UKRAINE / Aerospace

Company Update



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Motor Sich

The missing piece to Russia's aviation puzzle





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Motor Sich BUY MSICH UZ Aerospace

http://www.motorsich.com

Target Price

USD 200.0

INVESTMENT CASE

- Take-over target: Oboronprom, Russia's helicopter production holding has been in talks with the company's owners since last year. We estimate the deal might be closed within a twelve-month period at 70%+ premium to the current market
- Russian aviation producers have no other choice than to bid for Motor Sich: it would take roughly USD 0.5 bln and 6-10 years to replicate Motor Sich's mass production of its brand new helicopter engine alone. Russia has no alternative supplier of engines, components and spare parts
- Motor Sich offers a new generation of jet and helicopter engines that fit Russian state sponsored programs: Replacement of outdated passenger aircraft, Reclaiming lost share of the global helicopter market (from 6% currently to 15% by 2015)
- Three of four new Russian/Ukrainian regional passenger jets require Motor Sich engines: An-140 (in production), An-148 (certified in February 2007), Tu-334 (certified in 2004)
- As part of diversification strategy, Motor Sich signed two contracts with China last year to deliver engines for their training jets, which will generate USD 190 mln in revenues over the next three years. Contracts with India are being negotiated
- · High operating leverage will boost ROIC as order book increases, while high entry barriers will protect abnormal returns over long periods
- Management is placing an additional 5% to 15% of shares in late May with a listing in Frankfurt

SHARE PRICE PERFORMANCE



BUSINESS PROFILE

One of the CIS largest producers of aircraft and helicopter engines, monopoly in helicopter segment. Target niche: jet and propeller engines for cargo aircraft, small and mid-sized regional passenger planes, civil and military helicopters. Product mix consists of up to 50 different types of aircraft engines, including engines for the world's largest cargo jets, Mriya and Ruslan. Onthe-ground products include gas turbines, gas pumping equipment, motor cultivators, separators and board engines. Motor Sich exports more than 80% of its total output, most of which goes to Russia, China and Iran.

MARKET INFORMATION

Market price, USD (PFTS) Price impact* 52 Wk H/L, USD Chg 3m/6m/52w Chg vs PFTS 3m/6m/52w Chg YTD Avg Mo Tr Vol 6M, USDmIn	128.8 2 129 / 56 23% / 65% / 61% -6% / -43% / -38% 53% 1.63
MCap, USD mln Free float, % FF MCap, USD mln	267.7 6.0% 16.1
No of shares, min Par Value, UAH	2.08 135.0
XETRA DR Ratio Avg Mo Tr Vol 6M, USD ths	M7H GR 5:1 0.0
STOCK OWNERSHIP	
Garant Invest	46.2%

MARKET MULTIPLES

Treasury Stock

V. Boguslayev

	2007E	2008E
EV/Sales	1.1	1.0
EV/EBITDA	5.8	5.0
P/E	15.0	10.7
P/B	0.9	0.9
P/CF	7.5	6.3

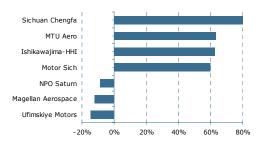
15.7%

15.0%

KEY FINANCIALS, USD mln

	2006	2007E	2008E
Revenues	245.1	283.5	323.4
EBITDA	39.8	54.5	63.4
Net income	7.5	17.6	24.7
Net Debt/Equity	0.19	0.18	0.16

Sector stock performance YTD



Source: Bloomberg

^{*&}quot;Price impact" is the opinion of Concorde's trading desk on stocks to help investors estimate the reliability of quoted prices:

1: Market price reaction remains within 10% in execution of a market order of about USD 10 mln in size

^{2:} Market price reaction remains within 10% in execution of a market order of about USD 1 mln in size 3: All other stocks (quoted price is less reliable and should be considered indicative



Executive summary

Motor Sich: On the edge of a strong up-cycle

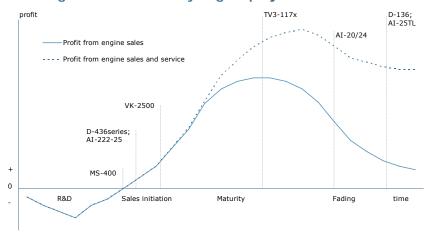
The recipe for success in the aircraft engine manufacturing reads simply: Have a <u>product portfolio evenly distributed along the product life cycle curve</u> and a <u>strong order book</u>.

High operating leverage inherent in this business will quickly boost earnings on relatively small incremental sales. High entry barriers (R&D, technological sophistication, capital intensity, long payback periods) protect abnormal returns on capital invested for long time periods against being competed away.

Successful designs self-generate returns over extended periods: engines in later stages of their life cycles bring increasing cash flows from maintenance & repairs, and overhauls/modernizations, after retirement from their core application, engines can be put back into operation for on-the-ground use in energy industries.

Motor Sich's portfolio consists of engines across the full product life cycle, allowing for cash generation from original equipment sales as well as after-market services.

Life stage of Motor Sich key engine projects



Source: Company data, Concorde Capital estimates

Its new generation of jet and helicopter engines (VK-2500, D-436, AI-222-25, MS-400) is just hitting the market. These designs fit a new generation of airplanes and helicopters that just recently left the laboratories and are set to trigger the mass replacement of the aging fleets of USSR-produced machines in the CIS and emerging markets (like An-140, An-148, Tu-334 jets; and the Ka-50 helicopter). Strong demand for these new aircraft is emerging, driven strongly by Russia, China, India.

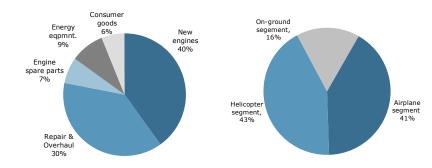
The presence of other engines in Motor Sich's portfolio at all stages of product life rounds out the picture. With a proven, successful track record dating back to the 70s, these engines are generating stable cash flows from maintenance, repairs and overhauls (like the TV3-117x in helicopter sector and AI-20 in passenger aircraft segment).



Outlook for Motor Sich by sector

Aviation engine production accounts for 86% of Motor Sich's sales, which are split equally between two segments: helicopter and airplane engines. The company is positioned for more than twofold growth in both segments over the next decade.

Revenue breakdown, 2006



Source: Company data, Concorde Capital estimates

Helicopter segment: +70% by 2015

The company's helicopter engine portfolio consists of an old but still in-demand engine, the *TV3-117* series, and a groundbreaking engine for a new generation of helicopters, the *VK-2500*. With both types perfectly fitting 90% of new Russian helicopters and with their impeccable reference history, Motor Sich is in a strong position to benefit from Russian plans to increase helicopter production by 70% in the long-term.

Russian helicopter program, units

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Program targets	130	140	145	155	165	175	190	205	220
Total engines needed	260	280	290	310	330	350	380	410	440
TV3-117	235	245	240	245	250	255	265	275	285
VK-2500	25	35	50	65	80	95	115	135	155
Russian engines production									
TV3-117	-	-	-	-	-	-	-	-	-
VK-2500	-	-	-	-	-	-	25	40	60
Gap to cover by Motor Sich									
TV3-117	235	245	240	245	250	255	265	275	285
VK-2500	25	35	50	65	80	95	90	95	95

Source: Oboronprom, Concorde Capital estimates

Since Russia currently does not have its own capacity to serially produce helicopter engines and theoretically it could only launch domestic production in 6-10 years, Motor Sich will remain the monopolistic supplier of engines for Russian projects in the midterm.



Airplane segment: +200% by 2016

The company's future is tied to new jet projects that utilize its engines, most of which are in their initial life stages (post-R&D sales and late R&D). The new generation of Motor Sich airplane engines fit Russian, Ukrainian and Chinese aircraft and is 25%-40% cheaper than international analogues.

New Russian regional jet projects, if successful, are alone expected to bring about 800 USD mln in orders for Motor Sich by 2016. These positive expectations are supported by the fact that the Russian regional jet market is on the verge of replacing outdated models, and only domestically produced Russian models (also in cooperation with Ukraine) are being considered as feasible substitutes by the state. Motor Sich is involved in two out of three Russian projects to construct new regional jets. Additionally, the company has launched serial production of engines for the Ukrainian An-140 small regional jet, which has the potential to be a significant long-term project due to large size of its target niche.

Regional passenger jet fleet of CIS countries

Mid-sized airplanes		Small airpla	anes		
Existing fleet, units		Potential substitutes	Existing fleet, units		Potential substitutes
Tu-134	277		Yak-40	350	
Yak-42	130	An-148*	An-24*	400	An-140*
Tu-154	430	Tu-334*	Total	750	
Tu-214	8	RRJ			
Tu-204	27	Tu-214			
Total	872				

^{*} Those with Motor Sich engines

Source: Aviation companies, Concorde Capital estimates

New markets, More opportunities

Motor Sich is actively seeking new markets in China and India. In summer 2006, the company signed contracts to supply engines for new Chinese military projects: training and combat aircraft. The launch of production for these new projects will bring Motor Sich about USD 0.5 bln in sales over the next decade. Several projects with the Indian air force are also being negotiated.

Motor Sich's estimated orders for new engines: 2007-2012

Engine(s)	_	Engines ordered, units					Total Sales	
name/series Target aircraft		2007	2008	2009	2010	2011	2012	2007-2012 , USD mln
Russian helicopter i	projects							867
TV3-117 series	Mil and Kamov helicopters	240	230	222	216	210	236	652
VK-2500	Mi-28H, Ka-52	18	26	38	48	56	67	215
Passenger planes projects								349
Total D-436 series	Ān-148, Tu-334, Be-200	12	18	26	34	42	50	305
TV3-117 VMA SBM 1	An-140	12	16	16	16	16	16	44
Other aircrafts								339
L-39, K-8J	AI-25 TL, TLK, TLSH	26	30	34	34	38	42	153
AI-222-25	Trainer airplanes	0	14	24	34	36	24	98
AI-20	An-12, An-32B	6	10	10	10	10	10	42
D-36	An-72, An-74	2	2	2	4	4	6	41
AI-24	An-26, An-30	2	2	4	2	2	6	3
MS-400	UAVs	-	-	1	2	3	4	1

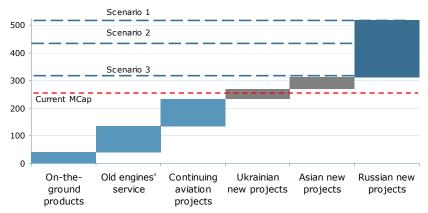
Source: Motor Sich, Concorde Capital research



Even a cautious outlook means great things

Motor Sich's stock has remained overlooked for a long time – and at the moment, the market is failing to recognize most of the value from the company's new projects. Motor Sich trades below what the conservative scenario of our operating model suggests. We expect to see market multiples adjust downward notably on news of growth in its order book.

Value breakdown, USD mln

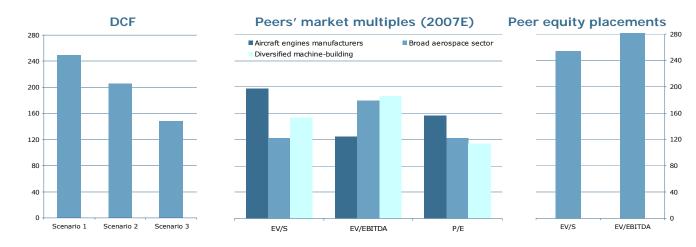


Source: Concorde Capital research

In deriving the target price, we used three approaches: scenario-based DCF modeling, benchmarking to peer market multiples and comparable deals history. We rely more on the DCF approach where we explicitly account for the strong positive effect of the business' high operating leverage on margins with mounting orders, which short-sighted market multiples fail to do.

Due to its best possible starting position on the eve of a new upcycle (its brand new engine line will meet the enormous demand of helicopter and jet programs in Russia and China), Motor Sich deserves a valuation with a premium to its peers.

Valuation summary: MSICH implied price, USD



Source: Bloomberg, Concorde Capital research

Our recommendation for the stock is BUY; we upgrade the target price to USD 200 per share.



Acquisition target

The Russian aerospace industry is in a stage of consolidation under the strong arm of the state. As an integral part of the Russian production cycle, having multiple synergies with Russian producers, Motor Sich turned into a very hot asset recently. We believe the company's purchase by Oboronprom or another Russian aviation holding is only a matter of time. Our estimation is that the deal might be closed within a twelve-month period, at a premium of 70% and more to the current market.

IPOs and secondary equity placements in the aircraft business over 2004-2007 were reported at EV/Sales of x2.0 and above (see p.36).

To test Motor Sich's market value, the company's major shareholders decided to place 5-15% of the company on the stock market. The decision was approved at the company's AGM on March 22. Management is targeting the placement at a premium to the current market. They are confident in a price appreciation, with the notion that this will strengthen their negotiating position in acquisition talks.



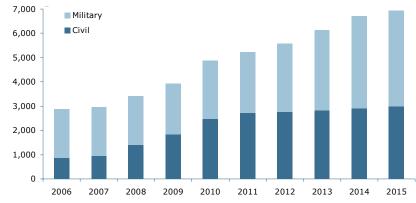
Motor Sich: Key to Russia's aeronautic ambitions

As a critical part of the aircraft industry production chain, Motor Sich is an important component in Russia's ambitious strategy for aviation industry development. The realization of joint aviation projects with Russian firms will bring Motor Sich orders to the total of about USD 2.3 bln over the next decade.

Program to resurrect the Russian aviation sector

The USSR, with one of the best developed military and aerospace industries, occupied 25% of the global helicopter market. This market power was lost during the economic recession after the break-up of the Soviet Union, but Russia has set out to restore its position as a key industry player. Its ambitious strategy for the development of its aviation industry until 2015, adopted in 2005, foresees an increase in Russia's share of the aviation market from less than 1% currently to 5% over the next decade – implying growth at 9% CAGR over ten years.

Russian aircraft sales forecast



Source: Russian Strategy for aviation industry development till 2015

We see strong factors that favor the successful implementation of these plans:

- Favourable mid-term demand on the aviation market: both incremental demand for new craft and the renovation of outdated fleets in CIS and Asian counties;
- Emerging markets, the USSR's traditional clients, are today's centers of global growth;
- Financial support from the Russian government (financing of about USD 19.5 bln till 2015)

Global markets bode well

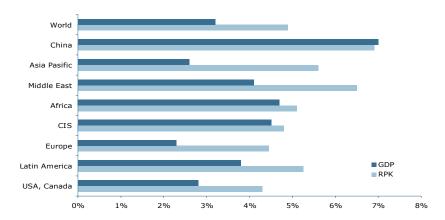
Higher demand growth from emerging markets

According to Boeing estimates, total demand for air transportation services is expected to grow twofold by 2025. This means that total demand for new aircraft, taking into account replacement needs over the period, will grow 1.7 times.

Markets with the highest expected growth in demand are developing countries, most of which have historically good relations with Russia and Ukraine. Historical links and the lower prices of CIS products compared to those of western players easily compensate for any minor lags in technology that may have appeared over the last decade.



Projected Economic and Traffic Growth by region, CAGR 2007-2026



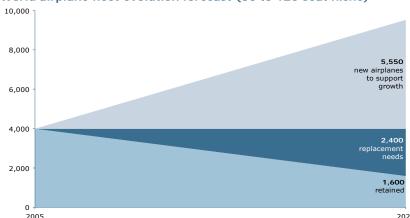
Source: Global Insight, Embraer. Note: RPK is Revenues per km

Passenger aircraft in hot demand

An increase in the wealth of emerging market countries and the establishment of new economic contacts is boosting passenger transportation to these countries. The highest level of demand growth for passenger air transportation is expected in Brazil, Russia, India and China.

Russian and Ukrainian producers have targeted the 30-120 seat, mid-sized regional jet market niche. According to Brazilian aircraftmaker Embraer, total global demand for these types of jets will be about 8 ths over the next two decades.

World airplane fleet evolution forecast (30 to 120 seat niche)



Source: Back Aviation, Embraer, Concorde Capital estimates

Market leaders in this niche are Canada's Bombardier and Embraer. Russian and Ukrainian producers are involved in four projects in the segment: three of them (all with Motor Sich engines) are ready for serial production, while another one is in the testing phase (one without Motor Sich engine).

Global market demand for regional jets, units for the period

Passenger seat segment	2006-2015	2016-2025	Jets targeted for MSICH engines
30 to 60	500	1,050	An-140
61 to 90	1,300	1,650	An-148
91 to 120	1,550	1,900	Tu-334
Total	3,350	4,600	

Source: Embraer



Regional jet deliveries by region, units for the period

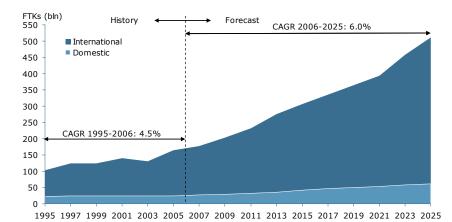
Region	2006-2015	2016-2025
USA, Canada & Caribbean	1,720	2,510
Latin America	165	300
Europe	630	820
Russia & CIS*	290	235
Africa	48	45
Middle East*	87	100
Asia Pacific*	150	260
China*	260	330

Source: Embraer. (*) Target markets for CIS producers

Cargo transportation: Growth leader

Freight traffic is the fastest growing aviation segment and is expected to keep that status for the foreseeable future. The key driver is an increase in demand for higher speed transportation services, fuelled by intensive international trade. In this segment, China is expected to see demand grow the most, boosted by accession to the WTO.

Air cargo traffic, Freight Ton Kilometers



Russian and Ukrainian producers are successfully competing with industry leaders in cargo aircraft, including the super-heavyweight carrier segment.

Helicopter demand: CAGR 8.5% over 4 years

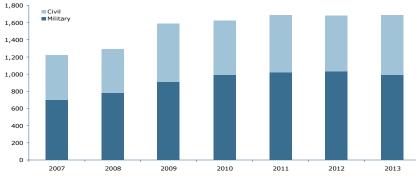
Source: Airbus.

A mid-term increase in demand for helicopters is expected due to a wave of replacement needs in the CIS, growing orders for newly produced machines from China and India, and a worldwide transition to a new generation of military helicopters.

According to Rolls-Royce, the world market for new helicopters is estimated at some 15,030 units over 2007-2016, with a significant share dedicated to military rotorcraft.



Helicopters world demand forecast, units p.a.



Source: Rolls-Royce

The countries that are most intensively expanding military orders are those with high budget surpluses from oil and gas production (Algeria, Azerbaijan, Russia, Saudi Arabia, Venezuela), as well as countries carrying out plans to increase their regional military presence: China, India, Pakistan. Most of these markets are traditional destinations for Russian helicopter suppliers.

Motor Sich's joint projects with Russia

Because of high expected demand on markets that are historically dominated by Russia, we see Russian aircraft production growing. Furthermore, since Russian aviation producers cooperate mainly with CIS engine suppliers and Motor Sich has the best R&D potential of any CIS engine producer, the company is guaranteed stable demand growth for its products from Russia.

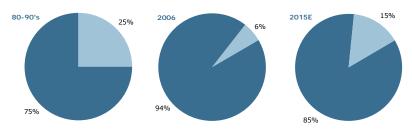
Motor Sich cooperates with Russian helicopter producers and assemblers of cargo and passenger airplanes. This cooperation will rise in the short and mid-term as the number of joint aviation projects grows.

TB3-117 and *VK-2500* series engines: Fit most Russian helicopters

These two series of Motor Sich helicopter engines are installed in 90% of Russian *Mil* and *Kamov* helicopters, and this percentage is unlikely to change dramatically in the future.

According to Russia Oboronprom's development strategy, the share of Russian helicopter production in the world should increase from 6% currently to 15% by 2015, which implies an annual production increase from the current 130 units to 220 units by 2015. We conservatively downgrade Russian plans, forecasting production of 195 units p.a. by 2015.

Russian helicopters share on the world market



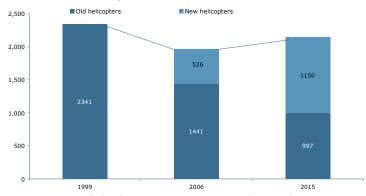
Source: Oboronprom



Case study: Russian civil helicopter fleet rejuvenation, half of Russia's total domestic supply

During 1999-2005 the Russian civil helicopter fleet declined by 16% as helicopters that were retired exceeded the purchases of new craft. According to the Russian federal aviation program, Russia is planning to purchase 1,150 civil helicopters by 2015, more than half of the total expected production of Russian helicopters for the period.

Russian civil helicopter fleet 1999-2015, units



Source: Russian federal aviation program, Concorde Capital estimates

At the moment, Russia does not have its own serial producer of helicopter engines making the success of its program heavily dependent on Motor Sich. Were Russia to decide to build its own facility to produce helicopter engines it would require 6-10 years to launch. For the next decade, Russia will continue to rely on Motor Sich.

Case study: New generation army helicopters & Motor Sich In 2007, Motor Sich started supplying engines for a new generation Russian military helicopter, the MI-28N. Russia currently plans to produce 50 units by 2010; total Russian demand for these helicopters is 300 units. This order will bring in about USD 40 mln in revenue for Motor Sich until 2010, and additionally more than USD 200 mln in the long-term.

We forecast Motor Sich's revenues from supplying new helicopter engines to grow from an estimated USD 117 mln in 2007 to USD 264 mln in 2015.

Motor Sich's engines for Russian helicopters

Profile Profile Engine type Engine type For most models of Mil and Kamov For Mi-28N, Ka-52 helicopters Small weight-to-power ratio Steady operation in harsh proven track record Low maintenance costs dust and smoke conditions Emergency power condition Possibility of long-lasting allows it to complete flights maritime operation Flat-rating in high ambient with one engine in operation VK-2500 Dust protection device air temperatures, in TV3-117VM available mountainous areas Low price compared to international analogues

Target helicopters



Source: Motor Sich, Wikipedia



Regional passenger jets

Motor Sich, together with its Russian and Ukrainian partners, is proposing a new generation of regional aircraft to replace outdated models designed in the USSR during the 1960s-1970s.

CIS airplane producers have three prospective mid-sized (70-120 seats) regional jets: two joint projects, the An-148 and Tu-334, which will use Motor Sich engines; and a Russian/French project called the Sukhoy Super Jet, or SSJ (or alternatively, Russian Regional Jet, RRJ). Each project is hoping to provide a substitute for older Tu-134s and Yak-42s used in the regional airlines of most CIS countries.

Motor Sich has designed a new generation of aircraft engines for the joint projects: **D-436 T1/T2** for the Tu-334, **D-436-148** for the An-148, which was certificated earlier this year.

An-148 and Tu-334 profile

Target aircraft		Market capacity	Competitors	Target advantages/ disadvantages	Production plans
	An-148 regional jet Capacity: 80 pass Cruising speed: 820 km/h Engines: 2 Price ~ USD 20 mln Certified: Feb 2007	Tu-134* Passengers: 80 Number in use: 277 Yak-42* Passengers: 120 Number in use: 130 Tu-154	Boeing 717* Passengers:106 Price: USD 33 mln Airbus 318* Passengers:117 Price: USD 39 mln BAE 146 Passengers:100 Price: n/a	+ lower cost of use - higher price - absence of flying history Against new aircraft: + lower price + fuel efficiency	An-148: Ukrainian Aviant to produce 34 units by 2010; Russian VASO schedules 170 units by 2015.
	Tu-334 regional jet Capacity: 100 pass Cruising speed: 820 km/h Engines: 2 Price ~USD 20-22 mln Certified: Jun 2006	Number in use: 435	Passengers: 90 Price: USD 35 mln	Against the SSJ-100: + lower price + ready for production (An-148) + better fits to Russian poor runway quality	Tu-334: no production schedule; expected number of orders: 170; signed contracts: ~35

Source: Wikipedia, Aeroflot, Concorde Capital estimates

- * Out of production
- ** Production not started

The fact that the An-148 and Tu-334 airplanes have already been certified for mass production gives them a step up on the SSJ. Moreover, the SSJ's expected price and passenger capacity suggest the plane better fits the niche of larger jets where the SSJ would compete with the domination of the world's most popular models: Boeing-737 and A 320.

Production



Be-200 Amphibian

The new generation Be-200 multipurpose Russian amphibious airplane was designed to extinguish forest fires and can also be used for freight transportation. Motor Sich's *D-436TP* engine was specially designed to be used safely in high humidity environments. Fifteen Be-200 aircraft are already being used in Russia and the EU.

Target's

Be-200 profile

		Market capacity	Competitors	advantages	plans
0 0 b	Be-200 regional jet Capacity: 52 pasgr /12t Cruising speed: 600 km/h	Est. market capacity: 300-350 units by 2025	Span's C-295 military transport aircraft: Load: 9 t Price ~USD 22 mln	+ can land on nearly all surfaces + lower price	5 Be-200s for the Russia Ministry of Emergency Situations.
	Engines: 2 Price ~ USD 15 mln				Supply negotiations (10) in Croatia, Turkey and Indonesia.

Source: Wikipedia, Concorde Capital estimates

D-18T engines: An-124-100M Ruslan

The largest serially produced cargo airplane in the world, the An-124 Ruslan with its commercial capacity of 150 mt, is equipped with four Motor Sich D-18T engines.

A total of 56 An-124 airplanes were produced (all owned by Ukrainian and Russian companies/ militaries), and production was completed in 2004. Now, with existing demand for more planes of that size, Russian and Ukrainian aviation companies are planning to revive the project.

The joint venture "Gruzoviye letatelniye apparati" by Motor Sich (41%) and Volga-Dnepr (59%) will restart production. Motor Sich is completing the design of an updated engine for the new An-124: the *D-18T*, testing of which is scheduled for 2008.

An-124 profile

	Market capacity	Competitors	Target's advantages	Prod. plans
An-124-100 largest cargo aircraft Capacity: 150t Cruising speed: 800 km/h Engines: 4 Price ~ USD 150 mln	Total capacity over 2007-2030: 80 units	Lockheed C-5* Load: ~ 75 t Price: USD 170 mln Boeing 747-400F Load: ~140 t Price: USD 230 mln	+ lower price + larger cargo capacity and HWD + longer range	15 units by 2015

Source: Wikipedia, Concorde Capital estimates

The first new jet is expected in 2010. A total of 15 units are scheduled to be produced by 2015; Motor Sich could earn USD 120 mln from this project.



AI-222-25 engine: Yak-130

The Yak-130 is an advanced Russian military training aircraft. It is equipped with the Motor Sich *AI-222-25* engine.

Yak-130 Profile

		Market capacity	Competitors	Target's advantages	Production plans
	Yak-130 Russian		EADS Mako/HEAT*		
	trainer aircraft	Rough estimate		+ lower price	First 12 airplanes
		about 1 ths units	Italian Aeromacchi	+ new design	will be delivered
	Max speed: 1050	niche	M-346*		to the Russian Air
	km/h				force, another
	Engines: 2		T-50 Korean-		16 to Algeria.
AAAA	Price: USD 10 mln		American trainer		About 200 units
6			Price: USD 22 mln		are scheduled to
Service of the service of					be produced in
					the long term.

Source: Wikipedia, Concorde Capital estimates. (*) Production not started

Russian aircraft producers already have an Algerian order for 16 Yak-130s. Russia has also received order applications from Syria and Indonesia for Yak-130s, and Venezuela has expressed interest in the Russian military trainer. According to mass media reports, Russia is in negotiations with five countries for a total of 200 Yak-130s by 2012.

Summary: How Motor Sich engines fit the Russian aviation program,

		uiiits
Type of aircraft	Motor Sich's	Production
	engine type	plans 2007-'16
Helicopters:		
Ka-27, Ka-29, Ka-32, Ka-50, Ka-		
52, Mi-24, Mi-14, Mi-17, Mi-28, Mi-	TV3-117VM/-VMA	2,322
8x	,	,
Mi-28N, Ka-52 (modernization		
of helicopters with TV3-117x	VK-2500	882
engines)		
3 ,		
Airplanes:		
An-148	D-436-148	182
Tu-334	D-436 T1/T2	60
Be-200	D-436-TP	42
An-124-100	D-18T	18
Yak-130	AI-222-25	66
Total	<u> </u>	3,574

Source: RUAC, Oboronprom, Concorde Capital estimates



Getting it done - corporate strategies

All Russian assets go together

As a part of Russia's efforts to regain its status as a top aviation manufacturer, in 2002 the state began consolidating the industry's assets. Meaning scale effects are likely to boost R&D and facilitate financing. Increased government control over the projects will make state support easier and is expected to reduce corporate risks - over the last few years Russia has proved itself to be a reasonable manager when it comes to consolidating sectors.

Mergers in Russia are being coordinated by the state which is using its political power and the economic resources of its military export company, Rosoboronexport. The process is also supported by a private holding Sistema which has close links with the Russian President and helps to consolidate engine building companies for the Russian Holding. The results are already visible: most Russian aviation assets have been consolidated under three holdings: Oboronprom (aircraft engines, helicopter and missile producers and design bureaus), the Russian United Aircraft Corporation (RUAC: most Russian military and civil aviation producers) and Rosoboronexport (military projects, suppliers of raw materials for the aviation industry). In the mid-term, all the aircraft-related companies are to be merged into a single aircraft production corporation. We see the RUAC as the most obvious candidate for this role. So, today we consider all Russian aviation holdings as one global player with a common task. Further in this report we will refer to it as the Russian Holding or RUAC/Oboronprom.

Partnering with EADS

In recent years, cooperation between Russian companies and global aerospace players has intensified: EADS and RUAC have initiated several joint projects.

EADS buys 10% of Irkut

Europe's EADS and the Russian Aircraft Corporation Irkut started working together in 2002 with the signing of a strategic agreement. In 2005, EADS bought 10% of Russia's Irkut for USD 65.3 mln. After the purchase, Irkut received orders for spare parts from Airbus, which alone would increase Irkut's revenues by an estimated 2% in 2006 (8% is expected in 2008). EADS is also supporting Irkut's marketing of the Be-200 on EU markets.

Market response to EADS 10% acquisition of Irkut, USD



Source: Bloomberg



The stock market welcomed the deal with 64% growth over the four months that followed.

In 2007 more than 38% of Irkut's shares were transferred into the RUAC, which means EADS now implicitly owns part of the Russian United Aircraft Corporation.

Russia's response: VTB buys 6% of EADS

Russia's ambitious aviation targets to possess 5% of the world airplane market and strategic plans to cooperate with EADS were reflected in Vneshtorgbank's (VTB) purchase of about 6% of EADS for USD 1.2 bln in September 2006. This led to broader cooperation between the Russian and European aviation corporations.

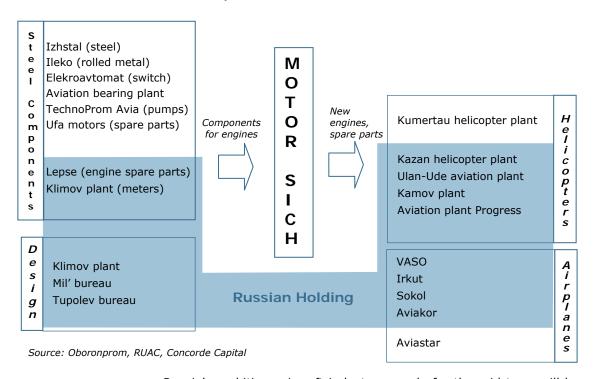
In April 2007 it was announced that a joint venture would be created between EADS and RUAC to convert the Airbus-320 from a passenger into a cargo airplane. In addition, RUAC will participate in the construction of the new Airbus A350 XWB project, with a 5% share of input: Russian companies will assemble part of fuselage.

These events are clear signs of globalization processes intensifying in the global aviation market.

Major task: Targeting Motor Sich

Motor Sich is a core part of the Russian aviation production chain. The company consumes Russian spare parts and supplies engines and components for all Russian helicopter plants and several airplane producers.

Motor Sich in Russian aviation production chain



Russia's ambitious aircraft industry agenda for the mid-term will be impossible to realize without Motor Sich. Additionally, integrating Motor Sich with the Russian holding is a good way for Russia to hedge against any Ukrainian political risks which Russia is very sensitive to.



Our view is that Motor Sich's entrance into the Russian helicopter holding is only a matter of time. The timetable and pricing of the acquisition depend on the bargaining power of the parties - Motor Sich and RUAC/Oboronprom.

Motor Sich: Not going to roll over easily

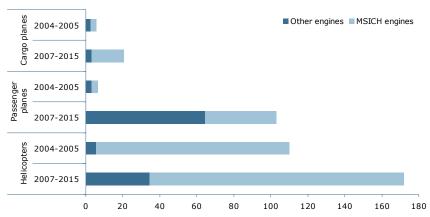
Though it worked perfectly in Russia, RUAC/Oboronprom's strategy of leveraging political and economic muscle to acquire aviation assets cheap has failed in Ukraine. Last year's lengthy negotiations between Motor Sich's owners and Russian buyers were all in vain, as Motor Sich rejected Russia's bid which was rumored to be below market price.

Both Motor Sich and their Russian vis-à-vis realize they have no alternative to increasing their level of cooperation, especially in terms of common R&D and marketing strategies, thus integration is beneficial for both sides. Nevertheless, the positions of the parties around the negotiating table are asymmetrical, which results in strong and growing bargaining power of Motor Sich in the negotiation process.

What does Motor Sich mean for the Russian Holding? Fortunately for MSICH, it means mid-term dependency

 Motor Sich possesses the capacity to produce new aircraft engines for most Russian projects: passenger planes An-148, Tu-334, and 90% of all Russian helicopters. Most types of airplanes and helicopters that Russia plans to produce by 2015 will be equipped with Motor Sich engines.

Russian aircraft production plans and expected engine suppliers

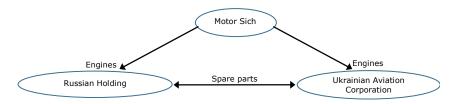


Source: RUAC and Oboronprom production programs, Concorde Capital estimates

- Motor Sich is a good bridge to Chinese and Indian markets for the Russian Holding. Motor Sich independently entered these markets last year
- With a controlling stake in the monopoly engine producer of Ukrainian airplanes, the Russian Holding would *de facto* control the Ukrainian aviation industry. This will give RUAC/Oboronprom leverage in possible negotiations for the next step: purchase of the Ukrainian Aviation Corporation



Production interconnections



Source: Concorde Capital

VK-2500: Motor Sich's golden ticket

Russia is critically dependant on Motor Sich for the production of new VK-2500 engines for a new generation of Russian military helicopters. After more than three years of talk, Russia is still not able to mount serial domestic production of the VK-2500. They only managed to assemble these engines in a design bureau – and are a long way from approaching mass production.

According to our estimates, Motor Sich's VK-2500 production facilities alone must be worth USD 316 mln to the Russians. We consider this a rough estimate of the starting price the Russian Holding would have to offer just to start talking acquisition with Motor Sich:

VK-2500 project: USD 0.5 bln & 10 years

From our discussions with industry experts, launching VK-2500 production in Russia requires up to a ten-year time frame and USD 0.5 bln in investments (for R&D alone the government targets USD 0.2 bln). This investment spent on the project, evenly distributed over ten years, with a 12% discount rate, translates into present value of cost of launching a single new engine production line at USD 316 mln. This money, spent to purchase Motor Sich, would imply an MSICH stock price of USD 152 per share.

What does the Russian Holding mean for Motor Sich?

No doubt, ownership by RUAC/Oboronprom would guarantee steady increases in orders for Motor Sich. Shareholder value would be augmented by more than 60% when Motor Sich is integrated part of the holding. However, on the downside Motor Sich is more hedged then their Russian partners/bidders, as in the mid-term it appears that Motor Sich is more important to the Russian Holding than the opposite. The company is a viable business without incremental orders from joint Russian/Ukrainian new projects. On the contrary, the Russian Holding depends on Motor Sich's supplies.

We conclude the Ukrainian company has bargaining power in the acquisition talks. This is why the owners have taken their time to sell the company seeking premium valuations and the company's plans to place up to 15% of Motor Sich shares on the market should be considered as the management's effort to test the market to strengthen their negotiation position. The placement was approved by Motor Sich's AGM on March 22, 2007 and is scheduled for May-June 2007.

As the RUAC has IPO plans in their calendar for 2009, and given fundamental business constrictions in implementation of Russian aerospace programs without Motor Sich, we believe the negotiations will most probably result in a deal within a twelvementh period at premium to the market that could be 70% or more.



'Motor Sich acquired by the Russian Holding' scenario – implications for minorities

Upgrade in corporate governance

The higher corporate governance culture in Russia and plans by the RUAC to conduct an IPO in the mid-term are supportive of our expectations of almost immediate improvement in the way Motor Sich is managed after an acquisition. If the Russian Holding's strategy after the deal is to fully consolidate Motor Sich and exchange the Ukrainian company's shares for the shares of the Russian Holding, we do not see any substantial risk of power abuse or dilutive action.

The buyer may opt for partial asset reallocation

There exists a somewhat less desirable scenario for Motor Sich investors. With bouts of political instability in Ukraine in recent years and a lack of stability in Russian/Ukrainian relations, the Russian Holding might decide to protect its most important military projects from political influence. The easiest way to do so is relocating sensitive elements of production facilities (i.e. the new VK-2500 helicopter engine) from Ukraine to Russia.

In our operating model we explicitly accounted for the possibility of the VK-2500 project being transferred to Russia: we apply a 75% probability to the VK-2500 being moved during 2009-2016, with a gradual reduction in the share of Motor Sich components in the production of this engine to 30% (which is the technological limit, as it is impossible to completely transfer VK-2500 production without a negative impact on Motor Sich's other production lines). The resulting effect is missing some 15% of shareholder value (see Scenario 2 in the chart on the page 7). Still, this scenario remains value accretive, as Motor Sich's estimated benefits from other numerous synergies are about USD 120 mln.

No acquisition: 'Survival-of-the-fittest' scenario

While we see the first scenario as most probable, we cannot exclude the notion that RUAC/Oboronprom will fail to purchase Motor Sich for political reasons. For instance, the Anti-Monopoly Committee of Ukraine can prevent the deal, or as a result of political pressure the Ukrainian Aviation Corporation does. In any case, this scenario is the most "confrontational" and the least beneficial for the company's value, as Russia is very likely to freeze all *new* joint projects with the Ukrainian aviation industry. However, as our analysis shows, this will not destroy current value of Motor Sich's business.

Russia is most likely to close or suspend prospective joint programs with Motor Sich (An-148 and Tu-334 airplane production), or at least to find new partners (Snecma, Rolls Royce) to supply them with engines.

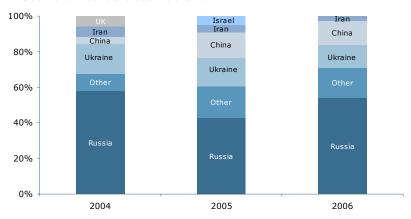
Under this scenario, Russia still will have to cooperate with Motor Sich for development of its helicopter engines because it will not be able to start domestic production sooner than in 6-10 years. Therefore, we would only expect production of helicopter engines to gradually fade after 2014.



Motor Sich as a self-sufficient player

Besides tight links with the Russian aviation industry, Motor Sich is aggressively pushing its way into other markets in order to diversify one-country dependency risks. It already has several large projects without Russian involvement.

Motor Sich sales destinations



Source: Company data, Concorde Capital estimates

Key projects are the Ukrainian regional airplane An-148, cargo plane An-74 and a small regional plane An-140, as well as joint projects with China to design training and combat aircraft.

D-36 engine for the An-74: Old, But still hot

The An-74 is a multi-purpose freight transportation plane equipped with Motor Sich D-36 engines. This plane is popular in Libya, Egypt and other African countries.

An-74 Profile

	Market capacity Competitors			Production plans	
An-74 cargo jet Capacity: 50 pass /7.5 t Cruising speed: 700 km/h Engines: 2 Est. price: ~ USD 15 mln	Est. market capacity: 400-450 units by 2015 Number built: 200 units	Spanish C-295 Load: 9t Price USD 22-25 mln. Italian C27J Spartan Load: 12t Price: ~ USD 15 mln	+ Tolerance for poor quality landing surfaces + lower price	Ukrainian Kharkiv plant plans to build 50 units by 2010	

Source: Mass media, Concorde Capital



TV3-117 VMA SBM1 engine for the Ukrainian An-140

The An-140 is a regional turbo-prop jet capable of carrying up to 52 passengers. It is equipped with two Motor Sich *TV3-117 VMA SBM1* engines. This model is already on the assembly line and 9 units have been assembled at three plants: the Kharkiv state aircraft manufacturing company (Ukraine), Aviacor (Russia), and HESA (Iranian plant that bought a license to produce An-140s).

An-140 profile

	Market capacity	Competitors Target's advantages	Production plans
An-140 regional jet Capacity: 52 pass Cruising speed: 533 km/h Engines: 2 Est. price: USD 9 mln	regional jets: An-24 (448 in use)	Canadian DHC-8 + lower price Load: 42 pass. French ATR-42 Load: 42 pass	Iran bought license for An-140 production and plans to build 80 units over the long- term

Source: Mass media, Concorde Capital

Most of the demand for these airplanes is expected to come from Russia (Russian aviation companies have ordered 32 An-140s). Without Russian orders, the planes' production prospects look moderate, with potential buyers in Ukraine, Azerbaijan, Kazakhstan, Iran, Libya and Sudan.

Chinese projects: A1-25 family of engines

China has plans to bolster its air force with new domestically-built trainer aircrafts. Two models are planned to be equipped with Motor Sich engines.

Chinese trainer airplane profiles

Target aircraft	Market capacity	Competitors	Target's advantages	Production plans
K-8J China trainer aircraft Capacity: 2 pass Engines: two AI-25-TLSH		EADS Mako/HEAT* Italian Aeromacchi M-346*		New military aircraft serial production of 30 units in the mid- term
	Est. market capacity:	T-50 Korean- American trainer Price: USD 22 mln	+ Lower price	
L-15 China trainer aircraft and light	800-1400 units by 2015	ATG Javelin* by Israel and USA		Launching mass
attack aircraft Capacity: 2 pass		BAE Systems Hawk		production in China expected
Engines: two AI -222-25		Spanish CASA C-101		in 2007: about 100 units in the mid-term

Source: Wikipedia, Concorde Capital estimates. (*) In development

Motor Sich has developed engines (*AI-25TLK*, *AI-25TLSH*, *AI-222-25*) that perfectly fit trainer aircraft, have a good track record and competitive prices. China outfitted its K-8J airplane with Motor Sich engines after the US government, due to political reasons, in 1991 refused to sell engines for the project as initially planned. Later China again selected Motor Sich for its new L-15 airplane (Russian Yak-130 analogue) as well as other military airplane projects with the AI-25TL engine.



In August 2006, Motor Sich signed a contract to supply 100 new AI-222-25 engines for the Chinese L-15 trainer (for an estimated USD 130 mln). The launch of L-15 mass production is expected in 2007-2008 and can bring another 100 engine order above those contracted.

Motor Sich additionally has a three-year contract with a Chinese aircraft producer for the delivery of 60 AI-25TLK engines. The contract size is estimated at USD 60 mln; the name of producer and fighter airplane have not been disclosed.

Cooperation with India

The MTA project

Motor Sich is negotiating with India to participate in the Russian–Indian MTA (Multipurpose transport aircraft) project, which is designed as a replacement for the An-12, An-32 and C-130 airplanes. For this project, Motor Sich has put forward its *D-436* engine. Serial production is expected to begin in 2013, with a total of 490 MTAs out the door by 2025.

Motor Sich's participation in MTA production will be significant, contributing about 7% in additional revenues from 2013 and future gains from repairs and overhauls.

MS-400 engines: UAV project

The other prospective joint Indian project is in the sphere of Unmanned Aerial Vehicles (UAVs). According to Teal Group forecasts, the sector's capacity will triple (from USD 2.7 bln in 2005 to USD 8.3 bln by 2015). Countries in the Asia-Pacific region are expected to be one of the main consumers of UAVs, after the USA and Europe.

Motor Sich's upgraded *MS-400* engine for X-55/59 tactical missiles is also capable of being used for UAVs. This year, Motor Sich negotiated with Indian Hindustan Aeronautics Limited (HAL) to supply it with *MS-400* engines (the prospective contract provides for a volume of 100 engines) for Indian UAVs. This deal could net an additional USD 40 mln in the mid-term (not earlier than 2012) and provide for a good testimonial advertisement for further UAV projects.

Summary: Motor Sich projects without Russia

Type of aircraft	Motor Sich's engine type	Production plans 2007-2015, engines
An-148	D-436-148	1442
An-74	D-36	60
An-140	TV3-117-VMA-SBM1	156
K-8J (China)	AI-25TLSH/TL	334
L-15 (China)	AI-222-25	162
UAV	MS-400	78
Total		854

Source: Ukrainian aerospace companies, Concorde Capital estimates



A successful engine – the hen that lays golden eggs

The aviation engine business is unique: A successful design can bring in abnormal returns, which are protected by high entry barriers over a long period of time. The long payback periods of aviation engine projects and risk of project failure limit the number of competitors on the market.

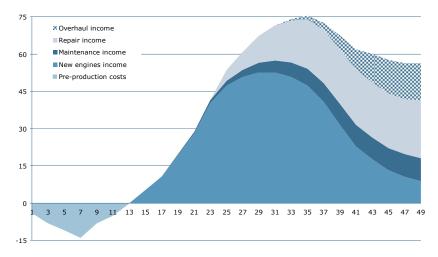
The industry's unique characteristics have several consequences:

- Producers gain from their exclusive position as a provider of repair services and spare parts; income from services grows with the number of engines in service.
- Engine upgrades and servicing to extend useful life and meet increasingly high standards become decades-long low-cost cash generators for original producers.
- At the end of its life cycle, an engine can receive a second life as a key component in gas pumping units and electricity generation facilities, which prolongs a project's life beyond its core purpose.

Below is the output of our modelling of cash flows from a successful project given the following characteristics:

- Total pre-marketing expenses of USD 50 mln; 13 years pass from project initiation to sale of the first engine
- Earnings from the new engine of USD 0.175 mln per unit, demand for engines grows to 300 units p.a. over 16 years of sale; after 18 years production starts declining toward 30 units in 36 years
- Earnings from maintenance servicing: USD 10 ths per unit, each engine is serviced for maintenance five times over its 36 year life
- Earnings from repair services: USD 38 ths per unit, an engine is repaired four times over its 36 year life
- Earnings from overhaul services: USD 50 ths per unit, each engine is overhauled after 20 years of operation

Cash flows from investment program in an engine, USD mln p.a.



Source: Concorde Capital research

Even when new engine sales decline, cash flows from projects continue to flourish; in the late stages of engine life, after-market services generate more cash flow than new engine sales. Therefore, engine makers pull in large cash flows even after production is wrapped up.



Motor Sich after-market business capacity

After-market business accounts for 37% of Motor Sich's aviation-related revenues. Motor Sich has produced 55 types of engines, which are distributed all along the typical product life cycle, including in the early market stages, in peak demand, and fading stages. The pipeline also includes some projects currently in the R&D stage. Engines with peaking and fading demand are characterized by an intensive need for repair services.

Market is controlled by Motor Sich

The repair/overhaul business has high entry barriers: each company that provides repair services must be certified by the engine's original producer. According to Motor Sich's management, the company provides licenses for two reasons: to comply with Anti-Monopoly legislation and to optimize its production process by giving up activities with low added value. Our understanding is that Motor Sich's issuance of licenses also help grease the wheels for new economic or political contacts, making market expansion smoother. Importantly, the company has the freedom to choose its licensees.

The company provides a full range of maintenance, repair and overhaul/modernization services for its engines, in addition to the production of spare parts. Motor Sich services the *Antonov* family of airplanes and training aircraft, as well as Russian *Mil'* and *Kamov* helicopters.

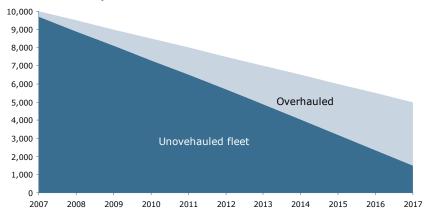
Antonov airplanes: Motor Sich's engines are installed on all Ukrainian airplanes in the Antonov family. About 6.5 ths of these airplanes are currently in use. At least 30% of this fleet needs to be retired over the next decade, according to our estimates. We estimate the market for servicing Antonov airplane engines over 2006-2015 at about USD 40 mln p.a. Motor Sich's share in servicing of Antonov engines may reach 70%, according to our estimations.

Training airplanes: About 3,000 Czech L-39 and Chinese K-8J trainer airplanes were produced. They are equipped with Motor Sich engines - implying an annual market for their servicing over the next decade at estimated USD 8 mln. Motor Sich's share in aftermarket services for these engines is about 80%.

Helicopters: About 10 ths Mil' and Kamov helicopters are in use in 60 countries. Half of them will be retired in ten years, while 35% will need overhauls over the next decade. Servicing of Mil' and Kamov helicopters over 2007-2017 are estimated at USD 80 mln annually. Motor Sich's share of this market is about 45%.



Russian helicopters made before 2006, units



Source: Concorde Capital estimates

Case study: Bulk modernization orders for Motor Sich

In 2006, Motor Sich signed a contract for a modernization of Indian Air Force's An-32 jets: 5 planes in 2007 and 20 units over 2008-2010. A contract for the remaining 93 units could be signed thereafter.

According to the management, a contract with the Russian Ministry of Defense for the repair of 25 super cargo jets An-124 is also expected soon.

Reincarnation of an engine

The life of an aviation gas-turbine engine is not finished after several decades of exploitation. Old engines can be repaired and upgraded to be put back to use in other incarnation - as the heart of gas pumps or electricity generation units. This gives Motor Sich exposure to on-the-ground applications in the energy sector.

Motor Sich's on-ground products are represented by electricity generating sets and gas turbines. The company is planning to increase production of energy equipment 15% p.a. starting this year.

Electricity generation sets

Motor Sich currently produces 1 MW, 2.5MW, 6MW and 8 MW gasturbine power generation sets. The key consumers of small generation sets are isolated communities that are located near gas production centers in Russia, the Middle East and South America. Motor Sich's generating sets have the advantage of being able to operate successfully in different climatic zones.

Gas turbines

Motor Sich produces 6.3 MW, 8 MW and 10 MW gas turbine drives for oil and gas pumping and lifting units based on its *D-336* and *AI-336* engines. The engines are designed to operate in temperatures ranging -60°C to +60°C, and at an altitude of up to 2000m above sea level. Motor Sich's main competitors in this segment are Russian aircraft engine producers. There is not much rivalry here, as manufacturers have engines of different capacities, so they occupy different niches.

Motor Sich supplies gas turbines to Ukrainian energy equipment producer Sumy Frunze, while export destinations are: Russia (Gazprom), Iran, Turkey, Turkmenistan (Turkmengaz) and other countries.



Other business directions

Consumer goods

Motor Sich's consumer goods chain includes engines for motor boats, walking tractors, steam boilers, chainsaws, lawnmowers, air heaters, centrifugal separators, meat grinders, car mufflers, juicers and blowlamps. These products are marketed in Ukraine, Belarus and Russia.

Aviation company: Motor Sich Avia

The aviation company Motor Sich Avia (since 1984) is a subsidiary of Motor Sich. It is engaged in cargo and passenger transportation throughout the CIS and neighboring countries, operating a fleet of 10 aircraft. The company's share of Motor Sich's total revenues is less than 1%. According to the company's management, it is a self-sufficient and profitable business, utilized as a base for testing engines and for initiating flying history for new engines.

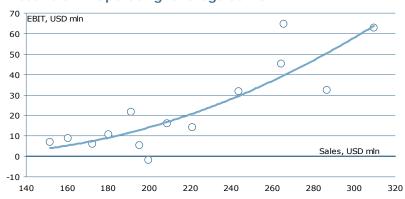


DCF valuation

Impact of high operating leverage

When Motor Sich sat without exposure to major projects, a substantial share of fixed costs depressed profitability. With incremental revenue, fixed costs pressure in the P&L will be reducing, raising operating margin in higher proportion. Four years of quarterly observations illustrate this idea: the dependency of EBIT on Sales tends to show a non-linear behavior.

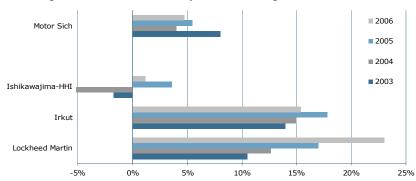
Motor Sich*: Operating leverage at work



Source: Company data. (*) Quarterly data for 2Q03-3Q06 is presented, EBIT and Sales annualized

High entry barriers in the airspace industry allow for abnormal returns on invested capital to be preserved when the company's key projects are in a growth stage. Some examples are Lockheed Martin (which is gaining from joint NASA projects) and Irkut (projects with the Russian air force). The opposite is true for Ishikawajima: a series of failures led to ROIC deterioration.

ROIC dynamics in the aerospace industry



Source: Bloomberg, Company data

Motor Sich is at the stage where it is starting to realize several new projects on its brand new line of engines. In our model we forecast company's ROIC to reach 15% in the mid-term.



Basic model assumptions

For valuation purposes, we discriminate between three scenarios based on level of cooperation with Russia. The first two scenarios are based on the assumption that Motor Sich is acquired by RUAC/Oboronprom and gets fully involved in Russian aviation programs.

Common assumptions for the three scenarios:

Motor Sich continues realization of all initiated projects (engines for Russian and Ukrainian aircraft that are serially produced now); Motor Sich starts joint projects with Ukrainian aircraft producers (An-140, An-148), as well as supplies engines for Chinese and Indian military projects.

Specific assumptions:

Scenario 1 (20% probability): Motor Sich realizes all of its planned joint projects with Russia. We assume a slow reduction in Motor Sich's share of new helicopter engine production (VK-2500 engines), with Russian companies launching their own production by 2015.

Scenario 2 (75% probability): Close to Scenario 1, with the only difference that part of the production of the VK-2500 engines is transferred from Motor Sich facilities in Ukraine to Russia in the mid-term to minimize the share of Ukrainian added value in the project. In this case, Motor Sich will produce 30% less helicopter engines by 2016, compared to the first scenario.

Scenario 3 (5% probability): Motor Sich is not acquired by the Russian Holding, and Russians stop cooperation with Motor Sich in projects where they can find any substitute for Ukrainian engines (all new joint projects with Russia, except the multi-purpose Be-200 plane). Cooperation on old projects for helicopter engines gradually decreases. Motor Sich concentrates more on its service & repair business (withdrawing licenses for repairs granted to Russian enterprises).

Terminal value assumptions:

Perpetuity growth rate is assumed to be:

2% for **Scenario 1** (close cooperation with Russians will allow the company to benefit from new projects in the future)

1% for **Scenario 2** (lower than for Scenario 1, as Russian producers, under this scenario, are assumed to transmit the realization of the most successful joint projects to their territory)

0% for **Scenario 3** (as Motor Sich is unlikely to show long-term growth without being involved in Russian projects);

WACC to perpetuity was chosen at 12.5% for all three scenarios.



Our approach is conservative

Our forecasts for engine production and prices are more conservative than the management's vision. We deliberately selected a conservative approach to most aircraft projects except for helicopters: our scenarios 1 and 2 assume higher production of helicopter engine VK-2500 and higher price for helicopter engine TV3-117 than management plans. To us, the future of Russia's helicopter program is obvious, while the management does not yet believe in their golden ticket – the helicopter market is all theirs.

How we differ from Motor Sich management forecasts

	Engines supply, units					Total sales, USD mln,	Difference (Concorde-		
		2007	2008	2009	2010	2011	2012	2007-2012	Management)
	Helicopter projects								
TV3-117 series	Mil and Kamov helico		Russia						
Motor Sich plan		251	251	251	251	251	251	619	
Concorde Capital forecast		240	230	222	216	210	236	652	33
VK-2500	Mi-28H, Ka-52, TV3-1	17 rep	olaceme	nt: Rus	sia				
Motor Sich plan		14	22	24	24	24	24	142	
Concorde Capital forecast		18	26	38	48	56	67	215	73
	Passenger planes pro	jects							
Total D-436 series	An-148, Tu-334, Be-2	00: Ru	ıssia/U	kraine					
Motor Sich plan		14	28	44	54	54	54	395	
Concorde Capital forecast		12	18	26	34	42	50	305	-90
TV3-117 VMÅ SBM 1	An-140: Ukraine/Rus	sia/Ira	an						
Motor Sich plan		24	26	30	30	32	32	211	
Concorde Capital forecast		12	16	16	16	16	16	44	-166
	Other aircrafts								
AI-25 TL, TLK, TLSH	K-8J: China								
Motor Sich plan		58	64	90	96	98	98	337	
Concorde Capital forecast		26	30	34	34	38	42	153	-184
AI-222-25	Trainer airplanes: Chi	na/In	dia						
Motor Sich plan		0	10	32	36	32	32	121	
Concorde Capital forecast		0	14	24	34	36	24	98	-23
AI-20	An-12, An-32B: Ukari	ne/Ru	ssia						
Motor Sich plan		16	18	20	22	22	26	127	
Concorde Capital forecast		6	10	10	10	10	10	42	-86
D-36	An-72, An-74: Ukarin	e/Rus	sia						
Motor Sich plan		9	10	12	13	13	14	173	
Concorde Capital forecast		2	2	2	4	4	6	41	-132
AI-24	An-26, An-30: Ukarin								
Motor Sich plan		20	26	28	30	32	36	64	
Concorde Capital forecast		2	2	4	2	2	6	3	-61
MS-400	UAV projects: India								
Motor Sich plan		0	0	0	0	0	0	0	
Concorde Capital forecast		0	0	1	2	3	4	1	1

	Total sales, USD mln,	Difference (Concorde-
	2007-2012	Management)
Total revenue from new engines supply		
Motor Sich plan	2,189	
Concorde Capital forecast	1,555	-634
Aviation engine service/repair revenue		
Motor Sich plan	597	
Concorde Capital forecast	538	-59
Revenues from other business directions		
Motor Sich plan	473	
Concorde Capital forecast	203	-270
Total revenues		
Motor Sich plan	3,258	
Concorde Capital forecast	2,296	-962

Source: Motor Sich, Concorde Capital research - Scenario №2



Scenario 1

Estimated probability 20%

Operating model summary, USD mln



DCF output UAH mln as of May 15

	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E	2016E
EBITDA	251	286	326	366	424	482	547	624	667	696
EBIT	161	197	238	278	337	397	463	543	589	620
Tax Rate	40%	37%	34%	31%	29%	27%	25%	25%	25%	25%
Taxed EBIT	97	124	157	192	239	290	348	407	441	465
Plus D&A	89	89	88	87	86	85	84	81	79	76
Less CapEx	(110)	(150)	(155)	(150)	(140)	(120)	(105)	(80)	(79)	(78)
Less change in OWC	(60)	(53)	(47)	(32)	(34)	(30)	(32)	(36)	(20)	(15)
FCFF	70	10	43	97	152	224	294	372	421	448
WACC	16.3%	16.0%	15.0%	13.8%	12.8%	11.7%	11.4%	11.5%	11.6%	11.6%
Discounted cash flow		58	61	65	83	113	153	181	195	182
Sum of discunted CF		1,091								
						Pe	rpetunity grov	wth rate		2.0%
						W	ACC to perpet	uity		12.5%
Terminal value	•	1,772	•		•					5,159
						Im	plied exit EBI	TDA multiple		6.2 x

Firm value 2,864 62% Portion due to TV (251) Less net debt 2,613 **Equity value** 249

Implied 12M price, USD

Sensitivity analysis

WACC Y1-10		Per	petuity Gro	wth Rate	
	1.0%	1.5%	2.0%	2.5%	3.0%
-1.5%	260	268	278	288	300
-1.0%	250	259	268	278	289
-0.5%	241	249	258	268	279
+0.0%	233	241	249	258	269
+0.5%	224	232	240	249	259
+1.0%	217	224	232	240	250
+1.5%	209	216	223	232	241

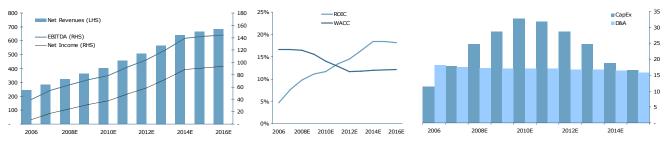
Implied Share Price, USD									
WACC to perpet	uity	Perpetuity Growth Rate							
	1.0%	1.5%	2.0%	2.5%	3.0%				
11.0%	254	264	276	288	302				
11.5%	246	256	266	277	290				
12.0%	239	248	257	267	279				
12.5%	233	241	249	258	269				
13.0%	227	234	242	250	260				
13.5%	221	228	235	243	251				
14.0%	216	222	229	236	244				



Scenario 2

Estimated probability 75%

Operating model summary, USD mln



DCF output, UAH mln, as of May, 15

	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E	2016E
EBITDA	251	286	326	366	424	482	547	624	667	696
EBIT	161	197	238	278	337	397	463	543	589	620
Tax Rate	40%	37%	34%	31%	29%	27%	25%	25%	25%	25%
Taxed EBIT	97	124	157	192	239	290	348	407	441	465
Plus D&A	89	89	88	87	86	85	84	81	79	76
Less CapEx	(110)	(150)	(155)	(150)	(140)	(120)	(105)	(80)	(79)	(78)
Less change in OWC	(60)	(53)	(47)	(32)	(34)	(30)	(32)	(36)	(20)	(15)
FCFF	70	10	43	97	152	224	294	372	421	448
WACC	16.3%	16.0%	15.0%	13.8%	12.8%	11.7%	11.4%	11.5%	11.6%	11.6%
Discounted cash flow	61	42	48	53	81	115	144	171	177	162
Sum of discunted CF	911	992								

		Perpetunity growth rate	1.0%
		WACC to perpetuity	12.5%
Terminal value	1,424		4,092
		Implied exit EBITDA multiple	5.6 x
Firm value	2,416		
Portion due to TV	59%		
Less net debt	(256)		
Equity value	2,160		
Implied 12M price, USD	206		

Sensitivity analysis

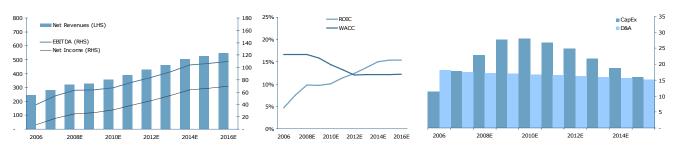
WACC Y1-10	Perpetuity Growth Rate					
	1.0%	1.5%	2.0%	2.5%	3.0%	
-1.5%	217	223	230	238	246	
-1.0%	209	215	222	229	237	
-0.5%	201	207	214	221	229	
+0.0%	194	200	206	213	220	
+0.5%	187	192	198	205	212	
+1.0%	180	185	191	198	205	
+1.5%	174	179	184	190	197	

WACC to perpetuity	ty	Per	petuity Gro	wth Rate	
	0.0%	0.5%	1.0%	1.5%	2.0%
11.0%	210	217	225	234	244
11.5%	204	211	218	226	235
12.0%	199	205	212	219	227
12.5%	194	200	206	213	220
13.0%	189	195	201	207	214
13.5%	185	190	196	202	208
14.0%	182	186	191	197	203



Scenario 3 Estimated probability 5%

Operating model summary, USD mln



DCF output, UAH mln, as of May, 15

	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E	2016E
EBITDA	251	286	326	366	424	482	547	624	667	696
EBIT	161	197	238	278	337	397	463	543	589	620
Tax Rate	40%	37%	34%	31%	29%	27%	25%	25%	25%	25%
Taxed EBIT	97	124	157	192	239	290	348	407	441	465
Plus D&A	89	89	88	87	86	85	84	81	79	76
Less CapEx	(110)	(150)	(155)	(150)	(140)	(120)	(105)	(80)	(79)	(78)
Less change in OWC	(60)	(53)	(47)	(32)	(34)	(30)	(32)	(36)	(20)	(15)
FCFF	70	10	43	97	152	224	294	372	421	448
WACC	16.3%	16.0%	15.0%	13.8%	12.8%	11.7%	11.4%	11.5%	11.6%	11.6%
Discounted cash flow	61	67	72	61	79	97	113	124	126	118
Sum of discunted CF	795	857								

		Perpetunity growth rate	0.0%	
		WACC to perpetuity	12.5%	
Terminal value	948		2,777	
		Implied exit EBITDA multiple	5.0 x	
Firm value	1,804			
Portion due to TV	53%			
Less net debt	(246)			
Equity value	1,558			
Implied 12M price, USD	148		_	

Sensitivity analysis

WACC Y1-10	Perpetuity Growth Rate					
	1.0%	1.5%	2.0%	2.5%	3.0%	
-1.5%	157	161	165	170	175	
-1.0%	151	155	160	164	169	
-0.5%	146	150	154	158	163	
+0.0%	141	145	148	153	157	
+0.5%	136	139	143	147	152	
+1.0%	131	135	138	142	146	
+1.5%	127	130	133	137	141	

WACC to perpetuity		Perpetuity Growth Rate							
	-1.0%	-0.5%	0.0%	0.5%	1.0%				
11.0%	150	155	160	165	171				
11.5%	147	151	156	161	166				
12.0%	144	148	152	157	162				
12.5%	141	145	148	153	157				
13.0%	138	142	145	149	153				
13.5%	136	139	142	146	150				
14.0%	133	136	140	143	147				



Peer valuation

Traded peers

Peer	finan	cials,	USD	mln
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	Country	MCap	Sales	S	EBITDA		Net income	
			2006	2007E	2006	2007E		2007E
Motor Sich	Ukraine	264	245	284	40	49	8	15
Aircraft engines manufacturers								
Ishikawajima-Harima Heavy Ind	Japan	6,031	5,413	10,231	252	603	35	159
NPO Saturn	Russia	418	320	394	75	92	29	42
Ufimskiye Motors	Russia	506	321	343	112	125	50	51
Magellan Aerospace Corp	Canada	235	505	534	33	52	-2	9
MTU Aero Engines Holding AG	Germany	3,195	3,033	3,438	422	498	112	185
Sichuan Chengfa	China	316	67	80	10	13	5	7
erospace sector Country MCap		Sale	Sales		EBITDA		Net income	
_			2006	2007E	2006	2007E	2006	2007E
Boeing Co	USA	71,807	61,530	65,205	5,356	7,375	2,215	3,780
IRKUT	Russia	968	1,080	1,179	231	250	114	133
Lockheed Martin	USA	41,889	39,620	41,097	4,198	4,936	2,529	2,660
Cobham	UK	4,600	1,861	2,087	403	444	272	259
EADS	France	24,720	49,499	52,193	3,677	4,375	324	1,329
Smiths Group PLC	UK	11,312	6,867	6,699	1,061	1,143	580	657
Finmeccanica	Finland	12,914	17,093	18,357	2,726	3,016	750	722
Meggitt PLC	UK	3,026	1,233	1,611	330	418	178	215
Safran SA	France	9,713	14,220	15,711	1,301	1,660	338	583
Zodiac SA	France	3,916	2,868	3,345	450	550	199	240
Diversified machinery	Country	MCap	Sales	s	EBI ⁻	ΓDA	Net in	come
			2006	2007E	2006	2007E	2006	2007E
United Technologies Corp	USA	66,448	47,829	51,141	7,131	7,772	3,732	4,233
Mitsubishi Heavy Industries Limited	Japan	20,891	19,493	24,901	945	1,385	222	262
Honeywell International Inc	ÚSA	38,164	31,367	31,678	3,855	4,626	2,083	2,416
Rolls-Royce Group PLC	UK	17,372	13,165	14,825	1,593	2,043	1,836	1,095

Source: Bloomberg, company data, Concorde Capital estimates

Peer multiples

	Country	FV/S	Sales	EV/EB	ITDA	P/E	
Motor Sich	Ukraine		2007E 1.13	2006 7.9	2007E 6.5	2006 35.2	2007E 17.6
Aircraft engines manufacturers							
Ishikawajima-Harima Heavy Ind	Japan	1.5	0.8	29.0*	n/a	152.9*	n/a
NPO Saturn	Russia	1.8	1.5	7.8	6.6	14.6	9.9
Ufimskiye Motors	Russia	1.8	1.6	5.1	4.5	10.2	9.8
Magellan Aerospace Corp	Canada	0.8	0.7	12.2	7.7	neg	26.4
MTU Aero Engines Holding AG	Germany	1.2	1.0	8.3	6.9	28.6	17.3
Sichuan Chengfa	China	5.0	4.2	32.8*	26.0*	64.1	45.1
Mean		2.0	1.6	8.4	6.4	29.4	21.7
MSICH implied price, USD		212	198	135	124	106	157

Aerospace sector	Country	EV/Sa	les	EV/EB	ITDA	P/I	E
	_	2006	2007E	2006	2007E	2006	2007E
Boeing Co	USA	1.2	1.1	14.0	10.1	32.4	19.0
IRKUT	Russia	1.3	1.0	5.9	4.9	8.5	7.3
Lockheed Martin	USA	1.1	1.0	10.5	8.7	16.6	15.7
Cobham	UK	2.5	2.2	11.4	10.5	16.9	17.8
EADS	France	0.4	0.4	5.8	4.5	76.3	18.6
Smiths Group PLC	UK	1.8	1.9	11.5	11.3	19.5	17.2
Finmeccanica	Finland	0.8	0.8	5.3	4.7	17.2	17.9
Meggitt PLC	UK	3.0	2.3	11.3	8.8	17.0	14.1
Safran SA	France	0.7	0.7	8.2	6.4	28.7	16.7
Zodiac SA	France	2.0	1.7	12.5	10.1	19.7	16.3
Mean		1.2	1.1	10.9	8.7	18.4	16.9
MSICH implied price, USD		121	123	184	179	66	122

Diversified machinery	Country	EV/Sales		EV/EB	EV/EBITDA		Ε
		2006	2007E	2006	2007E	2006	2007E
United Technologies Corp	USA	1.5	1.4	10.1	9.1	17.8	15.7
Mitsubishi Heavy Industries Limited	Japan	1.5	n/a	26.3 *	n/a	74.8 *	n/a
Honeywell International Inc	USA	1.3	1.3	10.9	9.0	18.3	15.8
Rolls-Royce Group PLC	UK	1.2	1.1	9.9	8.2	9.5	15.9
Mean		1.4	1.3	10.1	9.0	17.8	15.8
MSICH implied price, USD		140	153	168	186	64	114

Source: Bloomberg, company data, Concorde Capital estimates



Equity placements in aircraft business

				Preceding year					
				Implied MCap,	financials,	USD mln	Multiples		
Date	Company	Stake	Stake value	USD mln	Sales	EBITDA	EV/S	EV/EBITDA	
Mar-04	Irkut	23.3%	127	545	522	76	2.0	13.9	
Nov-06	Spirit Aerosystems	15.7%	1,432	9,097	3,200	547	3.0	17.3	
Jan-07	AeroVironment	35.0%	114	325	139	18	2.2	17.2	
	Mean						2.4	16.1	
May-07E	MSICH				245	40			
	MSICH implied price (USD) by peers' mean:						258	285	

Source: Mergermarkets, company data, Concorde Capital calculations



Appendix: Pro-forma financial statements

Income Statement Summary, USD mln

	2005	2006	2007E	2008E	2009E	2010E	2011E	2012E
Net Revenues	212.8	245.1	283.5	323.4	363.7	403.5	455.4	504.7
Gross Profit	88.6	112.1	127.6	143.9	160.0	173.5	195.8	215.5
Gross margin	41.6%	45.8%	45.0%	44.5%	44.0%	43.0%	43.0%	42.7%
EBITDA	40.0	39.8	54.5	63.4	72.3	78.8	92.3	103.9
EBITDA margin	18.8%	16.2%	19.2%	19.6%	19.9%	19.5%	20.3%	20.6%
Depreciation	(17.6)	(18.1)	(17.6)	(17.2)	(17.1)	(17.0)	(16.9)	(16.8)
EBIT	22.4	21.7	36.9	46.2	55.2	61.8	75.4	87.1
EBIT margin	10.5%	8.8%	13.0%	14.3%	15.2%	15.3%	16.6%	17.3%
Interest Expense	(4.9)	(7.0)	(7.0)	(7.0)	(7.0)	(6.7)	(6.8)	(6.7)
РВТ	16.8	13.9	29.9	39.1	48.2	55.1	68.5	80.4
Tax	(7.1)	(6.4)	(12.2)	(14.5)	(16.4)	(17.1)	(19.9)	(21.7)
Effective tax rate	42.5%	46.4%	41.0%	37.0%	34.0%	31.0%	29.0%	27.0%
Net Income	9.6	7.5	17.6	24.7	31.8	38.0	48.7	58.7
Net Margin	4.5%	3.0%	6.2%	7.6%	8.7%	9.4%	10.7%	11.6%

Balance Sheet Summary, USD mln

	2005	2006	2007E	2008E	2009E	2010E	2011E	2012E
Current Assets	203.4	241.8	246.2	268.8	290.6	310.2	332.6	353.3
Cash & Equivalents	14.3	11.0	14.2	16.2	18.2	20.2	22.8	25.3
Trade Receivables	22.2	28.5	31.2	32.3	32.7	36.3	41.0	40.4
Inventories	140.2	164.3	166.8	183.1	199.6	209.3	223.2	237.2
Other current assets	26.7	38.0	34.0	37.2	40.0	44.4	45.5	50.5
Fixed Assets	204.0	207.2	207.8	210.8	219.2	231.2	244.7	255.2
PP&E. net	139.3	142.1	146.8	153.8	164.2	178.1	191.6	203.2
Other Fixed Assets	64.7	65.1	61.0	57.0	55.0	53.1	53.1	52.1
Total Assets	407.4	449.0	454.0	479.6	509.8	541.3	577.3	608.5
Shareholders' Equity	268.0	276.0	287.0	304.5	328.5	351.5	377.6	404.4
Share Capital	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5
Reserves and Other	209.5	217.5	228.5	246.0	270.0	293.0	319.1	345.9
Current Liabilities	128.3	161.5	152.2	148.4	149.5	151.4	154.7	157.9
ST Interest Bearing Debt	56.1	63.8	61.4	49.5	43.6	39.6	35.6	30.7
Trade Payables	28.7	30.9	29.6	32.3	34.6	36.8	38.9	43.4
Accrued Wages	3.0	3.7	-	-	-	-	-	-
Accrued Taxes	1.3	2.6	1.7	1.9	2.2	2.4	2.7	3.0
Other Current Liabilities	39.3	60.7	59.5	64.7	69.1	72.6	77.4	80.8
LT Liabilities	11.0	11.5	14.7	26.6	31.8	38.4	45.0	46.3
LT Interest Bearing Debt	-	-	3.8	16.6	23.8	30.5	37.0	38.4
Other LT	11.0	11.5	10.9	9.9	7.9	7.9	7.9	7.9
Total Liabilities & Equity	407.4	449.0	454.0	479.6	509.8	541.3	577.3	608.5



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