



Rating
Buy

Asia
China

Industrials
Manufacturing

Company
AviChina

Reuters 2357.HK Bloomberg 2357 HK Exchange HKG Ticker 2357

Date
25 November 2015

Initiation of Coverage

Price at 25 Nov 2015 (HKD)	6.75
Price target - 12mth (HKD)	8.40
52-week range (HKD)	10.29 - 4.51
HANG SENG INDEX	22,588

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A growing mini AVIC; initiating with Buy

Strong organic growth + Upside from restructuring = Top Buy

AviChina and its A-share affiliates offer a high growth exposure to rising demand trends in the military and civil aviation industry in China. Current operations will generate 23% EPS CAGR but the key focus for investors should be on asset injection potential from the parent group AVIC, which is >10 times AviChina's size. Our valuation of HK\$8.40 incorporates a 25% holding company discount and a further 15% H-share discount.

Solid organic growth prospects driven by Avicopter and JONHON Optronics

We expect all four of AviChina's listed subsidiaries to see double-digit growth in 2016-2017 led by JONHON Optronics and Avicopter. Overall, we project an EPS CAGR of 23% for AviChina during 2015-2017 on the back of a 32% earnings CAGR for Avicopter, 20% for AVIC Avionics, 17% for Hongdu Aviation, and 48% for JONHON Optronics. Rising contribution from JONHON Optronics, which has higher margins, should bode well for the company's profitability.

Asset injections to add additional source of growth

Given AviChina currently represents only 20% of the total gross profit of AVIC's aviation business, we see significant potential for AVIC to further transfer its aviation-related assets to AviChina. In the near term, we expect 1) the announced injection of AVIC Planning (AVIC's survey, design and EPC arm) to boost AviChina's 2016 EPS by double digit (up to c20%) and 2) the announced participation in the capital increase of Chengdu Aircraft and Shenyang Aircraft to help AviChina gain exposure to AVIC's jet fighter business. We also expect the potential injection of five research institutes into AVIC Avionics to lift AviChina's earnings significantly (+15-40% on 2016 EPS based on our scenario analysis).

Valuation and risks

Our target price of HK\$8.40 is derived using a SoTP valuation methodology, which corresponds to a P/E of 32.8x/25.9x on 2016/2017. Key risks include an unexpected decrease in China's military spending; delay in deliveries of military orders; and value dilutive asset injections.

Price/price relative



Performance (%)	1m	3m	12m
Absolute	2.6	32.1	18.4
HANG SENG INDEX	-2.4	5.5	-5.3

Source: Deutsche Bank

Forecasts And Ratios

Year End Dec 31	2013A	2014A	2015E	2016E	2017E
Sales (CNYm)	22,192.7	25,710.4	29,277.4	35,261.3	42,939.7
EBITDA (CNYm)	2,493.4	2,814.6	3,303.8	4,018.2	4,913.7
Reported NPAT (CNYm)	712.6	781.3	906.6	1,156.3	1,464.5
DB EPS FD(CNY)	0.13	0.14	0.17	0.21	0.27
DB EPS growth (%)	5.7	9.4	15.9	27.5	26.7
PER (x)	23.7	26.8	33.6	26.3	20.8
EV/EBITDA (x)	9.0	10.7	12.5	10.6	9.0
DPS (net) (CNY)	0.02	0.02	0.02	0.03	0.04
Yield (net) (%)	0.6	0.5	0.4	0.6	0.7

Source: Deutsche Bank estimates, company data

¹ DB EPS is fully diluted and excludes non-recurring items

² Multiples and yields calculations use average historical prices for past years and spot prices for current and future years, except P/B which uses the year end close

Deutsche Bank AG/Hong Kong

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Model updated: 24 November 2015

Running the numbers

Asia

China

Manufacturing

AviChina

Reuters: 2357.HK

Bloomberg: 2357 HK

Buy

Price (25 Nov 15) HKD 6.75

Target Price HKD 8.40

52 Week range HKD 4.51 - 10.29

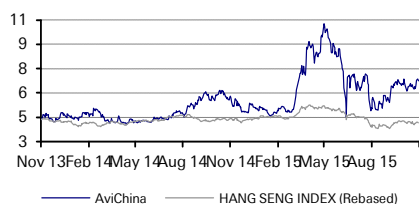
Market Cap (m) HKDm 36,952

USDm 4,768

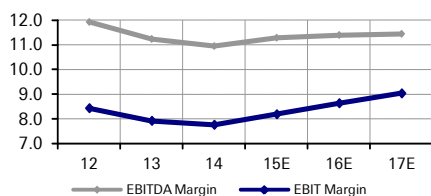
Company Profile

AviChina Industry & Technology Co Ltd manufactures and sells aviation tools and aero-parts. The Company's main products include helicopters, regional aircrafts, trainers, general aircrafts, aero-parts and components and aero-electrical products.

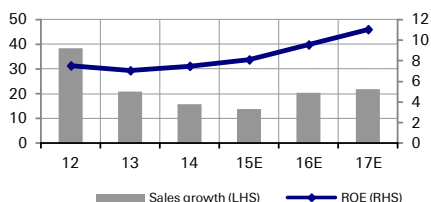
Price Performance



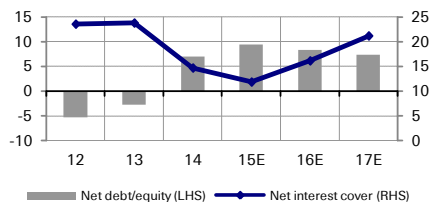
Margin Trends



Growth & Profitability



Solvency



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Fiscal year end 31-Dec

Financial Summary

	2012	2013	2014	2015E	2016E	2017E
DB EPS (CNY)	0.12	0.13	0.14	0.17	0.21	0.27
Reported EPS (CNY)	0.12	0.13	0.14	0.17	0.21	0.27
DPS (CNY)	0.02	0.02	0.02	0.02	0.03	0.04
BVPS (CNY)	1.9	1.8	2.0	2.1	2.3	2.5
Weighted average shares (m)	5,373	5,448	5,460	5,474	5,474	5,474
Average market cap (CNYm)	13,723	16,884	20,909	30,463	30,463	30,463
Enterprise value (CNYm)	16,128	22,336	30,038	41,296	42,457	44,077

Valuation Metrics

P/E (DB) (x)	20.7	23.7	26.8	33.6	26.3	20.8
P/E (Reported) (x)	20.7	23.7	26.8	33.6	26.3	20.8
P/BV (x)	1.48	1.92	1.92	2.62	2.41	2.19
FCF Yield (%)	nm	nm	nm	nm	0.7	0.7
Dividend Yield (%)	0.8	0.6	0.5	0.4	0.6	0.7
EV/Sales (x)	0.9	1.0	1.2	1.4	1.2	1.0
EV/EBITDA (x)	7.4	9.0	10.7	12.5	10.6	9.0
EV/EBIT (x)	10.4	12.7	15.1	17.2	13.9	11.4

Income Statement (CNYm)

Sales revenue	18,368	22,193	25,710	29,277	35,261	42,940
Gross profit	3,924	4,308	4,899	5,984	7,256	8,910
EBITDA	2,190	2,493	2,815	3,304	4,018	4,914
Depreciation	608	702	763	850	915	972
Amortisation	34	34	56	57	58	62
EBIT	1,549	1,758	1,995	2,397	3,045	3,880
Net interest income/(expense)	-66	-74	-136	-202	-189	-183
Associates/affiliates	57	77	144	154	188	216
Exceptionals/extraordinaries	0	0	0	0	0	0
Other pre-tax income/(expense)	0	0	0	0	0	0
Profit before tax	1,540	1,761	2,003	2,349	3,044	3,913
Income tax expense	235	250	267	352	457	587
Minorities	641	798	954	1,090	1,431	1,862
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	664	713	781	907	1,156	1,465
DB adjustments (including dilution)	0	0	0	0	0	0
DB Net profit	664	713	781	907	1,156	1,465

Cash Flow (CNYm)

Cash flow from operations	-710	572	-392	890	1,268	1,449
Net Capex	-1,179	-3,036	-1,691	-1,550	-1,050	-1,250
Free cash flow	-1,889	-2,464	-2,083	-660	218	199
Equity raised/(bought back)	1,968	2,693	49	0	0	0
Dividends paid	-282	-223	-387	-109	-136	-173
Net inc/(dec) in borrowings	505	1,506	1,274	-633	-64	-382
Other investing/financing cash flows	-1,554	-392	220	0	0	0
Net cash flow	-1,252	1,120	-928	-1,402	19	-356
Change in working capital	2,181	2,283	2,692	3,304	4,018	4,914

Balance Sheet (CNYm)

Cash and other liquid assets	5,606	6,726	5,798	4,396	4,414	4,058
Tangible fixed assets	7,161	9,275	10,481	11,130	11,215	11,443
Goodwill/intangible assets	1,325	1,528	1,670	1,663	1,655	1,643
Associates/investments	5,637	5,624	4,977	5,131	5,319	5,536
Other assets	21,936	27,776	31,796	36,226	43,427	52,639
Total assets	41,665	50,928	54,722	58,546	66,030	75,319
Interest bearing debt	4,597	6,118	7,418	6,785	6,721	6,339
Other liabilities	17,860	23,004	24,002	26,573	31,669	38,187
Total liabilities	22,457	29,121	31,420	33,358	38,390	44,526
Shareholders' equity	10,156	10,123	10,815	11,613	12,633	13,924
Minorities	9,052	11,684	12,486	13,576	15,007	16,869
Total shareholders' equity	19,208	21,807	23,301	25,188	27,640	30,793
Net debt	-1,009	-608	1,620	2,389	2,307	2,281

Key Company Metrics

Sales growth (%)	38.4	20.8	15.9	13.9	20.4	21.8
DB EPS growth (%)	22.1	5.7	9.4	15.9	27.5	26.7
EBITDA Margin (%)	11.9	11.2	10.9	11.3	11.4	11.4
EBIT Margin (%)	8.4	7.9	7.8	8.2	8.6	9.0
Payout ratio (%)	16.2	15.3	14.0	15.0	15.0	15.0
ROE (%)	7.5	7.0	7.5	8.1	9.5	11.0
Capex/sales (%)	6.6	14.4	7.1	5.3	3.0	2.9
Capex/depreciation (x)	1.9	4.3	2.2	1.7	1.1	1.2
Net debt/equity (%)	-5.3	-2.8	7.0	9.5	8.3	7.4
Net interest cover (x)	23.6	23.8	14.7	11.9	16.1	21.2

Source: Company data, Deutsche Bank estimates



Investment thesis

Outlook

Positioned as AVIC's strategic listing platform for asset consolidation, AviChina is poised to benefit from the ongoing asset restructuring within AVIC group as well as promising organic growth opportunities arising from its current product portfolio via its four A-share subsidiaries.

Visibility for AviChina's organic earnings growth remains high in light of the rising budget allocation to military aviation procurement. Overall, we expect AviChina to record an EPS CAGR of 23% during 2015-2017. In the medium-to-longer term, we expect the civil market to drive the company's growth, driven by its strong product pipeline in general aircraft segment and significant exposure to commercial aircraft manufacturing.

Given AviChina currently represents only 27% and 20% of revenue and gross profit respectively for AVIC's aviation business, we see significant potential for AVIC to further transfer its aviation-related assets to AviChina.

In the near term, we expect 1) the announced injection of AVIC Planning (AVIC's survey, design and EPC arm) to boost AviChina's 2016 EPS by double digits (up to c.20%) and 2) the announced participation in the capital increase of Chengdu Aircraft and Shenyang Aircraft to help AviChina gain exposures to AVIC's core defense assets (i.e. jet fighter business).

In the near-to-medium term, 1) we expect the potential injection of five research institutes into AVIC Avionics to lift AviChina's earnings significantly (+15-40% on 2016 EPS based on our scenario analysis); 2) we also see meaningful upside from the potential injection of AVIC's final assembly business for attack helicopter into Avicopter.

Valuation

Our target price of HK\$8.40 is derived using the Sum-of-The-Parts (SoTP) valuation methodology, given AviChina's holding company status. Our target NAV for its A-share subsidiaries is in line based on our valuation methodology for each individual company (a mix of EV/Sales and P/E-based valuation). In addition, we applied a 15% H/A discount, reflecting different valuations in the two markets, and a 25% holding company discount to factor in AviChina's lack of operational control over its listed subsidiaries. Our target price corresponds to a P/E of 32.8x/25.9x on 2016/2017.

Risks

Key downside risks include: 1) an unexpected decrease in China's military spending; 2) delay in military orders; 3) value-dilutive asset injections, if such transactions are overpriced; and 4) equity funding risk as a result of asset injections.



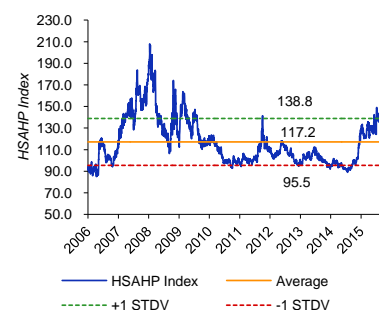
Valuation and risks

SoTP-based target price of HK\$8.40

Our target price of HK\$8.40 is derived using the Sum-of-The-Parts (SoTP) valuation methodology, given AviChina's holding company status.

- We derived the NAV for AviChina's listed subsidiaries using multiple-based valuation methodologies – EV/Sales based for airframers (i.e. Hongdu Aviation and Avicopter) and P/E based valuation for component suppliers (i.e. JONHON Optronics and AVIC Avionics).
- Given its four major subsidiaries are listed on the A-share market, with higher valuation counters, we also applied an H/A discount of 15% (in line with the long-term average) to the aggregate NAV of the four listed subsidiaries to reflect different valuations in the two markets.
- We also applied a 25% discount to factor in AviChina's status as a holding company.
- We assigned a 25x P/E on Tianjin Aviation's 2016 earnings to derive the NAV for the unlisted part of AviChina. Such a multiple takes into account its status as an unlisted company as it implies a >30% discount to its A-share listed peer AVIC Electromechanical (002013.SZ, NC).

Figure 1: Hang Seng China AH Premium Index



Source: Bloomberg Finance LP, Deutsche Bank

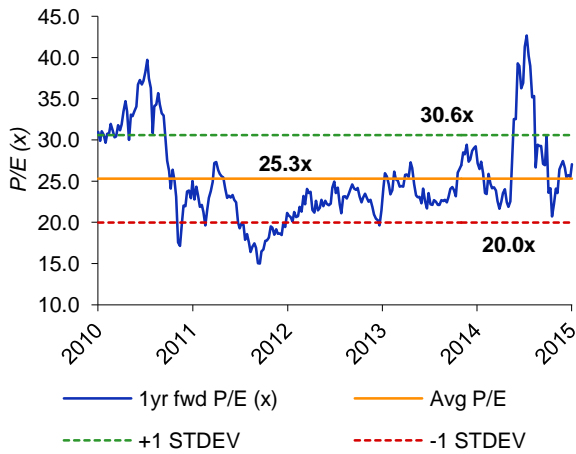
Figure 2: Summary of our SoTP valuation

	Valuation method	Shareholding (%)	Implied FY16 P/E (x)	2016 NPAT (Rmb mn)	NAV (Rmb mn)	Equity attributable NAV (Rmb mn)
Listed subsidiaries						
Avicopter (600038.SS)	EV/Sales	35.10%	68.2x	546	37,255	13,076
AVIC Avionics (600372.SS)	P/E	43.22%	66.9x	842	56,293	24,330
Hongdu Aviation (600316.SS)	EV/Sales	43.63%	93.4x	115	10,757	4,693
JONHON Optronics (002179.SZ)	P/E	41.57%	35.5x	848	30,126	12,523
Subtotal					134,431	54,623
× H/A discount/premium						15%
× Holding company discount						25%
NAV - listed subsidiaries			36.5x			34,955
Unlisted subsidiaries						
Tianjin Aviation	P/E	100.00%	25.0x	181	4,522	4,522
NAV - listed subsidiaries						4,522
Summary						
Listed subsidiaries						34,955
Unlisted subsidiaries						4,522
Net cash/(debt)						(1,841)
Total NAV (Rmb mn)						37,636
÷ No. of shares outstanding (mn)						5,474
NAV per share (Rmb/sh)						6.87
× Exchange rate (Rmb/HK\$)						1.22
DB target price (HK\$/sh)						8.40

Source: Deutsche Bank estimates.

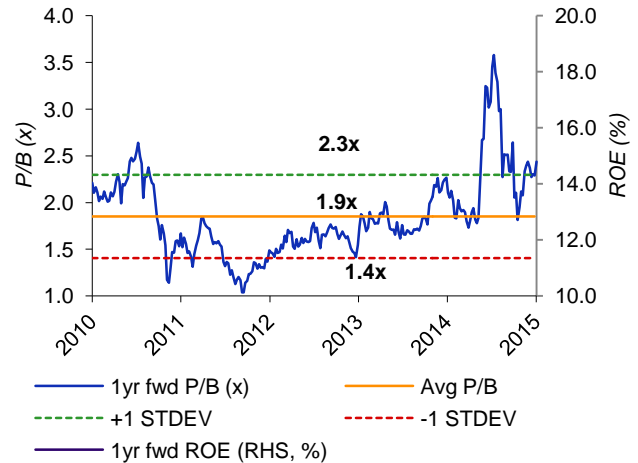


Figure 3: AviChina—Historical 1-yr fwd P/E band (past five years)



Source: Company data, Bloomberg Finance LP, Deutsche Bank estimates.

Figure 4: AviChina—Historical 1-yr fwd PB vs. ROE band (past five years)

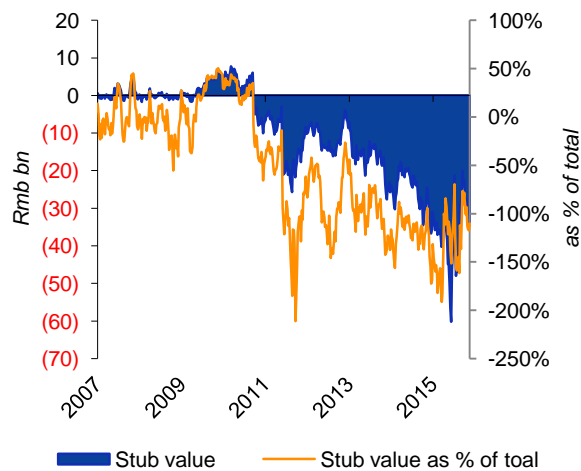


Source: Company data, Bloomberg Finance LP, Deutsche Bank estimates.

Stub analysis

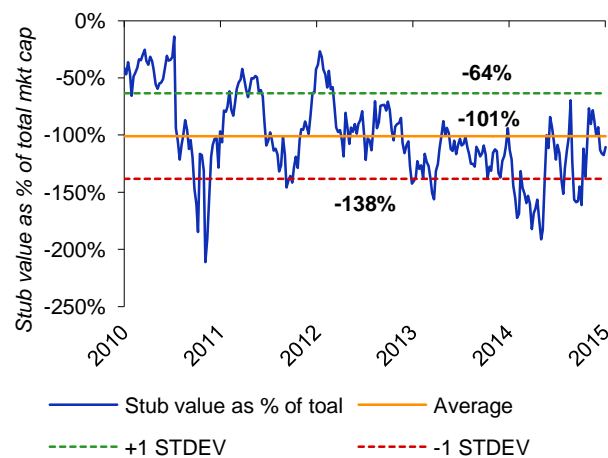
As a result of the huge valuation gap between A-share aviation and defense sector and the company, its stub value (unlisted parts of businesses are mainly Changhe Aviation before 2013 and Tianjin Aviation since 2011) has long been negative since 2011, when A-share aviation and defense sector started to significantly outperform the benchmark. On an average, its negative stub value is as much as AviChina’s market cap. While we do not expect its stub value to turn positive any time soon, we believe such a huge discount is unjustified, given Tianjin Aviation is a highly profitable business, contributing 20% of AviChina’s net profit in 2014. The implied negative stub value from our valuation represents 65% of AviChina’s target NAV.

Figure 5: Stub analysis — Stub value vs. stub value as % of AviChina’s market cap (2007-2015)



Source: Company data, Bloomberg Finance LP, Deutsche Bank estimates.

Figure 6: Stub value as % of AviChina’s market cap (past five years)



Source: Company data, Bloomberg Finance LP, Deutsche Bank estimates.



Downside risks

Sector wise

- An unexpected decrease in China's military spending
- Slower-than-expected rollout of military reforms and implementation of military cut
- An unexpected shift in China's military strategy in favor of non-aviation defense sectors
- Intensifying competition from electronic component suppliers of other Chinese defense groups or potential new non-SOE entrants as a result of the promotion of military-civil integration

Company specific

- Delay in deliveries of military orders
- Larger-than-expected impact from the Hongdu Aviation's factory relocation
- Higher-than-expected R&D costs as a result of new product development for the civil market
- Value-dilutive asset injections, if such transactions are overpriced
- Equity funding risk as a result of asset injections



A rising aviation conglomerate

A comprehensive aviation and defense play with solid organic growth prospects

As a holding company directly held by Chinese aviation industry monopoly AVIC, AviChina is a unique listing platform with a variety of exposures to China's booming aviation industry. AviChina, through its listed subsidiaries – Avicopter (600038.SS), AVIC Avionics (600372.SS), Hongdu Aviation (600316.SS), and JONHON Optronic (002179.SZ) – has established its dominant position in domestic aviation markets including helicopters, trainers, avionics, and general-purpose aircraft.

We are bullish on China's investment in aviation equipment in the coming years, both in the military and civil markets. With extensive product offerings in the domestic aviation market, we believe AviChina is poised to rise alongside China's aviation investment upcycle.

We expect AviChina to record an EPS CAGR of 23% during 2015-2017 on the back of 32% earnings CAGR for Avicopter, 20% for AVIC Avionics, 17% for Hongdu Aviation, and 48% for JONHON Optronic. Our earnings estimates stand at 4-8% above consensus despite slightly lower top-line assumptions (1-5% below consensus) as we believe the market might have underestimated the earnings growth potential of JONHON Optronic and the positive impact of the rising contribution from the subsidiary, which has higher profitability than the other subsidiaries.

Figure 7: DB estimates vs. Bloomberg consensus estimates (2015E-2017E)

	2015			2016			2017		
	DBe	Consensus	%Diff	DBe	Consensus	%Diff	DBe	Consensus	%Diff
Revenue (Rmb mn)	29,277	29,452	-1%	35,261	36,921	-4%	42,940	45,276	-5%
Net profit (Rmb mn)	907	841	8%	1,156	1,107	4%	1,465	1,401	5%
EPS (Rmb/share)	0.17	0.15	9%	0.21	0.19	11%	0.27	0.24	11%

Source: Deutsche Bank estimates, Bloomberg Finance LP.

A demand up-cycle for military aviation equipment sector

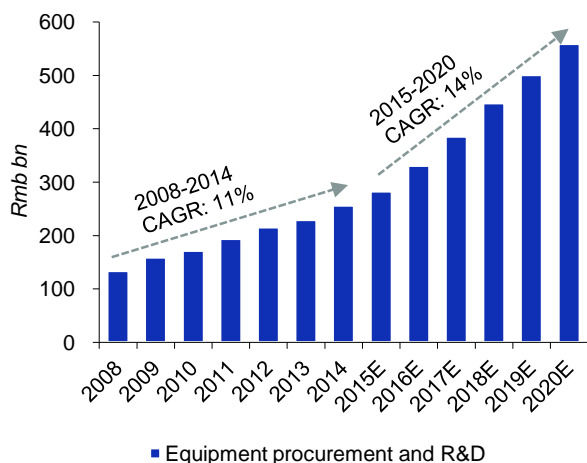
We are positive on China's military spending in the coming years against the backdrop of regional political tensions. On top of this, China is stepping up its effort to rebalance its defense budget allocation, prioritizing resources to equipment procurement on the back of the announced military cut and the upcoming broad-based military reform.

We see significant potential for a rise in China's air power due the existing low level of modernization and under-optimized fleet mix. With a series of new aircraft models having been successfully developed in the recent years, we are likely at the beginning of a multi-year fleet upgrade cycle. We project a CAGR



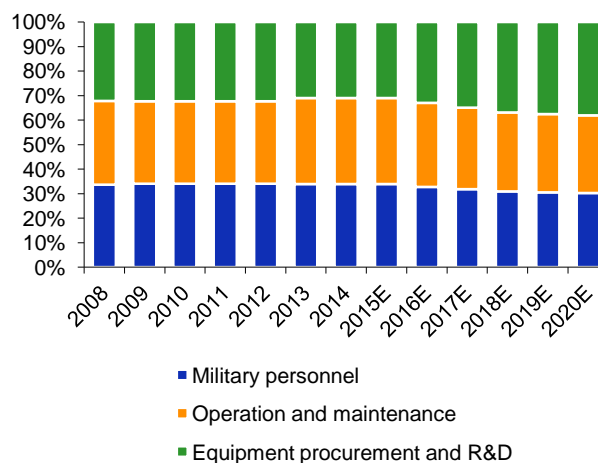
of 16% in China's military procurement for aviation equipment during 2016-2020, amounting to Rmb621bn. Overall, we are positive on AviChina's product exposure in the military aviation sector.

Figure 8: Equipment procurement budget to grow at a CAGR of 14% during 2015-2020



Source: Deutsche Bank estimates.

Figure 9: Budget allocation to equipment procurement is set to increase



Source: Deutsche Bank estimates.

Military helicopters (through Avicopter)

In light of the ongoing expansion of PLAA's aviation branch and the accelerating fleet upgrade cycle, we expect China's military helicopter inventory to double by 2020. With Avicopter's order backlog reaching a historical high as of end-2014, we expect the earnings visibility to remain high in the coming years.

Military training aircraft (through Hongdu Aviation)

In light of the accelerated modernization progress for PLA's combat aircraft, we see significant upgrade potential for China's training aircraft (trainer) fleet as advanced trainers only account for c.20% of PLA's trainer inventory. With the introduction of the L-15 advanced trainer model, we believe Hongdu is poised to benefit from PLA's trainer upgrade cycle in the medium-to-long term as its trainer backlog saw a remarkable recovery in 2014.

That said, in the near term, we do not see the kick-start of a new model cycle to restore Hongdu's earnings back to its peak level due to the expected production disruption as a result of factory relocation (to be completed by 2017). We expect the company's trainer sales to gradually rebound from the low base in 2014.

Avionics (through AVIC Avionics and JONHON Optronics)

With diversified exposure to different types of aircraft, we expect AviChina's military-related avionics sales to grow at least inline with China's procurement budget for military aviation equipment, with additional upside coming from the imminent avionics replacement/upgrade cycle.

In addition, we see significant potential for component suppliers to increase penetration into non-aviation defense sector. JONHON Optronics has been the leader on this front with two-thirds of its military sales derived from non-aviation sectors such as shipbuilding, aerospace, and land-based weapons.



While the contribution from the non-aviation defense sector only accounts for c.10% of the company's total revenue, AVIC Avionics has stepped up its efforts to increase competitiveness outside of AVIC's supply chain.

We like AviChina's component business given its diversified risk exposure, imminent replacement/upgrade cycle, additional source of growth coming from non-aviation defense sector, and better profitability relative to airframers.

Civil aviation manufacturing to drive medium- to long-term growth

General aviation

With the anticipated relaxation of low-altitude airspace control, we see significant potential for China's general aviation market, which is significantly underdeveloped at the moment compared with the country's economy. Based on the original timetable, China is set to open up low-altitude airspace nationwide by 2015, a key near-term catalyst for China's aviation sector.

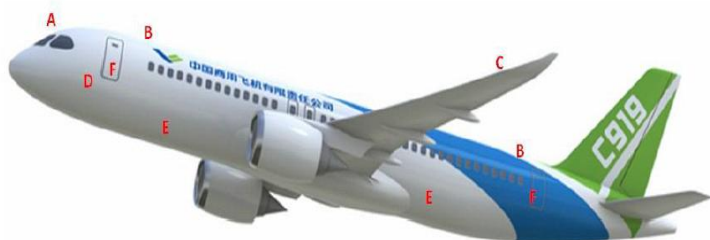
With a strong product pipeline (helicopters in particular), we expect the general aviation sector to emerge as a medium- to long-term growth driver for AviChina. We have not modeled in any significant contribution from general aircraft, so an earlier-than-expected penetration into the general aviation market should yield upside to our current set of forecasts.

Commercial aviation—all eyes on the C919

With the successful completion of its final assembly and the likely maiden flight in 2H16, we believe we are very close to finding out whether the C919, China's first indigenously designed commercial aircraft, is capable of driving China's commercial aviation manufacturing sector in the long term.

Although the C919 is currently developed by COMAC (16.53% held by AVIC), AviChina, through its subsidiary companies, is a key supplier to the program. To date, COMAC has received 517 orders, including 357 firm orders, 97 option buys, and 60 letters of intent.

Figure 10: AviChina's exposure to the C919



- | | |
|--|--|
| A. AVIC Avionics: Air data and inertial reference | E. JONHON : Optical and electrical connectors |
| B. Hongdu: Fwd fuselage, mid-aft fuselage; | F. Hafei : Fuselage-to-wing fairing; Vertical |
| C. Changhe: Leading and trailing flap edge | stabilizer; Nose & Main landing gear door |
| D. Tianjin: Fire detection system; | |

Source: Company presentation, Deutsche Bank



Scope of further asset injections

Positioned as AVIC's ultimate listing vehicle

Since its listing, AviChina has been positioned as AVIC's strategic listing platform for the group's aviation business, aiming to consolidate majority of AVIC's high-quality aviation assets into the vehicle at some point in the future. Past asset restructuring efforts at both AviChina and its listed subsidiary companies suggest that such plans have progressed in line with expectations.

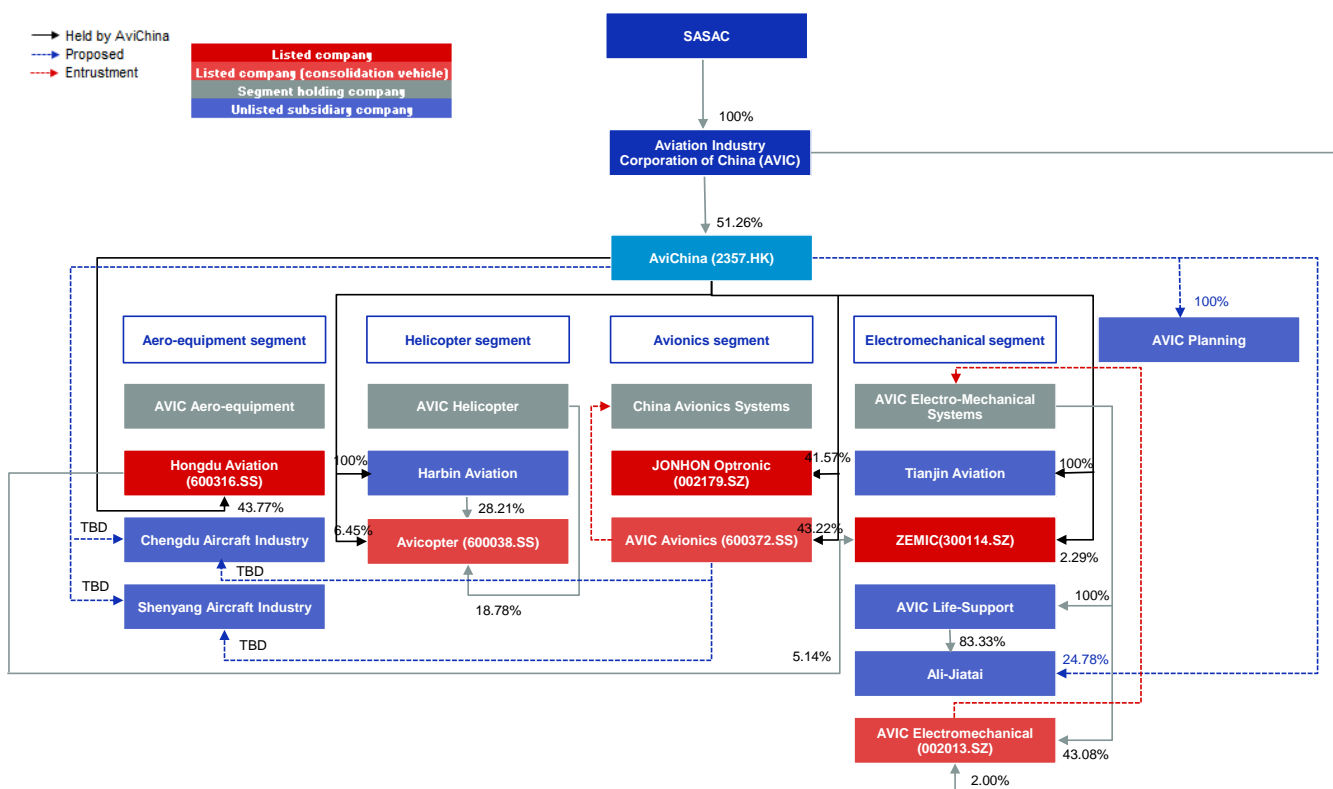
Currently, AviChina has significant exposure to four business segments out of AVIC's eight major aviation business segments. More specifically, as of now AviChina holds a controlling equity stake in two of AVIC's segment-listing consolidation vehicles including Avicopter and AVIC Avionics. It also has significant exposure to the aero-equipment segment through its consolidated subsidiary Hongdu Aviation and to the electromechanical segment through its wholly-owned subsidiary Tianjin Aviation and its financial investment in ZEMIC.

Figure 11: AVIC vs. AviChina—key financial metrics (2014)

	2014 (Rmb mn)		
	AVIC	AviChina	As % of AVIC
Revenue	386,383	25,710	7%
Net profit	4,683	781	17%
Assets	799,616	54,722	7%
Net assets	276,546	23,301	8%
Aviation Rev	94,512	25,710	27%
Aviation GP	24,843	4,899	20%

Source: Company data, Deutsche Bank

Figure 12: AviChina—shareholding in each of AVIC's business segment (as of end-1H15)



Source: Company data, Deutsche Bank



Opportunities and challenges in the path of consolidation

We see opportunities still exist for AviChina to potentially tap into AVIC's aviation business segments that it currently has low levels of involvement. However, for segments that currently have fairly high level of asset securitization with clear listing vehicles for asset consolidation (e.g., aircraft and electromechanical segment), we believe one of the key challenges is the high valuation of those A-share listcos (relative to AviChina's valuation metrics), making it costly to do such equity investments.

Another key challenge is the lack of profitability for those unlisted assets as AviChina has stipulated that the company would not consider asset injections unless they are ROE-accretive.

In Figure 13, we summarize our view on the key opportunities and challenges faced by AviChina in terms of further asset consolidation.

Figure 13: Key opportunities and challenges faced by AviChina in terms of further asset consolidation

AVIC's key aviation business segment	Key products	Asset securitization level	AviChina's current exposure	Segment listing vehicle for consolidation	AviChina's opportunities	Challenges
Aero-equipment	Jet fighters, trainers, UAVs, etc.	Low-medium	Low-medium	Unclear	Participation in capital increase in Chengdu Aircraft and Shenyang Aircraft	AVIC's core defense assets, subject to the approval of SASTIND
Helicopter	Helicopters and fixed-wing aircraft	Medium-High	High	Avicopter (600038.SS)	Military helicopter final assembly	Profitable assets need to be stripped out of AVIC Helicopter first
Aircraft	Bombers, strike-fighters, turboprop aircraft, military support aircraft (transport and special mission), etc.	High	Nil	AVIC Aircraft (000768.SZ)	Equity investment	AVIC Aircraft's valuation is quite expensive (higher than AviChina's)
General Aircraft	General-purpose aircraft	Low	Nil	Unclear	Selective injection of assets	Low profitability as general aviation is still at an early stage of development
Electromechanical	Mechanical and electric products	Medium	Low-medium	AVIC Electromechanical (002013.SZ)	Selective injection of assets/Equity investment	Most unlisted assets are currently entrusted to AVIC Electromechanical and the company's valuation is expensive
Avionics	Avionics products	Medium	High	AVIC Avionics (600372.SS)	Research institutes (currently managed by AVIC Avionics thru entrustment agreement)	Research institutes are public institutions. Conversion into business enterprises are required before they can be injected into listcos
Engine	Aero-engines (mainly military)	Medium	Nil	AVIC Aviation Engine (600893.SS)	Equity investment	Significant restructuring is underway initiated by high-level government entities (i.e., high level of uncertainties)
Commercial Aircraft Engine	Commercial aircraft engines	Low	Nil	Unclear	Equity investment	Significant restructuring is underway initiated by high-level government entities (i.e., high level of uncertainties)

Source: Company data, Deutsche Bank



While becoming AVIC's ultimate listing vehicle is likely to be a longer-term target for AviChina to accomplish, we believe a number of opportunities for asset injections emerge in the near-to-medium term, both at the company and subsidiary company levels.

Assessing asset injection potential for AviChina's subsidiary companies

AVIC Avionics

The company signed an entrustment agreement with China Avionics Systems Company ("CASC") in 2014, which gives it the right to exercise management responsibility over CASC. We believe the move signals that AVIC is determined to ultimately offload its avionics-related assets to AVIC Avionics although no specific timeline has been explicitly discussed.

Figure 14: Key financials CASC vs. AVIC Avionics (2014)

In Rmb mn	Revenue	Net profit	Net assets	Assets
CASC (ex-AVIC Avionics*)	16,211	838	24,392	50,072
AVIC Avionics	6,607	601	5,397	14,488

Source: Company data, Deutsche Bank. Note: AVIC Avionics is classified as an associate company of CASC.

That said, we noticed that a majority of CASC's subsidiary companies are either loss-making or of poor profitability currently. For example, CASC's blended net margin in 2014 was only half of that of AVIC Avionics. As of 1H15, research institutes are the most profitable assets of AVIC, contributing nearly all of CASC's profit.

Our scenario analysis suggests injecting either the entire CASC or the five research institutes only would likely boost the company's earnings (see company note for AVIC Avionics for details). Our base case scenario looks for an EPS accretion of 25% on 2016 (which we have not yet modeled in) if injecting the five research institutes into AVIC Avionics, under the assumptions that 1) share placement price to be the average share price of the preceding 20 trading days; 2) net profit for the five research institutes stays the same in 2014-2016; 3) AviChina will not participate in the share placement; and 4) the acquisition P/E of 20x on 2016 vs. the historical average acquisition P/E of 16x for the asset restructuring within AVIC group.

Figure 15: Sensitivity of 2016 EPS accretion to AviChina from injecting five research institutes to AVIC Avionics to acquisition P/E and share placement price of AVIC Avionics

		2016 acquisition P/E (x)				
		10.0x	15.0x	20.0x	25.0x	30.0x
Issue px (Rmb/sh)	17.63	31%	21%	14%	9%	5%
	19.59	33%	24%	17%	11%	7%
	21.76	36%	26%	19%	14%	10%
	24.18	38%	29%	22%	17%	12%
	26.87	40%	31%	25%	19%	15%
	29.56	42%	34%	27%	21%	17%
	32.51	44%	36%	29%	24%	19%
	35.76	45%	38%	31%	26%	22%
	39.34	47%	40%	33%	28%	24%

Source: Deutsche Bank estimates.



Avicopter

As the single listing platform for AVIC's helicopter segment, Avicopter currently holds most of the segment's helicopter-related assets after the completion of the asset injection in 2013. Nevertheless, the segment's final assembly businesses for military helicopters remained at AVIC Helicopter.

While AVIC Helicopter's revenue was twice as big as Avicopter's in 2014, its bottom line was just c.10% higher than Avicopter's. The mismatch is likely because AVIC Helicopter might still hold considerable amount of non-performing assets with poor or even no profitability.

Given the limited available information on the assets AVIC Helicopter currently holds, we believe quantifying potential earnings accretion could be challenging for the time being but most likely earnings-accretive to the company based on our initial assessment.

Assessing asset injection potential for AviChina as a holding company

AviChina recently proposed two acquisitions: 1) the asset injection of AVIC Planning; and 2) the participation in the capital increase of Shenyang Aircraft and Chengdu Aircraft. Both of these proposals are still subject to further approvals to proceed.

AVIC Planning—a proxy to China's FAI in aviation industry

AVIC Planning is AVIC's professional segment engaging in the fixed asset investment, involving planning, design, consultation, construction and operation. The company has a dominant position in the domestic design and consulting service market for aviation-related fixed-asset investment.

According to AviChina's announcement, the company plans to acquire 100% equity stake in AVIC Planning from its parentco, for a total consideration of c.Rmb2.2bn, by way of domestic share issuance to AVIC.

Currently, the proposed asset injection is subject to the approval of independent shareholders. We have not yet modeled in the transaction, which the company is looking to complete in 2016.

During the conference call held by the company post the announcement, management guided AVIC Planning's earnings will likely see double-digit growth (at 10-20% yoy) in the coming years as fixed-asset investment within the aviation industry remains robust. We have not yet modeled in the impact from this asset injection. Our scenario analysis suggests the transaction is most likely to be EPS accretive (13-17% accretion based on management's guidance on AVIC Planning's earnings growth).



Figure 16: Assessment of EPS accretion from the injection of AVIC Planning

	Equity stake acquired (%)	Total consideration (Rmb mn)	Net profit (Rmb mn)				
			2013A	2014A	2015E	2016E	2017E
AVIC Planning	100%	2,164	177	217	217	217	217
yoy chg%				23%	0%	0%	0%
Implied P/E (x)			12.2x	10.0x	10.0x	10.0x	10.0x

	Issue px (Rmb/sh)	# of shares (mn shares)	Proceeds (Rmb mn)
Domestic share issuance	4.42	490	2,164

	Pre	Post	Increase	% accretion
2016 NPAT (Rmb mn)	1,142	1,358	217	19%
Weighted avg shrs (mn shares)	5,474	5,964	490	9%
2016 EPS	0.21	0.23	0.02	9%
2016 NPAT (Rmb mn)	1,439	1,656	217	15%
Weighted avg shrs (mn shares)	5,474	5,964	490	9%
2017 EPS	0.26	0.28	0.01	6%

Source: Company data, Deutsche Bank estimates.

Figure 17: Sensitivity of 2016 EPS accretion from the injection of AVIC Planning to domestic share issue price and annualized NPAT growth

		Annualized NPAT growth (%)				
		-20%	-10%	0%	10%	20%
Issue price (Rmb/sh)	3.58	1%	4%	7%	10%	14%
	3.98	2%	5%	8%	12%	16%
	4.42	3%	6%	9%	13%	17%
	4.86	4%	7%	10%	13%	17%
	5.35	4%	7%	11%	14%	18%

Source: Deutsche Bank estimates.

Tapping into AVIC's core defense assets

In August, AviChina, along with other four AVIC affiliates including AVIC Capital, AVIC Avionics, AVIC Aircraft, and AMES, announced the proposed participation in the capital increase of Chengdu Aircraft and Shenyang Aircraft, AVIC's core subsidiaries involved in the manufacture of jet fighters. We believe this might have been an intermediate solution for AVIC to securitize its aero-equipment assets as the previously proposed asset injection to Chengfei Integration (002190.SZ, NC) was vetoed by SASTIND. This also shows AVIC's commitment to push forward the asset securitization progress of its core defense assets.

According to the announcement, AviChina will invest up to Rmb1.9bn in the capital increase of both Chengdu Aircraft and Shenyang Aircraft. In addition, AVIC Avionics plans to invest up to c.Rmb540mn.

Currently, the prices for capital increase are yet to be determined based on the valuation results to be prepared by an independent asset appraiser. Based on management guidance, its proposed investment, together with the investment to be made by AVIC Avionics, is likely to translate into c.10% equity stake in the two companies. Given that both companies had sizable profit in the past,



we estimate that the share of profit from the investment could yield a 5-10% enhancement to AviChina's earnings in 2016 (using 2014 profit figures for Chengdu Aircraft and Shenyang Aircraft, while assuming a 10% equity stake in the two companies upon the completion of the transaction).

Figure 18: Key financial metrics for Chengdu Aircraft and Shenyang Aircraft (2012-2014)

	2012A	2013A	2014A
Revenue			
Chengdu Aircraft	7,398	9,132	11,519
Shenyang Aircraft	11,024	11,626	12,168
Pre-tax profits			
Chengdu Aircraft	300	420	465
Shenyang Aircraft	452	447	462
Net assets			
Chengdu Aircraft	5,127	5,291	5,872
Shenyang Aircraft	3,921	4,375	5,606

Source: Company announcements, Deutsche Bank

*Chengdu Aircraft and
Shenyang Aircraft generate
sizeable profits*

That said, given that the proposed amount of capital increase is fairly big, we also see equity funding risk, if the transaction is given go-ahead by the government. Worth noting is that the acquisition capex for the two above-mentioned transactions amounts to c.Rmb4bn based on the company's announcements.



Earnings forecasts

Solid earnings growth prospects across all segments

We summarize below our key earnings forecasts for each of AviChina's listed subsidiaries. Overall, we expect all of AviChina's subsidiaries to see double-digit growth in 2016-2017, led by JONHON Optronics and Avicopter. In addition, rising contribution from JONHON Optronics, which has higher profitability, should bode well for the company's margins.

JONHON Optronics (002179.SZ)

Since the company's new production base in Luoyang (c.4x the size of its old base) came into operation in May 2014, JONHON Optronics' top-line growth has witnessed a remarkable acceleration. The growth has largely been sustained into 9M15, with sales up 45% yoy. We expect the company to record a 46% yoy growth in sales for the full-year 2015 and an earnings growth of 75% yoy.

Looking ahead, we expect the company's continued expansion into high-growth civil markets such as new energy vehicle, telecommunications, railway and medical to bear fruit, and its military product sales to continue to grow at a healthy pace, largely in line with China's weapon procurement budget growth. As a result, we project a 27% sales CAGR in 2016-2017.

Avicopter (600038.SS)

We believe Avicopter's earnings visibility remains high in the near-to-medium term, underpinned by its strong order intake in recent years. We expect the demand for military helicopters to stay robust, driven by continued expansion of PLA's aviation branch in addition to the ongoing fleet upgrade needs.

We expect helicopter sales growth to see a visible pick-up from 2016 and further acceleration into 2017. While military helicopter demand is likely to be the key driving force for Avicopter's top-line growth, we also see its AC series civil helicopters emerge as a new source of revenue stream.

AVIC Avionics (600372.SS)

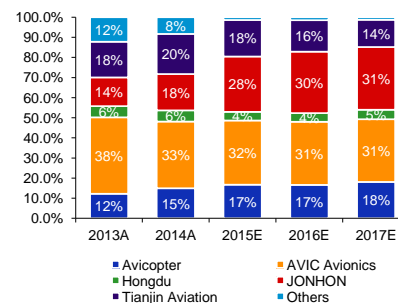
In light of the ongoing expansion of military aircraft and upcoming avionics upgrade cycle for PLA's existing aircraft inventory, we expect the company's sales to slightly outgrow PLA's procurement budget for military aircraft during the same period. We expect an 18% sales CAGR in 2015-2017.

We expect AVIC Avionics' GP margin to see a steady expansion, benefiting from enlarged production scale. This, along with normalized interest expenses, should lead to higher bottom-line growth in the coming years.

Hongdu Aviation (600316.SS)

Despite high level of trainer backlog on hand as of end-2014 (up >100% vs. oya), we did not model in a significant pick-up in sales from 2016 as production is likely to be constrained by the ongoing factory relocation. Overall, we expect sales to grow by 5%/12%/12% in 2015/2016/2017.

Figure 19: Earnings contribution by subsidiary (2013-2017)



Source: Company data, Deutsche Bank estimates.



Hongdu's GP margin has witnessed a significant contraction from 15% in 2011 to 6% in 2014, largely driven by a surge in fixed-cost allocation in the initial stage of L-15 production. With continued ramp-up in L-15 production, we expect GP margin to gradually recover although unlikely to be back to the double-digit levels as L-15 delivery is likely to remain at a suppressed level.

As a result, we expect Hongdu's bottom line to return to growth trajectory in 2016/2017, partly driven by weak comparison as we forecast c.10% decline in 2015. Overall, we expect Hongdu's NPAT to see a CAGR of 17% in 2015-2017.

Figure 20: Summary of key assumptions for each subsidiary company

Rmb in mn (HK GAAP)	2012A	2013A	2014A	2015E	2016E	2017E
Shareholding						
Avicopter (600038.SS)	50.05%	35.10%	35.10%	35.10%	35.10%	35.10%
AVIC Avionics (600372.SS)	43.22%	43.22%	43.22%	43.22%	43.22%	43.22%
Hongdu Aviation (600316.SS)	43.63%	43.63%	43.63%	43.63%	43.63%	43.63%
JOHHON Optronics (002179.SZ)	43.34%	41.57%	41.57%	41.57%	41.57%	41.57%
Changhe Aviation	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Tianjin Aviation	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Revenue	18,368	22,193	25,710	29,277	35,261	42,940
<i>yoy chg%</i>	<i>38%</i>	<i>21%</i>	<i>16%</i>	<i>14%</i>	<i>20%</i>	<i>22%</i>
Avicopter (600038.SS)	2,858	10,823	12,449	13,567	16,544	20,908
<i>yoy chg%</i>	<i>3%</i>	<i>279%</i>	<i>15%</i>	<i>9%</i>	<i>22%</i>	<i>26%</i>
AVIC Avionics (600372.SS)	5,535	5,989	6,593	7,363	8,485	9,960
<i>yoy chg%</i>	<i>51%</i>	<i>8%</i>	<i>10%</i>	<i>12%</i>	<i>15%</i>	<i>17%</i>
Hongdu Aviation (600316.SS)	2,231	2,859	3,450	3,630	4,055	4,557
<i>yoy chg%</i>	<i>22%</i>	<i>28%</i>	<i>21%</i>	<i>5%</i>	<i>12%</i>	<i>12%</i>
JOHHON Optronics (002179.SZ)	2,197	2,593	3,481	5,069	6,668	8,194
<i>yoy chg%</i>	<i>18%</i>	<i>18%</i>	<i>34%</i>	<i>46%</i>	<i>32%</i>	<i>23%</i>
Changhe Aviation	5,931	Merged into Avicopter				
<i>yoy chg%</i>	<i>45%</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tianjin Aviation	446	478	605	634	698	768
<i>yoy chg%</i>	<i>13%</i>	<i>7%</i>	<i>26%</i>	<i>5%</i>	<i>10%</i>	<i>10%</i>
Others	(830)	(551)	(866)	(987)	(1,188)	(1,447)
Net profit (equity attributable)	664	713	781	907	1,156	1,465
<i>yoy chg%</i>	<i>33%</i>	<i>7%</i>	<i>10%</i>	<i>16%</i>	<i>28%</i>	<i>27%</i>
Avicopter (600038.SS)	58	87	116	152	192	265
<i>yoy chg%</i>	<i>5%</i>	<i>50%</i>	<i>34%</i>	<i>30%</i>	<i>27%</i>	<i>38%</i>
AVIC Avionics (600372.SS)	260	271	260	290	364	456
<i>yoy chg%</i>	<i>42%</i>	<i>4%</i>	<i>-4%</i>	<i>12%</i>	<i>26%</i>	<i>25%</i>
Hongdu Aviation (600316.SS)	38	40	43	39	50	69
<i>yoy chg%</i>	<i>5%</i>	<i>4%</i>	<i>9%</i>	<i>-9%</i>	<i>28%</i>	<i>38%</i>
JOHHON Optronics (002179.SZ)	88	102	141	249	352	457
<i>yoy chg%</i>	<i>2%</i>	<i>16%</i>	<i>39%</i>	<i>77%</i>	<i>41%</i>	<i>30%</i>
Changhe Aviation	97	Merged into Avicopter				
<i>yoy chg%</i>	<i>91%</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>	<i>n.a.</i>
Tianjin Aviation	120	127	157	164	181	199
<i>yoy chg%</i>	<i>25%</i>	<i>6%</i>	<i>24%</i>	<i>5%</i>	<i>10%</i>	<i>10%</i>
Others	3	87	64	12	17	18

Source: Company data, Deutsche Bank estimates.



Summary of financials

Figure 21: Summary of P&L

Rmb in mn (HK GAAP)	2011A	2012A	2013A	2014A	2015E	2016E	2017E
Revenue	13,271	18,368	22,193	25,710	29,277	35,261	42,940
Cost of sales	(10,619)	(14,444)	(17,885)	(20,812)	(23,294)	(28,005)	(34,030)
Gross profit	2,653	3,924	4,308	4,899	5,984	7,256	8,910
<i>GPM%</i>	<i>20.0%</i>	<i>21.4%</i>	<i>19.4%</i>	<i>19.1%</i>	<i>20.4%</i>	<i>20.6%</i>	<i>20.7%</i>
SG&A expenses	(1,806)	(2,533)	(2,801)	(3,220)	(3,760)	(4,409)	(5,259)
Selling expenses	(276)	(369)	(415)	(470)	(568)	(689)	(816)
Admin expenses	(1,530)	(2,165)	(2,386)	(2,750)	(3,192)	(3,720)	(4,443)
Other gains/losses (net)	132	159	251	316	173	198	229
EBIT	979	1,549	1,758	1,995	2,397	3,045	3,880
<i>EBIT margin%</i>	<i>7.4%</i>	<i>8.4%</i>	<i>7.9%</i>	<i>7.8%</i>	<i>8.2%</i>	<i>8.6%</i>	<i>9.0%</i>
Total D&A expense	(459)	(641)	(735)	(820)	(907)	(973)	(1,034)
EBITDA	1,438	2,190	2,493	2,815	3,304	4,018	4,914
<i>EBITDA margin</i>	<i>10.8%</i>	<i>11.9%</i>	<i>11.2%</i>	<i>10.9%</i>	<i>11.3%</i>	<i>11.4%</i>	<i>11.4%</i>
Net finance expenses	(19)	(66)	(74)	(136)	(202)	(189)	(183)
Share of profit of associates & JCEs	92	57	77	144	154	188	216
Earnings before taxes	1,052	1,540	1,761	2,003	2,349	3,044	3,913
Income tax expenses	(143)	(235)	(250)	(267)	(352)	(457)	(587)
Net profit	1,054	1,305	1,511	1,736	1,996	2,588	3,326
From continuing operations	909	1,305	1,511	1,736	1,996	2,588	3,326
From discontinued operations	145	0	0	0	0	0	0
Minority interest	(555)	(641)	(798)	(954)	(1,090)	(1,431)	(1,862)
From continuing operations	(465)	(641)	(798)	(954)	(1,090)	(1,431)	(1,862)
From discontinued operations	(91)	0	0	0	0	0	0
Net profit attributable to shareholders	499	664	713	781	907	1,156	1,465
From continuing operations	444	664	713	781	907	1,156	1,465
From discontinued operations	55	0	0	0	0	0	0
Net margin	3.8%	3.6%	3.2%	3.0%	3.1%	3.3%	3.4%
<i>From continuing operations</i>	<i>3.3%</i>	<i>3.6%</i>	<i>3.2%</i>	<i>3.0%</i>	<i>3.1%</i>	<i>3.3%</i>	<i>3.4%</i>
<i>From discontinued operations</i>	<i>0.4%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>	<i>0.0%</i>
Dividend	55	109	109	109	136	173	220
Basic EPS (Rmb/share)	0.10	0.12	0.13	0.14	0.17	0.21	0.27
From continuing operations	0.09	0.12	0.13	0.14	0.17	0.21	0.27
From discontinued operations	0.01	0.00	0.00	0.00	0.00	0.00	0.00
DPS (Rmb/share)	0.01	0.02	0.02	0.02	0.02	0.03	0.04

Source: Company data, Deutsche Bank estimates.



Figure 22: Summary of balance sheet

Rmb in mn (HK GAAP)	2011A	2012A	2013A	2014A	2015E	2016E	2017E
Non-current assets	6,907	10,946	13,369	14,687	15,484	15,748	16,181
PP&E	4,483	7,134	9,243	10,441	11,092	11,178	11,407
Investment properties	28	27	31	39	38	38	37
Land use rights	590	1,261	1,416	1,451	1,466	1,480	1,493
Intangible assets	53	64	112	219	197	175	150
Interests in JCEs & associates	1,053	1,114	1,093	876	1,030	1,219	1,435
AFS financial assets	632	1,129	1,152	1,238	1,238	1,238	1,238
Deferred income tax assets	67	166	167	170	170	170	170
Accounts receivable	0	51	154	0	0	0	0
Other receivables and prepayments	0	0	0	252	252	252	252
Other non-current assets	0	0	0	0	0	0	0
Current assets	24,067	30,719	37,559	40,035	43,063	50,281	59,137
Accounts receivable	4,388	7,136	8,958	10,974	12,897	15,533	18,916
Advances to suppliers	840	812	1,219	1,049	1,195	1,439	1,752
Other receivables and prepayments	1,355	1,330	1,183	1,772	2,017	2,430	2,959
Inventories	8,197	11,757	14,780	16,593	18,573	22,252	26,946
Pledged deposits	635	684	1,313	986	1,122	1,350	1,643
Term deposits with initial term > 3 months	2,348	3,394	3,379	2,862	2,862	2,862	2,862
Cash and cash equivalents	6,303	5,606	6,726	5,798	4,396	4,414	4,058
Other current assets	1	1	0	0	0	0	0
Total assets	30,973	41,665	50,928	54,722	58,546	66,030	75,319
Current liabilities	15,421	21,199	26,428	28,721	29,723	34,136	39,677
Accounts payable	6,914	10,796	14,032	15,050	16,717	20,098	24,423
Advances from customers	3,964	3,028	3,802	3,765	4,214	5,067	6,157
Other payables and accruals	2,021	2,924	3,740	3,810	4,265	5,127	6,231
Amounts payable to ultimate holding company	466	466	463	269	269	269	269
Current portion of long-term borrowings	251	665	255	567	564	582	305
Short-term borrowings	1,636	3,160	3,952	5,066	3,500	2,800	2,100
Current income tax liabilities	168	159	184	193	193	193	193
Other current liabilities	0	0	0	0	0	0	0
Non-current liabilities	1,434	1,258	2,693	2,699	3,635	4,254	4,849
Long-term borrowings	1,171	772	1,911	1,785	2,721	3,339	3,934
Deferred income	253	478	747	832	832	832	832
Deferred tax liabilities	10	8	20	52	52	52	52
Other payables and accruals	0	0	16	31	31	31	31
Other non-current liabilities	0	0	0	0	0	0	0
Total liabilities	16,855	22,457	29,121	31,420	33,358	38,390	44,526
Total shareholders' equity	7,545	10,156	10,123	10,815	11,613	12,633	13,924
Share capital	4,949	5,474	5,474	5,474	5,474	5,474	5,474
Reserves and REs	2,596	4,682	4,648	5,341	6,138	7,158	8,450
Minority interests	6,573	9,052	11,684	12,486	13,576	15,007	16,869
Total equity	14,118	19,208	21,807	23,301	25,188	27,640	30,793
Total liabilities and equity	21,664	29,365	31,930	34,117	36,801	40,273	44,717

Source: Company data, Deutsche Bank estimates.



Figure 23: Summary of cash flow

Rmb in mn (PRC GAAP)	2011A	2012A	2013A	2014A	2015E	2016E	2017E
Profit before tax	1,052	1,540	1,761	2,003	2,349	3,044	3,913
Depreciation and amortization	459	641	735	820	907	973	1,034
Provisions for impairment of assets	18	82	17	130	0	0	0
Gains from disposals	(65)	(81)	(193)	(203)	0	0	0
Net interest expense	4	53	53	119	202	189	183
Investment income	(92)	(57)	(77)	(144)	(154)	(188)	(216)
Others	(6)	(51)	(66)	(151)	(202)	(189)	(183)
Change in working capital	(960)	(2,606)	(1,436)	(2,696)	(1,859)	(2,104)	(2,695)
Income tax paid	(178)	(233)	(222)	(269)	(352)	(457)	(587)
Net cash flow from operating activities	233	(710)	572	(392)	890	1,268	1,449
Capex	(915)	(1,386)	(4,267)	(2,655)	(1,550)	(1,050)	(1,250)
Investment payment	(20)	(541)	(4)	(53)	0	0	0
Investment income	153	172	117	130	0	0	0
Disposals	(145)	68	406	475	0	0	0
Others	392	(1,046)	339	634	0	0	0
Net cash flow from investing activities	(534)	(2,733)	(3,409)	(1,470)	(1,550)	(1,050)	(1,250)
Issuance of equity capital	0	970	0	0	0	0	0
Capital contributions	111	1,005	2,705	75	0	0	0
New borrowings	2,365	4,011	6,237	6,794	5,000	4,000	3,000
Repayment of borrowings	(2,391)	(3,505)	(4,731)	(5,520)	(5,633)	(4,064)	(3,382)
Dividend & Interest paid	(192)	(282)	(223)	(387)	(109)	(136)	(173)
Others	(126)	(8)	(12)	(53)	0	0	0
Net cash flow from financing activities	(232)	2,191	3,976	907	(743)	(200)	(555)
Net increase/(decrease) in cash and cash equivalents	(533)	(1,252)	1,140	(954)	(1,402)	19	(356)
Effect of changes in FX rate	0	0	(20)	27	0	0	0
Cash at beginning of year	6,973	6,858	5,606	6,726	5,798	4,396	4,414
Cash and cash equivalents at end of year	6,440	5,606	6,726	5,798	4,396	4,414	4,058

Source: Company data, Deutsche Bank estimates.



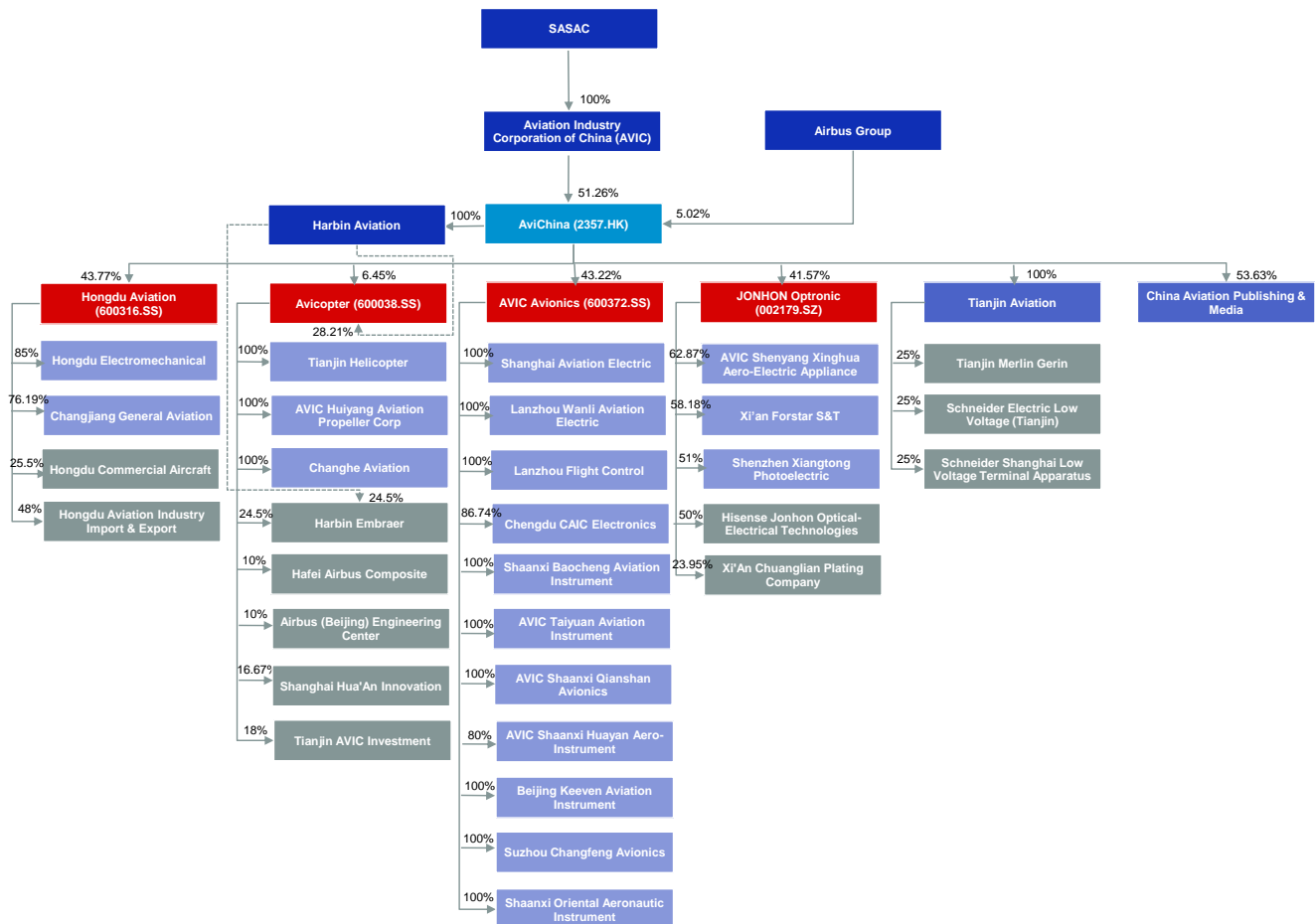
Company background

Company description

Established in April 2003 and listed on the Hong Kong Exchange in October 2003, AviChina Industry & Technology Company Limited (“AviChina”) is the largest aviation equipment manufacturer in China. The company, through its subsidiaries (including four A-share listed subsidiaries), is mainly engaged in the development, manufacture, sales and upgrade of aviation products such as helicopters, trainers, general-purpose aircraft and regional jet for both domestic and overseas customers.

It is worth noting that Airbus Group is a strategic investor of the company, holding 5.02% equity stake in AviChina as of end-1H15.

Figure 24: AviChina—shareholding structure (as of end-1H15)



Source: Company data, Deutsche Bank

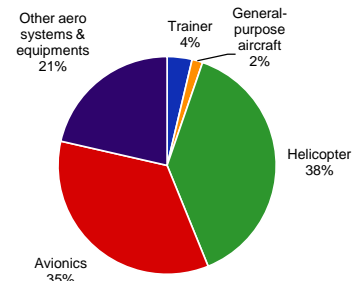


Key subsidiaries and product offerings

Its key products include helicopters (Z-8, Z-9, Z-11, AC series, EC-120 jointly produced by the company and Airbus Helicopters, and CA109 jointly produced by the company and Agusta), trainers (including L-15, K-8, and CJ-6), general-purpose aeroplanes (including Y-12 series and N-5 series), aviation parts and components, avionics products and electrical products and accessories.

The company also manufactures and sells Legacy executive series jets jointly produced by the company and Embraer, through its 49% owned JV – Harbin Embraer Aircraft Industry.

Figure 25: AviChina – revenue breakdown by product (2014)



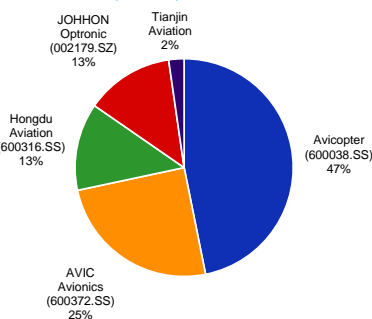
Source: Deutsche Bank

Figure 26: AviChina – summary of major product offerings

Model	Y12	ERJ145	Legacy600/650	Y12-F	N-5A	N-5B			
Fixed-wing aircrafts									
Manufacturer	Avicopter	Harbin Embraer	Harbin Embraer	Avicopter	Hongdu Aviation	Hongdu Aviation			
Model	Z11/AC311	EC/HC120	AC301	AC310	CA109	Z9/AC312/H410	H425	Z15/AC352/EC175	Z8/AC313
Helicopters									
Manufacturer	Avicopter	Avicopter/Airbus	Avicopter	Avicopter	Avicopter/Agusta	Avicopter	Avicopter	Avicopter/Airbus	Avicopter
Model	CJ-6	K-8	L-15						
Trainers									
Manufacturer	Hongdu Aviation	Hongdu Aviation	Hongdu Aviation						
Model	Flight control system	Navigation system	Aviation lighting	Cockpit control	Air data systems	EMMS	Data acquisition	Electrical connector	Optical connector
Avionics									
Manufacturer	AVIC Avionics	AVIC Avionics	AVIC Avionics	AVIC Avionics	AVIC Avionics	AVIC Avionics	AVIC Avionics	JOHNON Optronic	JOHNON Optronic
Model	Fireproof system								
Electromechanical									
Manufacturer	Tianjin Aviation								

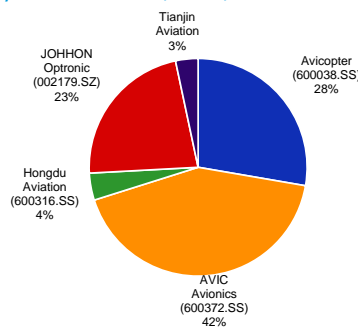
Source: Company data, Deutsche Bank

Figure 27: Revenue breakdown by subsidiaries (2014)



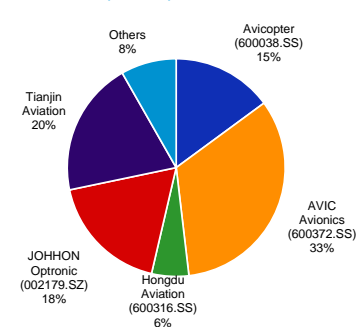
Source: Company data, Deutsche Bank estimates.

Figure 28: Gross profit breakdown by subsidiaries (2014)



Source: Company data, Deutsche Bank estimates.

Figure 29: Net profit breakdown by subsidiaries (2014)



Source: Company data, Deutsche Bank estimates.



Asset restructuring in the history

Figure 30: Summary of two asset swaps with AVIC

Year of transaction	Company name	Source of funding	IN (Assets acquired)				OUT (Assets disposed)			
			Business entities	Equity interest (%)	NAV (Rmb mn)	NPAT (Rmb mn)	Business entities	Equity interest (%)	NAV (Rmb mn)	NPAT (Rmb mn)
2009	AVIC Avionics (ex-ST Changhe)	Equity	Lanzhou Wanli Aviation Electro-mechanic	100%	407	80	Changhe Automobile	100%	793	(425)
			Shanghai Aviation Electric	100%						
2009 (announced)	AviChina	n.a.	JONHON Optronics	43.34%	1,774	116	Dongan Motor	54.51%	2,368	160

Source: Company data, Deutsche Bank. Note: NAV and NPAT figures are for the fiscal year prior to the transactions.

Figure 31: Details of 2011 asset injections (AVIC Avionics + Tianjin Aviation)

Acquired assets (in English)	Acquired assets (in Chinese)	% stake acquired	Book value (Rmb mn)	Appraisal value (Rmb mn)	% premium	NPAT contribution (Rmb mn)	
						2011	2012
Shaanxi Qianshan Avionics	千山航电	100%	247	294	19%	47	54
Chengdu CAIC Electronics	凯天电子	87%	550	756	38%	70	74
Lanzhou Aero-control	兰州飞控	100%	279	282	1%	29	30
Shaanxi Huayan Aero-Instrument	华燕仪表	80%	200	250	25%	45	50
Taiyuan Aero-Instrument	太航仪表	100%	306	489	60%	45	51
Shaanxi Baocheng Aviation Instrument	宝成仪表	100%	431	638	48%	56	55
Subtotal			2,012	2,709	35%	291	315
Equity weighted			1,899	2,558	35%	273	295
Implied P/E (x)						9.4x	8.7x
Tianjin Aviation Electro-mechanical	天津机电	100%	653	768	18%	96	120
Implied P/E (x)						8.0x	6.4x

Equity raising	Issue px (Rmb/sh)	# of shares (mn)	Proceeds (Rmb mn)	
2011 - domestic shares (Tianjin Aviation)	3.16	182	576	
	Pre	Post	Increase	% accretion
2011 NPAT (Rmb mn) - AVIC Avionics	138	411	273	197%
AviChina's equity stake	49.93%	44.49%		
2011 NPAT (Rmb mn) - Tianjin Aviation	96	96		
AviChina's equity stake	0.00%	100.00%		
2011 NPAT (Rmb mn) - AviChina	235	444	210	89%
Weighted avg shrs (mn shares)	4,949	5,131	182	4%
2011 EPS	0.05	0.09	0.04	83%
2012 NPAT (Rmb mn)	308	603	295	96%
AviChina's equity stake	49.93%	44.49%		
2012 NPAT (Rmb mn) - Tianjin Aviation	120	120		
AviChina's equity stake	0.00%	100.00%		
2012 NPAT (Rmb mn) - AviChina	430	664	235	55%
Weighted avg shrs (mn shares)	4,949	5,131	182	4%
2012 EPS	0.09	0.13	0.04	49%

Source: Company data, Deutsche Bank estimates. Note: EPS accretion does not take into account related financing costs if any.



Figure 32: Details of 2013 asset injections (Avicopter + AVIC Avionics)

Acquired assets (in English)	Acquired assets (in Chinese)	% stake acquired	Book value (Rmb mn)	Appraisal value (Rmb mn)	% premium	NPAT contribution (Rmb mn)	
						2013	2014
Changhe Aviation	昌河航空	100%	505	642	27%	108	186
Changhe Aviation High-Tech	昌航航空高新技术	100%	8	n.a.	n.a.	5	7
Changhe Agusta	昌河阿古斯特	60%	37	n.a.	n.a.	(2)	0
CAIG Parts and Components	昌飞航空零部件	100%	620	863	39%	<i>Merged into Changhe</i>	
AVIC Huiyang Aviation Propeller	惠阳航空螺旋桨	100%	147	190	29%	20	27
Tianjin Helicopter	天津直升机	100%	794	815	3%	(39)	0
AVIC HAIG assets to be acquired	哈飞集团拟注入资产	100%	657	811	24%	0	0
Subtotal			2,768	3,320	20%	92	220
Implied P/E (x)						36.2x	15.1x
Shaanxi Dongfang Aviation Instrument	东方仪表	100%	173	176	2%	23	27
Beijing Qingyun Aero-Instrument	青云仪表	100%	464	542	17%	28	31
Suzhou Changfeng Electromechanical Technology	长风电子	100%	470	876	86%	43	53
Subtotal			1,107	1,594	44%	95	112
Implied P/E (x)						16.9x	14.3x

	Pre	Post	Increase	% accretion
2013 NPAT (Rmb mn) - Avicopter	155	247	92	
AviChina's equity stake	50.05%	35.10%		
2013 NPAT (Rmb mn) - Changhe Aviation	108	108		
AviChina's equity stake	100.00%	0.00%		
2013 NPAT (Rmb mn) - New avionics assets	95	95		
AviChina's equity stake	0.00%	43.22%		
2013 NPAT (Rmb mn) - AviChina	771	713	(58)	
Weighted avg shrs (mn shares)	5,474	5,474		
2013 EPS	0.14	0.13	(0.01)	-8%
2014 NPAT (Rmb mn) - Avicopter	112	332		
AviChina's equity stake	50.05%	35.10%		
2013 NPAT (Rmb mn) - Changhe Aviation	186	186		
AviChina's equity stake	100.00%	0.00%		
2014 NPAT (Rmb mn) - New avionics assets	112	112		
AviChina's equity stake	0.00%	43.22%		
2014 NPAT (Rmb mn) - AviChina	859	781		
Weighted avg shrs (mn shares)	5,474	5,474		
2014 EPS	0.16	0.14	(0.01)	-9%

Source: Company data, Deutsche Bank estimates. Note: EPS accretion does not take into account related financing costs if any.



Figure 33: AviChina—profile of board of directors

Name	Age	Position	Experience & Qualifications
Mr. Lin Zuoming	57	Chairman	<ul style="list-style-type: none"> ✓ Holds a bachelor's degree majoring in engine design from Nanjing University of Aeronautics and Astronautics and a Ph.D in administrative engineering from Beijing University of Aeronautics and Astronautics; a researcher. ✓ Previously served as a staff and deputy director of Human Resource Division, deputy director of Engineering and Technology Division, deputy director-general of Technical Research Institute, deputy chief engineer, vice general manager, general manager and chairman of the board of Chengdu Engine; general manager of Shenyang Liming Aero-Engine; vice general manager of AVIC I and chairman and general manager of Shenyang Liming Aero-Engine; general manager of AVIC I and general manager of AVIC. ✓ Also serves as the chairman of the board of AVIC, vice chairman of the board of Commercial Aircraft Corporation of China, chairman of the board of Chinese Aeronautical Establishment, and president of Chinese Society of Aeronautics and Astronautics.
Mr. Tan Ruisong	53	Vice Chairman and President	<ul style="list-style-type: none"> ✓ Holds a bachelor's degree majoring in manufacture and design of engines from Beijing University of Aeronautics and Astronautics, a master's degree majoring in shipping and ocean engineering, and a Ph.D in management science and engineering from Harbin Engineering University; a researcher-level senior engineer. ✓ Previously served as deputy chief engineer and deputy general manager of Harbin Dongan Engine Manufacturing Company, general manager of Harbin Dongan Auto, member and vice chairman of the board and the general manager of Harbin Dongan Engine, chairman of the board of Harbin Aviation Industry, and vice general manager of AVIC. ✓ Has been serving as a director of the company since June 2005, vice chairman of the board and executive director since June 2006, and vice chairman of the board, executive director and president of the company since October 2008.
Mr. Gu Huizhong	58	Non-Executive Director	<ul style="list-style-type: none"> ✓ Holds a bachelor's degree majoring in financial management from Zhengzhou Aviation Industry Management Institute and a master's degree majoring in international finance from Beijing University of Aeronautics and Astronautics; a researcher-level senior accountant. ✓ Previously served as a staff, deputy director and director of Financial Departments of The Third Mechanical and Industrial Department, Aviation Industry Ministry and Aviation and Space Industry Ministry; director of International Affairs Financial Division of Financial Department of Former AVIC since June 1993; general manager of Zhongzhen Accounting Consultative Corporation since August 1994; vice manager of Financial Department of Former AVIC since November 1995; deputy director-general of Financial Department of State Commission of Science, Technology and Industry for National Defense since July 1998; vice general manager of AVIC I since June 1999; and hold a concurrent post as chief accountant of AVIC I since February 2005. ✓ Also serves as a vice general manager and the chief accountant of AVIC.
Mr. Gao Jianshe	51	Non-Executive Director	<ul style="list-style-type: none"> ✓ Holds a bachelor's degree majoring in philosophy from Xiamen University and a Ph.D in management science and engineering from Nanjing University of Aeronautics and Astronautics; a class one senior economist. ✓ Previously served as staff, senior staff, deputy director, director of Human Resource and Labor Division of Aviation Industry Ministry, Aviation and Space Industry Ministry and Former AVIC; deputy director-general and director-general of Human Resource Department of AVIC I since July 1999 and vice chairman and vice general manager of Chengdu Aircraft Company concurrently during this period; and vice general manager of AVIC I since August 2006. ✓ Also serves as a director of Chinese Aeronautical Establishment.
Mr. Sheng Mingchuan	56	Non-Executive Director	<ul style="list-style-type: none"> ✓ Holds a bachelor's degree majoring in mechanical manufacturing from Jiamusi Engineering College and an MBA from Macau University of Science and Technology; a senior economist. ✓ Previously served as the head of the credit and loan department, industrial and commercial department, investigation and statistics department and housing credit department of Industrial and Commercial Bank of China Heilongjiang Branch
Mr. Maurice Savart	56	Non-Executive Director	<ul style="list-style-type: none"> ✓ Holds a bachelor's degree from School of Engineering of Ecole Nationale Supérieure de Physique in France, a master's degree in science from University of California in the US, and an MBA from the School of Business Administration of Institut Supérieur des Affaires in France. ✓ Previously served as the regional sales manager (Asia) of the Thomson-CSF/Aerospace Group, the business development director (Asia Pacific) and vice president (North Asia) of the Lagardere Group, the executive director (North Asia) of Aerospatiale Lagardere International and the senior vice president of EADS in charge of business in north Asia ✓ Has been the chairman of Airbus Asia Advisory Council since 2007.

Source: Company reports, Deutsche Bank



Figure 34: AviChina—senior management profiles

Name	Age	Position	Experience & Qualifications
Mr. Chen Yuanxian	59	Vice President and Chief Financial Officer	<ul style="list-style-type: none"> ✓ Holds a bachelor's degree majoring in man-machine engineering from Nanjing University of Aeronautics and Astronautics and a master's degree and a Ph.D majoring in man-machine engineering from Beijing University of Aeronautics and Astronautics; a researcher. ✓ Previously served as a technician, vice department director, deputy chief engineer and chief engineer of China Research Institute of Aero-Accessories, director of China Research Institute of Aero-Accessories, director-general of Airborne Equipment Department of AVIC I; deputy chief engineer of AVIC I; deputy chief economist, director of Strategic Planning Department, and a director and chief economist of AVIC. Mr. Chen was a non-executive Director of the Company from June 2009 to May 2012.
Mr. Ni Xianping	59	Vice President	<ul style="list-style-type: none"> ✓ Holds a bachelor's degree majoring in helicopter design, a master's degree majoring in helicopter design, and a Ph.D majoring in air vehicle design from Nanjing University of Aeronautics and Astronautics; a researcher. ✓ Previously served as an engineer, deputy director of pneumatic division, assistant to chief engineer, the director of the office of chief engineer, deputy chief engineer, deputy director-general and director-general of China Helicopter Research Institute; deputy chief engineer of AVIC II and director-general of Helicopter Department of AVIC II; and deputy chief engineer of AVIC II. ✓ Also serves as the chairman of the supervisory committee of AVIC Engine Shareholding Co., Ltd., AVIC Aviation Engine, AVIC Helicopter, Avicopter and a director of China Aviation Industry General Aircraft, and AVIC Heavy Machinery.
Mr. Zheng Qiang	51	Vice President	<ul style="list-style-type: none"> ✓ Holds a bachelor's degree majoring in aircraft design from Northwestern Polytechnical University; a researcher. ✓ Previously served as an engineer, deputy director and director of Civil Aircraft Division of China Aviation System Engineering Research Institute ("CASERI"); deputy chief engineer and director of Aircraft Division of CASERI; deputy director-general and director-general of CASERI; deputy director-general and director-general of Civil Aircraft Department of AVIC I; and assistant to the general manager of AVIC I; ✓ Also serves as member of board of AVIC Helicopter Limited; member of board of AVIC Engine Company and member of board of AVIC Economy Research Institute.
Mr. Zhang Kunhui	52	Vice President	<ul style="list-style-type: none"> ✓ Holds a bachelor's degree and a master's degree majoring in engineering from Nanjing University of Aeronautics and Astronautics, a Ph.D majoring in communication and information systems from Nanjing University of Aeronautics and Astronautics; a natural science researcher. ✓ Previously served as division chief, vice director, executive vice director, director of China Leihua Electronic Technology Research Institute. He was appointed as director of Radar and Avionics Institute of AVIC in March 2004. He was appointed as the chairman of the board for GE AVIC Civil Avionics Systems Company Limited in May 2013 and as the vice chairman of the board of AVIC Avionics in July 2014.
Mr. Yan Lingxi	45	Company Secretary and Assistant to General Manager	<ul style="list-style-type: none"> ✓ Holds a bachelor's degree majoring in engineering and a master's degree majoring in management from Beijing University of Aeronautics and Astronautics; senior engineer. ✓ Previously worked in the reform bureau of the Ministry of Aero-Space Industry, the corporate management office of Nanjing Jincheng Machinery Factory, the corporate management department and the asset and business management department of Former AVIC. ✓ Was appointed as a deputy division director and a division director of the corporate assets management department of AVIC II, and the director of the security and legal department of the company. ✓ Also serves as director of AVIC Avionics and Avicopter.

Source: Company reports, Deutsche Bank



Appendix 1

Important Disclosures

Additional information available upon request

Disclosure checklist

Company	Ticker	Recent price*	Disclosure
AviChina	2357.HK	6.75 (HKD) 25 Nov 15	NA

*Prices are current as of the end of the previous trading session unless otherwise indicated and are sourced from local exchanges via Reuters, Bloomberg and other vendors. Other information is sourced from Deutsche Bank, subject companies, and other sources. For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at <http://gm.db.com/ger/disclosure/DisclosureDirectory.eqsr>.

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Historical recommendations and target price: AviChina (2357.HK)

(as of 11/25/2015)



Previous Recommendations

- Strong Buy
- Buy
- Market Perform
- Underperform
- Not Rated
- Suspended Rating

Current Recommendations

- Buy
- Hold
- Sell
- Not Rated
- Suspended Rating

*New Recommendation Structure as of September 9,2002



Equity rating key

Buy: Based on a current 12-month view of total share-holder return (TSR = percentage change in share price from current price to projected target price plus projected dividend yield), we recommend that investors buy the stock.

Sell: Based on a current 12-month view of total share-holder return, we recommend that investors sell the stock.

Hold: We take a neutral view on the stock 12-months out and, based on this time horizon, do not recommend either a Buy or Sell.

Notes:

1. Newly issued research recommendations and target prices always supersede previously published research.

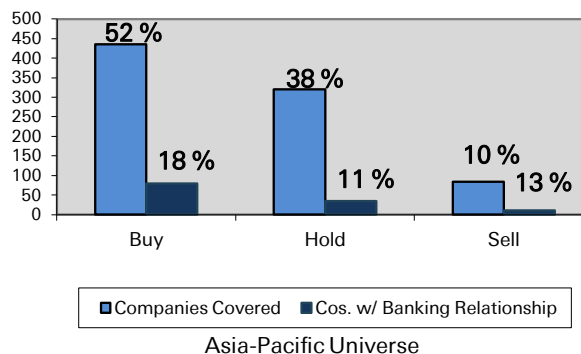
2. Ratings definitions prior to 27 January, 2007 were:

Buy: Expected total return (including dividends) of 10% or more over a 12-month period

Hold: Expected total return (including dividends) between -10% and 10% over a 12-month period

Sell: Expected total return (including dividends) of -10% or worse over a 12-month period

Equity rating dispersion and banking relationships



Regulatory Disclosures

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