage, S5LIFE for US Insurance, the S&P Insurance Select Industry (SPSIINS) for US Non-Life Insurers coverage, and the Bloomberg Emerging Markets Financials Large, Mid and Small Cap Price Return Index (EMLSF) for emerging market banks and insurers and Payments. Ratings are stated relative to the sector (not the market).

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Those denoted as 'Feature' (e.g., Feature Outperform FOP, Feature Under Outperform FUP) are our core ideas.

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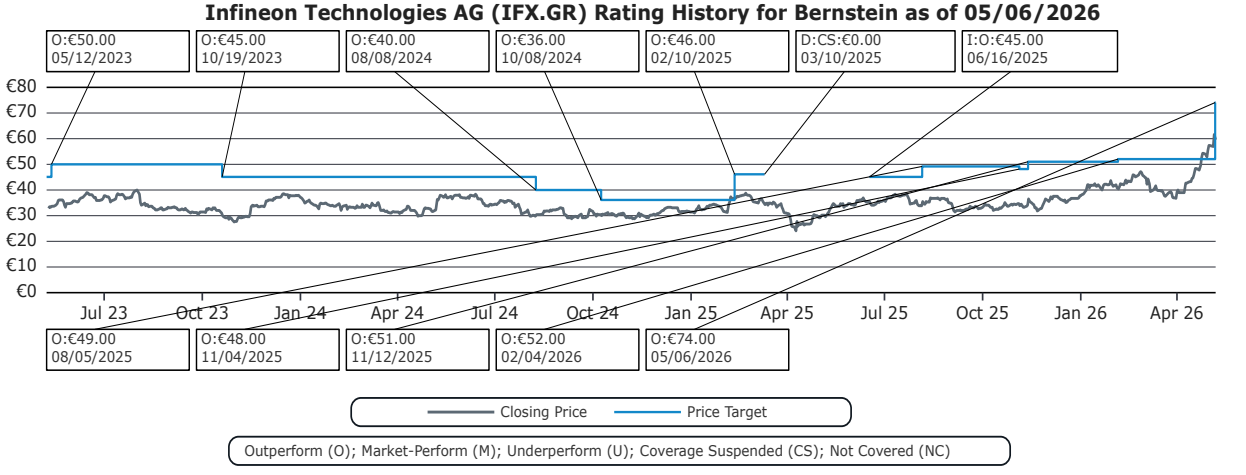
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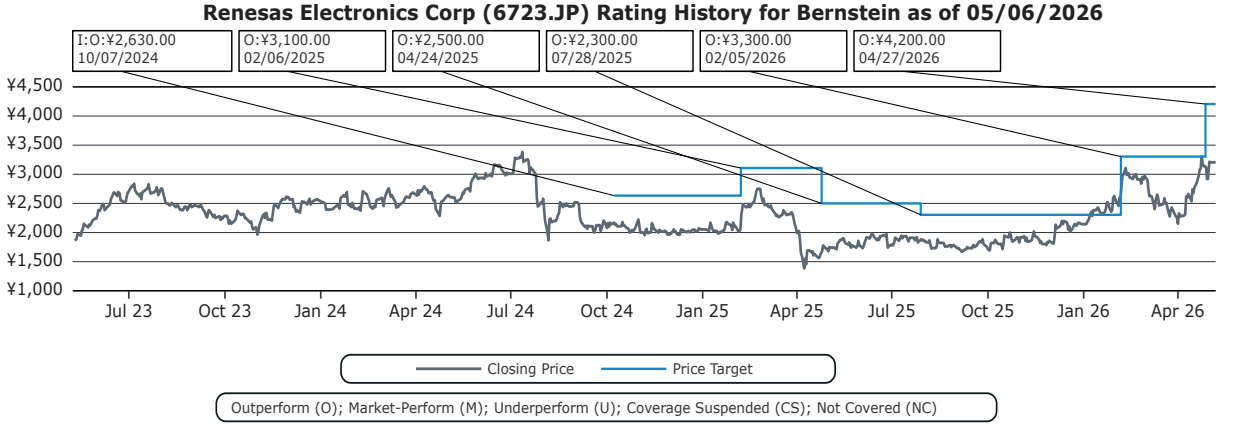
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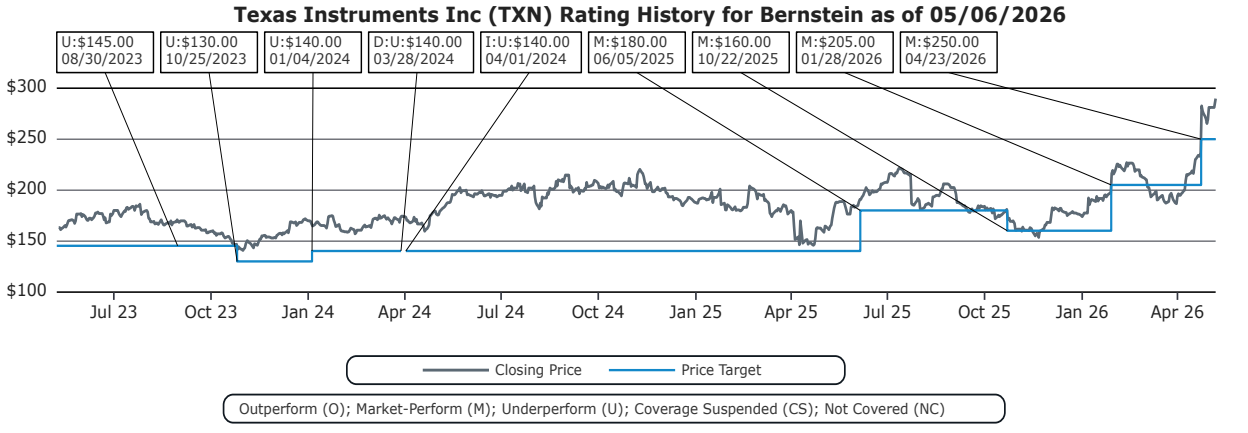
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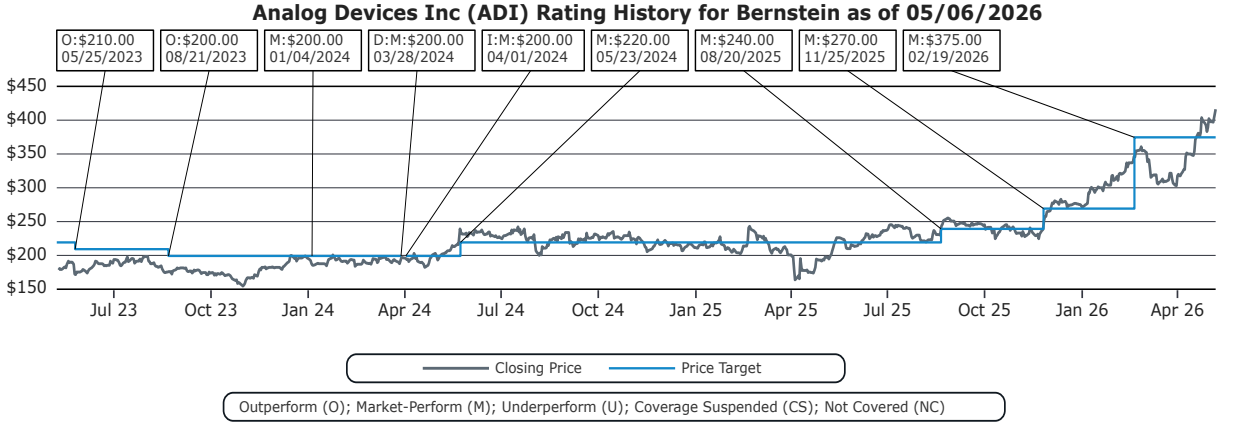
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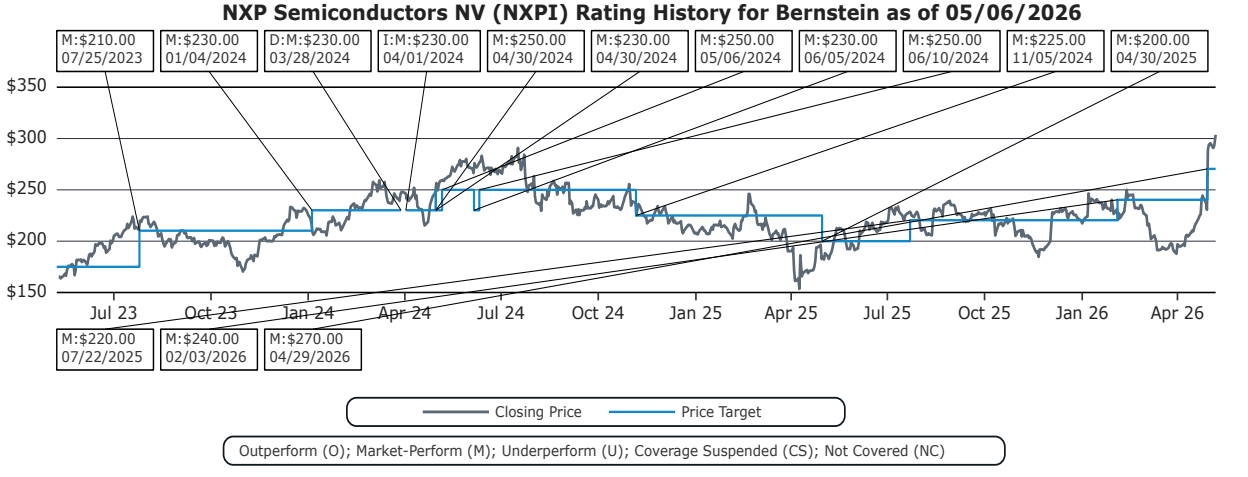




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