MTU Aero Engines

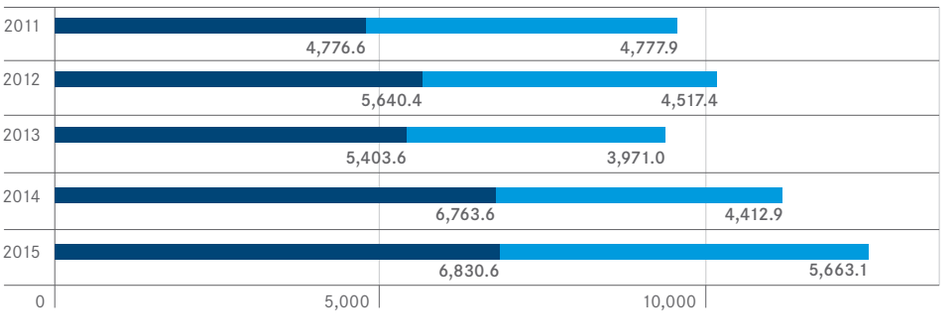
ANNUAL REPORT 2015

The engine makers

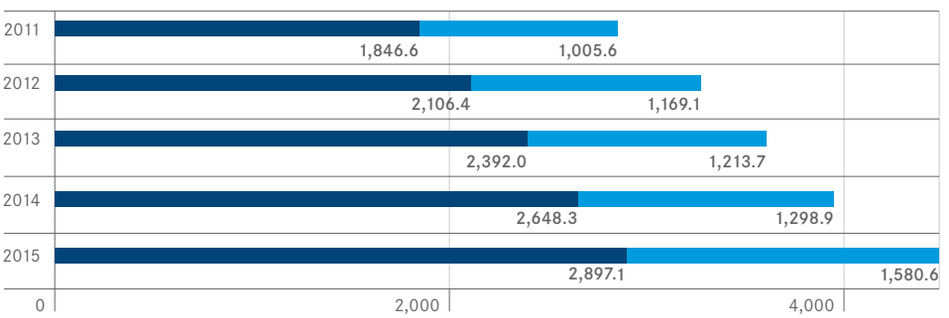
The team behind the success

KEY INDICATORS REVIEWED OVER 5 YEARS

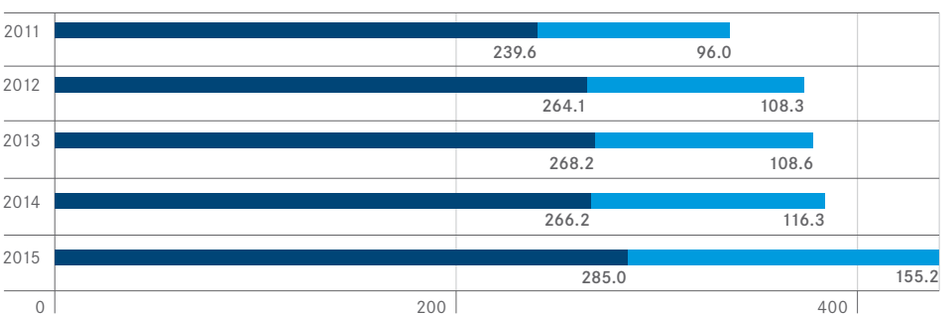
ORDER BACKLOG BY SEGMENTS IN € MILLION (BEFORE CONSOLIDATION)

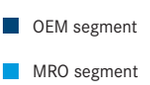


REVENUES BY SEGMENTS IN € MILLION (BEFORE CONSOLIDATION)

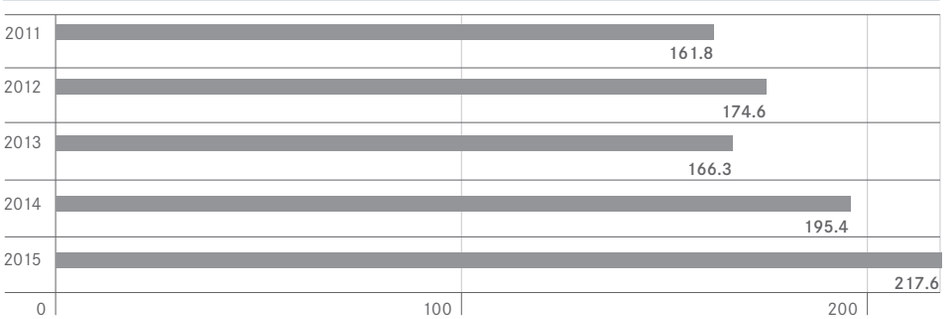


EBIT ADJUSTED BY SEGMENTS IN € MILLION (BEFORE CONSOLIDATION)





EARNINGS AFTER TAX (EAT) IN € MILLION



The OEM segment (Original Equipment Manufacturing) covers new commercial engines, including spare parts, and the whole of the military business. The MRO segment (Maintenance, Repair and Overhaul) comprises all commercial maintenance activities.

SELECTED CONSOLIDATED FINANCIAL INFORMATION AND KEY FIGURES

SELECTED CONSOLIDATED FINANCIAL INFORMATION AND KEY FIGURES AT A GLANCE

in € million (unless otherwise specified)	2015	2014	Change 2014-2015
Revenues and earnings			
Revenues	4,435.3	3,913.9	13.3%
attributable to the commercial engine business[1]	2,414.0	2,116.8	14.0%
attributable to the military engine business[1]	483.1	531.5	-9.1%
attributable to the commercial maintenance business[1]	1,580.6	1,298.9	21.7%
Gross profit	580.3	538.5	7.8%
Earnings before interest and tax (EBIT)	385.6	333.5	15.6%
Earnings after tax	217.6	195.4	11.4%
Adjusted earnings			
Earnings before interest and tax (adjusted EBIT)	440.3	382.7	15.1%
EBIT margin in %	9.9	9.8	
Earnings after tax	306.9	253.3	21.2%
Balance sheet			
Total assets	5,188.3	4,806.3	7.9%
Equity	1,300.6	1,188.3	9.5%
Equity ratio in %	25.1	24.7	
Net financial debt	881.2	780.4	12.9%
Cash flow			
Cash flow from operating activities	296.2	204.8	44.6%
Cash flow from investing activities	-267.8	-234.5	-14.2%
Free cash flow	72.0	42.5	69.4%
Cash flow from financing activities	-42.7	-72.7	41.3%
Number of employees at year end			
Commercial and military engine business	5,331	5,274	1.1%
Commercial maintenance business	3,003	3,059	-1.8%
Total number of employees	8,334	8,333	
Share indicators			
Earnings per share in €			
Basic earnings per share	4.26	3.84	10.9%
Diluted earnings per share	4.26	3.83	11.2%
Dividend per share in €[2]	1.70	1.45	17.2%
Dividend yield in %	1.9	2.0	
Total dividend[2]	86.9	74.0	17.4%
Outstanding common stock at Dec. 31 (million shares)	51.1	51.0	0.2%

[1] Before consolidation

[2] Proposal to the Annual General Meeting for 2015 based on an expected volume of 51.1 million dividend-entitled shares. Prior year: Resolution by the Annual General Meeting for the financial year.

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MTU Aero Engines develops, manufactures, sells, and maintains commercial and military engines. Its success speaks for itself. In 2015, revenues rose by 13 % to € 4.4 billion, operating profit by 15 % to € 440 million, and net income by 21 % to € 307 million. One factor above all others is crucial to MTU's success in the global engine market: the performance of its 8,334 employees. Day in, day out, they give their all to ensure that MTU delivers high-tech products known all over the world and provides services that meet the highest international standards. In doing so, they help keep the company on its growth trajectory. MTU's employees are ***the engine makers.***

The engine makers

8,334 keys to success

Management, development, production, maintenance – the success of MTU Aero Engines depends on a team of 8,334 experts, who devote their energies to engines in all phases of their lifecycle and at all points in the value chain.

The lifecycle of an engine can last as long as an employee's working life, with 30 years or more passing between the original models and phase-out. MTU employees look after an engine throughout such a lifecycle – devoting their entire careers to it in the process.

Their high degree of specialization ensures consistently high quality, from the development and production phases through to maintenance.

CENTRAL TASKS IN THE ENGINE LIFECYCLE

The lifecycle of an aircraft engine can run for more than 30 years. Prior to the development phase, the program management team has already defined the key parameters.

In close cooperation with the OEM partners, the program management team defines the key parameters of every new engine program – parameters the developers need in order to do their work. As the development phase progresses, the interaction between the developers and the production team becomes ever closer, the aim being to ensure the smooth ramp-up of series production. At the same time, the maintenance team begins configuring the MRO program for the new engine generation, which will provide an attractive income source over many decades.

The engine makers in MANAGEMENT

The program management team is the nerve center of all of MTU's engine business activities. The people in control there are at once visionaries and coordinators, and their tasks are especially complex when new aircraft engines are to be launched in the market.

Control center for engine programs

Engineers, businesspeople, and IT experts – MTU's program management unit is home to managers and specialists with quite diverse qualifications, and for good reason. Program management is the control center for all new and ongoing engine programs. The people who work there provide input in the design and modeling phases; they optimize and coordinate, take part in negotiations and are involved in communication activities. All of these are responsible duties, and are occasionally nerve-racking but never boring.

It is the long-term perspective that the program experts find so attractive: they help initiate the new engine programs that will shape the working lives of MTU employees for decades to come.

A comprehensive knowledge of aviation trends is a basic prerequisite for this job. What new concepts are aircraft manufacturers working on? What requirements will the engines of the future have to meet – especially as regards economy, environmental sustainability and statutory compliance? And what course are MTU's partners in the engine construction business steering? The program managers know the answers to these questions and are responsible for business development. They assess the competitiveness of new aircraft, and analyze the opportunities and risks of MTU's participation in future engine programs. What is more, these visionaries seek close contact with the OEMs in order to optimize how MTU deploys it resources and know-how.

"Participation in the geared turbofan program marks a milestone for MTU. Our task is to ensure that MTU remains an indispensable partner at all times and is involved in all leading engine programs."

Theodor Pregler,
Senior Vice President, Commercial Programs

From contract to engine construction

Once the decision to participate in a new engine program has been made, the work starts in earnest. Parameters have to be determined and contracts drawn up. As a rule, several manufacturers join forces in a consortium to launch a new engine program. What will MTU's share in the new program be and what components will it make? Program management finds answers to these questions in close cooperation with the other program partners and the responsible departments at MTU, preparing the ground for a subsequent decision by the Executive Board.

Even after the contracts have been signed, program management remains the central point

Management works closely with program partners and the relevant departments at MTU to prepare the ground for decisions.

of contact, whether for external partners and customers, or for queries from within the company on all program-related matters. The watchwords in this phase are coordination and communication. MTU deploys workers on site with key partners such as Pratt & Whitney and GE Aviation. Their task is not only to keep information flowing smoothly at all times and over long periods, but also to streamline collaboration.

One of the topics currently in the focus of the program management team is the GE9X engine, which will one day power the Boeing 777X. With the conceptual phase for this engine over, the modeling phase began in 2015. The design of the engine has now been finalized and the hardware required for development is under construction. Scheduled to take place in 2016, the initial test run of the GE9X will usher in the test phase. The new long-haul Boeing 777X aircraft powered by the GE9X is to be launched four years later.

The geared turbofan – an engineering milestone

The geared turbofan (GTF), already one of the most successful engines in aviation history, is approaching its market launch. In January 2016, the first A320neo jet equipped with PurePower® PW1100G-JM engines of the GTF family was delivered to its very first customer, Lufthansa. This is a success story, especially for the project management team who drafted the contracts. MTU has a stake of 18% in the A320neo program, two percentage points more than in the predecessor engine program, the V2500 for the A320 family.

At first glance, two percentage points looks manageable. In practice, however, it means that MTU has to take on more and different kinds of work. The company will be responsible for the final assembly and testing of around a third of all new PW1100G-JM engines. This is a premiere for MTU, which

The engine makers in
MANAGEMENT

has never before been responsible for the final assembly of commercial engines in such high numbers. Here, again, program management is in charge of coordinating the interfaces – for example, between its customers and program partners – to ensure the series-production engines assembled in Munich are delivered on time and in budget. The team oversees the processes to make sure that the components and modules manufactured at the MTU plants in Poland and Munich are available when they are needed.

One eye on maintenance

Another task underscores the central role played by the program management team. It not only coordinates development and production, but also maintenance. From a very early stage, the program management experts pay close attention to the contractual practicalities of the aftermarket business and how it is embedded in MTU's corporate structures. In the case of the PW1100G-JM engine, MTU has been a partner in the aftermarket service network since June 2015.

To ensure it has enough employees for these diverse tasks going forward, MTU offers work-study programs to prepare potential candidates for a career in program management. The students combine university study with practical work experience at MTU. In this way, potentials gain a wide range of insights into the engine-making business, and learn what sort of work they can expect to be doing if they are taken on. The success of this approach is obvious, with the budding program managers generally being offered an employment contract upon completing their course of study.

Program management coordinates the interfaces between R&D, manufacturing and maintenance.

The engine makers in DEVELOPMENT

The development team works on the engines and materials that will be deployed in the future. Their innovative strength and precision pave the way for MTU's success – for many decades to come.

"We have been working on GTF technology for many years. With the geared turbofan now beginning its ascent with series production, our years of hard work are beginning to pay off. That makes us proud."

Dr. Jörg-Michael Henne
Senior Vice President, Development and Technology

Investing in the future

In 2015, MTU invested € 210 million, and thus 4.7 % of its revenues, in research and development. Its engineers, IT experts, scientists and other specialists use these funds to develop the new technologies that will shape the future of aviation. It is expenditure that pays off, with MTU filing patent applications for 400 inventions every year. This makes it one of the most innovative companies in the aviation industry.

The geared turbofan – the essence of innovation

New engines are expected to be quieter and more economical, and produce fewer emissions. Such market expectations can be met only if MTU's some 1,000 developers rethink every detail of engine design on a daily basis. Their work results in new engine configurations, enhanced components and modules, new materials, and new processes. An example of their success is the high-speed low-pressure turbine. A key component in the engines of the GTF family, it is the combination of a wide variety of innovations. In years of painstaking work, the MTU developers completely rethought the high-speed low-pressure turbine, came up with new structures and materials, and deployed new modeling and calculation processes. MTU has worked hand in hand with its partner Pratt & Whitney on the GTF program since the very first demonstrator project in 2005.

The technology behind the high-speed low-pressure turbine for this application is unique, and MTU is the only company in the world to have mastered it. It is an achievement that has not gone unnoticed in the public arena, with MTU receiving two prestigious prizes for its work: the German Industry Innovation Award and the German Innovation Prize.

The turbine was thoroughly tested prior to the start of series production. As part of this process, the MTU developers had to connect up more than 1,500 individual measurement points in the test beds. Around 800 of these are specifically

for testing the low-pressure turbine, while 500 are basic measurement points for monitoring the engine. During testing, the engineers work around the clock in three-shift cycles so as not to overlook even the smallest detail. As a reward for their hard work, the high-speed low-pressure turbine met all the test requirements – such as efficiency, weight, noise emissions, and manufacturing costs – with flying colors.

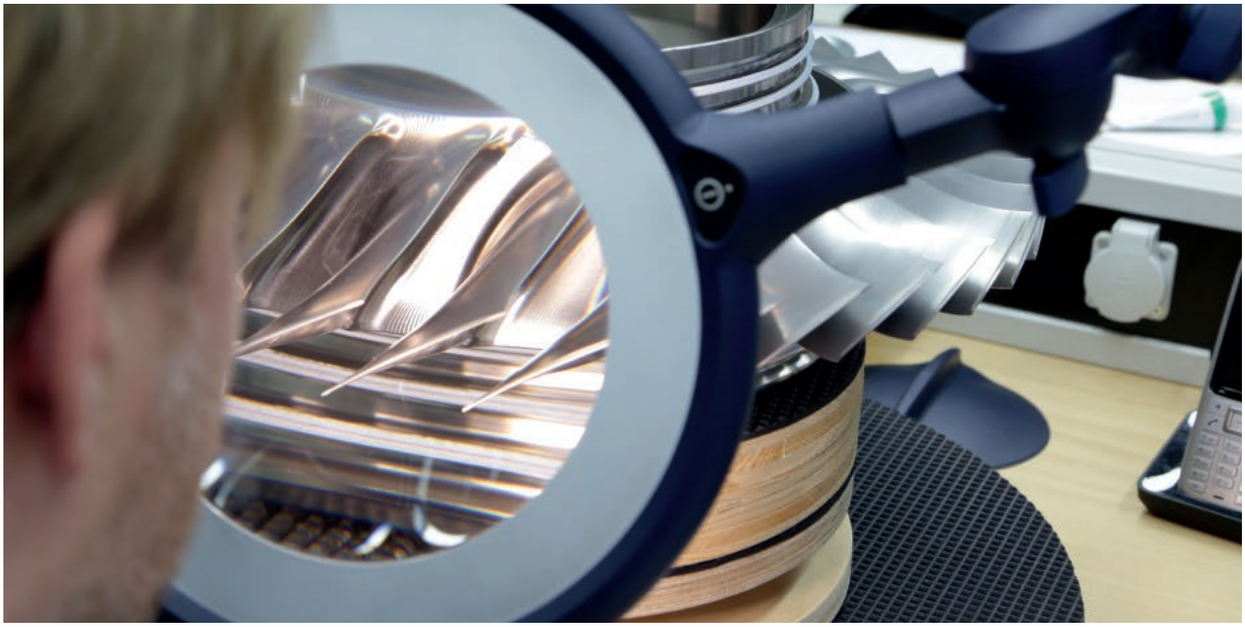
The work of MTU's developers is decisive in creating engines that consume substantially less fuel, are cheaper to manufacture and maintain, and are much quieter than conventional models. The geared turbofan is a case in point, with 15% lower fuel consumption and CO_2 emissions, and perceived noise levels that are almost half those of other engines.

New engines need new materials

To make quantum leaps of this kind, the developers at MTU have to forge new paths – whether on a large scale with new engine configurations, or at the level of details with new materials.

The high-speed low-pressure turbine used in the geared turbofan is just one example. The temperatures and pressures generated in these turbines are extreme. Together with their partners, the MTU experts succeeded in developing a lightweight material for the turbine blades. Thinking out of the box, they went beyond conventional metals to create a unique new material class capable of withstanding high temperatures. And they did so in record time. Titanium aluminide (TiAl) unites the properties of metals and ceramics. Blades made of this material weigh only half as much as those constructed using nickel alloys, but are just as reliable and durable. The new material is oxidation- and corrosion-resistant, making it ideal for applications characterized by extremely high temperatures and pressures – high-speed low-pressure turbines, for instance. The research continues, however, and the materials specialists are already working on enhancing the TiAl alloy.

Close-up: MTU's experts develop new technologies for tomorrow's aero engines.



The engine makers in
DEVELOPMENT

Components, modules, and fully assembled engines are thoroughly tested on MTU's test rigs.

Ambitious goals

As the geared turbofan gradually goes into series production, the developers at MTU are already tackling new challenges. Despite the growth in air traffic, fuel consumption, (NOx) emissions, and noise levels are to be reduced even further. This will require technological breakthroughs, which are currently being developed in various national and European technology programs. These include the aviation research program supported by Germany's federal government (LuFO) as well as the Clean Sky, ENOVAL, LEMCOTEC, and E-BREAK programs, all of which are funded by the EU. MTU is playing a major role in each of these, and is even in charge of overall coordination of the ENOVAL program. The engineers involved in this program want to achieve the following objectives by 2025: cut fuel consumption and CO_2 emissions by 5% and reduce noise emissions by 1.3 decibels compared with the current state of the art in engine technology.

Above and beyond that, MTU has set itself even more ambitious goals with its Clean Air Engine agenda ("Claire" for short). By combining key technologies, the company aims, by 2050, to create a commercial jet engine that consumes around 40% less fuel, emits correspondingly less CO_2, and is 65% quieter. For the team of developers at MTU, that means relentless optimization.

The engine makers in PRODUCTION

Aircraft engines are high-tech products. The engine makers in production manufacture high-pressure compressors and low-pressure turbines, turbine center frames and other engine parts and components – all examples of cutting-edge technology made by MTU.

A team of specialists

The manufacture of aircraft engines demands precision craftsmanship. Small teams of experts work with high levels of concentration, fitting the individual components together at gleaming production cells. In this high-tech environment, specialists such as engine mechanics, industrial mechanics and mechatronics engineers work hand in hand. Thanks to years of training, they are all experts in their particular fields.

The production of geared turbofan engines allows these experts to demonstrate the full range of their skills. Series production of the PW1100G-JM engine for the Airbus A320neo commenced in 2015, and a total of six geared turbofan programs will reach the series production phase over the next few years. The stunning market success of this engine means MTU has to complete an unparalleled production ramp-up in a very short space of time – from a current level of around 2,000 modules and engines per year to some 4,000 per year by 2019. A glance at the production facilities shows that everything is proceeding according to plan. The secret of MTU's success lies in the fact that the modules and engines used in the test phase were manufactured to conform to production standards. That means that all the components were designed and produced in accordance with production standard specifications even though flight approval had not yet been obtained. Since the developers and production specialists worked in close cooperation, the latter are now able to benefit from the combined know-how.

"The series production of geared turbofan components in Munich is being ramped up according to plan. And the components supplied by our manufacturing plant in Poland are of a very high quality. The MTU team stands for reliable, high-quality production."

Lars Wagner,
Executive Vice President, OEM Operations

One of the current priorities of the teams in Munich is series production of the PW1100G-JM engine for the Airbus A320neo. Operations scheduling, for example, is occupied preparing workflow schedules and procuring the required tools and equipment. Things will begin in earnest mid-2016, when MTU in Munich will for the first time assume responsibility for the final assembly of an entire commercial OEM engine.

An engine a day

After conclusion of the ramp-up phase at the end of 2018, MTU will be turning out around 180 A320neo engines a year, which means the assembly team will be producing one engine virtually every working day. That poses huge challenges for all concerned. For instance, around 1,200 different itemized parts are needed to assemble a GTF engine. In order to cope with this flood of materials, an adequate assembly infrastructure has to be put in place and detailed workflow schedules developed for every production step. It is only by working in shifts that the tight deadlines can be met and an engine built within 20 days.

The assembly logistics team relies on just-in-time production. Like its partner Pratt & Whitney, MTU is using the pull system to manage PW1100G-JM assembly. The assembly planning team knows when the next engine is to be delivered. As soon as an engine reaches a specific stage of completion, the planning

Precision craftsmanship: The high-speed low-pressure turbine for the GTF is unique in the world and represents high technology at its finest.

team triggers the next delivery of components. The team's system enables the 70 assembly workers to order precisely the right quantity of materials for each step in the assembly process, thus keeping processes lean and reducing the volume of on-site inventory.

One-third of all GTF engines for the A320neo will be assembled by MTU in Munich, the rest by Pratt & Whitney in the United States. But assembly is only one part of the work that has to be done. Prior to delivery, all engines have to complete an acceptance test run to ensure they comply with all the requirements. In order to carry out these runs, MTU is reconfiguring one of its development test beds so that it can serve as a production test bed – and that calls for new solutions. If the workers had to connect up all 30 measurement points individually as they have done in the past, it would be impossible to carry out an acceptance run for one engine almost every working day. So the MTU engineers came up with multi-coupling, which allows not only the measurement points and measurement system, but also the control and supply lines to be connected to the engine with a single click.

Innovative manufacturing techniques

In addition to this novel method of collecting acceptance test data, the production team has implemented other innovations in its component manufacturing processes. One of these is the additive manufacturing technique of selective laser melting, which is being applied for the first time to produce the borescope eyepieces that form part of the case of the low-pressure turbine used in the A320neo engine. A process known as precision electrochemical machining (PECM) is used to

The engine makers in
PRODUCTION

produce the nickel-alloy blades for two stages of the blade-integrated disk, or "blisk". This substantially reduces tooling costs while at the same time improving surface quality.

MTU relies on innovative manufacturing techniques in its new 4,000-square-meter titanium blisk production facility, too. To meet the output target of over 3,500 blisks a year, an ultramodern production system has been put in place. Every machine installed there can be configured to produce any of the 20 or so components required for the different engine programs, with very tight manufacturing tolerances, especially for milling. The MTU production team's ambitious target is to get between 5,000 and 6,000 production hours per year out of the machines – a pretty impressive utilization rate, given that there are only 8,760 hours in a year.

Production in Poland

MTU is also expanding its production site in Poland to cope with the increase in production and volumes triggered by the new engine programs. In 2015, operations commenced at the new 10,000-square-meter annex there. The specialists in Poland manufacture low-pressure turbine components and blades for the GP7000, V2500, PW300 and PW500 engines as well as for LM6000 industrial gas turbines. They also play an active part in GTF production, making key engine components and handling pre-production processes. Production is scheduled to reach full capacity by 2017, creating ideal conditions for the manufacture of cutting-edge technology made by MTU.

No engine could be built without highly trained specialists such as mechatronics engineers, engine mechanics, and industrial mechanics.

The engine makers in MAINTENANCE

Every day, over 3,000 employees are involved in the maintenance of entire engines and individual modules, in carrying out repairs, and procuring spare parts. They enable MTU to occupy a top-five position among MRO providers worldwide.

"We have extended our capacities and are now ideally placed to begin maintenance of the geared turbofan. The GTF will help MTU Maintenance to continue growing."

Holger Sindemann,
Executive Vice President, MRO Operations

Engine service in all its facets

In the maintenance field, every single step has to be perfectly coordinated. The more than 3,000 employees of MTU Maintenance work to ensure that every engine is as good as new after maintenance – and ready to deliver top performance for another 20,000 to 25,000 flying hours. During engine maintenance every individual part has to be inspected. The MTU employees take the engines apart with the utmost care and precision, and thoroughly check all components, repairing or replacing them where necessary. They then reassemble the engine and test that it is fully functional. Aviation safety has top priority, and the MRO experts at MTU take a correspondingly responsible approach to their work.

MTU Maintenance Hannover is the nerve center of the Maintenance Group and MTU's first MRO site. It was from there that MTU Maintenance began to build up its international presence, which today extends to all regions of the world. Customer proximity is writ large: in emergency situations, a team is available around the clock to provide customers with on-the-spot service no matter where they are.

Over 15,000 shop visits

The maintenance services focus on the most popular engine types across all thrust and power categories – from the engines that power helicopters and small business jets to those of the jumbo. No other MRO service provider's engine portfolio is as

broad as MTU's, and it is expanding more and more. In 2015, for example, the GEnx engine, which powers the Boeing 787 and 747-8, celebrated its premiere at MTU Maintenance, with a GEnx turbine center frame being brought to Hannover for maintenance for the first time. When an engine comes in for initial maintenance, the team members take especially great care; but, no matter what engine they are working on, they know how important such care is in everything else they do as well. The team has extensive experience to fall back on: in its 35-year history, MTU Maintenance has completed more than 15,000 shop visits.

The best solution for every customer

The maintenance specialists provide a comprehensive range of MRO services and are continually expanding their portfolio to include new services precisely tailored to each customer's needs and covering every stage of an engine's lifecycle. The ultimate aim is to offer single-source solutions that help customers to reduce their operating costs while maximizing the asset value of their engine fleet. The available services therefore include engine leasing and fleet management. Since 2015, MTU Maintenance

has been playing a crucial role for customers who own engines as investments and want to make optimal use of those engines when they reach the end of their lifecycle. Nowadays, estimating the residual value of engines is a core competence of specialized maintenance teams.

MTU Maintenance deploys a number of repair techniques and technologies that it has developed itself, enabling the company to achieve depths of repair that are unmatched anywhere in the world. After maintenance, even heavily worn parts compare well with new ones – their condition can be described as “equal or better.” That means the MTU team always restores a component to its original condition and in some cases even enhances it. MTU Maintenance owes its success to this exceptional claim and to the performance of its MRO experts.

High-caliber initial and further training

In order to preserve its performance capability, MTU Maintenance has been training up young talent for 25 years. Some 470 young people have already completed a course of training in Hannover, with many of them subsequently joining the ranks of the maintenance team. In this way, MTU ensures that it has enough well-trained, experienced experts on board at all times, guaranteeing the same high standard of workmanship at all maintenance sites and, in the process, assuring the future success of the group’s maintenance business.

MTU Maintenance experts work around the clock to provide on-the-spot service in every region of the world.

The engine makers in
MAINTENANCE

MTU Maintenance quickly gets engines of all thrust and power categories up and running again.

Focusing on the future

MTU Maintenance is well-positioned to meet the requirements of tomorrow's markets. The OEM and MRO businesses are growing ever closer together. This means two things for MTU: firstly, that it must retain its independence as an MRO provider and, secondly, that it is becoming ever more influential in its position as an MRO partner in the OEM network. When they purchase new engines, more and more customers are simultaneously concluding agreements for maintenance and other services, such as on-site repairs and engine cleaning. In 2015, MTU passed a milestone that will be important for its future, becoming a partner in the MRO network for the PW1100G-JM engine, which powers the Airbus A320neo.

Ready for the geared turbofan

The team in Hannover is already in a phase of intense preparation for maintenance of the geared turbofan – even though the first shop visits are still a few years off. The first step in the preparation phase is to gear the administrative processes to the new engine. A new logistics hall then has to be built to reduce the complexity of material flows. Finally, the focus will fall on the actual work on the engines: mechanics have to be trained, the necessary tools procured, and workshop processes and test-bed equipment adapted to the new engine. The team has already completed its first heavy maintenance training session for the geared turbofan – after all, they want to be fully prepared when the first engines are delivered to their shop for maintenance. "MRO readiness" is the watchword.

TO OUR SHAREHOLDERS

LETTER TO OUR SHAREHOLDERS

Dear shareholders,

Our 2015 Annual Report is dedicated to our 8,334 employees – to the engine makers who contribute their passion and expertise to the company every day, thus laying the foundations for the continuing growth of MTU Aero Engines. The spirit of cooperation that unites all areas of the company – from management and R&D through to production and maintenance – is essential in this respect.

In 2015, the diverse teams that make up this united workforce shared one main focus of attention: the geared turbofan. Over 7,000 orders and options have already been placed for engines of the PurePower® PW1000G family, which is deployed in the aircraft of five different manufacturers. Preparing the market launch of the geared turbofan has called for an enormous effort on the part of all MTU's employees, and the pressure is far from over. I wish to take this opportunity to thank them all for their commitment – they remain our guarantee of success.

We enjoyed many successes in the past financial year. They led to their apogee in January 2016 when Lufthansa took delivery of the first A320neo aircraft, powered by PW1100G-JM engines. Its entry into service in the customer's fleet means that we can now begin to ramp up series production.

In addition, the geared turbofan engines passed a number of other key milestones in 2015.

In November, the PW1200G gave a convincing demonstration of its capabilities during the successful maiden flight of the Mitsubishi Regional Jet.

The Bombardier CSeries 300, which is powered by the PW1500G, took to the skies for the first time in February. The PW1500G is also the engine used in the CSeries 100, which the aviation authorities certified in December.

Another member of the PurePower® family is the PW800, which will be deployed in business jets manufactured by Gulfstream. Certified in February, the engine propelled the Gulfstream G500 on its maiden flight in May.

The PW1900G, which is destined for use in Embraer's new-generation E-Jet, also took to the air for the first time last year – on board a flying test bed.

All these events demonstrate that the PW1000G engines have reached, or are about to reach, series production. When they do, production output at MTU is set to rise substantially. Whereas we delivered around 2,000 engines and modules in 2015, output is predicted to rise to around 4,000 by 2020. That equates to a doubling of our production output in the space of five years, and makes it all the more important that we are fully prepared for production ramp-up of the geared turbofan programs. In order to manage this higher production volume, we expanded our plant in Poland, with the new annex there being officially opened in February 2015. At our Munich plant, preparations for final assembly of the A320neo engines are running at full pace. It is in Munich that we will carry out final assembly and testing of around a third of all PW1100G-JM engines. This will be a first for MTU: never before have we been responsible for the final assembly of a commercial engine in such high numbers.

We are also on track with development of the GE9X, which will power the Boeing 777X and secure MTU a very strong position in tomorrow's long-haul engine market. In 2015, we began manufacturing initial components for the development engine known as the first engine to test (FETT). The GE9X is scheduled to run for the first time in 2016.

Even though the new engines will not be due for maintenance for another few years, they are firmly in the sights of our MRO team. We have built up the expertise and the capacity in Hannover to perform maintenance on the A320neo engines. The Luftfahrt-Bundesamt, Germany's federal aviation authority, has already certified our "MRO readiness" for this engine type. The contractual side of things has also been settled. In June, we signed an agreement with Pratt & Whitney and JAEC regarding our joint collaboration in the provision of MRO services for the PW1100G-JM. This agreement makes MTU a partner in the aftermarket service network for this engine.

MTU Maintenance added a new service to its portfolio in 2015, offering tailor-made solutions for the management of assets and materials.

Our customers have a high regard for our MRO expertise. Last year, many of them – including JetBlue and AtlasGlobal – demonstrated their trust in us by renewing or expanding their contracts, and we also acquired several new customers, including VECA Airlines and Solaseed Air. We support all of these customers with the MRO experience we have gained through the more than 15,000 shop visits performed since the establishment of MTU Maintenance.

There is also news from the industrial gas turbines sector, where we took a share of around 13 percent in the development and production of GE's LM6000-PF+ turbine in 2015.

We passed a number of milestones in 2015 in the military engine sector, too. Sikorsky's CH-53K cargo helicopter successfully completed its maiden flight. It is equipped with the GE38 engine, in which MTU has an 18 percent share. The Embraer KC-390 transporter, which is fitted with V2500-Power engines, also completed its maiden flight. The Eurofighter celebrated another export success when Kuwait placed an order for 28 aircraft. This will ensure production of the EJ200 engine at MTU until 2021.

Milestones, maiden flights and new orders were all factors that enabled MTU to set new records in 2015. Our revenues reached the all-time high of €4.4 billion, and our earnings also surpassed previous records with an adjusted EBIT of €440 million and an adjusted net income of €307 million. This means we significantly surpassed the earnings targets for the year, which we had even revised upward in the summer.

Thanks to these good results, we are once again in a position to recompense our shareholders with an attractive dividend. At the Annual General Meeting on April 14, 2016, we intend to propose an increased dividend of €1.70 per share.

We will remain on our growth trajectory in 2016, with the MRO operating segment likely to post the strongest growth. We also expect commercial series sales as well as spare parts sales to increase, while the military engine business remains stable.

We intend to continue growing and being able to offer you, our shareholders, good returns over the long term. We would not be able to advance without your confidence in us and the trust of our business partners. On behalf of the entire Executive Board, I thank you for your continued support.

Sincerely yours

from left to right: Michael Schreyögg, Dr. Rainer Martens, Reiner Winkler

THE EXECUTIVE BOARD

REINER WINKLER

Chief Executive Officer, Director of Labor Relations

- Appointed term: to September 30, 2019
- Born 1961
- Degree in business administration
- From May 2005 to December 2013: member of the MTU Executive Board with responsibility for finance, human resources and IT (Director of Labor Relations)
- Member of MTU's executive management since 2001
- Former managing director finance and controlling at TEMIC Telefunken micro-electronic GmbH
- Previous management posts: Daimler-Benz AG, Siemens AG

DR. RAINER MARTENS

Member of the Executive Board, Chief Operating Officer

- Appointed term: to April 14, 2019
- Born 1961
- Doctorate and degree in mechanical engineering
- In present post since April 2006
- Has occupied various key positions in the engine and aircraft production industry over a period spanning more than 20 years
- Previous management posts: Airbus, MTU Aero Engines, CIM-Fabrik Hannover gGmbH

MICHAEL SCHREYÖGG

Member of the Executive Board, Chief Program Officer

- Appointed term: to June 30, 2021
- Born 1966
- Degree in mechanical engineering
- In present post since July 2013
- Former head of military programs at MTU Aero Engines
- Managed and coordinated numerous programs for many years at MTU Aero Engines, most recently for the TP400-D6 and MTR390 engines

THE MTU SHARE

STOCK MARKETS REACH NEW HEIGHTS

In 2015, the European Central Bank's monetary policy was the main factor shaping stock markets. The ECB's bond-buying program pumped fresh money into the markets, driving the German stock market to new highs. What is more, the weak euro and persistently low oil prices gave a substantial boost to corporate revenues, especially those of export-oriented companies. In 2014, the DAX exceeded the 10,000-point mark for the first time; 2015 saw another record, with the DAX topping 12,000 points. This momentum was lost in the second half of the year and the market became considerably more volatile. However, weakening economic growth in China, for instance, did not produce the strong negative effects that had been feared. The DAX closed the year on 10,743 points. Germany's MDAX, the index comprising 50 of the country's midcap companies, also set a new record in 2015, topping 20,000 points for the first time in February. The index rose by 23 % in the course of 2015, closing the year at 20,775 points.

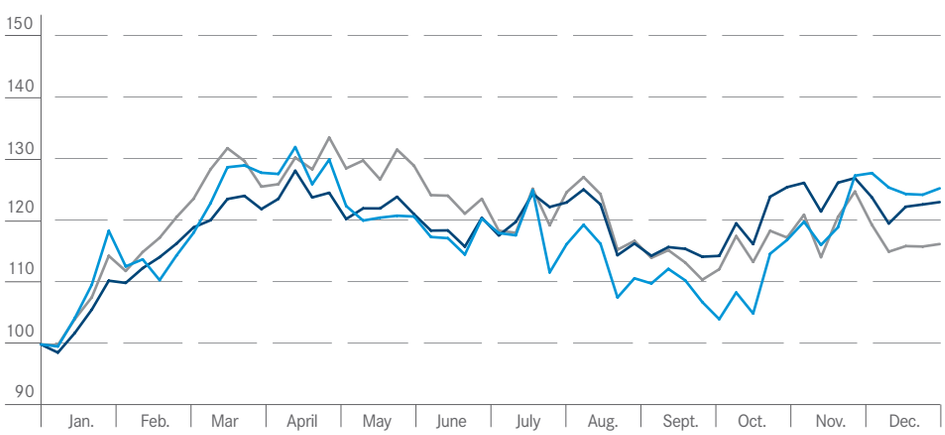
The Stoxx Europe TMI Aerospace & Defense Index, which includes the stocks of Airbus Group, Safran and Rolls-Royce, rose by 14 % in 2015.

MTU SHARES NOTCH UP EXCELLENT START TO THE FINANCIAL YEAR

25 %
share price gain in 2015

After entering the year on a low of € 71.86, the MTU share price recorded strong gains in the first half of 2015. Although this positive trend could not be sustained at the same level in the second half of the year, the share price still remained far higher than its start-of-the-year low. In the first quarter, the MTU share price benefited from the company's good figures, with the strong U.S. dollar, in particular, causing a substantial increase in revenues and earnings. In mid-April, the share price hit its high for the year of € 95.55. At mid-year, MTU raised its full-year forecast considerably. In the second half of the year, investor activity was more subdued due to the deteriorating conditions in the capital markets. That put paid to the upward trend in the MTU share price, which fell back to € 74.04 in October. MTU reaffirmed its full-year forecast on presentation of its interim financial statements for the first nine months. That revived investor confidence in the MTU share, driving up the price. The majority of analysts, too, issued buy or hold recommendations for the MTU share, which closed out 2015 at € 90.10 after a substantial gain of 25 %.

MTU SHARE PERFORMANCE IN 2015 COMPARED WITH STOCK MARKET INDICES (BASELINE DEC. 31, 2014 = 100)



MTU SHARE INDICATORS YEAR ON YEAR

		2015	2014
Highest quoted price[1]	€	95.55	72.42
Lowest quoted price[1]	€	71.86	60.94
Initial quoted price[1]	€	71.86	71.00
Year-end quoted price[1]	€	90.10	72.16
Annual performance[2]	%	+25	+1.1
Market capitalization at year end	€ million	4,685	3,752
Average daily trading volume	€ million in '000 shares	13 153	8 118
Earnings per share	€	4.26	3.84
Dividend per share	€	1.70[3]	1.45
Dividend payout rate[4]	%	44.5	35.0
Dividend yield[5]	%	1.9	2.0

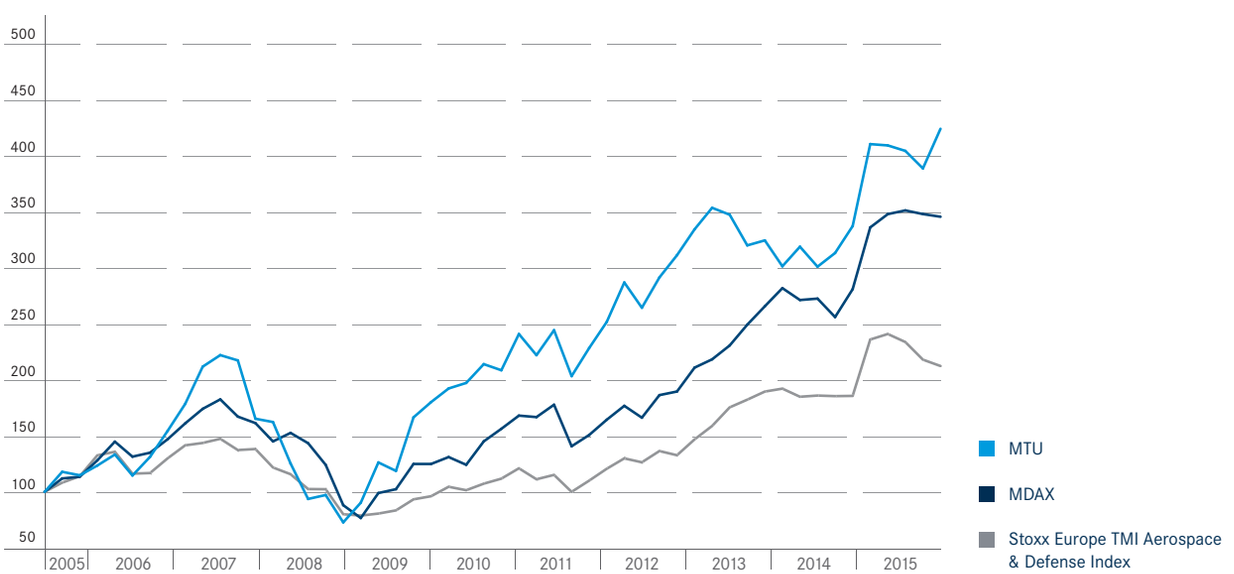
[1] Xetra closing price.
[2] Based on Xetra year-end share price (Dec. 31).
[3] Proposal.
[4] Dividend payout as a percentage of net profit available for distribution, according to German GAAP.
[5] Net dividend yield relative to Xetra year-end closing price (Dec. 31).

TEN-YEAR ANNIVERSARY OF MTU'S IPO

2015 was a special year for MTU, with the company's stock celebrating 10 years of trading. MTU shares were listed on the stock exchange for the first time on June 6, 2005 at an initial issue price of € 21.00. Since its debut, the MTU share price has risen by more than 300 %. On September 19, 2005, the MTU stock was included in the MDAX, Germany's mid-cap index.

Over
300 %
increase in value since IPO

MTU SHARE PERFORMANCE SINCE THE IPO COMPARED WITH STOCK MARKET INDICES (BASELINE JUNE 6, 2005 = 100)



DIVIDEND

Proposed dividend
€1.70

At the Annual General Meeting to be held on April 14, 2016, the Executive Board and the Supervisory Board intend to propose a dividend payment of € 1.70 per share for the financial year 2015. The dividend for 2014 was € 1.45. MTU thus continues to pursue its earnings-oriented dividend policy. Investors can expect to receive their dividend payment on April 15, 2016. The dividend payout ratio calculated as a percentage of MTU's net profit available for distribution is 44.5%.

TRADING VOLUME

In 2015, the average number of shares that changed hands each day through Xetra trading and the floor trading systems was 153,000, compared with 118,000 shares per day in 2014. On February 12, the day on which MTU's annual financial statements for 2014 were published, and on the day following that, the number of shares traded peaked at over 600,000 per day.

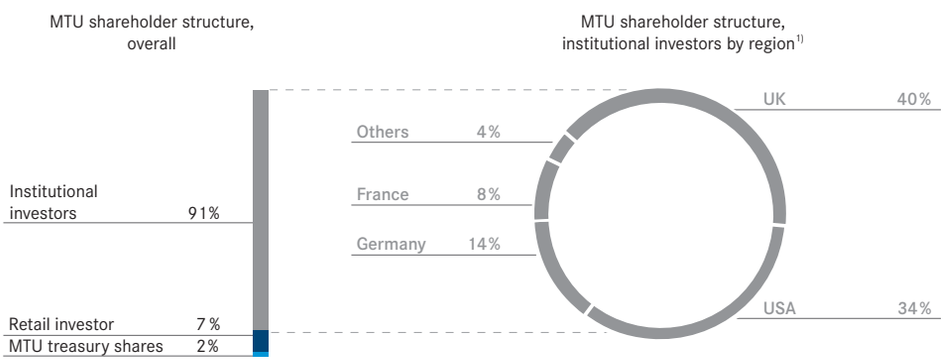
In monetary terms, the daily trading volume amounted to around € 13 million (2014: € 8 million), placing MTU 18th in the ranking of MDAX companies at the end of 2015 (2014: 22nd place). In terms of market capitalization, MTU ranked 11th, with outstanding shares valued at € 4,685 million (2014: 12th place).

SHAREHOLDER STRUCTURE

At December 31, 98.3% of MTU shares were in free float and around 1.7% were held by the company as treasury shares. Of the free-floating shares, some 91.8% were held by institutional investors and 6.5% by retail investors. The majority of institutional investors are based in the UK, the USA, Germany, and France. At December 31, 2015, the stock market authorities were in possession of notifications pursuant to Section 21 (1) of the German Securities Trading Act (WpHG) from the following institutional investors, each of whom holds more than 3% of the company's voting rights:

- Harris Associate L.P., Chicago, USA (5.23%) – notification dated November 23, 2015
- Deutsche Asset & Wealth Management Investment GmbH, Frankfurt, Germany (3.07%) – notification dated November 3, 2015
- Oddo Asset Management, Oddo et Cie, Paris, France (3.03%) – notification dated March 23, 2015
- Financière IDAT, Paris, France (3.03%) – notification dated October 7, 2015
- Capital Research and Management Company, The Capital Group Companies, Los Angeles, USA (9.94%) – notification dated May 22, 2015
- Sun Life, Toronto, Canada (5.77%) – notification dated December 6, 2013

SHAREHOLDER STRUCTURE



[1] Approximation based on top 50 shareholders.
As of December 31, 2015.

ANALYSTS

As of the end of December 2015, 26 analysts were reporting regularly on MTU. Buy recommendations were issued by 9 of these financial institutions, while 11 gave the MTU stock a hold rating, and 6 recommended selling (2014: 8 “buy,” 10 “hold,” 5 “sell”). The average upside target was € 90.

THE FOLLOWING FINANCIAL INSTITUTIONS REPORT REGULARLY ON MTU:

Alpha Value Research	Deutsche Bank	HSBC Trinkaus & Burkhardt	Nord LB
Bankhaus Lampe	DZ Bank	Independent Research GmbH	Oddo Securities Research
Berenberg Bank	Equinet Bank AG	Investec	Société Générale
Bernstein Research	Exane BNP Paribas	JPMorgan Cazenove	UBS
BoA Merrill Lynch	Goldman Sachs	KeplerCheuvreux	Warburg Research
Citi Global Markets Research	Haitong Research	Landesbank Baden-Württemberg	
Commerzbank	Hauck & Aufhäuser	Natixis	

INVESTOR RELATIONS ACTIVITIES

Around
40
investor events

With 23 roadshows in all the key financial centers of Europe and the USA, and a number of secondary financial markets, MTU continued to raise its market profile in 2015. The company also took part in 14 international investor conferences, including the Commerzbank German Investment Seminar in New York, Kepler Cheuvreux’s German Corporate Conference in Frankfurt and Deutsche Bank’s db Access German, Swiss and Austrian Conference in Berlin. There was also strong interest at the Paris Air Show, Europe’s largest, with 23 groups of investors visiting the company. In addition, numerous investors visited MTU at its headquarters in Munich. A key platform for a dialog with shareholders was the MTU Annual General Meeting held in Munich on April 15, 2015. It was attended by shareholders representing around 54 % of the share capital with voting rights (previous year: 20 %). Topics such as MTU’s technology strategy, the challenges faced in the evolving MRO market, accounting issues, and the company’s medium- to long-term growth prospects played a key role at its annual Investor and Analyst Day, which was held in London on November 25, 2015. Around 70 analysts and investors attended the event and engaged in lively discussions with the Executive Board on topics of interest. MTU once again received numerous awards in 2015. In the ranking of “Europe’s best CEOs, CFOs and Investor Relations” by institutional investors, sell-side analysts in the aerospace and defense sector put MTU in third place. MTU’s Annual Report garnered 8th place for MDAX companies in Bilanz magazine’s “Best Annual Reports” category.

The Investor Relations section of the MTU website (www.mtu.de) provides all relevant information. You are also welcome to contact the IR team by calling +49 (0)89 14 89-8473.

CORPORATE GOVERNANCE

CORPORATE GOVERNANCE

CORPORATE GOVERNANCE REPORT

MTU sets great store by responsible corporate management, which is why the company complies with all but one of the recommendations of the German Corporate Governance Code (GCGC). The corporate governance report pursuant to Section 3.10 of the GCGC qualifies as the corporate governance statement required under Section 289a of the German Commercial Code (HGB) and thus forms part of the combined management report of the MTU Group and MTU Aero Engines AG.

RESPONSIBLE CORPORATE MANAGEMENT

Corporate governance is a natural responsibility

The term “corporate governance” stands for the practice of administering and controlling a company in accordance with the principles of responsibility and long-term value creation. By its own understanding, MTU Aero Engines AG practices good corporate governance in every area of the company. That comprises mutual trust and efficient collaboration between the Executive Board and the Supervisory Board, respect for the shareholders’ interests, and open and transparent communication with all stakeholders. As a company with global operations, MTU acts in compliance with the relevant national and international standards. In Germany, where the company has its headquarters, these standards are laid down principally in the Stock Corporation Act (AktG), in the Co-Determination Act (MitbG) and in the GCGC. In the financial year just passed, the Executive Board and Supervisory Board closely studied the GCGC, the latest version of which was published on May 5, 2015.

As part of the corporate governance statement pursuant to Section 289a of the German Commercial Code (HGB), which constitutes the corporate governance report according to Section 3.10 of the GCGC, the Executive Board and Supervisory Board of MTU Aero Engines AG hereby make the following declaration of conformity:

Declaration of conformity with the German Corporate Governance Code by the Executive Board and Supervisory Board of MTU Aero Engines AG, pursuant to Section 161 of the German Stock Corporation Act (AktG)

The Executive Board and the Supervisory Board of MTU Aero Engines AG declare that, with the exception of the recommendation below, the Company has complied, and continues to comply, with all the recommendations of the Government Commission on the German Corporate Governance Code, as published in the amended version of May 5, 2015 by the Federal Ministry of Justice in the official section of the Federal Gazette.

Pursuant to Section 4.2.3. (2) sentence 8 of the German Corporate Governance Code, no subsequent changes may be made to the performance targets or benchmark figures used to determine management board compensation. The Supervisory Board resolved on December 8, 2015 to introduce a new system of compensation for the members of the Executive Board. The new system comes into force on January 1, 2016. It would cause the Company considerable administrative burden to operate the new compensation system in parallel with the outstanding tranches of long-term compensation granted under the previous system. The Supervisory Board has therefore decided to perform early settlement of such tranches of the old compensation system on December 31, 2015; they must be invested in shares of the Company and held for a minimum of two years.

Munich, December 2015

For the Executive Board

Reiner Winkler
Chairman

For the Supervisory Board

Klaus Eberhardt
Chairman

THE PRACTICE OF CORPORATE MANAGEMENT

Accepting responsibility – not only for our products and processes, employees, customers, and partners, but in equal measure for the environment and society as a whole – forms an integral part of MTU's corporate culture. MTU is committed to sustainable development, and its contribution in this area goes above and beyond the minimum legal requirements. The focus of this social commitment falls on environmental protection, human resources policy, and community outreach projects in the neighborhood of MTU sites. These commitments are publicly documented on the MTU website at www.mtu.de under Company > Corporate Responsibility.

→ more information available online under Company > Corporate Responsibility

The company has formulated a code of conduct, which constitutes a binding standard to be observed by all employees. The code of conduct can be downloaded from the company's website at www.mtu.de under Company > Compliance > Code of Conduct.

→ more information available online under Company > Compliance > Code of Conduct

MTU attaches great importance to maintaining an open, ongoing dialog with its target groups. The company communicates with these groups via many channels, including the intranet and internet, company brochures, employee and customer magazines, as well as in person at events. The goal of this communication is to generate broad public acceptance.

MTU insists on the finest quality for its products and services. Compliance with quality standards is verified by government agencies and through internal and external audits. The quality standards are published on the MTU website at www.mtu.de under Engines > Quality.

→ more information available online under Engines > Quality

TRUST-BASED COOPERATION AMONG GOVERNING BODIES

MTU is a stock corporation organized under German law. Its governing bodies are the Executive Board, the Supervisory Board and the Annual General Meeting. The close cooperation between the Executive Board and the Supervisory Board is based on trust, and they share information with each other in a reliable and regular manner. The Annual General Meeting, in particular, offers shareholders the opportunity to present questions to MTU executives and to exercise their voting rights.

WORKING PROCEDURES OF THE EXECUTIVE BOARD

Executive Board works as a team

In managing MTU, the Executive Board's goal is to create, on its own responsibility and in the company's interest, sustainable added value, taking into account the interests of its shareholders, employees and other stakeholders. The Executive Board works as a team, with its members bearing joint responsibility. The members of the Executive Board regularly discuss important measures and events within their respective remits. Their qualifications and professional experience differ and complement each other. Since April 2015, the company's Executive Board has comprised three members.

The Supervisory Board is briefed by the Executive Board in a regular, timely and comprehensive manner on the situation of the company, in particular on strategy, the status of planning, the achievement of targets, the company's risk situation and its risk management activities. The Executive Board coordinates decisions of a strategic nature with the Supervisory Board, ensures that such decisions are implemented, and discusses the progress made. Once a month, the Supervisory Board receives written reports on the company's earnings, financial situation, and net asset position. Any deviations from the planned operational performance are explained in detail to the Supervisory Board. Furthermore, the chair of the Supervisory Board is briefed regularly and in person on the company's current situation, significant business transactions and important pending decisions.

The Executive Board also receives regular reports on compliance, i.e. on the measures taken to comply with laws and regulations as well as with company guidelines.

Important Executive Board decisions, in particular those concerning the budget, require the approval of the Supervisory Board. The Supervisory Board provides information on these matters in its report on page 60 et seq. The Executive Board's rules of procedure, along with the list of transactions by MTU Aero Engines AG requiring Supervisory Board approval, can be viewed on the company website at www.mtu.de under Investor Relations > Corporate Governance.

→ more information available online under Corporate Governance

WORKING PROCEDURES OF THE SUPERVISORY BOARD

In line with statutory requirements, the Supervisory Board comprises six shareholder representatives and six employee representatives. It appoints the Executive Board, oversees the latter's work and provides advisory support. Decisions of consequence for the company require the approval of the Supervisory Board. All Supervisory Board members are qualified for these tasks and properly perform their mandated duties. In compliance with the GCGC, only one former member of the Executive Board of MTU Aero Engines AG, namely Prof. Dr.-Ing. Klaus Steffens, sits on the Supervisory Board; the GCGC recommends no more than two. The Supervisory Board is entrusted with gauging the independence of its own members. The majority of the members of the Supervisory Board may be regarded as independent, thus ensuring that the Executive Board receives independent advice and monitoring.

→ further information on page 62

The Supervisory Board's rules of procedure make provision for its members to form committees. MTU's Supervisory Board has four committees, details of which can be found on page 62.

The Supervisory Board's rules of procedure contain binding provisions for dealing with conflicts of interest. Such conflicts are to be disclosed and, where appropriate, may result in termination of the member's mandate. In addition, the Supervisory Board must explicitly state such potential conflicts of interest in the nomination proposals it makes to the Annual General Meeting. In 2015, no consulting agreements, contracts for services or similar contractual agreements existed between the members of the Supervisory Board and MTU Aero Engines AG or any of its subsidiaries. Neither in this, nor any other area did any conflicts of interest arise that required disclosure.

In the financial year 2015, directors' and officers' liability insurance was in effect for the MTU Executive Board and Supervisory Board members. The cover includes a deductible amounting to 10% of the loss incurred, up to a maximum of 1.5 times the board member's annual fixed compensation.

Compensation for the members of the Executive Board and Supervisory Board is established in accordance with clear, transparent criteria, which are described in the management compensation report on page 38 et seq.

→ further information on page 38 et seq.

DIVERSITY

As the diversity of MTU's workforce is a decisive factor in the company's success, it is a topic to which MTU attaches great importance. In particular, MTU's human resources policy focuses on ensuring that the criteria of internationality and the fair representation of women are respected.

International orientation

Diversity also has an important role to play in the Supervisory Board, which has set itself the following goals as regards its future composition. As a company with global operations, MTU has a keen interest in ensuring that the members of its corporate bodies have an international

background, which is why at least one member of the Supervisory Board should meet this criterion. The MTU Supervisory Board already includes members who trained in other countries or have spent substantial portions of their careers abroad, and the company intends to ensure that the members of the Supervisory Board continue to contribute their international experience going forward. The Supervisory Board has two female members, Babette Fröhlich and Prof. Dr. Marion A. Weissenberger-Eibl, so that both the employees and the shareholders have women representing their interests on the board. Following amendments to both the German Stock Corporation Act and the GCGC, the Supervisory Boards of listed companies subject to the Co-Determination Act must now comprise at least 30% women and at least 30% men. In order to achieve this quota, as from January 1, 2016, the Supervisory Board will pay heed to the new requirement in all decisions regarding individual or multiple appointments of members.

Another new requirement is that the supervisory boards of companies that are listed or subject to the Co-Determination Act must set target quotas for women on their supervisory and executive boards. In addition, the Executive Board is obliged to set a target quota for women in the two echelons of management directly below the Executive Board. Given the management and supervisory-board structure of the MTU companies in Germany – namely a sole managing director and three-member supervisory boards on which the interests of shareholders and employees must be equally represented – the company has determined a target women's quota of 0% for the period until June 2017. At management level – which comprises tier-1 (OFK), tier-2 (FK) and tier-3 (EFK) managers – the target women's quota for the period until June 2017 has been set at 11% for MTU's sites in Germany. MTU is thus continuing to pursue its goal of raising the number of both women employees and women managers. Every area of the company is called upon to work actively toward achieving this corporate objective. The company has long-established measures in place to increase the share of women in management and is continually honing and enhancing these. They include, for instance, career counseling for women with potential as well as various mentoring programs. Other measures address both men and women and are designed to improve work-life balance. They include part-time management posts, job sharing, and teleworking.

Promoting women in management

The Supervisory Board also places value on fostering diversity in appointments to the Executive Board. The members of the latter have diverse qualifications and work experience, which contribute to their work on the board. In line with the amendments to the German Stock Corporation Act and the German Corporate Governance Code, the Supervisory Board resolved on a target quota for women members on the Executive Board for the period until June 30, 2017: as the current board members' contracts run until 2019 or 2021, as the case may be, the target quota was set at 0%.

The Supervisory Board's rules of procedure already contain an age-limit provision for Supervisory Board members, in accordance with which members must relinquish their seats after the Annual General Meeting that follows their 72nd birthday. Moreover, a general limit of four terms of office has been set for serving on the Supervisory Board.

The Supervisory Board takes the above-mentioned goals into account when submitting nomination proposals to the Annual General Meeting. The same applies to the Nomination Committee, which is responsible for preparing the vote of the Supervisory Board. Since the main criterion for any nomination proposal is still the company's interest, the Supervisory Board shall propose the candidates that best meet the requirements.

FINANCIAL REPORTING

MTU prepares its consolidated financial statements and its interim reports in accordance with the International Financial Reporting Standards (IFRS) on the responsibility of the Executive Board. The financial statements of the parent company are compiled in accordance with the provisions of the German Commercial Code (HGB). An internal system of controls coupled with the application of uniform principles of accounting ensures that the earnings, financial situation, net asset position and cash flows of all group companies are accurately presented. In addition, MTU has a differentiated system in place to identify and monitor business and financial risks.

RISK MANAGEMENT AND CONTROL SYSTEM

→ further information on page 121 et seq.

The Executive Board is responsible for ensuring that an appropriate risk management and control system is in place. This system is described on page 121 et seq. The Executive Board reports to the Supervisory Board in a regular and timely manner on existing opportunities and risks, and how they are developing.

The Audit Committee of the Supervisory Board deliberates on risk management. In accordance with Section 107 (3) of the German Stock Corporation Act (AktG), as amended by the German Accounting Law Modernization Act (BilMoG), the Audit Committee is explicitly responsible for monitoring the effectiveness of the risk management system, the internal control and auditing systems, the financial reporting process and the audit of the financial statements, and, in particular, for assessing the auditors' independence.

COMPLIANCE

The corporate culture at MTU sets great store by the values of trust and mutual respect. Nevertheless, the risk can never be entirely ruled out that unauthorized behavior of isolated individuals might lead to contravention of the law. MTU does everything in its power to minimize this risk as far as possible, and is committed to preventing acts of misconduct, such as corruption, in the first place through regular targeted training measures, and to uncovering and pursuing any such acts that are committed.

The observance of legal and ethical rules and principles plays a central role in this respect. These and other aspects of compliance, such as the responsible handling of insider information, are documented in a code of conduct drawn up and introduced jointly by the MTU Executive Board and the Group Works Council. This code of conduct embodies MTU's corporate culture and reflects its resolve to comply strictly with the stipulations of the relevant laws and internal regulations. It is a company-wide guide to ethical business relations.

Compliance is a management duty

Compliance is an important aspect of all management functions at MTU. For example, all managers must verify that each and every member of their staff has read and understood the code of conduct and is abiding by its rules. Reinforcement is provided by internal training courses.

MTU has set up a Compliance Board, which holds regular meetings once a quarter and reports directly to the Executive Board. Its duties include identifying and evaluating legal and reputational risks. Where necessary, it recommends additional compliance rules to the Executive Board. Above and beyond this, the Compliance Board coordinates the measures taken in specific cases of non-compliance. In agreement with the Works Council, the company has set up an internal compliance office that staff, customers, and suppliers may contact if they suspect unethical conduct.

Status reports on the activities of the Compliance Board are presented at meetings of the Supervisory Board's Audit Committee. The Audit Committee then informs the plenary meetings of the Supervisory Board via a summary of its own meetings.

The Supervisory Board's Audit Committee oversees the Executive Board's compliance activities. This includes proposing new rules for incorporation in the compliance guidelines and monitoring the measures and training programs implemented by the Compliance Board.

A FULL INFORMATION SERVICE

In keeping with the principles of good corporate governance, MTU issues a regular flow of comprehensive, timely information on the company's activities and any major developments in its business situation to shareholders, shareholder associations, financial analysts, the media, and other interested parties. MTU strives to ensure that all stakeholders are kept informed in equal measure. The company publishes a full range of information on its website at www.mtu.de. It publishes quarterly reports on its business activities, and any new developments likely to have a significant impact on the MTU share price are disclosed in the form of ad hoc releases in accordance with statutory requirements.

→ more information available online

Information is also posted on the MTU website whenever members of the Executive Board or Supervisory Board or related persons have purchased or sold MTU shares or share-based derivatives. Section 15a of the German Securities Trading Act (WpHG) stipulates that this group of persons must disclose such transactions if and when their value reaches or exceeds €5,000 within a single calendar year.

MANAGEMENT COMPENSATION REPORT

The management compensation report describes the principles applied when establishing the compensation to be awarded to members of the Executive Board and Supervisory Board of MTU Aero Engines AG, and states the amount and composition of that compensation. The management compensation report follows the provisions of Section 314 (1) no. 6 of the German Commercial Code (HGB), German Accounting Standard DRS 17 "Reporting on the remuneration of members of governing bodies," the recommendations of the German Corporate Governance Code (GCGC), and the International Financial Reporting Standards (IFRS).

At the proposal of the Personnel Committee, the Supervisory Board decides on a system of compensation for the members of the Executive Board, including the main components of their contracts, and reviews this system at regular intervals.

Variable compensation
includes long-term components

The present compensation system was developed with the support of external consultants and put in place in 2010. It focuses on linking Executive Board compensation to a style of corporate management and development that has a sustainable and long-term orientation. This entails not only an appropriate mix of fixed and variable compensation components but also the inclusion of long-term components in the variable compensation. Large parts of the variable compensation are deferred, or may not be paid out at all. The intention is to align the interests of the members of the Executive Board more closely with those of the company by increasing their participation in the company in the long term. The changes to the system of Executive Board compensation to be implemented as of the financial year 2016, according to a resolution passed by the Supervisory Board in 2015, similarly reflect this intention (see section "Modified compensation system for members of the Executive Board as of the financial year 2016").

Members of the Executive Board did not receive any compensation for mandates on boards of MTU group companies, nor were they granted any loan facilities by the company.

PRINCIPLES OF THE COMPENSATION SYSTEM FOR MEMBERS OF THE EXECUTIVE BOARD

At the proposal of the Personnel Committee, the Supervisory Board determines both the total compensation to be awarded to members of the Executive Board (target direct compensation) and the composition of this compensation. The target direct compensation is made up of non-performance-related components (40 % of the total) and performance-related components (60 %). The latter comprise the Annual Performance Bonus (APB) and a share-based component, each of which makes up approximately 30 % of the target direct compensation.

NON-PERFORMANCE-RELATED COMPONENTS

The non-performance-related components consist of the basic salary and other benefits that are paid on a monthly basis. "Other benefits" comprise taxable reimbursements of expenses and the noncash benefit deriving from payments in kind such as insurance premiums and the use of a company car for business and private purposes, including any taxes on such benefits paid by the company.

PERFORMANCE-RELATED COMPONENTS

Performance-related components without long-term incentive effect

Half of the Annual Performance Bonus (APB) is granted as a short-term compensation component.

Individual performance taken into account

The actual amount depends on the results achieved as regards two company performance targets and on the board member's individual performance. The company performance targets are based on the key performance indicators at group level – "adjusted EBIT" and "free cash flow" – which are given equal weighting. The targets to be achieved to ensure payment of 100 % of the APB are set annually in advance by the Supervisory Board, taking the annual planning figures into account. In addition, an entry threshold is set for each performance target at a figure 30 % below the planned level; this corresponds to an APB bonus entitlement of 50 %. Members of the Executive Board who do not reach this entry threshold are not entitled to a short-term compensation component. Similarly, the maximum APB bonus entitlement of 180 % is fixed at a figure 15 % above the targets set for each of the two performance indicators. Between the entry threshold, the 100 % level, and the maximum goal achievement level, the APB bonus entitlement is interpolated using a straight-line method. The Supervisory Board takes each Executive Board member's individual performance into account by decreasing or increasing the APB bonus entitlement by up to 20 % (by means of the so-called "discretionary factor").

The method used to adapt and disburse compensation components that have been withheld remains unchanged until final payment, even in cases where a member of the Executive Board leaves the company prior to the last payment date.

Performance-related components with a long-term incentive effect

Performance-related compensation with long-term incentive effect comprises the deferred APB and a share-based component.

Deferred Annual Performance Bonus (APB)

The remaining 50 % of the APB is deferred and paid out in two equal portions over the following two financial years. The ultimate amount of the deferred APB depends on the goal achievement level attained in respect of the two key performance indicators at group level, and on the discretionary factor applied in the respective financial years. In the case of Dr. Stefan Weingartner, his deferred APB entitlement will be based on a goal achievement level of 100 %, rather than on his actual performance in the respective financial years. Furthermore, a discretionary factor of one (1) will be applied both in his case and in that of Egon Behle.

Share-based component

The long-term compensation awarded to members of the MTU Executive Board consists of a share-based payment granted in annual tranches by the Supervisory Board. This share-based component consists of the Performance Share Plan (PSP), which is linked to the development of the MTU share relative to the MDAX index, and the Share Matching Plan (SMP), in which the members of the Executive Board can opt to invest their payment from the PSP in MTU shares at the end of the assessment period for each tranche.

Performance Share Plan (PSP)

On the dates fixed for these tranches, the provisional number of performance shares is calculated on the basis of the average price of the MTU Aero Engines AG share (Xetra) over the last 30 trading days prior to commencement of the assessment period in accordance with each Executive Board member's long-term target compensation. At the end of the respective four-year assessment period, these performance shares entitle the recipients to a payment either in cash or in shares, as the Supervisory Board sees fit. Since 2010, the tranches of shares have been granted with effect from

January 1 of each financial year. By way of exception, Michael Schreyögg was granted the fourth tranche of the PSP on a pro rata basis on July 1, 2013.

The actual number of performance shares is determined after expiry of the respective four-year assessment period for each tranche of granted shares. This amount reflects the performance of the MTU share compared with the other shares in the MDAX index, based on total shareholder return (TSR), which is determined on the basis of changes in the share price and all dividends paid during the assessment period. The TSR of the MTU share relative to that of all other MDAX-listed shares at the end of the assessment period is the main factor determining the number of shares allocated. Depending on this TSR ranking, the amount of the share-based payment ranges between 0% and 150%, with 100% being the value for an average ranking. A TSR ranking of 45 represents the entry threshold, which entitles the beneficiary to a payment corresponding to 25% of the value of the granted performance shares. A TSR ranking of 5 or better is required to obtain the maximum payment of 150% of the value of the granted performance shares. Between the entry threshold, the average TSR ranking of 25, and the maximum TSR ranking of 5 or better, the number of performance shares on which the share-based payment is based is interpolated using a straight-line method.

The Supervisory Board can impose limits on amount disbursed

The amount disbursed equals the actual number of performance shares multiplied by the average MTU Aero Engines AG share price (Xetra) over the last 30 trading days prior to the end of the assessment period. The maximum payment for each tranche of granted shares is limited to three times the individual board member's long-term target compensation. The Supervisory Board has the right to impose further limits if any extraordinary events should occur.

Share Matching Plan (SMP)

The members of the Executive Board are entitled to use the post-tax benefits payable under each tranche of the Performance Share Plan (PSP) to purchase MTU Aero Engines AG shares, provided the Supervisory Board resolves to offer the Share Matching Plan in the year in question. At the end of the three-year vesting period, these shares are matched on the basis of the Share Matching Plan (SMP), with each Executive Board member being awarded one additional free share for every three MTU shares acquired in this way. The total value of the free shares allocated at the end of the vesting period is limited to three times the purchase price of the shares originally acquired through the PSP. Alternatively, the Supervisory Board may decide to offer a cash settlement equivalent to the value of the matching shares.

MODIFIED COMPENSATION SYSTEM FOR MEMBERS OF THE EXECUTIVE BOARD AS OF THE FINANCIAL YEAR 2016

In order to link the compensation system for the Executive Board more closely with the company's performance, given that until now it included a relatively small proportion of direct share options, and in view of the requirements laid down in the latest version of the GCGC, the Supervisory Board passed a resolution at its meeting on December 8, 2015, to modify the compensation system for members of the Executive Board as of the financial year 2016.

At the proposal of the Personnel Committee, the Supervisory Board determines the total compensation to be awarded to members of the Executive Board (also referred to as target direct compensation) and the composition of this compensation. Roughly 40% of the target direct compensation is non-performance-related while the rest is performance-related.

NON-PERFORMANCE-RELATED COMPONENTS

The non-performance-related components consist of the basic salary and other benefits that are paid on a monthly basis. “Other benefits” comprise tax-able reimbursements of expenses and the noncash benefit deriving from payments in kind such as insurance premiums and the use of a company car for business and private purposes, including any taxes on such benefits paid by the company.

PERFORMANCE-RELATED COMPONENTS

As of 2016, the performance-related components will consist of the Annual Performance Bonus (APB) and the Restricted Stock Plan (RSP).

Performance-related component without long-term incentive effect

The Annual Performance Bonus (APB) is granted as a performance-related compensation component without long-term incentive effect. Ideally it should make up roughly 40 % of the variable portion of the target direct compensation. As in the past, the amount of this bonus will depend on the results achieved as regards two company performance targets and on the board member’s individual performance. The company performance targets are based on the key performance indicators at group level – “adjusted EBIT” and “free cash flow” – which are given equal weighting. The targets to be achieved to ensure payment of 100 % of the APB are set annually in advance by the Supervisory Board, taking the annual planning figures into account. In addition, an entry threshold is set at a goal achievement level of 70 %, based on the arithmetical mean of the levels achieved in respect of each of the two performance targets, which entitles the beneficiary to receive 50 % of the APB. Members of the Executive Board who do not reach this entry threshold are not entitled to this short-term compensation component. At the other end of the scale, the goal achievement level required to receive the maximum APB payment of 180 % is fixed at 115 %, based on the arithmetical mean as above. Between the entry threshold, 100 % goal achievement, and the maximum bonus, the APB payment is interpolated using a straight-line method. The Supervisory Board takes each Executive Board member’s individual performance into account by decreasing or increasing the APB bonus entitlement by up to 20 % (by means of the so-called “discretionary factor”). As of 2016, and contrary to the system previously in place, beneficiaries will receive the APB in a single payment as a short-term compensation component.

Performance-related component with long-term incentive effect

The Restricted Stock Plan (RSP) replaces the previous combination of deferred APB, Performance Share Plan (PSP), and Share Matching Plan (SMP) as the performance-related component with long-term incentive effect. The RSP will be awarded initially in the form of a cash settlement, subject to income tax, the full net amount of which the Executive Board member is then obliged to reinvest in MTU shares. These shares must be held for a vesting period of four years.

Four-year
vesting period
for shares

The value of these RSP shares at the grant date represents around 60 % of the total variable portion of the direct target compensation, which is weighted according to a multi-year goal achievement level. The latter is calculated by taking the arithmetical mean of the APB bonus entitlements established for the three financial years preceding the year in which the RSP shares were granted. The multi-year goal achievement level required to receive the maximum number of RSP shares is capped at 180 %. In the case of a new Executive Board member who has not been in office long enough to enable a multi-year goal achievement level to be established at the RSP grant date, a bonus entitlement of 100 % is assumed for the missing years.

In the interests of an orderly transition to the new system of long-term compensation applicable as of the financial year 2016, it has furthermore been agreed that active Executive Board members will receive a one-time cash settlement in lieu of the not-yet-exercisable performance shares previously granted under the PSP and SMP, with the obligation of converting this payment into MTU shares subject to disposal restrictions. The amount of the cash settlement corresponds to the fair value of the granted PSP shares at December 31, 2015, and the exercised share options for each of the relevant PSP tranches under the terms of the SMP. The entire net payment (after deduction of income taxes) must be immediately reinvested by the beneficiaries in vested MTU shares, which must be held for a further two years. This transitional arrangement, concluded in 2015, should be taken into account when evaluating the following statements concerning the compensation of individual members of the Executive Board.

COMPENSATION OF INDIVIDUAL MEMBERS OF THE EXECUTIVE BOARD

The members of the Executive Board were awarded the following total compensation – as defined in Section 314 (1) no. 6a of the German Commercial Code (HGB) – for their activities on the board in the financial years 2015 and 2014:

COMPENSATION OF INDIVIDUAL MEMBERS OF THE EXECUTIVE BOARD

Executive Board member	**Reiner Winkler** Chief Executive Officer		**Dr. Rainer Martens** Chief Operating Officer	
in €	**2015**	2014	**2015**	2014
Non-performance-related components				
Basic salary	720,000	720,000	500,004	477,000
Other benefits[1]	23,574	22,334	15,723	14,585
Performance-related components				
without long-term incentive effect (non-deferred)[2]	460,647	402,759	319,894	266,828
with long-term incentive effect				
Deferred APB 2012		209,987		188,988
Deferred APB 2013[3]	162,321	141,923	146,089	127,730
Deferred APB 2014[3]	343,574		227,617	
Share-based compensation[4]	445,295	456,166	309,263	302,241
Other[5]	231,296		155,192	
Total compensation	**2,386,707**	**1,953,169**	**1,673,782**	**1,377,372**

[1] Other benefits include charges to taxable income covering personal use of company vehicles amounting to € 65,098 (2014: € 81,120) and premiums for accident insurance policies taken out on behalf of members of the Executive Board amounting to € 5,478 (2014: € 5,173).

[2] Non-deferred APB for the financial years 2015 and 2014; to be paid out in 2016 immediately after adoption of the annual financial statements for 2015.

[3] To be paid out in 2016 immediately after the adoption of the annual financial statements for 2015.

[4] Fair value at the grant date.

Michael Schreyögg Chief Program Officer		**Dr. Stefan Weingartner[6] (former Executive Board Member)** President MTU Maintenance until March 31, 2015		**Egon Behle (former Executive Board Member)** Member of the Executive Board and Chief Executive Officer until December 31, 2013		**Total compensation**	
2015	2014	**2015**	2014	**2015**	2014	**2015**	2014
500,004	418,500	119,250	477,000			1,839,258	2,092,500
24,952	23,209	6,326	26,165			70,575	86,293
319,894	234,104	44,719	266,828			1,145,154	1,170,519
			188,988		314,978		902,941
55,128	48,200	85,627	127,730	243,482	212,884	692,647	658,467
199,702		133,414				904,307	
309,263	265,177	62,904	302,241			1,126,725	1,325,825
154,082						540,570	
1,563,025	**989,190**	**452,240**	**1,388,952**	**243,482**	**527,862**	**6,319,236**	**6,236,545**

[5] Differences between cash settlement value and cumulated fair value at the grant date of the redeemed share-based payment benefits. In view of the transition to the new system of long-term compensation as of the financial year 2016, performance shares (tranches 2013-2015) and entitlements granted under the Share Matching Plan (2010 - 2015) are converted in the subsequent year into shares subject to disposal restrictions (2-year vesting period).

[6] Dr. Stefan Weingartner ceased to be a member of the Executive Board with effect of March 31, 2015, on which date he received the following one-time payments: APB € 208,688, basic salary € 278,250, other benefits € 16,625, long-term compensation € 208,688.
The deferred portions of the APB granted in in respect of 2014 and 2013 will be paid out in 2016 and 2017 based on a goal achievement level of 100% (for 2015 and 2016) and a discretionary factor of one (1).

RECOMMENDATIONS OF THE GERMAN CORPORATE GOVERNANCE CODE (GCGC)

The GCGC determines the compensation components to be disclosed individually for each Executive Board member and recommends the use of the model tables appended to the Code for this purpose. Accordingly, the following table shows the benefits granted for the financial years 2015 and 2014 as well as the minimum and maximum amounts applicable for the financial year 2015.

BENEFITS GRANTED

Executive Board member	**Reiner Winkler** Chief Executive Officer			
Individual items in €	**2015**[2]	2015 (Min)	2015 (Max)	2014[2]
Fixed compensation	720,000	720,000	720,000	720,000
Other benefits[1]	23,574	23,574	23,574	22,334
Subtotal	**743,574**	**743,574**	**743,574**	**742,334**
One-year variable compensation	270,000	0	583,200	270,000
Multi-year variable compensation	715,295	0	3,730,617	726,166
Deferred APB 1 (relating to 2015 and 2014)	135,000	0	629,856	135,000
Deferred APB 2 (relating to 2015 and 2014)	135,000	0	629,856	135,000
Share-based compensation				
Performance Share Plan (assessment period: 4 years)	379,752	0	1,620,000	389,658
Share Matching Plan (option period: 52 months)	65,543	0	850,905	66,508
Total fixed and variable compensation	**1,728,869**	**743,574**	**5,057,391**	**1,738,500**
Service cost in accordance with IAS 19	211,292	211,292	211,292	186,810
Total compensation (GCGC)	**1,940,161**	**954,866**	**5,268,683**	**1,925,310**

[1] Other benefits include charges to taxable income covering personal use of company vehicles amounting to € 65,098 (2014: € 81,120) and premiums for accident insurance policies taken out on behalf of members of the Executive Board amounting to € 5,487 (2014: € 5,173).

[2] Based on a goal achievement level of 100%.

Dr. Rainer Martens Chief Operating Officer				**Michael Schreyögg** Chief Program Officer				**former Executive Board Member** **Dr. Stefan Weingartner** President MTU Maintenance until March 31, 2015			
2015[2]	2015 (Min)	2015 (Max)	2014[2]	**2015**[2]	2015 (Min)	2015 (Max)	2014[2]	**2015**[2]	2015 (Min)	2015 (Max)	2014[2]
500,004	500,004	500,004	477,000	500,004	500,004	500,004	418,500	119,250	119,250	119,250	477,000
15,723	15,723	15,723	14,585	24,952	24,952	24,952	23,209	6,326	6,326	6,326	26,165
515,727	**515,727**	**515,727**	**491,585**	**524,956**	**524,956**	**524,956**	**441,709**	**125,576**	**125,576**	**125,576**	**503,165**
187,500	0	405,000	178,875	187,500	0	405,000	156,938	44,719	0	44,719	178,875
496,763	0	2,590,706	481,117	496,763	0	2,590,706	422,115	107,622	0	313,031	481,117
93,750	0	437,400	89,438	93,750	0	437,400	78,469	22,359	0	22,359	89,438
93,750	0	437,400	89,438	93,750	0	437,400	78,469	22,359	0	22,359	89,438
263,743	0	1,125,000	258,175	263,743	0	1,125,000	226,515	62,904	0	268,313	258,175
45,520	0	590,906	44,066	45,520	0	590,906	38,662				44,066
1,199,990	**515,727**	**3,511,433**	**1,151,577**	**1,209,219**	**524,956**	**3,520,662**	**1,020,762**	**277,917**	**125,576**	**483,326**	**1,163,157**
178,046	178,046	178,046	159,912	82,120	82,120	82,120	67,089	210,815	210,815	210,815	133,120
1,378,036	**693,773**	**3,689,479**	**1,311,489**	**1,291,339**	**607,076**	**3,602,782**	**1,087,851**	**488,732**	**336,391**	**694,141**	**1,296,277**

The table below, compiled in accordance with the GCGC recommendations, shows the allocation of fixed and variable compensation for the financial years 2015 and 2014 as well as the service cost (benefit expense) for the pension plan:

ALLOCATION OF COMPENSATION AND SERVICE COST

Executive Board member	**Reiner Winkler** Chief Executive Officer		**Dr. Rainer Martens** Chief Operating Officer	
Individual items in €	**2015**	2014	**2015**	2014
Fixed compensation	720,000	720,000	500,004	477,000
Other benefits[1]	23,574	22,334	15,723	14,585
Subtotal	**743,574**	**742,334**	**515,727**	**491,585**
One-year variable compensation	460,647	402,759	319,894	266,828
Multi-year variable compensation	898,693	995,706	727,239	896,122
Deferred APB 1 (relating to 2014 and 2013)	343,574	141,923	227,617	127,730
Deferred APB 2 (relating to 2013 and 2012)	162,321	209,987	146,089	188,988
Share-based compensation				
Performance Share Plan 2010–2013[2]		643,796		579,404
Performance Share Plan 2011–2014[3]	392,798		353,533	
Total fixed and variable compensation	**2,102,914**	**2,140,799**	**1,562,860**	**1,654,535**
Service cost in accordance with IAS 19	211,292	186,810	178,046	159,912
Total compensation (GCGC)	**2,314,206**	**2,327,609**	**1,740,906**	**1,814,447**

[1] Other benefits include charges to taxable income covering personal use of company vehicles amounting to € 65,098 (2014: € 81,120) and premiums for accident insurance policies taken out on behalf of members of the Executive Board amounting to € 5,478 (2014: € 5,173).

[2] In the financial year 2014, Egon Behle was awarded a cash settlement corresponding to the total value of all performance shares granted in 2011 – 2013.

	Michael Schreyögg Chief Program Officer		**Dr. Stefan Weingartner**[4] **(former Executive Board Member)** President MTU Maintenance until March 31, 2015		**Egon Behle (former Executive Board Member)** Member of the Executive Board and Chief Executive Officer until December 31, 2013	
	2015	2014	**2015**	2014	**2015**	2014
	500,004	418,500	119,250	477,000		
	24,952	23,209	6,326	26,165		
	524,956	**441,709**	**125,576**	**503,165**		
	319,894	234,104	44,719	266,828		
	254,830	48,200	2,273,264	896,122	243,482	2,524,507
	199,702	48,200	133,414	127,730		212,884
	55,128		85,627	188,988	243,482	314,978
				579,404		1,996,645
			2,054,223			
	1,099,680	**724,013**	**2,443,559**	**1,666,115**	**243,482**	**2,524,507**
	82,120	67,089	210,815	133,120		
	1,181,800	**791,102**	**2,654,374**	**1,799,235**	**243,482**	**2,524,507**

[3] In the financial year 2015, Dr. Stefan Weingartner was awarded a cash settlement corresponding to the total value of all performance shares granted in 2012 – 2015.

[4] Dr. Stefan Weingartner additionally received the following compensatory one-time payments:
APB € 208,688, basic salary € 278,250, other benefits € 16,625, long-term compensation €208,688.

PERFORMANCE-RELATED COMPONENTS

ANNUAL PERFORMANCE BONUS (APB)

The performance targets set by the Supervisory Board for the 2015 Annual Performance Bonus (APB) were as follows:

- Adjusted EBIT € 395.0 million (actual adjusted EBIT in 2015: € 440.3 million)

- Free cash flow € 55.0 million (actual free cash flow in 2015: € 72.0 million).

Deferred portions of the APB awarded in respect of 2013 and 2014 formed part of the performance-related compensation payable in 2015.

PERFORMANCE SHARE PLAN (PSP)

The following table shows the number of performance shares granted in each PSP tranche:

PERFORMANCE SHARE PLAN 2015

Number of shares, value in €, or months	Average Xetra share price[1]	Fair value at grant date	Granted performance shares			Exercisable performance share[2]	Not-yet-execisable performance shares		Time to end of vesting period for performance shares
	€	€	Number at Jan. 1, 2015 shares	Acquired in 2015 shares	Number at Dec. 31, 2015 shares	Performance shares 2015 shares	Number at Dec. 31, 2015 shares	Fair value at Dec. 31, 2015 €	Time at Dec. 31, 2015 months
Reiner Winkler									
Performance shares tranche 3 granted Jan. 1, 2012	47.47	34.26	8,374		8,374	8,374			
Performance shares tranche 4a granted Jan. 1, 2013	67.16	47.98	5,919		5,919	5,919			
Performance shares tranche 5 granted Jan. 1, 2014	69.87	50.42	7,729		7,729	7,729			
Performance shares tranche 6 granted Jan. 1, 2015	70.38	49.49		7,673	7,673	7,673			
Personal total / average	**63.14**	**45.14**	**22,022**	**7,673**	**29,695**	**29,695**			
Dr. Rainer Martens									
Performance shares tranche 3 granted Jan. 1, 2012	47.47	34.26	7,537		7,537	7,537			
Performance shares tranche 4a granted Jan. 1, 2013	67.16	47.98	5,327		5,327	5,327			
Performance shares tranche 5 granted Jan. 1, 2014	69.87	50.42	5,121		5,121	5,121			
Performance shares tranche 6 granted Jan. 1, 2015	70.38	49.49		5,329	5,329	5,329			
Personal total / average	**62.13**	**44.43**	**17,985**	**5,329**	**23,314**	**23,314**			
Michael Schreyögg									
Performance shares tranche 4b granted July 1, 2013	76.59	52.20	1,763		1,763	1,763			
Performance shares tranche 5 granted Jan. 1, 2014	69.87	50.42	4,493		4,493	4,493			
Performance shares tranche 6 granted Jan. 1, 2015	70.38	49.49		5,329	5,329	5,329			
Personal total / average	**71.13**	**50.26**	**6,256**	**5,329**	**11,585**	**11,585**			
Cumulative total / average	**64.21**	**45.80**	**46,263**	**18,331**	**64,594**	**64,594**			
Former Executive Board member									
Dr. Stefan Weingartner[3]									
Performance shares tranche 3 granted Jan. 1, 2012	47.47	34.26	7,537		7,537	7,537			
Performance shares tranche 4a granted Jan. 1, 2013	67.16	47.98	5,327		5,327	5,327			
Performance shares tranche 5 granted Jan. 1, 2014	69.87	50.42	5,121		5,121	5,121			
Performance shares tranche 6 granted Jan. 1, 2015	70.38	49.49		1,271	1,271	1,271			
Personal total / average	**60.39**	**43.36**	**17,985**	**1,271**	**19,256**	**19,256**			

Note: In the financial year 2015, no performance share rights were forfeited, nor did any lapse.

[1] Average Xetra share price during the 30 trading days preceding the grant date.

[2] As of December 31, 2015, the option rights from all tranches of PSP shares are exercised, either in view of their conversion in 2016 into MTU shares subject to disposal restrictions or as part of the cash settlement awarded to Dr. Stefan Weingartner in the financial year 2015.

[3] Member of the Executive Board until March 31, 2015. A cash settlement corresponding to the value of the performance shares granted in 2012, 2013, 2014 and 2015 was awarded to Dr. Stefan Weingartner in the financial year 2015. The amount of this settlement was based on a goal achievement level of 100% and the average Xetra share price during the 30 trading days prior to March 31, 2015.

PERFORMANCE SHARE PLAN 2014

Number of shares, value in €, or months	Average Xetra share price[1]	Fair value at grant date	Granted performance shares			Exercisable performance shares	Not-yet-exercisable performance shares		Time to end of vesting period for performance shares
	€	€	Number at Jan. 1, 2014 shares	Acquired in 2014 shares	Number at Dec. 31, 2014 shares	Performance shares 2014 shares	Number at Dec. 31, 2014 shares	Fair value at Dec. 31, 2014 €	Time at Dec. 31, 2014 months
Reiner Winkler									
Performance shares tranche 2 granted Jan. 1, 2011	47.03	31.26	7,973		7,973	7,973			
Performance shares tranche 3 granted Jan. 1, 2012	47.47	34.26	8,374		8,374		8,374	36.68	12
Performance shares tranche 4a granted Jan. 1, 2013	67.16	47.98	5,919		5,919		5,919	30.08	24
Performance shares tranche 5 granted Jan. 1, 2014	69.87	50.42		7,729	7,729		7,729	49.30	36
Personal total / average	**57.01**	**40.33**	**22,266**	**7,729**	**29,995**	**7,973**	**22,022**	**39.34**	**24**
Dr. Rainer Martens									
Performance shares tranche 2 granted Jan. 1, 2011	47.03	31.26	7,176		7,176	7,176			
Performance shares tranche 3 granted Jan. 1, 2012	47.47	34.26	7,537		7,537		7,537	36.68	12
Performance shares tranche 4a granted Jan. 1, 2013	67.16	47.98	5,327		5,327		5,327	30.08	24
Performance shares tranche 5 granted Jan. 1, 2014	69.87	50.42		5,121	5,121		5,121	49.30	36
Personal total / average	**56.07**	**39.60**	**20,040**	**5,121**	**25,161**	**7,176**	**17,985**	**38.32**	**22**
Michael Schreyögg[2]									
Performance shares tranche 4b granted July 1, 2013	76.59	52.20	1,763		1,763		1,763	31.96	30
Performance shares tranche 5 granted Jan. 1, 2014	69.87	50.42		4,493	4,493		4,493	49.30	36
Personal total / average	**71.76**	**50.92**	**1,763**	**4,493**	**6,256**		**6,256**	**44.41**	**34**
Dr. Stefan Weingartner[3]									
Performance shares tranche 2 granted Jan. 1, 2011	47.03	31.26	7,176		7,176	7,176			
Performance shares tranche 3 granted Jan. 1, 2012	47.47	34.26	7,537		7,537		7,537	70.38	3
Performance shares tranche 4a granted Jan. 1, 2013	67.16	47.98	5,327		5,327		5,327	70.38	3
Performance shares tranche 5 granted Jan. 1, 2014	69.87	50.42		5,121	5,121		5,121	70.38	3
Personal total / average	**56.07**	**39.60**	**20,040**	**5,121**	**25,161**	**7,176**	**17,985**	**70.38**	**3**
Cumulative total / average	**57.53**	**40.67**	**64,109**	**22,464**	**86,573**	**22,325**	**64,248**	**48.24**	**19**

Note: In the financial year 2014, no performance share rights were forfeited, nor did any lapse.

[1] Average Xetra share price during the 30 trading days preceding the grant date.

[2] Member of the Executive Board since July 1, 2013.

[3] Member of the Executive Board until March 31, 2015; a cash settlement corresponding to the value of the performance shares granted in 2012, 2013, 2014 and 2015 was therefore awarded to Dr. Stefan Weingartner in the financial year 2015. The cash settlement awarded in respect of these performance shares was based on a goal achievement level of 100% and the average Xetra share price during the 30 trading days prior to March 31, 2015.

The fair value at the grant date was calculated by an independent expert in accordance with the requirements of IFRS 2. The methods used to calculate these figures are documented in the corresponding fairness opinions.

The fair value of the unexpired tranches of PSP shares at the reporting date was adjusted to account for the conversion of PSP and SMP share options into MTU shares subject to disposal restrictions, via a one-time cash settlement, agreed upon as part of the transition to the modified Executive Board compensation system as of the financial year 2016. The fair value measurement takes into account the TSR performance of the relinquished tranches of PSP shares up to December 31, 2015 by factoring in a guaranteed minimum goal achievement level for the time to the end of the original vesting period and does not take any fluctuation rate into account.

The total carrying amount of the liabilities in connection with PSP compensation developed as follows:

DEVELOPMENT OF TOTAL CARRYING AMOUNT

in €	At Dec. 31, 2015	At Dec. 31, 2014
Performance Share Plan - tranche 2		1,099,864
Performance Share Plan - tranche 3	999,275	927,385
Performance Share Plan - tranche 4a	461,086	502,420
Performance Share Plan - tranche 4b	80,728	21,129
Performance Share Plan - tranche 5	1,280,954	502,068
Performance Share Plan - tranche 6	1,368,227	
Total carrying amount	**4,190,270**	**3,052,866**

SHARE MATCHING PLAN (SMP)

Combined calculation method

The number of future matching shares depends on the cash amount paid out under the PSP. In order to determine the fair value of the SMP at the grant date, a combined Monte Carlo simulation and Black-Scholes pricing model was used. The expected cash settlement was determined on the basis of the exact same assumptions used to measure the value of the PSP. The amount of the cash settlement serves as a basis for measuring the value of the forward options granted under the terms of the SMP.

The fair value of the forward options at the grant date was calculated on the basis of the following assumptions (an option period of 52 months, a vesting period of 88 months, and a fluctuation rate of 4 % were assumed for all tranches):

SHARE MATCHING PLAN

Model parameters	Tranche 6 financial year 2015	Tranche 5 financial year 2014	Tranche 4b financial year 2013	Tranche 4a financial year 2013	Tranche 3 financial year 2012	Tranche 2 financial year 2011
Measurement date	Jan. 1, 2015	Jan. 1, 2014	July 1, 2013	Jan. 1, 2013	Jan. 1, 2012	Jan. 1, 2011
Average share price at acquisition date	70.38	69.87	76.59	67.16	47.47	47.03
Dividend yield	1.87 %	1.89 %	1.82 %	1.74 %	2.23 %	1.84 %
Expected volatility	19.07 %	23.32 %	24.60 %	27.94 %	35.18 %	51.40 %
Risk-free interest rate	-0.04 %	0.77 %	0.71 %	0.26 %	0.70 %	1.76 %

The following share-based SMP compensation agreements were in place during the current and earlier reporting periods:

SHARE MATCHING PLAN 2015

Number of shares, value in €, or months	Fair value at grant date	Granted performance shares[1]			Exercised performance shares	Lapsed performance shares	Forfeited performance shares[2]	Not-yet-exercisable performance shares	Time to end of vesting period for performance shares
	€	Number at Jan. 1, 2015 shares	Acquired in 2015 shares	Number at Dec. 31, 2015 shares	Performance shares 2015 shares	Performance shares 2015 shares	Performance shares 2015 shares	Number at Dec. 31, 2015 shares	Time at Dec. 31, 2015 months
Reiner Winkler									
Performance shares tranche 2 granted Jan. 1, 2011	4.779	7,973		7,973	2,115	5,858			
Performance shares tranche 3 granted Jan. 1, 2012	5.771	8,374		8,374			8,374		
Performance shares tranche 4a granted Jan. 1, 2013	8.192	5,919		5,919			5,919		
Performance shares tranche 5 granted Jan. 1, 2014	8.605	7,729		7,729			7,729		
Performance shares tranche 6 granted Jan. 1, 2015	8.542		7,673	7,673			7,673		
Personal total / average	**7.087**	**29,995**	**7,673**	**37,668**	**2,115**	**5,858**	**29,695**		
Dr. Rainer Martens									
Performance shares tranche 2 granted Jan. 1, 2011	4.779	7,176		7,176	1,905	5,271			
Performance shares tranche 3 granted Jan. 1, 2012	5.771	7,537		7,537			7,537		
Performance shares tranche 4a granted Jan. 1, 2013	8.192	5,327		5,327			5,327		
Performance shares tranche 5 granted Jan. 1, 2014	8.605	5,121		5,121			5,121		
Performance shares tranche 6 granted Jan. 1, 2015	8.542		5,329	5,329			5,329		
Personal total / average	**6.921**	**25,161**	**5,329**	**30,490**	**1,905**	**5,271**	**23,314**		
Michael Schreyögg									
Performance shares tranche 3 granted Jan. 1, 2012[3]	5.771	943		943	345	598			
Performance shares tranche 4a granted Jan. 1, 2013[3]	8.192	353		353			353		
Performance shares tranche 4b granted July 1, 2013	8.874	1,763		1,763			1,763		
Performance shares tranche 5 granted Jan. 1, 2014	8.605	4,493		4,493			4,493		
Performance shares tranche 6 granted Jan. 1, 2015	8.542		5,329	5,329			5,329		
Personal total / average	**8.397**	**7,552**	**5,329**	**12,881**	**345**	**598**	**11,938**		
Cumulative total / average	**7.233**	**62,708**	**18,331**	**81,039**	**4,365**	**11,727**	**64,947**		

[1] This column shows the number of granted performance shares. The corresponding matching share entitlement depends on the TSR ranking of the MTU share, income tax and on the share price.

[2] In view of the resolution passed in 2015 to convert PSP and SMP share options into MTU shares subject to disposal restrictions as of the financial year 2016, the SMP tranches not yet exercised as of December 31, 2015 are forfeited.

[3] Granted under the terms of his previous contract as tier-1 senior manager.

SHARE MATCHING PLAN 2014

Number of shares, value in €, or months	Fair value at grant date	Granted performance shares[1]			Exercised performance shares	Lapsed performance shares	Forfeited performance shares	Not-yet-exercisable performance shares	Time to end of vesting period for performance shares[2]
	€	Number at Jan. 1, 2014 shares	Acquired in 2014 shares	Number at Dec. 31, 2014 shares	Performance shares 2014 shares	Performance shares 2014 shares	Performance shares 2014 shares	Number at Dec. 31, 2014 shares	Time at Dec. 31, 2014 months
Reiner Winkler									
Performance shares tranche 1a granted Jan. 1, 2010	3.722	10,238		10,238	4,662	5,576			
Performance shares tranche 2 granted Jan. 1, 2011	4.779	7,973		7,973				7,973	4
Performance shares tranche 3 granted Jan. 1, 2012	5.771	8,374		8,374				8,374	16
Performance shares tranche 4a granted Jan. 1, 2013	8.192	5,919		5,919				5,919	28
Performance shares tranche 5 granted Jan. 1, 2014	8.605		7,729	7,729				7,729	40
Personal total / average	**5.954**	**32,504**	**7,729**	**40,233**	**4,662**	**5,576**		**29,995**	**21**
Dr. Rainer Martens									
Performance shares tranche 1a granted Jan. 1, 2010	3.722	9,214		9,214	4,209	5,005			
Performance shares tranche 2 granted Jan. 1, 2011	4.779	7,176		7,176				7,176	4
Performance shares tranche 3 granted Jan. 1, 2012	5.771	7,537		7,537				7,537	16
Performance shares tranche 4a granted Jan. 1, 2013	8.192	5,327		5,327				5,327	28
Performance shares tranche 5 granted Jan. 1, 2014	8.605		5,121	5,121				5,121	40
Personal total / average	**5.812**	**29,254**	**5,121**	**34,375**	**4,209**	**5,005**		**25,161**	**20**
Michael Schreyögg[3]									
Performance shares tranche 2 granted Jan. 1, 2011[4]	4.779	907		907	516	391			
Performance shares tranche 3 granted Jan. 1, 2012[4]	5.771	943		943				943	4
Performance shares tranche 4a granted Jan. 1, 2013[4]	8.192	353		353				353	16
Performance shares tranche 4b granted July 1, 2013	8.874	1,763		1,763				1,763	34
Performance shares tranche 5 granted Jan. 1, 2014	8.605		4,493	4,493				4,493	40
Personal total / average	**7.918**	**3,966**	**4,493**	**8,459**	**516**	**391**		**7,552**	**33**
Dr. Stefan Weingartner[5]									
Performance shares tranche 1a granted Jan. 1, 2010	3.722	9,214		9,214	4,518	4,696			
Performance shares tranche 2 granted Jan. 1, 2011	4.779	7,176		7,176			7,176		
Performance shares tranche 3 granted Jan. 1, 2012	5.771	7,537		7,537			7,537		
Performance shares tranche 4a granted Jan. 1, 2013	8.192	5,327		5,327			5,327		
Performance shares tranche 5 granted Jan. 1, 2014	8.605		5,121	5,121			5,121		
Personal total / average	**5.812**	**29,254**	**5,121**	**34,375**	**4,518**	**4,696**	**25,161**		
Cumulative total / average	**6.012**	**94,978**	**22,464**	**117,442**	**13,905**	**15,668**	**25,161**	**62,708**	**22**

[1] This column shows the number of granted performance shares. The corresponding matching share entitlement depends on the TSR ranking of the MTU share, income tax and on the share price.

[2] The time to end of vesting period for SMP shares is 4 months longer than for PSP shares because the strike date is in April.

[3] Member of the Executive Board since July 1, 2013.

[4] Granted unter the terms of his previous contract as tier-1 senior manager.

[5] Member of the Executive Board until March 31, 2015; he therefore forfeits his right to reinvest the benefits payable under the Performance Share Plan (PSP) in MTU Aero Engines AG shares.

In the financial year 2015, the members of the Executive Board were again entitled to purchase MTU shares under the terms of the Share Matching Plan.

This resulted in the following matching share entitlements:

MATCHING SHARE ENTITLEMENTS

	Number at Jan. 1, 2015	Acquired in 2015	Number at Dec. 31, 2015
Number of shares			
Reiner Winkler[1]	1,554	705	2,259
Dr. Rainer Martens[1]	1,403	635	2,038
Michael Schreyögg[1]	172	115	287
Dr. Stefan Weingartner	1,506		1,506
Total	**4,635**	**1,455**	**6,090**

Note: No matching shares were issued in the financial year 2015.

[1] The conversion of PSP and SMP share options into MTU shares subject to disposal restrictions agreed in 2015 fixes a redemption value of € 90.10 per matching share.

The fair value of the stated matching share entitlements was calculated on the basis of the closing price (Xetra) of the MTU share at the end of the financial year, in view of the cash settlement of the exercised tranches of SMP shares agreed upon as part of the transition to the modified Executive Board compensation system as of the financial year 2016.

TOTAL EXPENSE INCURRED FOR SHARE-BASED COMPENSATION

The total expense incurred for share-based compensation can be broken down as follows for the individual members of the Executive Board:

TOTAL EXPENSE INCURRED FOR SHARE-BASED COMPENSATION

Executive Board members	Financial year 2015			Financial year 2014		
in €	Cash settlement	Equity instruments	Total	Cash settlement	Equity instruments	Total
Reiner Winkler	1,497,510	186,604	1,684,114	217,932	23,421	241,353
Dr. Rainer Martens	1,117,161	140,840	1,258,001	173,527	18,926	192,453
Michael Schreyögg	733,837	96,431	830,268	67,999	15,827	83,826
Total expense	**3,348,508**	**423,875**	**3,772,383**	**459,458**	**58,174**	**517,632**
Former Executive Board member						
Dr. Stefan Weingartner[1]	589,451	528	589,979	934,173	113,718	1,047,891
Total expense	**589,451**	**528**	**589,979**	**934,173**	**113,718**	**1,047,891**

[1] Member of the Executive Board until March 31, 2015.

RULES WHEN TERMINATING THE CONTRACTS OF MEMBERS OF THE EXECUTIVE BOARD

The members of the Executive Board are insured under a defined benefit plan. The benefits payable to members of the Executive Board under this plan correspond to those of their peers in comparable companies.

Retirement and survivors' pensions

The members of the Executive Board earn company pension entitlements in accordance with the "MTU Pension Capital" plan, which constitutes the current post-employment benefits plan for members of the Executive Board of MTU Aero Engines AG. The goal of the plan is to provide a pension amounting to 60% of each member's basic salary after 15 years of service on the Executive Board. When this plan was introduced on January 1, 2010, the vested benefits that each member of the Executive Board had earned up until December 31, 2009 under the previous plan were transferred to the new plan in the form of initial units. This entitlement represents the benefit payable at age 60 under the old plan, adapted to reflect the ratio between the actual number of years of service with the company and the number of years from start of service with the company until age 60. The initial units transferred to the new plan correspond to the current cash value of the pension converted into a lump sum.

Contribution period capped at 15 years

Once this amount had been determined, a pension account was opened for each member of the Executive Board to which further capital units are credited annually. The annual capital units are calculated on the basis of an individual contribution and an age-dependent factor, with the latter taking into account an interest rate of 6% per annum up to the age of 60. The contribution period is capped at 15 years of service on the Executive Board, or at age 60, whichever comes first. As of the age of 61, the pension account earns interest at an annual rate of 4% until such time as the pension is drawn (= bonus amount). The accrued capital units plus the units initially transferred to the account plus any bonus amounts credited to the account together make up the pension capital available to finance post-employment benefits. If a member of the Executive Board dies before reaching age 60, 50% of the benefits that he/she would otherwise have earned up to that age are added to the accrued balance on the pension account – taking into account the permissible contribution period.

As a general rule, the pension capital is paid as a single lump sum. However, at the request of the Executive Board member and with the approval of the company, the pension capital may be drawn either in ten installments (with the amassed pension capital being increased by 4% before payment of the installments) or as a lifelong pension with annual increments of 1%. In any insured event, the pension account is topped up to the level of benefits the insured party would have reached under the previous plan (guaranteed capital). Pension benefits do not become payable until such time as an insured event occurs (i.e. on reaching pensionable age, or in the event of disability or death), even if the insured party leaves the Executive Board. The pension entitlement cannot be forfeited once the initial contribution has been paid.

Reiner Winkler, Dr. Rainer Martens, and Dr. Stefan Weingartner had already been promised under the previous pension plan that their years of service with former group companies would count toward their pensions.

Details of the above-mentioned obligations and benefits are shown in the following table:

EXISTING POST-EMPLOYMENT BENEFIT ENTITLEMENTS

Executive Board member in €	Initial transfer amount[1]	Guaranteed capital[2]	Annual contribution	End of contribution period	One-time payment
Reiner Winkler[3]	1,625,140	2,510,788	400,000	Oct. 1, 2019	7,744,205
Dr. Rainer Martens	1,366,176	2,317,650	220,000	Apr. 1, 2021	5,293,176
Michael Schreyögg	365,627	365,627	215,478	Aug. 1, 2026	4,801,945

[1] Credit for past service up to December 31, 2009 (date of changeover to new system). Michael Schreyögg: Changeover date July 1, 2013.

[2] Level of benefits to which the insured party would have been entitled under the previous pension plan.

[3] Reiner Winkler was promised a special transfer amount of € 575,065 in 2010 in connection with the changeover of his pension entitlements to the new system.

Individual pension account contributions

The differences in the annual contributions to the MTU pension accounts result from the remaining periods of service on the Executive Board until the end of the respective contribution period, from the respective age-dependent factors, and from the different salary amounts eligible for pension contributions.

The following table shows the service cost for the financial years 2015 and 2014, and the corresponding carrying amounts of pension provisions recognized for members of the Executive Board in accordance with both IFRS and the German Commercial Code (HGB):

ALLOCATIONS TO PENSION PROVISIONS AND TOTAL AMOUNTS RECOGNIZED

Executive Board member in €	Year	Service cost (IFRS)	Service cost (HGB)	Carrying amount of pension provisions at Dec. 31 (IFRS)	Carrying amount of pension provisions at Dec. 31 (HGB)
Reiner Winkler	**2015**	**211,292**	**180,513**	**5,891,528**	**5,267,473**
	2014	186,810	169,893	5,556,898	4,633,159
Dr. Rainer Martens	**2015**	**178,046**	**156,217**	**4,369,536**	**3,943,316**
	2014	159,912	147,483	4,094,359	3,474,746
Michael Schreyögg	**2015**	**82,120**	**61,774**	**2,861,629**	**2,358,717**
	2014	67,089	57,168	2,099,588	1,541,359
Total	**2015**	**471,458**	**398,504**	**13,122,693**	**11,569,506**
Total	**2014**	**413.811**	**374.544**	**11.750.845**	**9.649.264**

The pension obligations toward former members of the Executive Board in accordance with IAS 19 amounted to € 7,167,081 (2014: € 10,452,674) and included the pension obligation toward Dr. Stefan Weingartner in the amount of € 3,165,482 (2014: € 2,982,350).

DISABILITY PENSIONS

Under the new pension rules of January 1, 2010, if a member of the Executive Board is disabled before reaching the age of 60, 50% of the benefits to which he/she would normally have been entitled up to the maximum age limit are added to the balance on the pension account at the time of disablement. The amount credited is based on the contributions paid in the last year of employment. This arrangement also applies if the insured party dies before reaching the age of 60.

SEVERANCE PAYMENTS ON PREMATURE TERMINATION OF CONTRACTS FOR MEMBERS OF THE EXECUTIVE BOARD

Capped severance payments

Under the modified terms of the Executive Board compensation system to be implemented as of the financial year 2016, members of the Executive Board are entitled to receive a severance payment if MTU prematurely terminates their employment contract. This severance package comprises pro-rata amounts of the board member's basic salary, APB entitlement, and long-term RSP benefits covering the period up to the date on which his/her contract would normally have expired. When calculating the amount of the severance payment, a bonus entitlement of 100% is assumed for the APB and RSP benefits that would have otherwise been awarded for the financial years within this period. The total amount of the severance payment is capped at twice the departing board member's annual target direct compensation. If the employment contract is terminated by MTU for cause, no severance package is payable. In such cases, MTU also has the right to demand repayment of the tranche of RSP shares granted in the financial year in which the contract was terminated.

SEVERANCE PAYMENTS ON PREMATURE TERMINATION OF CONTRACTS FOR MEMBERS OF THE EXECUTIVE BOARD IN THE EVENT OF A CHANGE OF CONTROL OR SUBSTANTIAL CHANGES IN THE OWNERSHIP OF MTU AERO ENGINES AG

In the event of a change of control that results in significant disadvantages for incumbent members of the Executive Board, these Executive Board members are accorded special rights of termination which entitle them to a severance package comprising pro-rata amounts of their basic salary, APB entitlement, and long-term RSP benefits covering the period up to the date on which their contract would normally have expired. When calculating the amount of the severance payment, a bonus entitlement of 100% is assumed for the APB and RSP benefits that would have otherwise been awarded for the financial years within this period. The total amount of the severance payment is capped at three times the departing board member's annual target direct compensation.

SUPERVISORY BOARD COMPENSATION

Compensation
relative to company size

The rules governing Supervisory Board compensation are laid down in the articles of association of MTU Aero Engines AG. Such compensation is established relative to the size of the company and the duties and responsibilities of the respective members.

Pursuant to Article 12 of the articles of association of MTU Aero Engines AG, members of the Supervisory Board receive a fixed annual payment of € 50,000, payable at the end of the financial year. This sum is tripled in the case of the chair of the Supervisory Board, and multiplied by one and-a-half in the case of the deputy chair. In addition to the fixed annual payment, members serving on one of the Supervisory Board's committees receive an additional € 10,000 and a further € 20,000 if they chair a committee. Further, members of the Supervisory Board receive an attendance fee of € 3,000 for each meeting of the Supervisory Board and its committees, subject to an upper limit of € 3,000 per day. The attendance fee is halved for meetings convened by the chair or deputy chair that take place via telephone or video conference. Expenses incurred in connection with the exercise of their office are reimbursed, as is the value-added tax payable on the fees.

The members of the Supervisory Board do not receive any share-based compensation.

The following compensation was awarded to the individual members of the Supervisory Board of MTU Aero Engines AG for the financial years 2015 and 2014 respectively.

SUPERVISORY BOARD COMPENSATION

	2015[1]				2014[1]			
in €	Fixed annual payment	Committee member fees	Attendance fees	Total compensation	Fixed annual payment	Committee member fees	Attendance fees	Total compensation
Klaus Eberhardt (Supervisory Board and Personnel Committee chairman)[3] [4]	150,000.00	50,000.00	27,000.00	227,000.00	150,000.00	50,000.00	36,000.00	236,000.00
Josef Mailer (Supervisory Board deputy chairman since Oct. 15, 2015)[2] [3] [5]	15,833.33	4,222.22	6,000.00	26,055.55				
Josef Hillreiner (Supervisory Board deputy chairman until Oct. 14, 2015)[2] [3] [5]	59,166.67	15,777.78	24,000.00	98,944.45	75,000.00	20,000.00	33,000.00	128,000.00
Dr. Joachim Rauhut (Audit Committee chairman)	50,000.00	30,000.00	27,000.00	107,000.00	50,000.00	30,000.00	27,000.00	107,000.00
Thomas Bauer (since November 1, 2015)	8,333.33		3,000.00	11,333.33				
Michael Behé[5]	50,000.00		15,000.00	65,000.00	50,000.00		18,000.00	68,000.00
Dr. Wilhelm Bender	50,000.00		15,000.00	65,000.00	50,000.00		18,000.00	68,000.00
Thomas Dautl	50,000.00		15,000.00	65,000.00	50,000.00		18,000.00	68,000.00
Babette Fröhlich[3] [5]	50,000.00	10,000.00	24,000.00	84,000.00	50,000.00	10,000.00	27,000.00	87,000.00
Berthold Fuchs (until October 31, 2015)	41,666.67		12,000.00	53,666.67	50,000.00		18,000.00	68,000.00
Dr.-Ing. Jürgen M. Geißinger[2] [4]	50,000.00	20,000.00	18,000.00	88,000.00	50,000.00	20,000.00	24,000.00	94,000.00
Dr. Martin Kimmich (since January 1, 2014) [2] [5]	50,000.00	10,000.00	18,000.00	78,000.00	50,000.00	8,333.33	24,000.00	82,333.33
Prof. Dr.-Ing. Klaus Steffens	50,000.00		15,000.00	65,000.00	50,000.00		18,000.00	68,000.00
Prof. Dr. Marion A. Weissenberger-Eibl	50,000.00		15,000.00	65,000.00	50,000.00		18,000.00	68,000.00
Total	**725,000.00**	**140,000.00**	**234,000.00**	**1,099,000.00**	**725,000.00**	**138,333.33**	**279,000.00**	**1,142,333.33**

[1] Amounts do not include VAT.
[2] Member of the Personnel Committee.
[3] Member of the Audit Committee.
[4] Member of the Nomination Committee.
[5] These employee representatives have declared that they will donate their Supervisory Board compensation to the Hans-Böckler-Stiftung, in accordance with the guidelines of the Confederation of German Trade Unions.

REPORT OF THE SUPERVISORY BOARD

KLAUS EBERHARDT
Chairman of the Supervisory Board

ACTIVITIES OF THE SUPERVISORY BOARD

In this report, the Supervisory Board provides information in accordance with Section 171 (2) of the German Stock Corporation Act (AktG) on its activities in the financial year 2015 and on the results of its review of the annual financial statements and consolidated financial statements. In 2015, the Supervisory Board carried out with due care the control and consultation duties with which it is entrusted by law and under the terms of the company's articles of association and its own rules of procedure.

The Supervisory Board regularly advised the Executive Board on the running of the company, continually supported and monitored all executive business activities, and assured itself that the Executive Board's dealings were proper and lawful. The Supervisory Board was informed and consulted in a direct and timely manner on all decisions of consequence for the company. The members of the Supervisory Board were briefed by the Executive Board in a regular, timely and comprehensive manner on the situation of the company, and received written reports every month on the company's earnings, financial situation, and net asset position as well as on important business transactions. The Supervisory Board was also informed in detail of any new plans.

The Supervisory Board met with the Executive Board to discuss strategy issues and all major projects. After careful deliberation and examination, the Supervisory Board endorsed the strategic orientation of the company. The Supervisory Board passed resolutions on all transactions for which its approval is required in accordance with law, the company's articles of association or the Executive Board's rules of procedure after reviewing and discussing them with the Executive Board.

As in previous years, the Supervisory Board devoted special attention to MTU's system of internal controls in 2015, above all the company's risk management system, its auditing practices, and the conformity of its corporate governance system with the relevant legal provisions. The Supervisory Board examined these aspects with reference to the documents submitted to it and in dialog with the Executive Board, coming to the conclusion that the company has effective systems in place, in particular an effective internal control and risk management system in relation to the accounting process.

The Supervisory Board's compliance monitoring activities are supplemented by those of the Audit Committee, which has a special responsibility in this respect. The internal auditors regularly present their findings to the Audit Committee and report to it on the latest developments in the field of compliance.

MEETINGS OF THE SUPERVISORY BOARD

During the financial year 2015, the Supervisory Board convened five ordinary meetings. No telephone conferences were held. All Supervisory Board members attended at least half of the meetings of the Supervisory Board and of the committees of which they are members. The attendance rate was 100%.

Between official meetings, the chairman of the Supervisory Board was regularly briefed on the company's current situation, significant business transactions and important pending decisions. This entailed regular meetings with the Executive Board, consulting with the latter on strategy, the status of planning, the progress of business, the company's risk situation and system of risk management as well as compliance.

At its meetings with the Executive Board, the Supervisory Board discussed the business performance of MTU and all its affiliated companies. Both the situation on the commercial and military engine manufacturing and MRO markets, and MTU's market position compared with its competitors were dealt with in depth. The company's earnings situation, including risk exposure and risk management, was also discussed in detail. The agenda of the meeting in March 2015 included the capital-raising measures to be presented to the Annual General Meeting 2015. In this context, the Supervisory Board discussed and reviewed the proposal to authorize the purchase of treasury shares as well as the proposal to create authorized and contingent capital and to exclude subscription rights.

Other topics of discussion in the year under review were MTU's participation in a leasing company for the PW1100G-JM engine and its stake in the GE9X engine program for the future Boeing 777X. The Supervisory Board also dealt with the reappointment to the Executive Board of Michael Schreyögg, whose contract was extended until June 30, 2021. It also discussed the Act Concerning the Equal Participation of Women and Men in Management Positions in Private Industry and the Public Sector, which came into force in Germany on May 1, 2015. The Supervisory Board sees the new legislation as an opportunity to adapt both MTU's system of personnel recruitment and development, and its corporate culture, so that they are positioned to meet future requirements.

A further question dealt with by the Supervisory Board concerned the appointment of an external auditor. Following the recommendation of the Audit Committee, the Supervisory Board proposed that Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Munich, should be appointed to audit the financial statements and consolidated financial statements and to review the half-yearly financial reports for the financial year 2015. The Annual General Meeting approved this proposal by a majority of 99.9%.

Other issues closely examined by the Supervisory Board were the operational business plans and the budget for 2016, the annual performance bonuses for the Executive Board for 2014, the new compensation system for the Executive Board to be introduced in 2016, and compliance with the German Corporate Governance Code.

CORPORATE GOVERNANCE

The Supervisory Board is convinced that the success of the company is based on good corporate governance. For this reason, the Supervisory Board closely studied the application and implementation of the German Corporate Governance Code in 2015, taking it as a yardstick to measure the efficiency of its own activities. It analyzed the diversity of its own composition, especially with regard to the fair representation of women.

In addition, the Supervisory Board explicitly stated that, in the nomination proposals it makes to the Annual General Meeting, it takes into account the principles concerning the avoidance of conflicts of interest and will continue to do so. In submitting nomination proposals, the Supervisory Board will disclose any personal ties or business relations the candidates may have with the company, its governing bodies and/or major shareholders. No nominations were proposed in 2015.

The Supervisory Board has a sufficient number of independent members. Its members take part in training measures on their own responsibility, and also receive specialized training from MTU. Cooperation between the Supervisory Board and the Executive Board, and among the members of the Supervisory Board, was judged to be of a very high quality in the financial year 2015. No conflicts of interest arose between MTU and any member of its Executive Board or Supervisory Board.

In a joint declaration with the Executive Board dated December 8, 2015, pursuant to the requirements of Section 161 of the German Stock Corporation Act (AktG), the Supervisory Board states that, with one exception, MTU Aero Engines AG complies with all the recommendations of the German Corporate Governance Code. The company's declaration is reproduced on page 32 of this annual report together with a more detailed description of the company's corporate governance system; the declaration has also been posted on the company's website.

COMMITTEE MEETINGS

By convention, the Supervisory Board has three committees equally representing the employees and the shareholders of the company: the Audit Committee, the Personnel Committee and the Mediation Committee – the latter formed to comply with Section 27 (3) of the German Co-Determination Act (MitbG). Each of these committees presents regular reports on its activities at the plenary meetings of the Supervisory Board.

A Nomination Committee, which meets on an ad hoc basis, was set up in 2007 pursuant to the recommendations of the German Corporate Governance Code. The Nomination Committee did not meet in the financial year 2015. The task of the Nomination Committee is to find suitable candidates for election to the Supervisory Board. The members of this committee are Klaus Eberhardt and Dr. Jürgen M. Geißinger.

The Personnel Committee comprises Klaus Eberhardt, Dr. Jürgen M. Geißinger and the two employee representatives Josef Hillreiner (until October 14, 2015; since October 15, 2015: Josef Mailer) and Dr. Martin Kimmich. The Personnel Committee convened four times in 2015, discussing among other things the extension of Michael Schreyögg's contract as a member of the Executive Board and the consequences for the Executive Board of what is known as the women's quota. The Personnel Committee discussed the results of the Supervisory Board's efficiency audit and the proposed changes to the system of compensation for the Executive Board. It also reviewed the appropriateness of the Executive Board's compensation, and the results of the Long-Term Incentive Performance Share Plan and the Share Matching Plan. The Supervisory Board also deliberated on the annual performance bonuses of the Executive Board for 2014 and set the goals for the annual performance bonuses for 2015.

The Mediation Committee, whose members are identical with those of the Personnel Committee, did not have to convene in 2015.

The members of the Audit Committee are Prof. Dr. Joachim Rauhut, Klaus Eberhardt, Babette Fröhlich, Josef Hillreiner (until October 14, 2015) and Josef Mailer (since October 15, 2015). The Audit Committee convened five times in the course of 2015. These meetings focused on reviewing the annual financial statements, the consolidated financial statements and the combined management report of the MTU Group and MTU Aero Engines AG as well as the company's financial situation and quarterly reports.

Further, the Audit Committee discussed the additional services provided by the auditors, and the granting of the audit mandate. The Audit Committee specified the key areas for the audit of the 2015 annual financial statements and concluded the audit contract with Ernst & Young Wirtschaftsprüfungsgesellschaft. In addition, the committee obtained the auditor's statement of independence pursuant to Section 7.2.1 of the German Corporate Governance Code and also monitored the auditor's independence.

To aid the committee members in their tasks, they and all other members of the Supervisory Board were supplied with copies of the reports prepared by Ernst & Young concerning the auditing of the annual financial statements and consolidated financial statements as well as the combined management report. These documents were thoroughly reviewed in the presence of the auditors Keller and Westermeier from Ernst & Young. As a result, the committee recommended that the Supervisory Board should adopt the financial statements, approve the combined management report and consent to the Executive Board's profit distribution proposal.

In accordance with statutory requirements, the Audit Committee monitored the accounting process, the accounting-related internal control and risk management system, and the internal auditing system, which it judged to be effective. Other items on the agenda of its meetings included approving the reports submitted by the Internal Auditing and Compliance departments, the capital-raising measures to be presented to the Annual General Meeting 2015 and the results of the field audit carried out by the Financial Reporting Enforcement Panel (FREP).

ADOPTION OF THE ANNUAL FINANCIAL STATEMENTS, THE APPROVED CONSOLIDATED FINANCIAL STATEMENTS AND THE MANAGEMENT REPORT

The annual financial statements, consolidated financial statements, and combined management report of the MTU Group and MTU Aero Engines AG for the financial year 2015 were audited and fully certified by the accounting firm Ernst & Young, Munich, whose appointment had been confirmed by the Annual General Meeting. The audit reports and documents to be reviewed were submitted in a timely manner to all members of the Supervisory Board. The Supervisory Board thoroughly reviewed the annual financial statements, consolidated financial statements and the combined management report of the MTU Group and MTU Aero Engines AG for 2015 and the Executive Board's profit distribution proposal on the basis of Ernst & Young's preliminary audit, on which the chair of the Audit Committee had presented a full report to the Supervisory Board.

The auditor attended the meeting of the Audit Committee of MTU Aero Engines AG on February 23, 2016, and the balance sheet meeting of the Supervisory Board on March 1, 2016, and presented the main findings of the audit. The Supervisory Board reviewed the annual financial statements, consolidated financial statements, combined management report, and the Executive Board's profit distribution proposal, and raised no objections. The company's annual financial statements and consolidated financial statements for the financial year 2015 as submitted by the Executive Board were approved at the Supervisory Board meeting on March 1, 2016. The annual financial statements are thereby adopted. The Supervisory Board agreed to the Executive Board's profit distribution proposal after giving due consideration to the interests of the company and its shareholders.

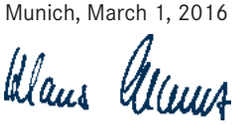
BOARDROOM CHANGES

Dr. Stefan Weingartner left MTU of his own volition on March 31, 2015. Since April 2015, the company's Executive Board has comprised three members.

Josef Mailer joined the Supervisory Board on October 15, 2015, succeeding Josef Hillreiner, who resigned as deputy chairman of that body with effect from October 14. Josef Mailer was elected to the position of deputy chairman of the Supervisory Board and is also a member of the Audit and Personnel Committees as well as the Mediation Committee. Another new member of the Supervisory Board is Thomas Bauer, who has been in office since November 1, 2015. As an elected substitute member, he replaced Berthold Fuchs, who stepped down from the Supervisory Board on October 31, 2015.

The members of the Supervisory Board wish to thank Josef Hillreiner and Berthold Fuchs for their long years of dedicated, professional work on the MTU Supervisory Board. The Supervisory Board also thanks the Executive Board for its close and constructive cooperation as well as all MTU employees for their successful work and the great commitment they showed in 2015. It is also grateful to the Works Council for its close cooperation and to all MTU's shareholders for the trust they place in the company.

Munich, March 1, 2016



Klaus Eberhardt
Chairman of the Supervisory Board

THE SUPERVISORY BOARD

Members of the MTU Supervisory Board and the additional mandates they hold on the supervisory board or a comparable controlling body of other business enterprises in Germany or abroad

Klaus Eberhardt
Chairman of the Supervisory Board
Independent Consultant
Former CEO of Rheinmetall AG, Düsseldorf
Dürr AG
ElringKlinger AG

Thomas Bauer (since November 1, 2015)
Full-time member of the Works Council of MTU Aero Engines AG, Munich

Michael Behé
Full-time member of the Works Council of MTU Maintenance Hannover GmbH, Hannover
Member of the Group Works Council of MTU Aero Engines AG, Munich
MTU Maintenance Hannover GmbH

Prof. Dr. Wilhelm Bender
Independent Consultant
Former CEO of Fraport AG, Frankfurt/Main
Bombardier Transportation GmbH (until March 31, 2015)
Bombardier Transportation (Bahntechnologie) Holding Germany GmbH (until March 31, 2015)
Eintracht Frankfurt Fußball AG (until June 29, 2015)
FrankfurtRheinMain GmbH International Marketing of the Region
Lufthansa Cargo AG (until August 31, 2015)
The New Germany Fund Inc. (U.S.)

Thomas Dautl
Director Manufacturing Technology, MTU Aero Engines AG, Munich

Josef Hillreiner (until October 14, 2015)
Deputy Chairman of the Supervisory Board
Chairman of the Group Works Council of MTU Aero Engines AG, Munich
Chairman of the Works Council of MTU Aero Engines AG, Munich

Josef Mailer (since October 15, 2015)
Deputy Chairman of the Supervisory Board
Member of the Group Works Council of MTU Aero Engines AG, Munich
Full-time member of the Works Council of MTU Aero Engines AG, Munich

Babette Fröhlich
Strategic and Policy Planning, IG Metall, Frankfurt/Main
Volkswagen AG

Berthold Fuchs (until October 31, 2015)
Representative Center Support Military Programs and member of the Works Council of MTU Aero Engines AG, Munich

Dr.-Ing. Jürgen M. Geißinger
CEO of Senvion GmbH, Hamburg
Hilotherm Holding AG (Switzerland)
Sandvik AB (Sweden)

Dr. Martin Kimmich
Second authorized representative of IG Metall, Munich
Linde AG
Nokia Solutions and Networks Management GmbH

Dr. Joachim Rauhut
Independent Consultant
CFO of Wacker Chemie AG, Munich (until October 31, 2015)
B. Braun Melsungen AG
J. Heinrich Kramer Holding GmbH
Pensionskasse Wacker Chemie VVaG (until October 31, 2015)
Siltronic AG (until December 11, 2015)
Stabilus S.A. (since May 11, 2015)

Prof. Dr.-Ing. Klaus Steffens
Independent Consultant

Former President and CEO of MTU Aero Engines GmbH, Munich

Poppe & Potthoff GmbH

Tital Holding GmbH & Co. KG

Tyczka Energie GmbH & Co. KGaA

Prof. Dr. Marion A. Weissenberger-Eibl
Director of the Fraunhofer Institute for Systems and Innovation Research ISI in Karlsruhe and holder of the Chair of Innovation and Technology Management at the Karlsruhe Institute of Technology

HeidelbergCement AG

SUPERVISORY BOARD COMMITTEES

Personnel Committee
Klaus Eberhardt, Chairman
Dr.-Ing. Jürgen M. Geißinger
Josef Hillreiner (until October 14, 2015)
Dr. Martin Kimmich
Josef Mailer (since October 15, 2015)

Audit Committee
Dr. Joachim Rauhut, Chairman
Klaus Eberhardt
Babette Fröhlich
Josef Hillreiner (until October 14, 2015)
Josef Mailer (since October 15, 2015)

Mediation Committee
Klaus Eberhardt, Chairman
Dr.-Ing. Jürgen M. Geißinger
Josef Hillreiner (until October 14, 2015)
Dr. Martin Kimmich
Josef Mailer (since October 15, 2015)

Nomination Committee
Klaus Eberhardt
Dr.-Ing. Jürgen M. Geißinger

COMBINED MANAGEMENT REPORT

COMBINED MANAGEMENT REPORT

The Management Report of MTU Aero Engines AG and the Group Management Report for the financial year 2015 have been combined in accordance with Section 315 (3) in conjunction with Section 298 (3) of the German Commercial Code (HGB).

THE ENTERPRISE MTU

BUSINESS ACTIVITIES AND MARKETS

MTU Aero Engines AG, Munich (in the following: MTU AG), together with its consolidated group of companies, is Germany's leading engine manufacturer and one of the biggest international players in the industry. In the following, the MTU group is also referred to simply as MTU or the group.

MTU's portfolio covers the entire lifecycle of commercial and military aircraft engines, and aero-derivative industrial gas turbines. The company's range of activities extends from development, manufacturing and marketing through to maintenance.

Key partner
in programs of note

The company is a technological leader in low-pressure turbines, high-pressure compressors and turbine center frames as well as repair techniques and manufacturing processes. MTU AG is a key partner in all national and international technology programs of note, and cooperates with the top names in the industry – GE Aviation, Pratt & Whitney and Rolls-Royce.

The group is also one of the world's leading providers of MRO services for commercial aero engines. In the military sector, it has been the leading company in the national market and lead industrial partner to the German armed forces for many decades.

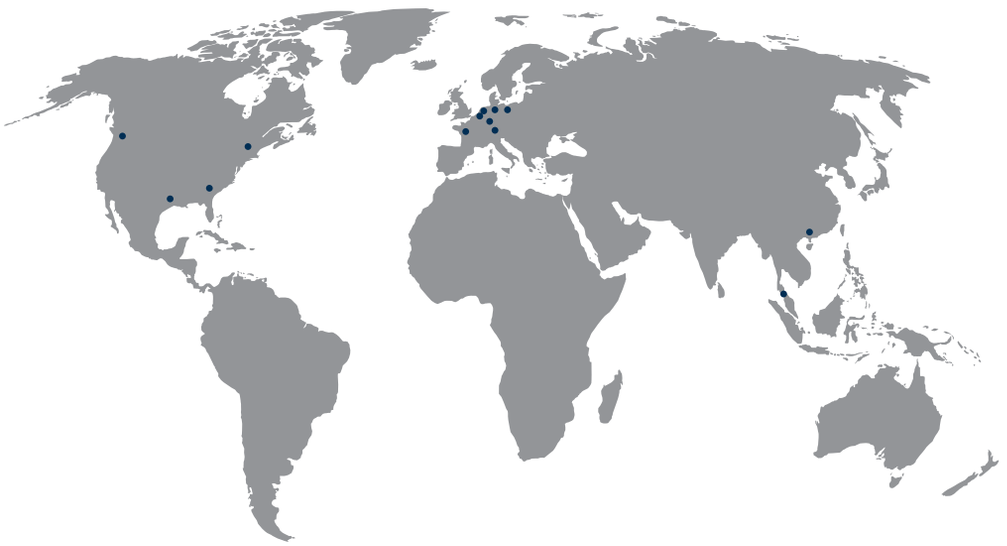
MTU divides its activities into two operating segments: OEM business (Original Equipment Manufacturing) and MRO business (Maintenance, Repair and Overhaul). The OEM segment covers new commercial engines, including spare parts, and the whole of the military sector. The MRO segment comprises all commercial maintenance activities.

1.2 GROUP STRUCTURE, LOCATIONS AND ORGANIZATION

→ further informationen
on page 155

Through its affiliates, associated companies, joint ventures and equity investments, MTU has a strong presence in all key markets and regions worldwide. More information on equity investments is provided in Part I of the Notes to the consolidated financial statements (Accounting policies and principles).

MTU AERO ENGINES WORLDWIDE



MTU Maintenance Canada

MTU Aero Engines North America

Vericor Power Systems

MTU Maintenance Dallas

MTU Aero Engines

MTU Maintenance Hannover

MTU Maintenance Berlin-Brandenburg

MTU Maintenance Lease Services

MTU Aero Engines Polska

AES Aerospace Embedded Solutions[1)]

Pratt & Whitney Canada Customer Service Centre Europe[1)]

Ceramic Coating Center[1)]

MTU Maintenance Zhuhai[1)]

Airfoil Services[1)]

[1)] Major joint ventures.

STRATEGY AND OBJECTIVES

CORPORATE STRATEGY

Creating value for customers and business partners

In line with its mission to create value for customers and business partners, MTU supplies the market with technologically advanced, high-quality engines and modules. In doing so, it relies to a great extent on its core competence, which is to develop, manufacture and market innovative products and services.

The overriding goal: profitable growth

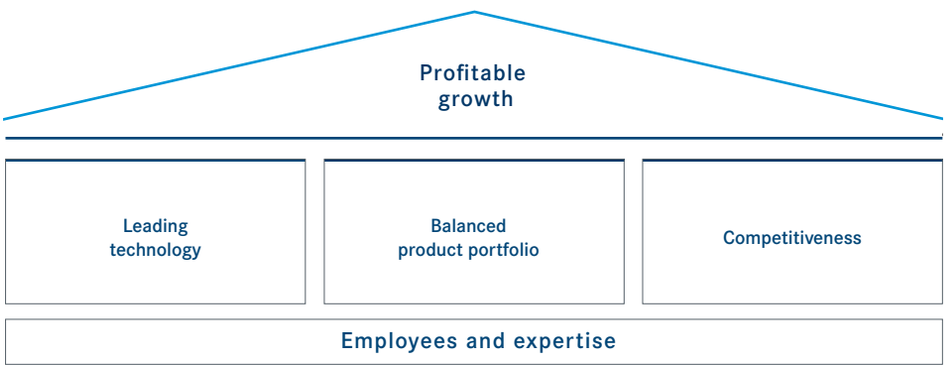
MTU's corporate strategy is geared to profitable growth. The three pillars of this growth strategy are:

- **Cutting-edge technologies – maintaining and expanding the company's technological leadership**
  MTU is currently extending its technological leadership by focusing on the development of new high-temperature materials, the goal being to achieve even greater efficiency in the medium term from its core modules – the low-pressure turbine and high-pressure compressor – and simultaneously reduce component weight. Going forward, MTU will continue to make targeted investments in cutting-edge products and processes, thus further enhancing its competitiveness.

A balanced product portfolio

- **A balanced product portfolio – participating in new programs that promise strong growth**
  In recent years, MTU Aero Engines has been collaborating with its partner Pratt & Whitney to develop geared turbofan™ engines for regional and medium-haul jets. Lufthansa has been operating the PW1100G-JM engine, which powers the Airbus A320neo, since January 20, 2016. With more deliveries in the pipeline, MTU is confident that the market introduction of geared turbofan™ technology will be a success. Through its stakes in engine programs, MTU will focus not only on refining the geared turbofan™ but also on developing engines, such as General Electric's GE9X, for the next generation of widebody aircraft. Market launch of the GE9X is scheduled for 2020. In the medium term, MTU's MRO segment will also benefit from the market success of these engines as the company has secured itself a corresponding share in the future aftermarket service business through its stakes in the engine programs.
- **Enhanced competitiveness – raising productivity and reducing tied-up capital**
  MTU encourages a culture of continuous improvement in order to secure its competitiveness in the long run. In addition to optimizing structures and processes in all areas of the company, MTU is focusing its efforts on reducing tied-up capital. The objective is to utilize the available funds so that they maximize added value.

PILLARS OF MTU'S CORPORATE STRATEGY



Skilled, motivated employees – the basis for success

Highly motivated, skilled workers are crucial to the successful growth of the MTU group. MTU's corporate culture places emphasis on personal development and achievement coupled with a strong sense of social responsibility. The company promotes cultural and individual diversity within its ranks as well as flexible working conditions and high-quality basic and further training opportunities for its workforce.

With its growth strategy, efficiency programs and large-scale investments in the future, MTU is on track to achieve the goals it has set itself.

GROUP INTERNAL CONTROL SYSTEM

Goal:
profitable
growth

MTU is managed with reference to the key performance indicators adopted by the Executive Board. These key performance indicators (KPIs) are derived from the operational business plans and provide the underpinnings for a method of corporate management that is directed toward profitable growth. An efficient planning and control system and an incentive-based management compensation system are in place to help bring about the decisions that create a suitable environment for implementing corporate strategy.

The value-driving key performance indicators EBIT, revenues and free cash flow de-limit the range within which MTU operates in terms of profitability, growth and liquidity.

→ further information on page 84

Please refer to the subsection "Reconciliation of adjusted performance indicators" in the section "Operating results" for a definition of adjusted EBIT, which is the most important of these KPIs. Another indicator monitored by the company is the adjusted EBIT margin, which expresses the relationship between adjusted EBIT and revenues.

PERFORMANCE INDICATORS: REVENUES AND ADJUSTED EBIT

in € million	2015	2014	2013	2012	2011
Revenues	4,435.3	3,913.9	3,574.1	3,242.7	2,821.7
Adjusted EBIT	440.3	382.7	377.4	369.6	332.6
Adjusted EBIT margin (in %)	9.9	9.8	10.6	11.4	11.8

The purpose of optimizing cash flow is to help the group maintain its financial strength going forward. MTU determines its free cash flow by combining its cash flow from operating activities with its cash flow from investing activities. Because the latter includes certain components that lie outside the control of operations management and do not form part of the group's core activities, these components are excluded from the calculation of free cash flow. This adjustment concerns the acquisition payments for shares in engine programs, payments in connection with interest-bearing loans related to aircraft and engine financing agreements, and financial assets held for the purpose of liquidity management.

FREE CASH FLOW

in € million	2015	2014	2013	2012	2011
Cash flow from operating activities	296.2	204.8	188.8	229.8	287.9
Cash flow from investing activities	–267.8	–234.5	–183.3	–360.0	–126.7
Non-recurrent cash outflows	43.6	72.2	74.8	215.9	–32.2
Free cash flow	**72.0**	**42.5**	**80.3**	**85.7**	**129.0**

RESEARCH AND DEVELOPMENT

ECONOMIC ENVIRONMENT AND GOALS

Strong technological leadership

An increasingly mobile society, diminishing natural resources and a rising awareness of the environment all call for innovative solutions – especially when it comes to aircraft engines. MTU has established technological leadership in its core competencies of low-pressure turbines, high-pressure compressors, and high-tech manufacturing processes and repair techniques. This provides a solid basis for refining existing engines and developing entirely new ones.

MTU's medium- to long-term goals in the development of new commercial engines fully comply with the voluntary commitment made by the European aviation industry and research community, who formulated ambitious targets for air traffic in 2050 in their new Strategic Research and Innovation Agenda (SRIA):

LONG-TERM GOALS[1]

	ACARE 2020[2]	SRIA 2020	SRIA 2035	SRIA 2050
CO_2 emissions – air traffic	–50%	–43%	–60%	–75%
CO_2 emissions – engines	–20%	–20%	–30%	–43%[3]
NO_x emissions – mainly engines	–80%		–84%	–90%
Noise – mainly engines	–50%		–55%	–65%

[1] Changes compared with base year 2000, per passenger-kilometer
[2] By way of comparison: original ACARE Vision 2020 targets
[3] Given comparable improvements in aircraft and engines

Reducing fuel consumption and emissions

The main focus of MTU's R&D activities is to improve overall engine efficiency as a means of reducing both fuel consumption and emissions. This can be done by increasing the bypass ratio, thereby improving thrust efficiency, increasing higher overall pressure ratios to improve thermal efficiency, and enhancing component efficiency. Key components in this respect are MTU's low-pressure turbine and high-pressure compressor, which feature high pressure ratios, low weight and high efficiency ratios. Enhancing these technologies is an ongoing task for MTU.

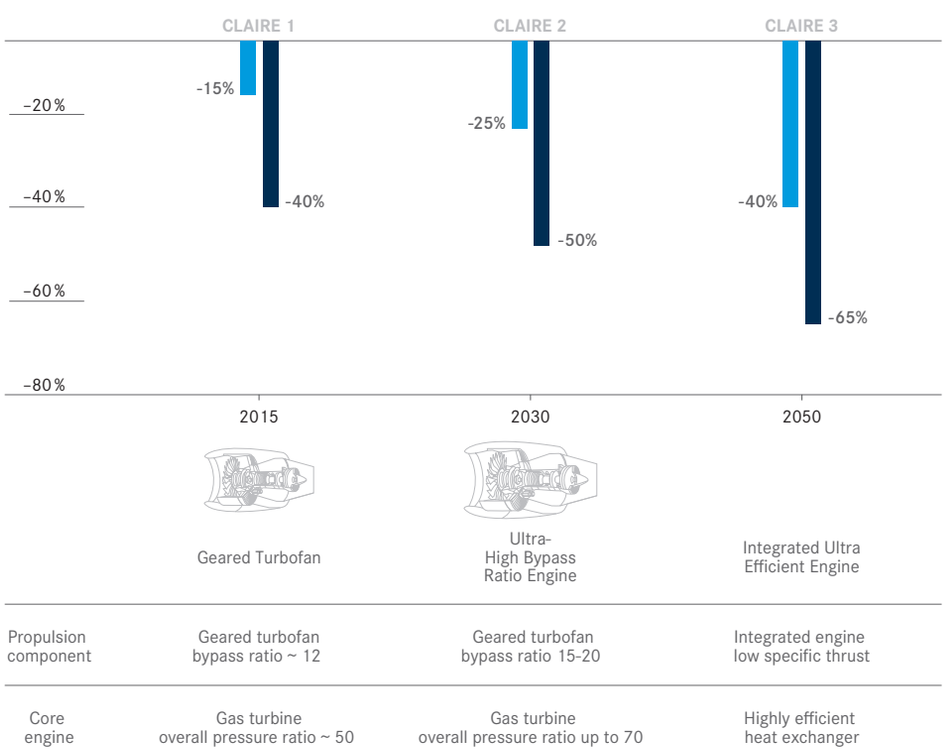
MTU's Claire (Clean Air Engine) technology program covers all the technology that, in the long term, will need to be developed in order to achieve reductions in CO_2, NO_x and noise emissions.

The first stage is the geared turbofan™ (GTF), which was developed in partnership with Pratt & Whitney and entered series production in early 2016 for the Airbus A320neo. The GTF will reduce fuel consumption and carbon dioxide emissions by around 15 % each (see also: Commercial engine programs).

Conceptual studies for the next stage show that further improvements are possible on the basis of the GTF engine configuration. The engineers want to achieve an even higher bypass ratio, for instance, and further improve thermal efficiency by means of higher pressure and temperature ratios. The objective is to increase the fuel and carbon dioxide reduction targets to 25 % each and to halve noise emissions.

The third stage of the CLAIRE program will see the introduction of revolutionary new features. Further improvements in thrust efficiency call for even higher mass flows, made possible by integrated and distributed fans on the aircraft. A highly efficient heat exchanger – for example featuring variable cycle technology, waste-heat recuperation, combined processes and hybrid elements – will be needed as a power source. In a series of studies being carried out together with its partners, MTU is already examining such ideas for a time horizon of 2050. Initial estimates hold promise of a reduction in fuel consumption of 40 % and a reduction in noise emissions of up to 65 %.

MTU'S CLAIRE (CLEAN AIR ENGINE) TECHNOLOGY PROGRAM



CO_2 emissions

noise emissions

Change compared to an engine from the year 2000

TECHNOLOGIES FOR KEY ENGINES OF THE FUTURE

Commercial engine programs

In cooperation with Pratt & Whitney, MTU is working on the geared turbofan™ (GTF) engine. Unlike conventional turbofans, in which the fan and low-pressure turbine run at the same speed on a single shaft, the GTF places a reduction gear between the two components to decouple them. This means that the large fan can be run more slowly and the low-pressure turbine faster. That will enable a higher bypass ratio and high thrust efficiency, thus improving the efficiency of the fan and the low-pressure turbine while cutting fuel consumption and CO_2 emissions by 15% each and bringing about a substantial reduction in the effective perceived noise level of 20 decibels (EPNdB), which is far lower than the certification level. Requiring fewer low-pressure turbine stages, the engine will also be lighter. In the GTF project, MTU is responsible for developing and manufacturing the high-speed low-pressure turbine and the front half of the high-pressure compressor.

Innovative material

MTU achieved a technological break-through with the introduction of a new high-temperature, lightweight material: titanium aluminide (TiAl). Titanium aluminide is an intermetallic material that unites the properties of metal and ceramics. It is not only very stable at high temperatures, but weighs roughly half as much as the nickel alloys used to date. The greatest obstacle to its deployment was the workability of the new material. By determining the right composition of the alloy, the right temperature range and the right configuration for the phases of the forging process, MTU succeeded in producing blades made of titanium aluminide using conventional forming machines. The new material is deployed in the third rotor stage of the three-stage low-pressure turbine – a component of the PW1100G-JM engine used in the Airbus A320neo. The key milestones reached in the GTF program in the financial year 2015 were the successful maiden flight of the Mitsubishi Regional Jet (powered by PW1200G engines) on November 11, the joint EASA and FAA type certification of the Airbus A320neo powered by PW1100G engines issued on November 25, and the certification of the Bombardier CSeries with PW1500G engines issued by the Canadian civil airworthiness authority on December 18.

Geared turbofan™ engines have already been deployed by five different aircraft manufacturers. With firm orders and options for more than 7,000 units placed by the end of 2015, the GTF promises to be a major commercial success.

MTU – GTF ENGINE PROGRAMS

Engine	MTU program share	Aircraft manufacturer	Aircraft type	Number of seats	Entry into service (EIS)
PW1100G-JM	18%	Airbus	A320neo	150–200	2016
PW1200G	15%	Mitsubishi	MRJ	70–90	2018
PW1400G	18%	Irkut	MS-21	150–200	2017
PW1500G	17%	Bombardier	CSeries	110–150	2016
PW1700G	15%	Embraer	E-Jet E175	80–90	2020
PW1900G	17%	Embraer	E-Jet E190/E195	100–140	2018/2019

MTU has secured a significant share in the market for high-thrust engines for long-haul jets through its participation in General Electric's GE9X program for the new Boeing B777X, where it will take responsibility for development and manufacture of the turbine center frame. Manufactured in 2015, the first hardware set will be delivered to GE in module form in early 2016.

Smaller-scale engines also notched up successes in 2015. In cooperation with Pratt & Whitney Canada, MTU is developing the PW800 engine family that will be deployed in the Gulfstream G500 and G600 business jets. The PW800 uses the same core engine as the PW1500G geared turbofan™. MTU is responsible for developing and manufacturing this engine's low-pressure turbine and the front stages of the high-pressure compressor. In February, the Canadian authorities certified the PW814GA and PW815GA engines, and the maiden flight of the Gulfstream G500 took place in May. In addition, the PW300 engine family was extended to include the PW306D1 engines for the Cessna Citation Latitude business jet and the PW307D for the Falcon 8X. The PW306D1 was approved in February, and the PW307D in May.

MTU has been working together with General Electric (GE) on its LM6000 series of aero-derivative industrial gas turbines since 1990. In the reporting period, this collaboration was taken a step further when MTU acquired an approximately 13% share in the development and manufacturing program for the latest version of the LM6000, the LM6000-PF+, as a risk and revenue sharing partner. The LM6000-PF+ is based on the same technology as that used in GE's CF6-80 aircraft engine.

Military engine programs

Military engine development activities continued to focus on the TP400-D6 for the Airbus A400M military transporter. This three-shaft engine is the most powerful turboprop engine in the Western world. MTU is responsible for supplying the entire intermediate-pressure section, comprising compressor, turbine and spool, and also developed the engine- and propeller-control systems in cooperation with the group's French partner Snecma. The program has now progressed from the development phase to series production and launch.

The GE38 program is the first U.S. military program in which MTU was selected to participate from as early as the development stage. This engine powers the CH-53K heavy-lift cargo helicopter that Sikorsky is developing for the United States Marine Corps. The engine demonstrated its compliance with the required technical specifications and its flight readiness in numerous tests – a third of which were carried out at MTU – culminating in its reliable performance during the helicopter's successful maiden flight on October 27, 2015.

Manufacturing and maintenance technologies

Additive manufacturing processes are opening the way to new methods of production. These processes involve using a laser to melt successively applied, very thin layers of powder material and in this way build up entire components. MTU is one of the first companies to employ additive manufacturing in series production, to make the borescope eyepieces used when inspecting PW1100G-JM engines. Preparations are underway to introduce this type of process to manufacture complex components such as seal support systems, center frame struts and bearing housings. The longer-term plan is to create new designs that would be either impossible or very costly to implement using traditional technology.

The last few years have seen MTU carve out a leading position in the manufacture of blisk rotors for compressors. Since demand for blisk rotors is set to rise substantially as the geared turbofan™ goes into production, MTU has established a new center of excellence for blisk production in Munich. The center covers an area of 10,000 m² and is one of the biggest and most flexible blisk production facilities ever constructed. A number of new machining systems and coordinate

2016 production capacity:
3,500 blisks

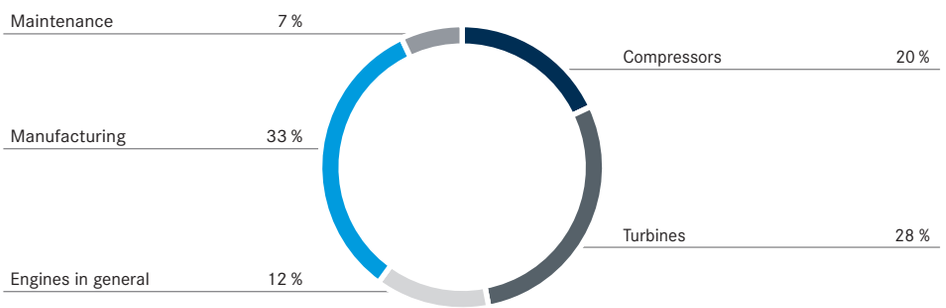
measuring machines as well as an automated transportation system were installed and came on stream in 2015. MTU has already been able to boost production capacity from 600 to 2,000 blisks per year, and plans to reach the center's full capacity of 3,500 blisks per year in 2016.

As one-third of the PW1100G-JM engines are to be assembled in Munich, a new assembly line featuring a modular, track-guided transportation system was installed there. This system passed all tests required to ensure its reliability prior to series production ramp-up.

Protecting technology assets (intellectual capital)

At December 31, 2015, MTU's portfolio of intellectual property (IP) rights contained 1,000 patent families (representing 2,947 individual patents). A patent family is a set of patents taken in various countries to protect a single invention. At the reporting date, this portfolio covered the following fields of technology:

DISTRIBUTION OF THE GROUP'S INTELLECTUAL PROPERTY PORTFOLIO OVER MTU'S VARIOUS FIELDS OF TECHNOLOGY



COOPERATION IN SCIENCE AND RESEARCH

For decades, cooperation arrangements with universities and research institutions have formed a key component of MTU's research and development activities. For instance, specimen engines are made available to universities and colleges, and MTU experts hold lectures or act as mentors for students working on experimental projects or writing theses and dissertations for diplomas and doctorates; students are also given support while carrying out their assignments and preparing their final thesis presentations. MTU established a chair in structural mechanics at the University of Stuttgart's Institute for Aircraft Engines, and the appointment process for this chair was concluded in the year under review. In addition, MTU honors outstanding achievements by awarding the annual Heilmann prize to a young scientist meriting recognition for achievements in engine technology.

24
centers of competence and university partnerships

Strategic alliances have been established with research partners in order to strengthen ties between universities and industry, and to safeguard MTU's innovative capabilities. In recent years, these partnerships with leading German universities and research institutions have been consolidated, and six centers of competence focusing on specific areas of research have been set up with the aim of optimizing collaboration. Based in Munich, Bauhaus Luftfahrt is a visionary think tank with an international dimension that pursues novel, unconventional, holistic and interdisciplinary research. It brings industry and science together under one roof, focusing primarily on exploring the socioeconomic, political and ecological aspects of aviation, designing visionary aircraft, unearthing promising technologies for the future, and devising knowledge management strategies.

COOPERATION WITH UNIVERSITIES AND CENTERS OF COMPETENCE

CENTERS OF COMPETENCE

RWTH Aachen
Compressor technology

Uni & LZ Hannover
Maintenance Repair Overhaul

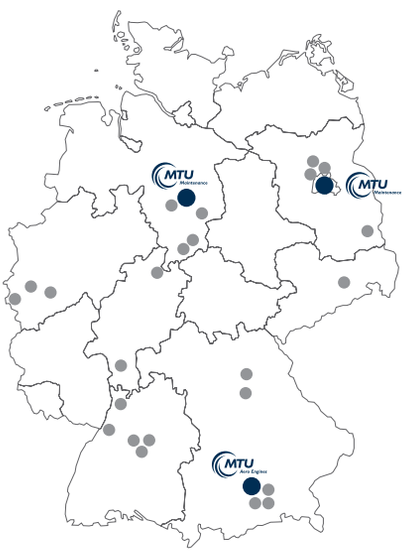
DLR Cologne
2020 plus engine

Bauhaus Luftfahrt
Munich
Future concepts

TU Munich Structural
design and production

UniBW Munich
More Electric Engine

University of Stuttgart
Turbine technology



COOPERATION WITH UNIVERSITIES

BAM Berlin
DLR Berlin
TU Berlin
TU Braunschweig
BTU Cottbus
TU Darmstadt
TU Dresden
Uni Erlangen
FHG Fürth
TU Göttingen
TU Hannover
TU Heidelberg
KFA Jülich
TH Karlsruhe
Uni GH Kassel
DLR Stuttgart
MPA Stuttgart

CAPITAL EXPENDITURE ON RESEARCH AND DEVELOPMENT

RESEARCH AND DEVELOPMENT EXPENDITURE

in € million	Change 2015-2014 in € million	Change 2015-2014 in %	2015	2014	2013	2012	2011
Commercial engine business	18.2	11.0	183.8	165.6	144.0	146.9	147.4
Commercial maintenance business	1.6	34.8	6.2	4.6	4.8	5.3	8.4
Military engine business	–5.1	–20.3	20.0	25.1	44.4	89.2	106.1
Research and development expenditure prior to capitalization	**14.7**	**7.5**	**210.0**	**195.3**	**193.2**	**241.4**	**261.9**

Research and development expenditure in the reporting period totaled €210.0 million, up €14.7 million on the previous year. At 4.7%, research and development expenditure as a percentage of revenues was slightly lower than the 2014 figure of 5.0%.

Externally funded development expenditure in the amount of €41.3 million (2014: €35.3 million) primarily relates to the military engine business. Due to the fact that the work is conducted under contract to national and international consortia on a customer-specific basis, it is accounted for as construction contracts and disclosed in Note 2 to the consolidated financial statements (Cost of sales).

→ further information on page 170

Company-funded development expenditure originates from the group's own resources. If such expenditure meets the criteria for capitalization as an internally generated intangible asset, it is removed from the income statement and reported in the balance sheet. Capitalized development costs are amortized on a straight-line basis over the estimated economic life of the product. Company-funded expenditure is disclosed in Note 3 to the consolidated financial statements (Research and development expenses).

→ further information on page 170

COMPANY-FUNDED RESEARCH AND DEVELOPMENT EXPENDITURE (P&L)

in € million	Change 2015-2014 in € million	Change 2015-2014 in %	2015	2014	2013	2012	2011
Commercial engine business	12.0	8.1	160.9	148.9	125.0	146.9	147.4
Commercial maintenance business	1.6	34.8	6.2	4.6	4.8	5.3	8.4
Military engine business	–4.9	–75.4	1.6	6.5	13.0	8.5	10.0
Company-funded R&D expenditure	**8.7**	**5.4**	**168.7**	**160.0**	**142.8**	**160.7**	**165.8**
Expenditure meeting recognition criteria for intangible assets							
Commercial and military engine business	–17.9	–21.2	–102.2	–84.3	–48.9	–46.9	–30.8
Commercial maintenance business					–0.7	–0.8	–3.4
Development costs recognized as expense	**–9.2**	**–12.2**	**66.5**	**75.7**	**93.2**	**113.0**	**131.6**
Capitalized development costs in %			60.6	52.7	34.7	29.7	20.6

The capitalized company-funded development costs of €102.2 million (2014: €84.3 million) posted in the OEM segment (commercial and military engine business) relate especially to the GTF engines and to the GE38, GE9X and PW800 engine programs.

The MRO segment (commercial maintenance business) develops special repair techniques for engine parts and components. An amortization expense of €1.8 million (2014: €1.8 million) was recognized for these capitalized, self-created repair techniques in the reporting period.

BUSINESS ENVIRONMENT

MACROECONOMIC FACTORS

As in the previous year, the global economy grew by 2.4% overall in 2015, with growth rates differing from region to region.

Global economic growth in 2015 was driven more by industrialized countries than by emerging economies. The changing dynamics of the Chinese economy, with falling imports and weaker demand for raw materials, also impacted other emerging markets.

Economic growth in China, the world's second-largest economy, slowed in 2015 and, at 6.9%, dipped below the 7% mark for the first time.

The U.S. economy grew at the same rate as in the previous year, with buoyant private consumption and rising public expenditure, and investments generating growth of 2.4%.

Growth began picking up again in the eurozone as well, the economy there expanding by 1.5% compared with 0.9% in 2014. This trend was favored by low oil prices, the European Central Bank's expansionary monetary policy and the decline of the euro against other currencies, notably the dollar.

The downward trend in commodity prices is reflected in the price trend for crude oil, with the price of a barrel of Brent crude averaging U.S. $ 52 over the year. The combined effect of persistently high production volumes and slowing economic growth in the emerging markets was to push down oil prices, at times quite dramatically (EIA, Jan. 2016).

MICROECONOMIC FACTORS IN THE AVIATION INDUSTRY

2015 was a very good year for the aviation industry, with rising passenger numbers and low fuel costs driving growth. Global passenger traffic increased by 6.5% and freight traffic by 2.2%. The three most important regions for passenger traffic all performed well, with passenger traffic growing by 8.2% in Asia, 5.0% in Europe, and 3.2% in North America (IATA, February 2016).

Rising passenger numbers are prompting airlines to expand their fleets, and the global fleet grew by 4.5% in 2015 (source: Ascend).

Global fleet grew by
4.5%

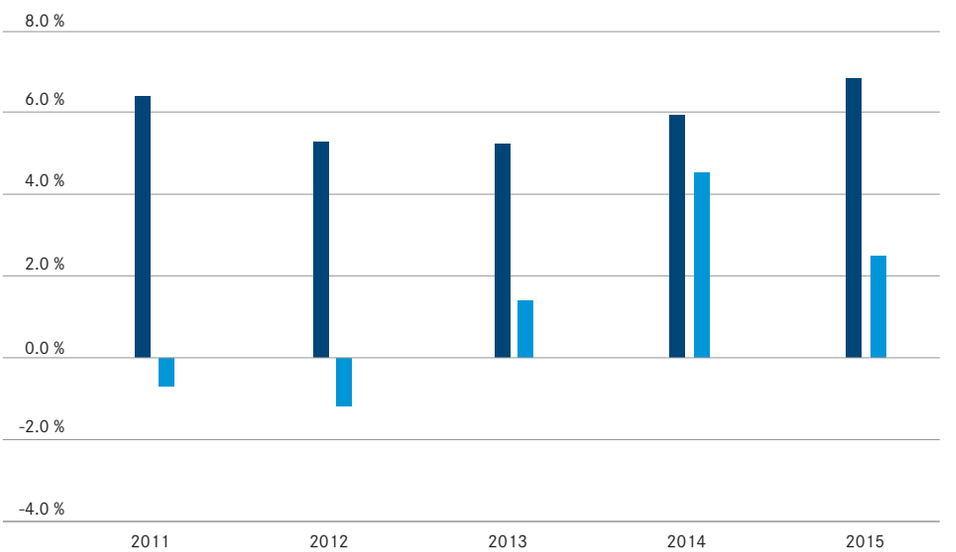
The number of flying hours increased by 6.6%; in 2014, they had increased by 6.8%.

According to IATA, the international aviation industry is heading for record profits in 2015, thanks to lower kerosene prices and an improved utilization rate of almost 80%. The airlines can expect revenues to reach U.S. $ 710 billion, with profits of U.S. $33 billion. This would mean a doubling of their profit margin to 4.6% (IATA, Dec. 2015).

Airbus and Boeing delivered 1,397 aircraft in 2015 compared with 1,350 in the previous year. This equates to a rise of 3.5%. The order backlog for aircraft seating 100 or more passengers rose from 12,800 in 2014 to 13,400 at year-end 2015 (source: Ascend Online). Assuming unchanged production rates, this corresponds to a workload of 9 years.

465 business jets were delivered in the first nine months of 2015, up 1.3% on the same period of the previous year (GAMA, Oct. 2015).

GROWTH IN THE VOLUME OF GLOBAL PASSENGER AND FREIGHT TRAFFIC



Sources: IATA, Boeing

OVERALL ASSESSMENT OF THE BUSINESS ENVIRONMENT

Global economic growth

2.4%

As in 2014, the global economy grew by 2.4% in the year under review, with growth being increasingly driven by industrialized countries rather than emerging economies.

In the opinion of the International Monetary Fund (IMF), dramatically lower commodity prices represent one of the biggest risks to the global economy. Although countries like Germany are benefiting from the lower prices, numerous countries around the world are on the losing end – especially energy exporters such as Canada and Norway.

The aviation industry has been on a growth trajectory for some years now and grew faster than the global economy in 2015. Global passenger traffic increased by 6.5% in 2015 – the sixth year in succession in which the growth rate has exceeded 5%.

FINANCIAL SITUATION

The following explanatory comments and analyses are based on the audited MTU consolidated financial statements for the financial years ending December 31, 2015, and 2014. The consolidated financial statements are drawn up in accordance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), to the extent that these have been adopted by the European Union.

In accordance with IFRS requirements, new or revised/amended standards and interpretations were applied for the first time in the financial statements for 2015. Their effect on the group's financial situation, net assets, and operating results is dealt with in more detail in the Notes to the consolidated financial statements (under: Accounting standards and interpretations, and revised/amended accounting standards and interpretations, applied for the first time in 2015).

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INFORMATION ON EXCHANGE RATES

The exchange rates used for converting the company's key foreign currencies into euros are the following official rates set by the European Central Bank.

FOREIGN CURRENCY EXCHANGE RATES

Currency	ISO code	Rate at reporting date		Average rate	
		Dec. 31, 2015 1 Euro =	Dec. 31, 2014 1 Euro =	**2015 1 Euro =**	2014 1 Euro =
United States dollar	USD	1.0887	1.2141	1.1095	1.3285
Canadian dollar	CAD	1.5116	1.4063	1.4186	1.4661
Chinese yuan renminbi	CNY	7.0608	7.5358	6.9733	8.1857
Polish zloty	PLN	4.2639	4.2732	4.1841	4.1843

OPERATING RESULTS

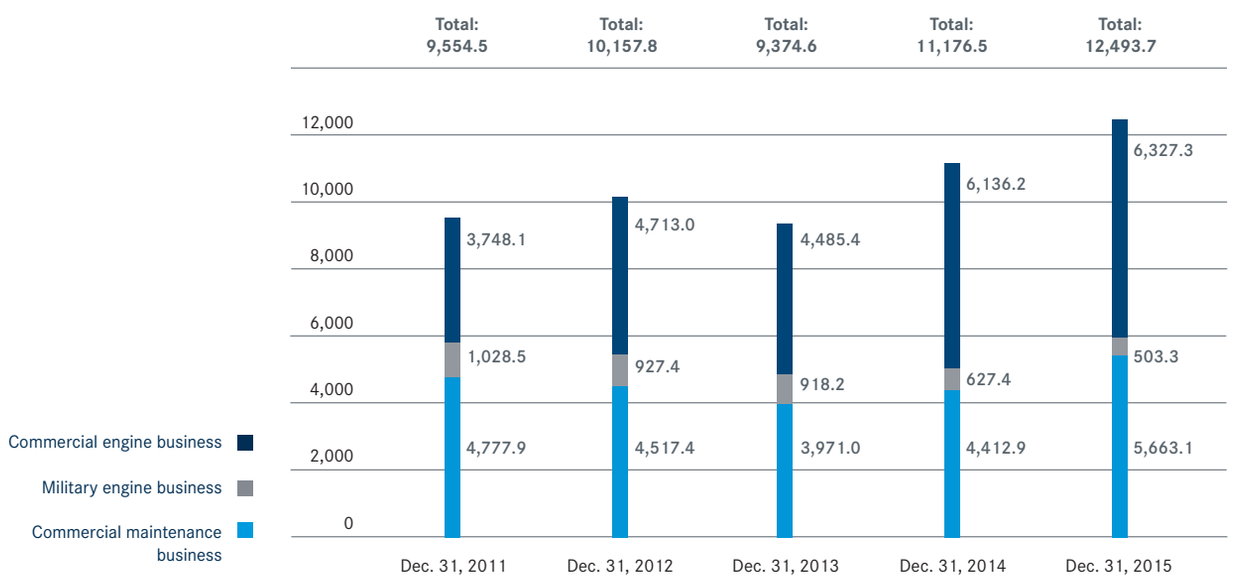
GROUP

Order backlog

Order backlog
€ 12.5 billion

MTU's order backlog consists of firm customer orders that commit the group to delivering products or providing services, plus the contractual value of service agreements. At December 31, 2015, the order backlog amounted to € 12.5 billion (2014: € 11.2 billion).

ORDER BACKLOG (BEFORE CONSOLIDATION) IN € MILLION



Consolidated income statement

CONSOLIDATED INCOME STATEMENT

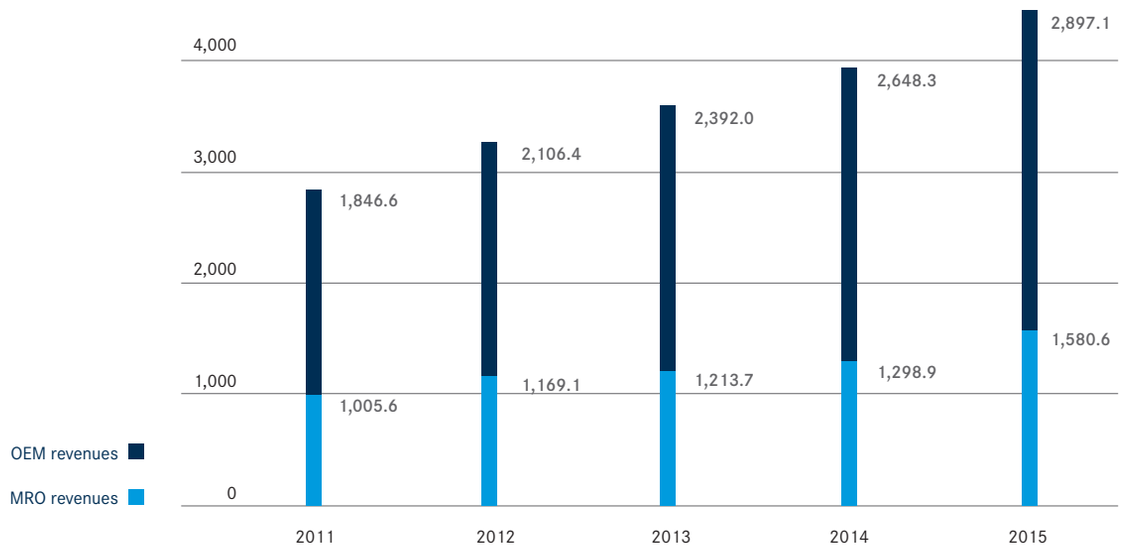
in € million	Change 2015-2014 in € million	Change 2015-2014 in %	2015	2014
Revenues	**521.4**	**13.3**	**4,435.3**	**3,913.9**
Cost of sales	–479.6	–14.2	–3,855.0	–3,375.4
Gross profit	**41.8**	**7.8**	**580.3**	**538.5**
Costs by function	10.3	5.0	–194.7	–205.0
Depreciation/amortization effects of purchase price allocation / V2500 stake increase	5.5	11.2	54.7	49.2
Adjusted earnings before interest and tax (adjusted EBIT)	**57.6**	**15.1**	**440.3**	**382.7**
Depreciation/amortization effects of purchase price allocation / V2500 stake increase	–5.5	–11.2	–54.7	–49.2
Earnings before interest and tax (EBIT)	**52.1**	**15.6**	**385.6**	**333.5**
Financial result	–10.0	–18.2	–64.8	–54.8
Earnings before tax	**42.1**	**15.1**	**320.8**	**278.7**
Income taxes	–19.9	–23.9	–103.2	–83.3
Earnings after tax	**22.2**	**11.4**	**217.6**	**195.4**
Basic earnings per share in €	0.42	10.9	4.26	3.84
Diluted earnings per share in €	0.43	11.2	4.26	3.83

Revenues

Group revenues in the financial year 2015 increased by € 521.4 million (13.3%) to € 4,435.3 million. Compared with the previous year, revenues in the OEM segment (commercial and military engine business), before consolidation, rose by € 248.8 million (9.4%) to € 2,897.1 million in 2015, while the corresponding revenues in the MRO segment (commercial maintenance business) grew by € 281.7 million (21.7%) to € 1,580.6 million.

Group revenues up
13.3%

REVENUES BY SEGMENT (BEFORE CONSOLIDATION) IN € MILLION



Cost of sales and gross profit

The cost of sales increased by € 479.6 million (14.2%) to € 3,855.0 million. Gross profit rose by € 41.8 million (7.8%) to € 580.3 million. The gross margin amounted to 13.1% (2014: 13.8%). The main factors responsible for the change in gross margin in 2015 were the evolution of the U.S. $ exchange rate and the realized product mix.

Reconciliation of adjusted performance indicators

The purpose of reconciliation is to eliminate the effect of non-recurring items and events on the key performance indicators used to measure the group's operating results and those of the individual operating segments, thereby facilitating a true comparison from year to year and between MTU and other companies.

MTU utilizes the following adjusted performance indicators in its financial reports: adjusted earnings before interest and tax (adjusted EBIT), adjusted EBIT margin, and adjusted earnings before and after tax. The International Financial Reporting Standards (IFRS) do not stipulate any requirements concerning such indicators, which should be viewed as supplementary to the performance indicators reported in accordance with IFRS.

In order to further facilitate comparison, adjustments have been applied to eliminate the effects on EBIT of income and expense items resulting from the purchase price allocation and the increase in the company's stake in the IAE-V2500 engine program. As of January 1, 2004, MTU passed into the ownership of Kohlberg Kravis Roberts & Co. Ltd. (KKR), following the investment company's purchase of 100% of the MTU shares from the then DaimlerChrysler AG. In the context of the acquisition, assets, liabilities, and contingent liabilities were identified in accordance with IFRS 3 and measured at fair value. Since then, the identified intangible assets, in particular, have led to considerable amortization expenses. These expenses are referred to collectively as "effects of purchase

price allocation." Another effect on EBIT eliminated by means of adjustments is MTU's purchase in 2012 of additional shares in the IAE-V2500 engine program. This resulted in the recognition of an intangible asset (reported as "IAE-V2500 stake increase") that will be amortized over its estimated economic life of 25 years.

Similarly, to facilitate a true comparison from year to year and between MTU and other companies, the effect of non-recurring items is eliminated from earnings before tax. In a first step, the interest result and the interest portion included in the measurement of plan assets and provisions for pensions and similar obligations, as stated in the financial result on other items, are added to adjusted EBIT. Further adjustments are then made to remove the effects of all other components of the financial result on other items, in particular those that are influenced by the U.S.-dollar exchange rate, such as instruments used to hedge against currency risk.

The adjusted amount of earnings before tax is used to calculate the normalized income tax expense, on the basis of the expected average tax rate for the group (for financial year 2015: 30 %). The profit / loss of companies accounted for using the equity method does not form part of the tax basis. Adjusted earnings after tax are obtained by subtracting income taxes (without non-recurring items) from earnings before tax (also without non-recurring items).

RECONCILIATION OF THE CONSOLIDATED INCOME STATEMENT

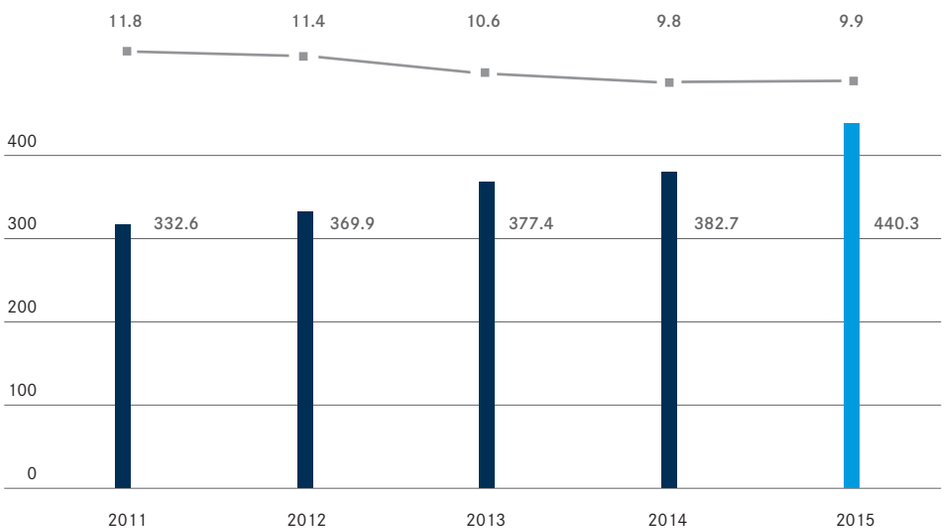
	2015			2014		
in € million	Financial year	Non-recurring items	Financial year w/o non-recurring items	Financial year	Non-recurring items	Financial year w/o non-recurring items
Revenues	**4,435.3**		**4,435.3**	**3,913.9**		**3,913.9**
Cost of sales	–3,855.0	54.7	–3,800.3	–3,375.4	38.2	–3,337.2
Gross profit	**580.3**	**54.7**	**635.0**	**538.5**	**38.2**	**576.7**
Research and development expenses	–66.5		–66.5	–75.7	1.2	–74.5
Selling expenses	–94.3		–94.3	–87.7	0.6	–87.1
General administrative expenses	–65.6		–65.6	–62.6	9.2	–53.4
Other operating income and expenses	1.0		1.0	–3.0		–3.0
Profit/loss of companies accounted for using the equity method	29.1		29.1	22.0		22.0
Profit/loss of companies accounted for at cost	1.6		1.6	2.0		2.0
Earnings before interest and tax (EBIT)	**385.6**	**54.7**	**440.3**	**333.5**	**49.2**	**382.7**
Financial result	–64.8	50.4	–14.4	–54.8	24.6	–30.2
Earnings before tax	**320.8**	**105.1**	**425.9**	**278.7**	**73.8**	**352.5**
Income taxes	–103.2	–15.8	–119.0	–83.3	–15.9	–99.2
Earnings after tax	**217.6**	**89.3**	**306.9**	**195.4**	**57.9**	**253.3**
EBIT	**385.6**	**54.7**	**440.3**	**333.5**	**49.2**	**382.7**
Depreciation/amortization of:						
Intangible assets						
- Effects of purchase price allocation / V2500 stake increase	54.2	–54.2		48.4	–48.4	
Property, plant and equipment						
- Effects of purchase price allocation	0.5	–0.5		0.8	–0.8	
Adjusted EBIT	**440.3**		**440.3**	**382.7**		**382.7**

Earnings before interest and tax (EBIT)

Adjusted EBIT
€ 440.3 million

In 2015, EBIT rose by 15.6% to € 385.6 million (2014: € 333.5 million), while the EBIT margin amounted to 8.7% (2014: 8.5%). Adjusted earnings before interest and tax (adjusted EBIT) increased by 15.1% to € 440.3 million (2014: € 382.7 million). The adjusted EBIT margin was 9.9% (2014: 9.8%).

GROUP EBIT (ADJUSTED) UND EBIT MARGIN (ADJUSTED)



Financial result

MTU's financial result weakened by € 10.0 million in the financial year 2015, resulting in a net expense of € 64.8 million (2014: € 54.8 million). Of this amount, the net interest expense improved by € 7.7 million compared with 2014, mainly due to an increase in capitalized borrowing costs for qualifying assets. The financial result on other items amounted to a net expense of € 63.7 million in 2015, which is € 17.7 higher than in the previous financial year, when the net expense amounted to € 46.0 million. The main factors responsible for this change were higher fair value losses on derivatives, which amounted to € 34.6 million (2014: € 19.8 million), and higher interest expenses from the measurement of receivables, provisions, and liabilities, which amounted to € 30.0 million (2014: € 21.3 million).

Earnings before tax (EBT)

The company's operating performance had a positive impact on earnings before tax that outweighed the negative impact of the weakened financial result. Overall, EBT rose by € 42.1 million to reach € 320.8 million (2014: € 278.7 million).

Income taxes

Income taxes amounted to € 103.2 million in the financial year 2015 (2014: € 83.3 million). The effective group tax rate, calculated on the basis of earnings before tax, was 32.2% (2014: 29.9%). Information on the reconciliation of the expected tax expense to the actual tax expense is provided in Note 10 to the consolidated financial statements (Income taxes).

→ further information on page 173

Earnings after tax (EAT)

Earnings after tax increased by € 22.2 million (11.4%) to € 217.6 million (2014: € 195.4 million) and adjusted earnings after tax by € 53.6 million (21.2%) to € 306.9 million (2014: € 253.3 million).

Consolidated statement of comprehensive income

In the consolidated statement of comprehensive income, earnings after tax amounting to € 217.6 million (2014: € 195.4 million) are reconciled with the total comprehensive income for the period of € 177.0 million (2014: negative total comprehensive income of € 4.4 million).

The main income and expense items recognized directly in other comprehensive income in 2015, net of deferred taxes, were losses of € 42.8 million (2014: € 115.1 million) on the fair value of financial instruments designated as cash flow hedges and an increase of € 10.5 million (2014: € 98.9 million) in actuarial losses on plan assets and pension obligations. The amount of actuarial losses was determined as the balance of gains and losses, the latter of which was higher due to other actuarial assumptions. Translation differences arising from the financial statements of international entities resulted in a positive effect of € 12.7 million (2014: € 14.2 million).

Earnings per share

Basic earnings per share amounted to € 4.26 (2014: € 3.84). The Share Matching Plan for the Executive Board had no dilutive effect on these earnings. Diluted earnings per share amounted to € 4.26 (2014: € 3.83)

Earnings per share
€ 4.26

Net profit available for distribution and dividend

For an explanation of how the net profit is determined on the basis of the German GAAP annual financial statements, please refer to Part VII of the Notes to the consolidated financial statements. On condition that the Annual General Meeting approves the dividend of € 1.70 per share proposed by the Executive Board and Supervisory Board, the total amount distributed will be € 86.9 million for the 51,118,724 shares entitled to receive a dividend.

→ further information on page 229

OEM SEGMENT

Order backlog

The order backlog for the OEM segment (commercial and military engine business) is reported on the basis of list prices. Given that orders for spare parts for commercial engines are generally completed within a short time of their receipt, the order backlog does not contain a substantial volume of such orders. The order backlog in the OEM segment stood at € 6,830.6 million as of December 31, 2015, compared with € 6,763.6 million at the end of 2014.

ORDER BACKLOG FOR COMMERCIAL AND MILITARY ENGINE BUSINESS (OEM)

	Change 2015 - 2014			
in € million	in € million	in %	Dec. 31, 2015	Dec. 31, 2014
Commercial engines in U.S. $	–561.5	–7.5	6,888.5	7,450.0
Commercial engines in €	191.1	3.1	6,327.3	6,136.2
Military engines in €	–124.1	–19.8	503.3	627.4
Total order backlog in €	**67.0**	**1.0**	**6,830.6**	**6,763.6**

Commercial engine business

The invoiced value of MTU's order book for commercial engines, reported on the basis of list prices and expressed in U.S. dollars, stood at U.S. $ 6,888.5 million as of December 31, 2015, and was thus U.S. $ 561.5 million (7.5%) below the 2014 figure of U.S. $ 7,450.0 million.

The order backlog translated into euros at the 2015 year-end closing rate increased by € 191.1 million (3.1%) to € 6,327.3 million (2014: € 6,136.2 million).

Military engine business

In the case of military programs, the customer typically places an order for a fixed number of engines at the time the production agreement is concluded. The full value of the contract flows into the order backlog when the contract is signed. This order backlog reduces over a prolonged period of time, in line with deliveries.

The volume of orders for military engines, which are contracted in euros, totaled € 503.3 million at the end of 2015. This was € 124.1 million (19.8%) below the previous year's amount of € 627.4 million.

In arithmetical terms, the order backlog for the OEM segment (commercial and military engine business) corresponds to over two years' production capacity.

Revenues

OEM revenues increased by
9.4%

The company generated revenues of € 2,897.1 million in the OEM segment, € 248.8 million (9.4%) higher than in 2014.

In the reporting period, revenues in the commercial engine business (before consolidation) increased by € 297.2 million (14.0%) to € 2,414.0 million. After adjustments to account for the effect of the U.S. dollar exchange rate, these revenues decreased by 4.8%. The engines that generated the largest shares of these revenues were the V2500 for the A320 family, the GP7000 for the Airbus A380 and the GEnx for Boeing's 787 Dreamliner and 747-8.

Revenues in the military engine business were lower than in 2014, decreasing by € 48.4 million (9.1%) from € 531.5 million to € 483.1 million. The main source of these revenues was the EJ200 engine for the Eurofighter.

REVENUES AND ADJUSTED EBIT (OEM)

in € million	Change 2015 - 2014 in € million	Change 2015 - 2014 in %	2015	2014
Revenues	248.8	9.4	2,897.1	2,648.3
Cost of sales	–243.8	–10.7	–2,518.2	–2,274.4
Gross profit	**5.0**	**1.3**	**378.9**	**373.9**
Gross margin in %			13.1	14.1
Adjusted EBIT	**18.8**	**7.1**	**285.0**	**266.2**
Adjusted EBIT margin in %			9.8	10.1

Adjusted EBIT

Adjusted earnings before interest and tax (adjusted EBIT) in the OEM segment increased by € 18.8 million to € 285.0 million (2014: € 266.2 million). The adjusted EBIT margin was reduced from 10.1 % to 9.8 %. The development of the U.S. $ exchange rate had a beneficial effect on operating profit, which was also influenced by the product mix realized in the reporting period, notably the ramp-up to series production in readiness for new engine programs.

Capital expenditure

Capital expenditure on intangible assets amounted to € 160.9 million (2014: € 293.7 million) and mainly concerned additions to program assets for new programs. This item also includes capitalized development costs for the GTF engines and for the GE38, GE9X and PW800 programs. Capital expenditure on property, plant and equipment amounted to € 102.9 million (2014: € 82.9 million) and mainly related to the expansion of the Polish site operated by MTU Aero Engines Polska, technical equipment, plant and machinery, and operational and office equipment required to prepare for the ramp-up to series production of the geared turbofan™ programs.

Employees

The average number of employees increased by 88 to 5,337 (2014: 5,249), mainly due to continued expansion of the company's site in Poland.

MRO SEGMENT

Order backlog

The order backlog in the MRO segment (commercial maintenance business) comprises the value of orders for separately contracted maintenance and repair work on engines that have been delivered to the maintenance shop plus the value of long-term service agreements.

MRO order backlog increased by €1.2 billion

ORDER BACKLOG FOR COMMERCIAL MAINTENANCE BUSINESS (MRO)

in € million	Change 2015 - 2014 in Mio.	Change 2015 - 2014 in %	Dec. 31, 2015	Dec. 31, 2014
Order backlog in U.S. $	807.7	15.1	6,165.4	5,357.7
Order backlog in €	**1,250.2**	**28.3**	**5,663.1**	**4,412.9**

The majority of contracts in the MRO segment are priced in U.S. dollars. The order backlog for the commercial maintenance business in 2015 amounted to U.S. $ 6,165.4 million, which is U.S. $ 807.7 million or 15.1% higher than the 2014 figure of U.S. $ 5,357.7 million.

Translated into euros at the 2015 year-end closing rate, the order backlog increased significantly by € 1,250.2 million (28.3%) to € 5,663.1 million (2014: € 4,412.9 million).

In arithmetical terms, the order backlog represents a production workload of approximately 3.5 years.

Revenues

MRO revenues increased by
21.7%

MTU's revenues in the commercial maintenance business (before consolidation) increased by € 281.7 million (21.7%) to € 1,580.6 million (2014: € 1,298.9 million). Adjusted for the effect of the U.S. dollar exchange rate, MRO revenues grew by 1.6%. The key revenue driver was the V2500 engine that powers the A320, followed by the CF6-80 deployed by Airbus and Boeing in their medium- and long-haul widebody airliners.

REVENUES AND ADJUSTED EBIT (OEM)

	Change 2015 - 2014			
in € million	in € million	in %	2015	2014
Revenues	**281.7**	**21.7**	**1,580.6**	**1,298.9**
Cost of sales	–239.9	–21.1	–1,379.5	–1,139.6
Gross profit	**41.8**	**26.2**	**201.1**	**159.3**
Gross margin in %			12.7	12.3
Adjusted EBIT	**38.9**	**33.4**	**155.2**	**116.3**
Adjusted EBIT margin in %			9.8	9.0

Adjusted EBIT

In 2015, adjusted EBIT for the MRO segment grew by € 38.9 million (33.4%) to € 155.2 million. The adjusted EBIT margin increased to 9.8% (2014: 9.0%). The main contributing factors in the reporting period were the development of the U.S. dollar exchange rate and the strong capacity utilization of MTU's MRO facilities, which logged shop visits with high added value.

Capital expenditure

Capital expenditure on intangible assets and property, plant and equipment increased by € 27.0 million to € 45.9 million (2014: € 18.9 million). This increase was due to the renewal of a repair license and to new and replacement purchases of technical equipment, plant and machinery, and of operational and office equipment.

Employees

The average number of employees was reduced by 57 to 3,011 (2014: 3,068).

FINANCIAL SITUATION

PRINCIPLES AND OBJECTIVES OF FINANCIAL MANAGEMENT

The main objectives of financial management are to ensure that the group always has access to adequate liquidity, to avoid financial risks, and to diversify sources of financing in the interests of flexibility. In order to ensure the company's liquidity and reduce risks, MTU makes use of various internal and external funding sources with differing maturities.

Longer-term liquidity forecasts are based on the group's operational planning. Short-term forecasts are updated once a month.

The cash flow from operating activities in the operating segments represents the group's main source of liquidity. Moreover, MTU utilizes a cash pooling system to transfer the surplus liquidity of individual group companies to other group companies whose cash flow does not cover their funding requirements. This reduces external borrowing requirements and the associated interest expense. MTU also makes use of a variety of internal and external funding instruments to assure its liquidity, including company pension plans, corporate bonds, loan agreements with banks and lease arrangements. For information on the company's capacity to raise funds through authorized and conditional capital increases, please refer to Note 24 to the consolidated financial statements (Equity). Through these diverse measures, MTU has created a stable and sustainable basis on which to assure its future funding requirements.

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FINANCING INSTRUMENTS

The banking policy, procedures for the approval of banking relationships, loan agreements, liquidity and financial asset management, and the management of currency and interest rate risks are set down in the treasury principles. It is a basic principle of the group that its lines of credit are administered at corporate level by the treasury department.

The group maintains good business relationships with a number of different partner banks, and in this way avoids being too strongly dependent on a single institution. The banking partners are required to have a long-term credit rating of at least investment grade.

FINANCING SOURCES

Financing instruments	Maturity date	Currency	Interest rate
Registered bond	June 12, 2028	Euro	Fixed
Corporate bond	June 21, 2017	Euro	Fixed
Note purchase agreement	March 27, 2021	Euro	6-month Euribor + margin
Pension obligations	continuous	Euro	Yield as for premium fixed-income industrial
Revolving credit facility	October 30, 2020	Euro	Euribor rate + margin
Money market facility	money at call	Euro	Fixed
Operating lease agreements	1 - 5 years	Euro / U.S. dollar	Fixed
Finance lease agreements	December 31, 2025	Euro	Fixed

The availability of these financial resources is unrestricted. MTU's revolving credit facility, which is only utilized to a minor extent, grants the company even greater scope in its financing activities.

The factors considered when choosing financing instruments include flexibility, credit terms, the profile of maturity dates, and borrowing costs. In keeping with standard banking practice, the main sources of financing include covenants requiring the company to ensure that its performance indicators remain within defined limits. MTU complied with the contractual obligations arising from such covenants at December 31, 2015 and at the end of every quarter of that year. Further information on financing instruments is provided in Note 28 to the consolidated financial statements (Financial liabilities). For information on significant agreements relating to a change of control subsequent to a takeover bid, please refer to the section entitled "Disclosures in connection with the takeover directive".

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The risk report and Note 36 (Financial risks) to the consolidated financial statements provide information on MTU's approach to the financial risks inherent in credit arrangements and valuation processes, methods used to hedge interest-rate and currency risks, and methods of dealing with price-change, non-payment and liquidity risks.

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The eurozone sovereign debt crisis had no significant impact on the group's overall financial situation. MTU does not hold any financial instruments as defined in IAS 39 or IFRS 7 that are affected by the current sovereign debt crisis.

As in previous years, MTU did not engage in any transactions in 2015 involving off-balance-sheet financial instruments such as the sale of receivables in connection with asset-backed securities or obligations toward special-purpose entities – with the exception of operating leases and sale-and-leaseback agreements.

NET FINANCIAL DEBT

Net financial debt serves as an indicator of the MTU group's financial situation and is defined as the difference between gross financial debt and current financial assets. In order to provide MTU's shareholders with a more realistic picture of the group's financial situation and net asset position, the definition of gross financial debt has been widened to include liabilities arising from the acquisition of other program participations over and above those in connection with the IAE-V2500 stake increase in 2012. At the same time, changes in the fair value of derivative financial instruments are henceforth excluded from the calculation of net financial debt. Based on these parameters, MTU's net financial debt at December 31, 2015 amounted to € 881.2 million, which represents a year-over-year increase of € 100.8 million (Dec. 31, 2014: € 780.4 million).

NET FINANCIAL DEBT

in € million	Change 2015 - 2014 in € million	in %	Dec. 31, 2015	Dec. 31, 2014
Corporate bonds	0.5	0.1	353.2	352.7
Financial liabilities arising from IAE-V2500 stake increase	5.0	1.2	419.6	414.6
Financial liabilities arising from other program participations	–18.7	–14.3	111.8	130.5
Financial liabilities to banks				
Note purchase agreement			30.1	30.1
Revolving credit facility	89.5	>100	99.1	9.6
Other liabilities to banks	20.0		20.0	
Financial liabilities to related companies	–0.1	–100.0		0.1
Finance lease liabilities	–1.3	–9.2	12.9	14.2
Gross financial debt	**94.9**	**10.0**	**1,046.7**	**951.8**
less:				
Cash and cash equivalents				
Demand deposits and cash	–14.9	–30.0	34.7	49.6
Fixed-term and overnight deposits with an original maturity of 3 months or less	3.4	22.7	18.4	15.0
Sundry other financial assets	5.6	5.2	112.4	106.8
Financial assets	**–5.9**	**–3.4**	**165.5**	**171.4**
Net financial debt	**100.8**	**12.9**	**881.2**	**780.4**

Corporate bonds

In order to finance the IAE-V2500 stake increase, MTU AG issued a bond for a nominal amount of € 250.0 million with effect from June 21, 2012. The bond earns an annual rate of interest of 3.0% from the date of issue (June 21, 2012) until the repayment date (June 21, 2017). The interest is payable in arrears on June 21 of each year. The proceeds of the bond issue, net of transaction costs and including a discount of € 1.5 million, were recognized at amortized cost.

MTU AG issued a registered bond on June 12, 2013 for a total nominal amount of € 100.0 million. The registered bond matures on June 12, 2028 and is subject to interest of 3.55% p.a., payable in arrears on June 12 of each year, for the first time on June 12, 2014. The registered bond, net of transaction costs and including a discount of € 2.7 million, is measured at amortized cost.

In the event of a change of control, every bondholder is entitled to declare due part or all of his/her bond units for the nominal amount plus any accrued interest. A change-of-control event occurs if a qualifying rating is lowered in the course of the change of control. This condition is deemed to be met if (1), during the change-of-control period, a rating previously granted by a rating agency to MTU or to one of its security instruments is withdrawn or is changed to below investment grade (equivalent to or higher than Baa3 (Moody's) or BBB- (Fitch or S&P)), or if (2), at the time of the change of control, no investment grade rating has been awarded by a rating agency to MTU or to any of its security instruments, and no investment-grade rating is issued for the bond in question within the change-of-control period.

Financial liabilities arising from IAE V2500 stake increase

The purchase price agreement signed by MTU in the financial year 2012 in order to increase its stake in the V2500 engine program by five percentage points to 16% included a deferred purchase price component that made it necessary to recognize a financial liability contingent upon the number of flight hours performed by the inservice fleet of V2500 engines (at that date) over the next 15 years.

Financial liabilities arising from other program participations

The financial liabilities arising from other program participations mainly comprise financial liabilities arising from the acquisition of stakes in the GTF engine family, the PW800 and the LM6000-PF+.

Financial liabilities to banks

Revolving credit facility

Revolving credit facility
extended

The company has access to a revolving credit facility of € 400.0 million (2014: € 400.0 million) with five banks, which previously ran until October 30, 2019. This facility was renewed for a further year in 2015 and now runs until October 30, 2020. A total of € 113.7 million (2014: € 22.5 million) had been drawn down under this facility at December 31, 2015, € 14.6 million of which in the form of guarantees in favor of third parties (2014: € 12.9 million). The remaining available amount of € 286.3 million ensures the group's financial flexibility in the medium term. Any credit utilized is subject to interest at the customary market reference rates plus an additional margin. The unused amount of the revolving credit facility is subject to a loan commitment fee.

Other liabilities to banks

Other liabilities to banks comprise a money market facility, enabling MTU to borrow or invest an amount of € 20.0 million in liquidity at short notice at the terms and conditions prevailing in the money markets.

Finance lease liabilities

Finance lease liabilities represent obligations under finance lease arrangements that are capitalized and amortized using the effective interest method. For information on the their accounting treatment and a summary of the corresponding capitalized lease assets, please refer to Part I of the Notes to the consolidated financial statements (Accounting policies and principles) and Note 15 (Property, plant and equipment).

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CAPITAL EXPENDITURE

Capital expenditure in the reporting period relates to additions to intangible assets, property, plant and equipment, and financial assets:

CAPITAL EXPENDITURE BY CLASS OF ASSET

in € million	Change 2015 - 2014 in € million	Change 2015 - 2014 in %	2015	2014
OEM	–132.8	–45.2	160.9	293.7
MRO	18.6	>100	18.9	0.3
Intangible assets	**–114.2**	**–38.8**	**179.8**	**294.0**
OEM	20.0	24.1	102.9	82.9
MRO	8.4	45.2	27.0	18.6
Property, plant and equipment	**28.4**	**28.0**	**129.9**	**101.5**
OEM	3.1	11.3	30.5	27.4
MRO	8.3	35.8	31.5	23.2
Financial assets accounted for using the equity method or at cost[1]	**11.4**	**22.5**	**62.0**	**50.6**
Total capital expenditure	**–74.4**	**–16.7**	**371.7**	**446.1**

[1] Financial assets accounted for using the equity method or at cost.

Capital expenditure on intangible assets

In the financial year 2015, additions to intangible assets amounted to € 179.8 million (2014: € 294.0 million), partly in the form of cash items. Of this amount, expenditure totaling € 50.8 million (2014: € 78.4 million) relates to the acquisition of program assets, notably in connection with MTU's stake in the GE9X and LM6000-PF+ programs. In addition, development costs of € 108.7 million (2014: € 87.5 million) were capitalized in the OEM segment (commercial and military engine business) in connection with the company's partnership with P&W on the GTF engine family, with P&WC on the PW800, and with GE on the GE38 and GE9X programs. In 2015, the carrying amount of the program assets resulting from the IAE-V2500 stake increase was reduced by € 4.7 million (2014: increased by € 126.5 million) in line with the conditional purchase price component. Detailed information on capital expenditure on intangible assets is provided in Note 14 to the consolidated financial statements (Intangible assets).

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Capital expenditure on property, plant and equipment

Additions to land, leasehold rights and buildings, including buildings on non-owned land, amounted to € 2.6 million in the financial year 2015 (2014: € 7.8 million) and relate mainly to the expansion of the Polish facility operated by MTU Aero Engines Polska. Capital expenditure on technical equipment, plant and machinery totaling € 18.0 million (2014: € 12.8 million) relates mainly to the purchase of CNC lathes and CNC grinding / milling machines. The capital expenditure on other equipment, operational, and office equipment totaling € 60.8 million (2014: € 45.4 million) mainly comprises the acquisition or construction costs of production resources and tools for programs in the ramp-up phase, and of certification and leasing engines. Advance payments and construction in progress increased to € 48.5 million in the financial year 2015 (2014: € 35.5 million), and relate mainly to the expansion of production capacity at the MTU locations in Munich and Hannover. Further information on capital expenditure on property, plant and equipment is provided in Note 15 to the consolidated financial statements (Property, plant and equipment).

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LIQUIDITY ANALYSIS

Free cash flow
€ 72.0 million

One of MTU's key performance indicators is free cash flow, which it determines by combining its cash flow from operating activities with its cash flow from investing activities. Because the latter includes certain components that lie outside the control of operations management and do not form part of the group's core activities, corresponding adjustments are applied. The free cash flow of € 72.0 million (2014: € 42.5 million) therefore excludes the following components of cash flow from investing activities: expenditure on stakes in engine programs amounting to € 47.1 million (2014: 46.4 million), payments related to interest-bearing loans in connection with aircraft and engine financing agreements amounting to € 25.0 million (2014: € 17.8 million), investments and disinvestments of financial assets held for the purpose of liquidity management amounting to € –28.5 million (2014: € 8.0 million). In the financial year 2015, the acquisition costs of shares in engine programs related principally to the GE9X and GE LM6000-PF+ programs and the PW1000G family.

CONSOLIDATED CASH FLOW STATEMENT (ABRIDGED)

	Change 2015 - 2014			
in € million	in € million	in %	**2015**	2014
Cash flow from operating activities	91.4	44.6	296.2	204.8
Cash flow from investing activities	–33.3	–14.2	–267.8	–234.5
Cash flow from financing activities	30.0	41.3	–42.7	–72.7
Translation differences	–4.6	–62.2	2.8	7.4
Change in cash and cash equivalents	**83.5**	**87.9**	**–11.5**	**–95.0**
Cash and cash equivalents at beginning of financial year			64.6	159.6
Cash and cash equivalents at end of financial year			53.1	64.6

Cash flow from operating activities

The cash inflow from operating activities in 2015 amounted to € 296.2 million, which was € 91.4 million (44.6%) higher than the 2014 figure of € 204.8 million. The main contributing factor to this positive result in the reporting period was the strong growth in revenues and earnings, which significantly outweighed the amount of working capital tied up in production resources for the ramp-up of new programs.

Cash flow from investing activities

The cash outflow from investing activities in the financial year 2015 amounted to € 267.8 million (2014: € 234.5 million). Capital expenditure on intangible assets accounted for € 142.8 million (2014: € 100.8 million) of this amount, and mainly comprised investments in program assets and development costs for the PW1000G family, PW800, GE38, GE LM6000-PF+ and GE9X programs. Capital expenditure on property, plant and equipment amounted to € 129.9 million, compared with € 100.7 million in 2014. This increase is consistent with the expansion of MTU's production capacity in Germany and Poland. The net gain / loss on financial assets was mainly due to interest-bearing loans in connection with aircraft financing agreements. The cash flow from investing activities includes proceeds from the disposal of intangible assets and property, plant and equipment amounting to € 4.5 million (2014: € 1.0 million).

Significant
investing
activities

Cash flow from financing activities

In the financial year 2015, the net cash outflow from financing activities amounted to € 42.7 million (2014: € 72.7 million). This mainly comprised an amount of € 74.0 million paid out as dividend for the financial year 2014 (€ 68.7 million for the financial year 2013) and an amount of € 86.1 million relating to the settlement of purchase price obligations in connection with the purchase of stakes in the PW1000G and PW800 programs and the increased stake in the IAE-V2500 program, while the utilization of funds amounting to € 89.5 from the revolving credit facility and the increase in other liabilities to banks provided a cash inflow of € 20.0 million.

Change in cash and cash equivalents

Cash flow developments resulted in a decrease in cash and cash equivalents of € 11.5 million (2014: € 95.0 million).

NET ASSETS

Total assets grew by € 382.0 million (7.9%) year on year to € 5,188.3 million (2014: € 4,806.3 million). The equity ratio increased to 25.1% (2014: 24.7%). This increase is primarily attributable to the net profit for the year, which outbalanced the dividend payment to shareholders, fair-value losses on financial instruments designated as cash flow hedges, and actuarial losses on plan assets and pension obligations.

Changes in balance sheet items

MTU CONSOLIDATED BALANCE SHEET

	Change 2015 - 2014		Dec. 31, 2015		Dec. 31, 2014	
	in € million	in %	in € million	in %	in € million	in %
Assets						
Non-current assets						
Intangible assets and property, plant and equipment	135.1	5.0	2,846.0	54.9	2,710.9	56.4
Other assets	72.1	31.9	298.4	5.7	226.3	4.7
Total non-current assets	**207.2**	**7.1**	**3,144.4**	**60.6**	**2,937.2**	**61.1**
Current assets						
Inventories	153.0	20.6	894.0	17.2	741.0	15.4
Receivables, other assets and advance payments	33.3	3.1	1,096.8	21.1	1,063.5	22.1
Cash and cash equivalents	–11.5	–17.8	53.1	1.1	64.6	1.4
Total current assets	**174.8**	**9.4**	**2,043.9**	**39.4**	**1,869.1**	**38.9**
Total assets	**382.0**	**7.9**	**5,188.3**	**100.0**	**4,806.3**	**100.0**
Equity and liabilities						
Equity	**112.3**	**9.5**	**1,300.6**	**25.1**	**1,188.3**	**24.7**
Non-current debt						
Provisions	20.9	2.7	802.3	15.4	781.4	16.3
Liabilities	–68.3	–6.8	932.9	18.0	1,001.2	20.8
Total non-current debt	**–47.4**	**–2.7**	**1,735.2**	**33.4**	**1,782.6**	**37.1**
Current debt						
Provisions / Income tax liabilities	146.5	36.3	550.5	10.6	404.0	8.4
Liabilities	170.6	11.9	1,602.0	30.9	1,431.4	29.8
Total current debt	**317.1**	**17.3**	**2,152.5**	**41.5**	**1,835.4**	**38.2**
Total equity and liabilities	**382.0**	**7.9**	**5,188.3**	**100.0**	**4,806.3**	**100.0**

ASSETS

Intangible assets and property, plant and equipment increased by a total of € 135.1 million to € 2,846.0 million (2014: € 2,710.9 million).

In the financial year 2015, additions to intangible assets amounted to € 113.2 million (2014: € 294.0 million). The main components of this increase were investments in program assets and development costs in connection with the new PW1000G, PW800, GE38 and GE9X engine programs and the GE LM6000-PF+ industrial gas turbine.

The increase in property, plant and equipment relates principally to the expansion of the MTU facility in Poland. Additional technical equipment, plant and machinery was required to ramp up blisk manufacturing capacity. Additions to operational and office equipment comprised special tools and equipment, fixtures, and other tools for MTU's locations in Munich, Hannover, and Rzeszów.

Financial assets increased by € 34.4 million (12.6%) to € 308.0 million. This change is primarily attributable to the positive development of business by joint ventures and associated companies in which MTU holds an operating interest and which are accounted for using the equity method in the group's consolidated financial statements.

Inventories increased by € 153.0 million or 20.6% in 2015 to € 894.0 million (2014: € 741.0 million). Inventories of raw materials and supplies rose by € 74.4 million to € 321.2 million (2014: € 246.8 million), while finished products and work in progress increased by € 82.9 million to € 558.0 million (2014: € 475.1 million). Advance payments decreased by € 4.3 million to € 14.8 million (2014: € 19.1 million). Altogether, inventories accounted for 17.2% of net assets, a higher ratio than in 2014 (15.4%). The sales to inventory ratio was 5.4 (2014: 5.3).

The sum of trade receivables, construction contract and service business receivables (after deduction of the corresponding advance payments received) and other current assets including prepayments rose by € 33.3 million (3.1%) year on year to € 1,096.8 million. Trade receivables increased by € 28.8 million (4.2%) to € 708.5 million, owing to the growth in sales, especially in the fourth quarter. Construction contract and service business receivables (based on percentage of completion), net of the corresponding advance payments received, increased by € 30.1 million to € 301.3 million, an increase of 11.1% compared with the level at December 31, 2014.

Cash and cash equivalents amounted to € 53.1 million at the reporting date (2014: € 64.6 million). This corresponds to 1.1% of total assets, which is lower than the 1.4% reported in 2014.

In terms of the structure of assets, the proportion of non-current assets decreased by 0.5 percentage points to 60.6% (2014: 61.1%).

EQUITY

CHANGES IN EQUITY

in € million	2015	2014
Group equity at January 1	1,188.3	1,251.0
Other comprehensive income		
Financial instruments designated as cash flow hedges	–42.8	–115.1
Actuarial gains and losses on plan assets and pension obligations	–10.5	–98.9
Translation differences arising from the financial statements of international entities	12.7	14.2
Earnings after tax	217.6	195.4
Dividend payment to shareholders of MTU Aero Engines AG	–74.0	–68.7
Fair-value measurement and issue of treasury shares under the Share Matching Plan	1.7	2.5
Sale of treasury shares under the MAP employee stock option program	7.6	7.9
Total change in group equity	**112.3**	**–62.7**
Group equity at December 31	**1,300.6**	**1,188.3**

Positive changes in equity

Positive changes in equity in 2015 included an amount of € 217.6 million attributable to earnings after tax (EAT) (2014: € 195.4 million) and an amount of € 12.7 million (2014: € 14.2 million) attributable to translation differences arising from the financial statements of international entities. A further € 9.3 million increase in equity (2014: € 10.4 million) was due to the sale of treasury shares to group employees under the MAP employee stock option program and the Share Matching Plan. A breakdown of the share-based compensation components is provided in Note 28 to the consolidated financial statements (Financial liabilities).

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Negative changes in equity

Negative changes in equity in 2015 include an amount of € 74.0 million for the dividend payment to shareholders of MTU Aero Engines AG for the financial year 2014 (2014: dividend payment of € 68.7 million for the financial year 2013). A further negative change arose from the fair-value measurement of MTU's cash flow hedge portfolio, taking deferred tax assets and/or liabilities into account, reducing equity in 2015 by € 42.8 million (2014: € 115.1 million). The subsequent measurement of plan assets and pension obligations resulted in an additional negative change of € 10.5 million (2014: € 98.9 million), owing to actuarial losses.

Changes in the fair value of financial instruments designated as cash flow hedges

Forward foreign exchange contracts in place to 2018

In order to hedge payment cash flows against exposure to currency risk, MTU held a portfolio of USD forward foreign exchange contracts at December 31, 2015, covering the period up to April 2018 to sell a nominal volume of U.S. $1,180.0 million. In addition, the company held further financial instruments designated as cash flow hedges under contracts extending to mid-2027 to sell a nominal volume of U.S. $539.7 million (2014: U.S. $603.3 million), for which hedging relationships have been established. Measurement of the fair value of the MTU cash flow hedge portfolio at the reporting date, based on a euro-U.S. dollar exchange rate of 1.09 and taking deferred tax assets and/or liabilities into account, resulted in a negative change of € 42.8 million in the fair value recognized under other comprehensive income (OCI) compared with December 31, 2014.

FINANCIAL DEBT

Non-current debt decreased by € 47.4 million (2.7%) to € 1,735.2 million, its share in total liabilities falling by 3.7 percentage points to 33.4% (2014: 37.1%). In total, non-current provisions increased by € 20.9 million to € 802.3 million. This figure includes pension provisions of € 777.5 million (2014: € 761.9 million). Non-current other provisions increased to € 24.8 million at December 31, 2015, compared with € 19.5 million at December 31, 2014.

Non-current liabilities totaling € 932.9 million (2014: € 1,001.2 million) comprised non-current gross financial debt amounting to € 811.9 million (2014: € 836.9 million), other financial liabilities of € 98.3 million (2014: € 104.4 million), and deferred tax liabilities amounting to € 22.7 million at December 31, 2015 (2014: € 59.9 million).

The combined total of equity and non-current debt increased in the financial year 2015 by € 64.9 million (2.2%) to € 3,035.8 million (2014: € 2,970.9 million). This means that 96.5% (2014: 101.1%) of the company's non-current assets are financed through available, medium- to long-term funds.

Current debt capital increased by € 317.1 million (17.3%) to € 2,152.5 million, while provisions and income tax liabilities increased by € 146.5 million (36.3%) to € 550.5 million. The latter item includes pension provisions amounting to € 24.2 million (2014: € 21.7 million), income tax liabilities, which increased from € 30.3 million to € 31.1 million, and other provisions of € 495.2 million, which were € 143.2 million (40.7%) higher than in 2014. The increase in other provisions is consistent with the growth in revenues in the fourth quarter and, in particular, results from the associated amounts of cost of sales and losses arising from the settlement of accounts that were not yet recognized at the reporting date. Current liabilities increased by € 170.6 million (11.9%) to € 1,602.0 million. These include trade payables amounting to € 673.4 million (2014: € 633.6 million), the balance of construction contract and service business payables after deduction of the corresponding receivables, amounting to € 373.8 million (2014: € 485.7 million), gross financial debt of € 234.8 million (2014: € 114.9 million), negative fair values of derivatives amounting to € 91.5 million (2014: € 39.5 million), and sundry other identifiable obligations.

Within the structure of equity and financial debt, the equity ratio increased year on year by 0.4 percentage points to 25.1% (2014: 24.7%), while short-term debt capital increased by 3.3 percentage points.

Equity ratio
25.1%

FINANCIAL AND NON-FINANCIAL PERFORMANCE INDICATORS

FINANCIAL PERFORMANCE INDICATORS

The original forecasts for adjusted EBIT and adjusted earnings after tax were updated in the half-year report and specified as being around € 430 million and € 295 million respectively. The revenue forecast was increased to € 4,600 million, particularly in view of the favorable development of the U.S. dollar exchange rate.

At the time of the third-quarter report, there were indications that the levels reached would be maintained in all areas. As a consequence, the forecast was not changed.

FORECAST AND ACTUAL RESULTS

in € million	Actual 2015	Forecast 2015 dated July 23, 2015	Forecast 2015 dated March 3, 2015	Actual 2014	Change 2015 - 2014
Revenues	4,435.3	approx. 4,600	approx. 4,400	3,913.9	13.3
Adjusted earnings before interest and tax (adjusted EBIT)	440.3	approx. 430	approx. 420	382.7	15.1
Adjusted earnings after tax	306.9	approx. 295	approx. 285	253.3	21.2

REVENUE FORECAST

On March 3, 2015, the Executive Board forecast that revenues in 2015 would increase to around € 4,400 million (2014: € 3,913.3). In the half-year report published on July 23, 2015, this forecast was revised upward to € 4,600 million. At year end, revenues amounted to € 4,435.3 million, thus differing by barely 4% from the forecast figure. The main reason for this difference was the postponement of deliveries in connection with the GP7000 and PW1100G-JM programs in the OEM segment, which finally materialized in the fourth quarter. The military engine business, by contrast, developed as predicted, with revenues 9% below those of the previous year. Revenues in the MRO segment grew by 2% in U.S. dollar terms, here also confirming the original forecast.

EARNINGS FORECAST (ADJUSTED EBIT)

MTU initially forecast an increase in adjusted EBIT to around € 420 million. On July 23, 2015, the group revised its forecast upward, to around € 430 million. Year-end adjusted EBIT amounted to € 440.3 million, which is significantly higher than the figure for 2014. The reasons for this increase include the favorable development of the U.S. dollar exchange rate and a more favorable product mix than that on which the original forecasts were based, especially in the commercial engine business.

EARNINGS FORECAST (ADJUSTED EARNINGS AFTER TAX)

The Executive Board initially forecast adjusted earnings after tax of approximately € 285 million for 2015. A more precise forecast was issued on July 23, 2015, raising this amount to around € 295 million. At December 31, 2015, adjusted earnings after tax amounted to € 306.9 million which, following the same trajectory as operating profit (adjusted EBIT), was higher than the 2014 figure.

FREE CASH FLOW

Given the expectation that 2015 would be a year of substantial capital expenditure, and that the amount of advance payments in the military business would fall still further, but that these debit items would be balanced by improved operating results, the Executive Board's forecast for free cash flow issued on March 3, 2015, was that it would remain at the previous year's level. This forecast was revised upward to a figure in the upper two-digit millions on July 23, 2015, in view of the positive results published in the half-year interim report. This target was met at year-end, with a free cash flow of € 72.0 million.

OVERALL ASSESSMENT OF BUSINESS PERFORMANCE IN 2015

Record-breaking results at MTU

MTU closed the financial year 2015 with another series of record-breaking results. Revenues increased to € 4,435.3 million, which is 13.3% higher than in the previous year (2014: € 3,913.9 million).

The positive development of the U.S. $-euro exchange rate had a favorable impact on revenues in both the OEM (commercial and military engine business) and MRO (commercial maintenance business) segments.

Revenues in the OEM segment grew by 9.4% in 2015, while the MRO segment posted an increase in revenues of 21.7%.

2015 was another year of intensive capital expenditure for MTU, with the company continuing to invest in commercial engine development across all thrust classes and building up its production capacity at locations in Germany and abroad. One of the key milestones in this process was the market launch of the geared turbofan™ engine family, which was reached at the turn of the year with the introduction of the PW1100G-JM for the Airbus A320neo.

MTU's operating profit reached a new record high in 2015, boosted in particular by the U.S. dollar exchange rate and the product mix realized in the reporting period. Adjusted EBIT amounted to € 440.3 million (2014: € 382.7 million), while the EBIT margin rose to 9.9% (2014: 9.8%).

The free cash flow results were equally gratifying, rising to € 72.0 million (2014: € 42.5 million) despite major capital expenditure on the development of new engines and a decrease in advance payments in the military engine business.

The forecasts issued at the beginning of the year, which were later revised upward, were thus not only achieved but surpassed, with the sole exception of the revenues forecast.

NON-FINANCIAL PERFORMANCE INDICATORS

SUSTAINABILITY

MTU assumes responsibility for the environment and society in the same measure as it does for its products, processes, employees, customers, and partners. This understanding of sustainability is anchored in the MTU Principles under the heading "Environment and Society." The principles of this economic, ecological and social responsibility are formulated in a code of conduct that is binding throughout the enterprise. In order to make corporate responsibility (CR) an integral part of everything the company does, we have put in place a CR management system, which steers and coordinates CR strategy, activities and targets. The CR steering committee, the highest body within this system, regularly reports to the Executive Board, which bears ultimate responsibility for MTU's sustainability strategy.

Binding
code of conduct

With the aid of a materiality analysis, the CR management team identifies key sustainability issues falling within its scope of action. As part of this analysis, the team determines the relevance of economic, ecological and social challenges for MTU and its stakeholders. In 2015, the CR strategy and the areas in which it can be applied were reviewed and adapted.

When it comes to corporate responsibility, one of MTU's main points of focus is product development. The company can make its most significant contribution to society by developing outstanding innovations to make aircraft engines more eco-efficient and to conserve the resources required for aviation. That is why safe, sustainable products are the central goal of MTU's sustainability strategy. For a detailed description of MTU's research and development policy and activities, please refer to the section entitled "Research and development".

→ further information on page 72

When putting CR into practice, MTU applies internationally recognized principles. In 2011, for instance, the company joined the UN Global Compact. As a Global Compact member, MTU acknowledges its responsibility for protecting the environment, promoting human rights, upholding labor standards and combating corruption. This pact between international corporations and the United Nations was drawn up with the goal of making globalization more socially and ecologically compatible.

MTU is also a signatory to the Standards of the Aerospace and Defence Industries Association of Europe (ASD), which are designed to combat corruption and bribery, and to promote fair competition among equal parties. At a national level, this initiative is supported by the German Aerospace Industries Association (BDLI).

The company reports on its CR activities in accordance with the internationally recognized standards of the Global Reporting Initiative (GRI). The Sustainability Report 2013/2014 was MTU's first to include a progress report on improvements made in the areas covered by the UN Global Compact.

MTU also expects its suppliers to act responsibility and, to this end, has made responsible sourcing a new focal point of its sustainability strategy. Suppliers must comply with a contractually agreed code of conduct, which is largely aligned with the ten principles of the UN Global Compact.

Social commitment

The company's commitment to society focuses on the areas of education, science, and research, which is why it collaborates with numerous research institutions. It attaches particular importance to arousing the interest of young people and talented researchers to work on developing eco-efficient engines. In Germany, for instance, MTU throws opens its factory buildings once a year to interested female students as part of the nationwide Girls' Day, while several of the company's sites also take part in the Training Night, an information event for potential trainees. It offers internships and scholarships that are specially tailored to female school and university students.

MTU assists schools in the neighborhood of its sites throughout Germany in presenting technical subjects to school students. It is also partner for events organized by schools, such as nature and technology days. The maintenance site in Hannover participates in the "IdeenExpo" science exhibition, while the company museum in Munich opens its doors to the public both during the annual Lange Nacht der Münchner Museen (Long Night of the Munich Museums) and once a quarter.

The company is a major employer at each of its three locations in Germany, and supports social and charitable institutions. Numerous employees do volunteer work in their private time, and MTU expressly approves their personal initiative and the role model function they embody. The company supports local and supra-regional associations, organizations, and institutions as a promoter, sponsor, and network participant.

MTU is listed in sustainability indices and has already received various awards for its commitment in this area. oekom research AG, one of the world's leading rating agencies in the sustainable investment segment, currently gives MTU a C+ in its Prime Status class. Beyond that, MTU has figured in the STOXX ESG Leader Indices since 2014 due to its above-average ratings in environmental, social and governance aspects. CDP, an organization that collects emissions data from companies worldwide, named MTU "Best Improver Germany" in 2015 after the company took a big step up in its rankings.

→ more information available online under Company > Corporate Responsibility

Further information on how the company views its social responsibility and the key areas on which its CR activities are focused can be found on the MTU website. MTU's Sustainability Report can be downloaded from http://www.mtu.de/company/corporate-responsibility/reports/. The next report, which will comply with the new G4 reporting standard, is due to appear in summer 2016. Any questions concerning corporate responsibility can be addressed by e-mail to the CR team: corporateresponsibility@mtu.de.

EMPLOYEES

GLOBAL MTU WORKFORCE

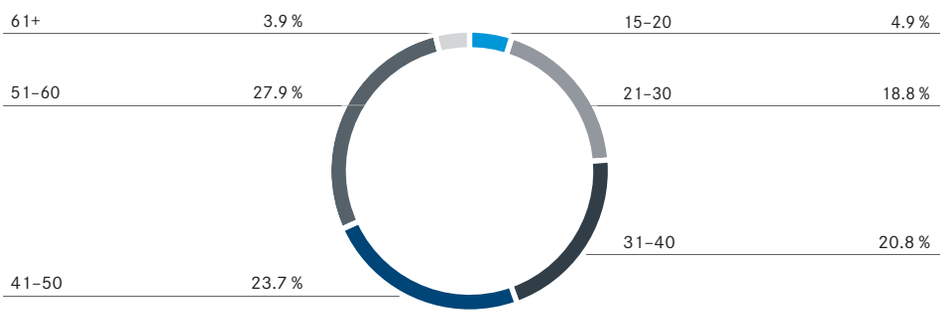
in € million	Change 2015 - 2014 Employees	in %	Dec. 31, 2015	Dec. 31, 2014
Locations in Germany	–55	–0.8	7,172	7,227
International locations	56	5.1	1,162	1,106
Total workforce	**1**		**8,334**	**8,333**

The average number of employees remained virtually unchanged over the course of the year. At December 31, 2015, MTU had a total workforce of 8,334.

The following diagram shows the age structure of the workforce at the group entities in Germany:

8,334
employees

AGE STRUCTURE IN % (GERMAN LOCATIONS ONLY)



Vocational training 2015

Apprenticeship quota

5 %

With an apprenticeship quota of 5 %, the company invests strongly in future talent. Female apprentices accounted for 14.8 % of the total of 350 apprentices at year end 2015.

In addition to topics of purely professional interest, vocational training at MTU also focuses on methodological and social skills, which can contribute toward the employees' personal development within the framework of our corporate culture.

Personnel and organizational development

MTU Business Challenge functions as the company's information and qualification label. The goal of this initiative is to gear the knowledge and actions of management more closely to the challenges being faced by MTU. The aim of the training module entitled "Business Challenge I – Management in an MDAX company" was to harmonize knowledge of the capital markets and create a shared understanding of this topic.

The Shop Floor Management project was also continued in 2015, and was newly introduced into areas of the company that, although not directly related to operational value creation, interact closely with production and maintenance.

With its International Leadership Program, MTU continued to enhance collaboration and communication between managers across the globe. In training modules devoted to subjects such as change management, intercultural cooperation, and leadership, the participants took part in projects, the results of which were integrated directly into strategic projects at MTU.

Compensation and employee profit-sharing

The compensation that MTU offers its employees recognizes individual performance and is in line with market benchmarks. The performance-related variable compensation component is based on KPIs that apply to employees at all hierarchical levels.

MTU's MAP employee stock option program and the Share Matching Plan for senior managers offer to match each participant's investment at the end of a two-year vesting period with a number of free shares based on the purchase price of the shares originally acquired through these schemes. In 2015, 20.1 % of employees took part in the MAP employee stock option program and the Share Matching Plan, investing a total of € 8.9 million.

Work-life balance

MTU enhances the work-life balance of its employees with a variety of offerings and services. The company provides its employees with a wide range of working-time models, teleworking options, a working time corridor from 5:15 a.m. to 8:00 p.m. as well as flexibility in taking time off.

Since November 2014, mobile working has been introduced in selected areas at the company's locations in Germany, granting the employees in question greater flexibility in when and where they work.

Parental leave and child/elderly care sabbaticals are arrangements that enable staff to spend more time with their families when this need is uppermost in their lives. What is more, external providers offer employees a comprehensive package of additional services, including help in finding child minders, and advice when next of kin require long-term nursing care. MTU also provides funding for the daycare center of "TurBienchen," a non-profit association run by a parents' initiative. The center is located on the company's premises in Munich. The holiday care program for children aged three to twelve that was launched in 2012 was offered again in 2015.

Health management

A company's competitiveness and, ultimately, its success hinge upon the health of its employees and their ability to perform. That is why MTU places such emphasis on maintaining and promoting the health of its workforce, far beyond what is required of it under occupational health and safety legislation.

In 2015, MTU continued to expand its range of on-site facilities and programs for preventing illness and improving health at all of its locations in Germany. The company offers a traditional program of health promotion in key areas such as site medical services, psychosocial counseling and local health studios, including a physiotherapy practice. This program is complemented by other options such as vibration training close to the workplace, preventive back pain training in the workplace, training in ergonomic seating, health days for different divisions/departments, seminars on preventive health care, the "active break," light meals offered by the company restaurant, and partnerships with local external fitness studios.

In addition to the tried-and-tested offerings for promoting physical health, the focus is increasingly shifting to topics such as mental health and ergonomics.

Managers, who bear a particular responsibility for their employees' health, receive support from MTU through awareness-raising programs as well as courses designed to enhance their knowledge and enable them to take appropriate action.

A forecasting model known as a "scenario calculator" was used to evaluate the health-related productivity losses incurred in 2015 in order to generate forward-looking scenarios. The forecasting model provides a basis for developing a strategy for effective, needs-based health management at MTU that pays special heed to demographic factors. In this way, MTU is evolving its current successful system of promoting occupational health toward a sustainable system of corporate health management.

Sustainable
health
management

MTU's attractiveness as an employer

For MTU, it is important to be perceived as an attractive employer – both by current and potential employees and in comparative analyses with other enterprises.

The Top Employers Institute ranks employers throughout Germany in terms of what they offer in a range of categories, e.g. talent strategy, HR planning, onboarding, training and development, performance management, promotion of management, career and succession planning, compensation and benefits, and corporate culture.

MTU scores
top marks
for career perspectives

In recent years, MTU has maintained its very high ranking. The company achieved the top marks in the "talent strategy" and "career & succession planning" categories, placing it among the top 20% of companies in these categories. In the "performance management" category, MTU was even ranked in the top 10%.

In 2015, the company's locations in Germany were certified as Top Employers for the ninth consecutive year, while MTU Aero Engines Polska received this seal of approval for the second time in succession, positioning it among Poland's top 40 employers. The Top Employer certification represents an obligation for MTU Aero Engines Polska to continue enhancing its processes and structures.

MTU Maintenance Canada was also honored with an award comparable to the Top Employer certification, being voted one of the best employers in the province of British Columbia in the categories workplace, health, financial and family benefits, employee communications, performance management and community involvement.

MTU's positive image was also confirmed by the Universum Young Professionals Study carried out by WirtschaftsWoche magazine, in which the company ranked 30th among the 100 most popular employers for engineers and 19th out of 30 for the group of engineers with professional experience. In the same survey, MTU Aero Engines Polska took 62nd place among the top 100.

Moreover, the employer rankings published by Berlin-based research institute trendence show that entry-level employees have a favorable impression of MTU as an employer: as in the previous year, engineering graduates ranked MTU in the top half of the companies listed in 2015.

MTU is given high marks by potential applicants and its own employees, as is underscored by the findings of kununu, the biggest employer assessment platform in the German-language area. MTU was named a "TOP Company," the kununu platform's seal of approval for employers with high ratings.

Ensuring the company's future success through diversity

MTU is well aware of the fact that diversity strengthens a company's competitiveness and innovative edge, which is why it encourages the diversity of its workforce. This finds clear expression in the MTU Principles, which state that the creativity engendered by the diversity of the workforce is to be specifically deployed to ensure the company's success. In this context, MTU is referring especially to employees from different age groups and cultures, and to broad-based professional expertise.

In its Charter of Diversity, MTU espouses its commitment to supporting diversity in the workplace and promoting an open corporate culture.

Equal opportunities for women and men are a matter of course for MTU, a fact underscored by the company when it signed the Munich Memorandum for Women. MTU has been endeavoring for years to increase the share of women employees and women managers in its workforce, and has adopted a wide range of measures for this purpose, including special recruitment initiatives, career counseling, and a dedicated mentoring program.

Over ten years ago, MTU set up a closely associated foundation, the goal of which is to actively support the personal development of female students in the STEM disciplines (science, technology, engineering, and mathematics) and to prepare them for their careers. In addition to providing extensive professional and personal counseling, the foundation also functions as a platform for an intensive dialog with young women, encouraging them to make the most of their strengths in technical professions, the intention being to raise the percentage of women in this field.

MTU's gender diversity goal is to increase the share of women in leadership positions to 11% by June 2017. That will require the promotion of eleven more women to achieve the target figure of 76 women in management positions.

Further information on HR activities at MTU can be found in the separate Human Resources Report 2015/2016, which can be downloaded from our website under Careers / Work at MTU.

→ more information available online under Careers

ENVIRONMENT

For MTU, protecting the environment is not simply an obligation, but part and parcel of the responsibility it shoulders on behalf of its employees, customers, partners, neighbors, and society.

Eco-friendly, sustainable aviation

If aviation is to become more eco-friendly and sustainable, all those involved in it will have to work together closely. That is why MTU is playing an active part in numerous initiatives. The German Aerospace Industries Association (BDLI), for example, has drawn up a roadmap for the period until 2050, which defines all the necessary technologies – including alternative fuel supplies – and assigns responsibilities. While the industry focuses on addressing short- and medium-term concerns, long-term issues are more the domain of university researchers. With the support of MTU, institutes of higher education are already working on some of these topics in the context of the "eco-efficient flying" initiative of the German Federal Ministry of Economics and technology and the EU's Breakthrough and Emerging Technologies program. The studies in progress are focusing, for example, on revolutionary work processes, innovative fuels, thermoelectric generators, the production of synthetic kerosene using solar energy, and the integration of distributed engines in aircraft. In the year under review, MTU investigated the potential of electric and hybrid propulsion systems as long-term alternatives for the aviation industry. What is more, together with 20 other aviation companies, bioenergy producers, universities and research institutes, MTU launched the Aviation Initiative for Renewable Energy in Germany (aireg e.V.) to coordinate the introduction of alternative aviation fuels.

Numerous
green
initiatives

Eliminating environmentally harmful production processes and materials

MTU reduces its environmental footprint not only by complying with existing and newly introduced statutory requirements. Wherever possible, the company also refrains from using environmentally harmful materials in its production and repair processes.

It ensures that all production processes and techniques undergo an assessment and approval process prior to introduction and that they are subsequently enforced as standards across the company. Compliance with these standards is regularly checked and certified by internal and external audits in accordance with DIN EN ISO 14001 at the company's locations in Hannover and Ludwigsfelde, and – at the Munich and Hannover locations – also in accordance with the European Union's EMAS (Eco-Management and Audit Scheme) Regulation (EC) No. 1221/2009. MTU's environmental management system was reviewed in 2015, as was its work safety management system at the Hannover and Ludwigsfelde locations, which complies with OHSAS 18001. The Executive Board regularly assesses the progress made in meeting environmental and work safety targets. MTU coordinates and enforces the requirements of the EU's REACH regulation at all its locations in Europe.

Saving resources and reducing carbon dioxide emissions

Ambitious targets for CO_2 emissions

MTU's production and maintenance processes also meet exacting environmental protection requirements. The company has put in place a comprehensive energy management system to monitor and control the consumption of electricity and gas, the main fuels used at its plants. The Clean Air – Industrial Site (CLAIR-IS) program was set up for this purpose at MTU's headquarters in Munich in 2009. The objective of this program is to achieve a reduction of more than 30 % in CO_2 emissions at the Munich site by 2020 (taking 1990 as a baseline), despite steadily increasing production rates. The measures taken to achieve this include, for example, making greater use of well water as a coolant in production processes, upgrading the heating network, deploying building automation systems, utilizing waste heat in hot-water and heating systems, recovering heat from exhaust air systems (where some 1,500 metric tons of CO_2 have been saved annually since 2002), deploying energy-efficient lighting and propulsion technologies, and utilizing solar energy and renewable fuels in the company's cogeneration plant.

Non-potable groundwater drawn from wells is used as a coolant for machinery at the Munich location. That is highly efficient in terms of energy as it means that MTU no longer has to construct and run its own electric-powered cooling systems, saving the company around 3,000 metric tons of CO_2 every year. The increased use of building automation systems has already cut CO_2 emissions by some 70,000 metric tons. The cogeneration plant at the Munich site, which generates both electricity and heat, is powered using emissions-neutral vegetable oil, thus saving around 7,400 metric tons of CO_2 a year.

Energy efficiency and economy are given top priority when designing new buildings and renovating existing ones. Wherever possible, waste heat from production or from auxiliary plants is used to heat buildings, e.g. by means of air compressors in combination with heat pumps. The recovery of waste heat as well as additional thermal insulation on buildings mean that energy consumption is substantially lower than for conventional production facilities. This design concept for new buildings thus achieves very low levels of resource consumption.

MTU AG (DISCLOSURES IN ACCORDANCE WITH THE GERMAN COMMERCIAL CODE (HGB))

The management report of MTU AG and the group management report for the financial year 2015 have been combined in accordance with Sections 298 (3) and 315 (3) of the German Commercial Code (HGB). The annual financial statements of MTU AG were prepared in accordance with the provisions of the German Commercial Code (HGB) and are published together with the combined management report in the electronic version of the Federal Gazette (Bundesanzeiger).

The business environment of MTU AG corresponds for the most part with that of the group as described above under the heading “Business environment.”

BUSINESS ACTIVITIES

MTU AG develops and manufactures commercial and military aircraft engines and aero-derivative industrial gas turbines. The company also carries out maintenance of military engines. In the military sector, MTU AG has for many decades been the leading company in the national market and lead industrial partner to the German armed forces.

The company is a technological leader in low-pressure turbines, high-pressure compressors, and turbine center frames as well as repair techniques and manufacturing processes. MTU AG is a key partner in all national and international technology programs of note, and cooperates with the top names in the industry – GE Aviation, Pratt & Whitney and Rolls-Royce.

DISCLOSURES RELATING TO OPERATING RESULTS

INCOME STATEMENT OF MTU AERO ENGINES AG

	Change 2015 - 2014			
in € million	in € million	in %	2015	2014
Revenues	**358.5**	**15.7**	**2,645.3**	**2,286.8**
Cost of sales	–378.0	–18.6	–2,406.6	–2,028.6
Gross profit	**–19.5**	**–7.6**	**238.7**	**258.2**
Selling costs	14.5	23.2	–47.9	–62.4
General administrative costs	–20.9	–78.6	–47.5	–26.6
Balance of other operating income and expenses	–53.2	<–100	–5.3	47.9
Financial result	41.1	51.6	120.7	79.6
Earnings from ordinary operating activities (operating profit)	**–38.0**	**–12.8**	**258.7**	**296.7**
Non-recurring earnings	–3.1	–100.0		3.1
Tax expense	25.0	28.2	–63.6	–88.6
Net profit for the year	**–16.1**	**–7.6**	**195.1**	**211.2**
Allocations to other reserves	8.1	7.7	–97.5	–105.6
Net profit available for distribution	**–8.0**	**–7.6**	**97.6**	**105.6**

Revenues

Revenues in the financial year 2015 rose by € 358.5 million (15.7%) to € 2,645.3 million. Boosted by the U.S.-dollar exchange rate, strong sales in the commercial engine business easily made up for the anticipated further decline in revenues from the military engine business.

Compared with the previous year, revenues from the manufacture and delivery of engine components and parts increased by € 337.3 million, revenues from military engine maintenance and the provision of other services by € 10.8 million, and revenues from externally funded development projects by € 10.4 million.

Cost of sales and gross profit

Cost of sales increased by € 378.0 million (18.6%) to € 2,406.6 million, while gross profit decreased by € 19.5 million (7.6%) to € 238.7 million. The gross margin amounted to 9.0% (2014: 11.3%). The U.S. dollar exchange rate helped to sustain the gross margin in the reporting period. On the debit side, this result was affected by the increase in obligations for company pension plans and by the write-down of obsolete inventory for engines nearing the end of their service life. An additional factor affecting the gross margin, as in 2014, was expenses in connection with series production ramp-up for new engine programs.

Balance of other operating income and expenses

In the reporting period, this item mainly comprised the net expense of € 51.8 million (2014: net income of € 5.9) from foreign currency translation and measurement of currency holdings, and income of € 45.3 million (2014: € 48.0 million) recognized in respect of the amortization of prepaid expenses.

Financial result

MTU's financial result improved by € 41.1 million to € 120.7 million in the financial year 2015 (2014: € 79.6 million). It includes an amount of € 160.5 million (2014: 115.7 million) representing MTU's share in the profit/loss of equity investments, of which the profit and loss transfer agreements with MTU Maintenance Hannover GmbH, Langenhagen, MTU Maintenance Berlin-Brandenburg GmbH, Ludwigsfelde, and MTU Versicherungsvermittlungs- und Wirtschaftsdienst GmbH, Munich, accounted for a total of € 117.4 million (2014: € 103.6 million). Additional amounts totaling € 28.6 million (2014: € 0 million) were recognized in 2015 in respect of the dividends paid out by Vericor Power Systems LLC., Alpharetta (USA), and MTU Aero Engines North America Inc., Rocky Hill (USA).

The net interest expense deteriorated in the reporting period, increasing by € 5.7 million to € 38.3 million (2014: € 32.6 million), mainly as a result of interest payments pursuant to Section 233a of the German Tax Code (AO).

Operating profit

These various factors led to a reduction by € 38.0 million of the group's operating profit in 2015 to € 258.7 million (2014: € 296.7 million).

Non-recurring earnings

One-time capital gains of € 3.1 million resulting from the liquidation of MTU Aero Engines Finance B.V., i.L. Amsterdam, Netherlands, were recognized in 2014.

Tax expense

Income taxes amounted to € 62.5 million in the financial year 2015 (2014: € 87.3 million). The effective tax expense amounted to € 114.3 million (2014: € 138.6 million), which was partially offset by deferred tax income of € 51.8 million (2014: € 51.3 million). The tax expense includes income of € 10.7 million in connection with prior years (2014: € 9.2 million).

Net profit available for distribution

After allocation of € 97.5 million to revenue reserves in line with the resolution of the Executive Board and Supervisory Board, the net profit available for distribution to the shareholders of MTU Aero Engines AG amounted to € 97.6 million in the financial year 2015 (2014: € 105.6 million).

An amount totaling € 60.5 million (2014: € 34.5 million), arising mainly from the recognition of internally generated intangible assets, was excluded from the net profit available for distribution and is matched in full by free reserves as required by Section 268 (8) of the German Commercial Code (HGB).

As the company continues to perform well, the Executive Board and Supervisory Board of MTU Aero Engines AG, Munich, will propose to the Annual General Meeting on April 14, 2016, that a dividend of € 1.70 per share (2014: € 1.45) be paid out to shareholders. This corresponds to a dividend yield of 1.9% (2014: 2.0%), based on the closing share price at year-end 2015 of € 90.10 (2014: € 72.16). On condition that the proposal is accepted, the total dividend payment will amount to € 86.9 million (2014, by resolution of the Annual General Meeting: € 74.0 million). Pending approval by the Annual General Meeting, the dividend for the financial year 2015 will be paid on April 15, 2016.

DISCLOSURES RELATING TO FINANCIAL SITUATION AND NET ASSET POSITION

BALANCE SHEET OF MTU AERO ENGINES AG

in € million	Change 2015 - 2014		Dec. 31, 2015		Dec. 31, 2014	
	in € million	in %	in € million	in %	in € million	in %
Assets						
Intangible assets and property, plant and equipment	125.2	9.2	1,480.4	33.8	1,355.2	33.6
Financial assets	25.0	3.1	827.7	18.9	802.7	19.9
Total assets	**150.2**	**7.0**	**2,308.1**	**52.7**	**2,157.9**	**53.5**
Inventories	25.1	2.9	878.7	20.1	853.6	21.2
Receivables and other assets	137.5	15.4	1,027.5	23.5	890.0	22.1
Securities	-27.0	-58.1	19.5	0.4	46.5	1.1
Cash and cash equivalents	–0.1	–33.3	0.2		0.3	
Current assets	**135.5**	**7.6**	**1,925.9**	**44.0**	**1,790.4**	**44.4**
Prepaid expenses	**2.3**	**28.8**	**10.3**	**0.2**	**8.0**	**0.2**
Deferred tax assets	**57.1**	**74.9**	**133.3**	**3.1**	**76.2**	**1.9**
Total assets	**345.1**	**8.6**	**4,377.6**	**100.0**	**4,032.5**	**100.0**
Capital						
Subscribed capital	0.1	0.2	51.1	1.2	51.0	1.3
Capital reserves	7.5	2.0	378.7	8.6	371.2	9.2
Revenue reseves	130.8	25.8	638.7	14.6	507.9	12.6
Net profit available for distribution	–8.0	–7.6	97.6	2.2	105.6	2.6
Total equity	**130.4**	**12.6**	**1,166.1**	**26.6**	**1,035.7**	**25.7**
Pension provisions	56.9	10.9	577.1	13.2	520.2	12.9
Other provisions	169.0	18.6	1,075.8	24.6	906.8	22.5
Total provisions	**225.9**	**15.8**	**1,652.9**	**37.8**	**1,427.0**	**35.4**
Liabilities						
Bonds			356.0	8.1	356.0	8.8
Liabilities to banks	109.4	>100	149.2	3.4	39.8	1.0
Advance payments received	–122.9	–20.7	471.3	10.8	594.2	14.7
Trade payables and sundry other liablities	–3.0	–0.7	408.6	9.3	411.6	10.2
Total liabilities	**–16.5**	**–1.2**	**1,385.1**	**31.6**	**1,401.6**	**34.7**
Deferred tax liabilities	**5.3**	**3.2**	**173.5**	**4.0**	**168.2**	**4.2**
Total equity and liabilities	**345.1**	**8.6**	**4,377.6**	**100.0**	**4,032.5**	**100.0**

Total assets increased by € 345.1 million (8.6%) year on year to € 4,377.6 million.

Intangible assets and property, plant and equipment increased by a total of € 125.2 million to € 1,480.4 million (2014: € 1,355.2 million). In the financial year 2015, intangible assets in the amount of € 146.3 million were capitalized. Of this sum, € 45.7 million (2014: € 82.1 million) relates to the acquisition of shares in the GE9X, GE LM6000-PF+, PW1000G and PW800 programs. Other additions to intangible assets included externally acquired development costs amounting to € 58.8 million (2014: € 48.5 million) and internally generated development costs amounting to € 38.0 million (2014: € 27.6 million) for the PW1000G engine family and for the GE9X, GE38 and PW800 engine programs. Research and development expenses (recognized under cost of sales) amounted to € 69.8 million in 2015, down € 8.5 million on 2014. Altogether, MTU's total expenditure on development projects amounted to € 152.2 million (2014: € 145.0 million). Property, plant and equipment increased in particular as a result of new and replacement purchases of special tools and equipment, fixtures and other tools for existing and new engine programs, and IT equipment.

In 2015, inventories grew by € 25.1 million or 2.9% to € 878.7 million (2014: € 853.6 million), in particular to meet the requirements of new engine programs now entering the series production phase. Inventories of raw materials and supplies increased by € 5.8 million to € 82.9 million (2014: € 77.1 million), and finished products in inventory by € 47.3 million to € 296.1 million (2014: € 248.8 million), while work in progress decreased by € 23.8 million to € 484.8 million (2014: € 508.6 million). Advance payments decreased by € 4.2 million to € 14.9 million (2014: € 19.1 million). Altogether, inventories accounted for 20.1% of net assets, a slightly lower ratio than in 2014 (21.2%). The sales to inventory ratio was 3.0, compared with 2.7 in 2014.

Receivables and other assets increased by € 137.5 million year on year to € 1,027.5 million. The main items contributing to this increase relative to the previous year were trade receivables, which rose by € 7.3 million to € 401.5 million, accounts receivable from related companies, which rose by € 115.8 million to € 375.9 million, and accounts receivable from entities in which MTU holds an equity interest, which increased by € 25.9 million to € 229.0 million. Compared with the financial year 2014, other assets decreased by € 11.5 million to € 21.1 million, mainly due to changes in the amount of repayable value added tax (VAT).

Cash and cash equivalents amounted to € 0.2 million at the reporting date (2014: € 0.3 million). This corresponds to less than 1% of total assets (2014: less than 1%).

Equity comprises the capital stock less the nominal amount of treasury shares, capital and revenue reserves and the net profit available for distribution. The increase in the equity ratio by 0.9 percentage points to 26.6% is primarily attributable to the net profit for 2015 of € 195.1 million.

Provisions increased by € 225.9 million to € 1,652.9 million. This figure includes pension provisions of € 577.1 million (2014: € 520.2 million), an increase of € 56.9 million (10.9 %). Sundry other provisions increased year on year by € 169.0 million, in line with the growth in revenues. The main components of this increase were provisions to cover the increased risk of losses arising from financial instruments used to hedge against fluctuations in the U.S. dollar exchange rate, estimated at € 25.2 million, the increase of € 104.0 million in the amount of cost of sales and losses arising from the settlement of accounts not yet recognized at the reporting date, and the increase in warranty obligations of € 27.6 million, due to increased revenues. Provisions for tax liabilities, at € 6.8 million, were lower than in the previous year.

Total liabilities decreased year on year by € 16.5 million to € 1,385.1 million. While liabilities to banks increased by € 109.4 million to € 149.2 million, the amount of advance payments received from customers decreased by € 122.9 million to € 471.3 million. Trade payables decreased by € 21.5 million. Liabilities to related companies increased by € 3.7 million. Other liabilities, which increased by € 14.8 million, mainly comprise liabilities arising from the acquisition of program stakes in the amount of € 118.8 million, liabilities in connection with acquired development services in the amount of € 111.4 million, and personnel-related financial liabilities amounting to € 11.6 million.

OTHER DISCLOSURES

The opportunities, risks and future development of MTU AG essentially correspond to the opportunities, risks and future development of the MTU group as described in later sections of this combined management report (“Forecasts” and “Risk and opportunity report”).

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As the group’s parent company, MTU AG is integrated in the group-wide risk management system that is described in detail in the risk and opportunity report. The description of the internal control system of MTU AG required under Section 289 (5) of the German Commercial Code (HGB) can be found under the heading “The internal control and risk management system in relation to the group accounting process.”

For further information on the use of financial instruments, please refer to the Notes to the consolidated financial statements and to the section of the risk and opportunity report entitled “Use of financial instruments.”

Due to its dominant role within the OEM operating segment (commercial and military engine business), and in view of the profit and loss transfer agreements that exist between the parent company and its German maintenance subsidiaries in the MRO operating segment, the outlook for MTU AG is closely aligned with the expected future development of the group as described later on in this combined management report under the heading “Future development of MTU.”

Looking ahead to the annual financial statements for MTU AG in 2016, which are prepared in accordance with the provisions of the German Commercial Code (HGB), the Executive Board expects revenues to increase by a one-digit percentage and net profit for the year to be between € 215 million and € 265 million.

SUBSEQUENT EVENTS

No events of material importance with any significant impact on the financial situation, net assets or operating results of the MTU group occurred after the end of the reporting period.

FORECASTS

MACROECONOMIC FACTORS

The Economist Intelligence Unit (EIU) expects to see global economic growth of 2.6 % in 2016. The global economy could come under pressure from the changes shaping the Chinese economy, the strong drop in commodity prices and the sea change in U.S. interest-rate policy.

The EIU experts expect economic growth in the United States of 2.4 % in 2016. Buoyant private consumption, rising public-sector expenditure and investments are likely to boost growth, while the strong dollar is expected to stifle exports.

The eurozone looks set to post moderate growth, with the EIU forecasting a figure of 1.6 %. Italy, Spain and France all appear to be gradually gaining traction again as well.

According to EIU estimates, China's economy, which is the second-largest in the world, will grow by 6.5 % in 2016 (source: EIU, Feb. 2016). China's policymakers are responding to the slowing economy and have issued a new growth target of at least 6.5 % for each of the next five years.

Oil prices are likely to remain under the sway of geopolitical trends, and kerosene prices are expected to be volatile in 2016. The Energy Information Association (EIA) expects oil prices to continue their downward trajectory and is forecasting an average Brent crude price of U.S. $ 40 per barrel (source: EIA, Jan. 2016).

MICROECONOMIC FACTORS IN THE AVIATION INDUSTRY

Industry continues to grow

According to the December 2015 forecast issued by the International Air Transport Association (IATA), passenger traffic is set to grow by 6.9 % in 2016 and freight traffic by 3.0 %. Increased passenger traffic and efficiency gains made by airlines should help the latter post profits of around U.S. $36 billion in 2016.

Over the next three to four years, aircraft manufacturers will increase production in order to cope with the unprecedented order backlog of 13,400 aircraft and enable them to accept further orders. Airbus is contemplating raising its monthly output of A320 aircraft from its current level of 42 to 46 in 2016. Output is set to rise to 50 aircraft as from the first quarter of 2017, and to 60 aircraft by 2019. MTU is participating in the geared turbofan™ program for the upgraded A320neo medium-haul jet. The single-aisle market remains the largest and fastest-growing market, with projected demand for 22,927 aircraft over the next two decades (Airbus Global Market Forecast).

Boeing, too, plans to expand production of its 787 and 737 series, manufacturing 12 Boeing 787 aircraft per month in 2016. Aircraft deliveries by Airbus and Boeing in 2016 are expected to remain stable, at a combined total of around 1,400 (source: Ascend Online, Boeing Guidance).

FUTURE DEVELOPMENT OF MTU

The statements below are based on the knowledge available at the beginning of 2016. Owing to the large number of new programs, any delays that might occur in development or in the ramp-up of series production could have an effect on the performance indicators.

EXPENDITURE ON NEW PRODUCTS AND SERVICES

The ramp-up of the new geared turbofan™ programs, which are enjoying considerable market success, calls for substantial capital expenditure on development and production resources.

In order to keep cost growth in check, MTU began implementing measures in 2013 that were subsumed in the Cash for Future project. The measures are designed to achieve lasting cost savings of several tens of millions of euros per year. These savings have ensured the company has sufficient scope to invest in additional engine programs such as the GE9X.

The ramp-up of the new engine programs means that MTU has had to invest heavily in building up highly productive manufacturing and logistics capacities at its main site in Munich. What is more, the company expanded its manufacturing facility in Poland in 2015, and plans to create around 300 new jobs here by 2019.

OUTLOOK FOR 2016

Targets

MTU's targets for the financial year 2016, based on an assumed exchange rate of U.S. $1.10 to the euro, are as follows:

OUTLOOK FOR 2016

in € million	Forecast for 2016	Actual 2015
Revenues	4,600 – 4,700	4,435.3
Adjusted EBIT margin (adjusted EBIT / revenues)	Stable	9.9%
Adjusted earnings after tax	Increase in line with adjusted EBIT	306.9
Cash conversion rate (free cash flow / adjusted earnings after tax)	Lower double-digit percentage	23.5%

The company expects its revenues and earnings to continue rising in 2016.

Revenues by operating segment

OEM segment
still growing

In the commercial OEM business, MTU expects to see an increase in revenues in 2016, both from engine manufacturing activities and from spare parts sales. This business unit is expected to grow in U.S. dollar terms by a percentage in the low- to mid-single-digit range.

Revenues in the military engine business are expected to remain stable.

These assumptions are based on the rising number of deliveries under the PW1000G programs, whereas deliveries of the V2500 for the current A320 family, the GP7000 for the Airbus A380 and the PW2000 are expected to decline. The increase in revenues from spare parts sales derives principally from the V2500 program.

Identified risks in the OEM segment relate to the possibility of delays in ramping up the new engine programs.

MTU's forecast for its commercial maintenance business in 2016 is for revenue growth in the high single-digit percentage range in U.S.-$ terms. Demand is expected to rise, for example, in connection with the V2500 and GE90 programs.

Operating profit

Stable EBIT margin of
~10%
expected

MTU expects its operating profit (adjusted EBIT) to increase in 2016 compared with 2015. The adjusted EBIT margin, based on the adjusted figures for EBIT and revenues, is expected to remain stable at around 10%. This is based on the assumption that the initially negative impact on operating profit of changes in the product mix in the commercial engine business will be more than compensated for by growth in the commercial maintenance business and the probable effects of the strong U.S. dollar.

Adjusted earnings after tax (adjusted EAT)

In 2016, adjusted earnings after tax are expected to increase in line with EBIT.

Free cash flow

2016 will be another year of substantial investment spending and a further reduced level of advance payments in the military engine business. However, MTU plans to compensate for these effects through its operating activities and achieve a free cash flow conversion rate (ratio of free cash flow to adjusted earnings after tax) in the lower double-digit percentage range.

Future dividend

It is MTU's policy to pay an attractive dividend. Based on the overall prognosis of future business developments, MTU expects to be able to maintain a stable dividend level in 2016, subject to the approval of the corporate bodies responsible for this decision.

Employees

Due to the Cash for Future efficiency improvement project launched in 2013, MTU's workforce will grow only at its site in Poland in 2016, leading to moderate personnel growth for the group as a whole.

Research and development

In 2016, MTU will continue to focus its research and development activities on increasing engine efficiency by improving the performance of the key components in which MTU possesses specialized technological expertise, namely the low-pressure turbine and high-pressure compressor, with a view to reducing fuel consumption and emissions. A detailed report on research and development activities in 2015, including the targeted medium- and long-term reductions in fuel consumption and emissions, is provided earlier in this combined management report, under the heading "Research and development".

OVERALL PROGNOSIS OF FUTURE BUSINESS DEVELOPMENTS IN 2016

The MTU Executive Board remains optimistic that it will be able to profitably expand the company's business in 2016, leading to a further increase in both revenues and earnings. The sustained high level of R&D activities and the ramp-up of production for the new geared turbofan™ programs in 2016 will provide a sound basis for the sustained long-term growth of MTU's business. In 2016, the commercial engine business will continue to stimulate the group's development.

RISK AND OPPORTUNITY REPORT

RISK REPORT

Risk is an inherent part of any entrepreneurial activity. To meet the expectations of its shareholders, MTU must exploit opportunities – and that entails a certain degree of risk.

Integrated opportunity and risk management

MTU has an integrated opportunity and risk management system in place, which is linked to the group's value-oriented performance indicators and its organizational structure. The system ensures compliance with statutory requirements and is based on the internationally recognized COSO II Enterprise Risk Management (ERM) Framework. To assist in implementing risk management in the MTU group, the central risk management department provides the risk owners with guidance in the shape of information and working aids. These include the MTU risk guidelines as well as a risk checklist and risk manual, which give specific examples of what is set down in the guidelines and provide help in everyday practice.

The systematic consideration of significant risk factors is of vital importance to the MTU group, and serves as a fundamental basis for value-oriented controlling functions and sustainable business success. MTU identifies risks, analyzes their possible consequences and devises measures to limit them. The key areas of risk exposure are as follows:

- Risks arising from macroeconomic factors and corporate strategy
- Market and program risks
- Risks associated with product development and manufacturing
- Other risks pertaining to business operations

STRATEGY AND RISK MANAGEMENT SYSTEM

CONTROL ENVIRONMENT

MTU regards a suitable control environment as being essential for a functioning risk management system. The following are considered the main elements of such an environment:

- Management style and philosophy
- Integrity and ethical values
- No-blame culture
- Staff training and development

The concept of learning from mistakes is embodied in the MTU Principles, which describe it as a means of facilitating teamwork and promoting constructive behavioral attitudes. The logical consequence of striving for continuous improvement is the establishment of a Continuous Improvement Process (CIP), which aims to encourage employees to deal openly with weak points and create a culture that underpins a functioning risk management system.

RISK MANAGEMENT OBJECTIVES AND RISK STRATEGY

The ultimate objective of MTU's risk management system is to ward off risks to MTU's status as a going concern and to safeguard the company's future business success.

MTU does not limit itself to ensuring compliance with statutory requirements. It has integrated its corporate risk and opportunity management system into all essential control processes, from operational and strategic planning and regular forecasting processes right through to monthly reporting to the Executive Board and the Supervisory Board.

IDENTIFICATION, ANALYSIS AND MANAGEMENT OF RISKS

MTU regards risk management as a continuous, end-to-end process that ensures responsible behavior when dealing with specific risks at business unit level and general risks affecting several business units or the entire group.

The group's risk inventory, which encompasses all the business units and all the risk factors to which MTU is exposed, forms the basis for identifying risks. According to the COSO II Framework, it is divided into governance and compliance, strategy and planning, operations and infrastructure, and reporting. In the interests of a more detailed assessment of risks, MTU has divided this framework into 15 risk categories covering all corporate areas.

Reports to the central risk management department for risks exceeding
€ 1 million

Each subsidiary and business unit is responsible for identifying, assessing, controlling and monitoring the risks in their specific areas, and documenting them in risk maps. To this end, they use a general risk checklist derived from the risk inventory. They submit reports to the central risk management department for risks exceeding an amount of € 1 million over the five-year period under consideration, at dates allowing them to be reviewed together with the quarterly financial results. The risk maps also serve to document risks below the threshold of € 1 million. Risks valued at more than €10 million are reported immediately to the central risk management department. Risks are assessed based on uniform definitions of the probabilities of loss occurrence and as possible deviations of the group performance indicators "adjusted EBIT" and "free cash flow" from the currently applicable operational planning figures.

The central risk management department aggregates and consolidates the risks, provides assistance during the risk management process, and evaluates the overall risk position at group level.

A cross-divisional Risk Management Board has been set up at group level to perform centralized control and monitoring functions. At its quarterly meetings, the Risk Management Board discusses the interactions between individual risks, ensures that all risks have been reported in full, and assesses the risk exposure of the group as a whole.

RISK REPORTING AND COMMUNICATION

The Executive Board receives a risk report once a quarter that has been coordinated with the Risk Management Board, and is kept informed of the group's current risk situation. The Top Risk Map comprises all risks and opportunities above € 10 million in value over a five-year period and gives details of their probability of occurrence, taking into account potential countermeasures. Risks are not offset against opportunities.

MONITORING THE RISK MANAGEMENT PROCESS

Monitoring the risk management process is of crucial importance for ensuring the proper functioning and ongoing development of the risk management system.

In addition to verification by the auditor of the system employed for the early recognition of risks, the risk management system is monitored and verified by a number of other functions:

- Regular checks by the internal auditing department
- Oversight by the Audit Committee and/or the Supervisory Board
- Process reviews by the Risk Management Board in the form of a self-assessment

STRATEGY RISKS

Risks arising from macroeconomic factors

In general, the MTU group's business development is subject to a number of different risks, especially the U.S. dollar exchange rate, the level of commodity prices, the development of air traffic, and general economic risks. Taking the latest market forecasts into account, MTU does not currently discern any major negative impacts for the company arising from reduced economic growth in emerging markets, from the high sovereign debt in certain nations of the world economy or from the resulting monetary policy of the central banks. Political crises in some regions and restrictions on air travel imposed as a result of epidemics or terrorist attacks are regularly discussed during the risk management process, but are currently not classified as critical. If the current economic situation should deteriorate, this could impact the volume of passenger or freight traffic and prompt a more cautious approach to orders for new air transportation capacity. In addition, national budget cuts could negatively impact the military engine business. Other risks affecting industry in general include fluctuating energy costs, the unavailability of suppliers, and delays in deliveries from suppliers. A further risk factor affecting engine programs is the possibility of higher financial risks and delayed delivery schedules due to the typically long lead times.

Risks arising from corporate strategy

The main forms of strategy risk are misjudgments when taking decisions concerning investments in engine programs, the establishment of new sites, and possible M&A activities. During the decision-making phase of a program, highly qualified specialists perform cost-benefit analyses based on set procedures that include the obligation to carry out a risk analysis on the basis of different scenarios. MTU's business model is based on long-term processes, particularly in the OEM segment. Many years of development, preproduction and series production may lie between the decision to invest in a new commercial engine and the breakeven point. The risk is that the original economic and technological parameters on which the decision was based might change over the course of time, hence the need for frequent reassessments that take into account the most recent economic and technological developments. Decisive factors in this regard are, in particular, the success of the aircraft platforms on which the engines are deployed and any changes made to those platforms. MTU counters such strategy risks by means of a broad portfolio. That means that the company limits the impact of an individual program or aircraft platform by holding an interest in a wide range of products across all thrust classes.

MTU counters risks by means of a broad portfolio

In the longer term, a further identifiable risk in addition to that arising from MTU's strategic decisions is the arrival on the market of new competitors, e.g. from Russia or China. But given the high barriers to market entry, this risk is currently not regarded as critical.

MTU has not identified any strategy risks at the present time that might endanger its status as a going concern.

MARKET AND PROGRAM RISKS

The profit to be gained from specific engine programs currently depends to a large extent on spare parts sales. Many airlines are experiencing financial difficulties as a result of competitive pressure in the aviation market and because their business is strongly influenced by economic factors beyond their control, including the effects of crises. This already strained situation may be further strongly impacted by changes in fuel prices or by state intervention in the aviation industry. Given this, many airlines are striving to keep their aircraft and engine maintenance costs as low as possible, for example by delaying shop visits or replacing defective parts with used ones. Competition is generally getting fiercer, too, with the MRO shops of the major engine manufacturers lowering their prices in an attempt to squeeze independent providers out of the market and also erecting barriers for new market entrants. The MTU group must tackle this new situation head-on if the company is to counter the risks it poses. That will have repercussions for the entire MTU group, especially in view of the trend toward integration of the MRO and OEM segments.

Trend toward integration of the MRO and OEM segments

Owing to the difficult financial situation of some airlines, as described above, engine manufacturers frequently offer loan arrangements to the end customer. These agreements are provided in two basic forms: predelivery payment (PDP) and backstop commitments. Within the scope of its partnerships in engine programs, MTU has been a party to aircraft financing agreements with end customers since 2013 and has made initial payments to finance the purchase of aircraft. MTU's share of these loan agreements is equivalent to its proportional stake in the engine program. It is a fundamental condition that the funds are made available to the aircraft manufacturer for the exclusive benefit of a specific airline. The risk of suffering a loss because an airline becomes insolvent is considered to be low, due to the collateral rights pertaining to retained goods. For a detailed description please refer to Part III of the Notes to the consolidated financial statements (under Note 32.).

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MTU's military engine business customers are national and international agencies, whose spending capacity is strongly dependent on public budget policies. When they are faced with budgetary constraints, there is a risk that contracts might be rescheduled or canceled. For similar reasons, it may become necessary to renegotiate the scope of deliveries already agreed in existing contracts. In the military engine business, MTU is firmly embedded in international cooperative ventures, which tends to have a limiting effect on risks because the partners work together to protect their common interests. The terms of existing contracts in the military sector are generally defined to cover a prolonged period of time, thus effectively excluding price risks.

The client base at some MRO sites is dominated by a single major customer. If such a customer failed to renew its contract, the site in question would face the risk of a low level of customer diversification. Some engine programs in the MRO phase are already at an advanced stage of their lifecycle. This harbors the risk of MTU's MRO portfolio becoming too focused on aging products with a limited future. MTU strives to maintain a balanced portfolio that is constantly being expanded to include maintenance services for new engine programs. However, new programs also harbor a ramp-up risk.

DEPENDENCY ON COOPERATIVE AGREEMENTS

The commercial engine market is dominated by a small number of major manufacturers. MTU sells most of its products under risk- and revenue-sharing arrangements with market leaders. The major engine manufacturers, who are the lead partners in the consortia, determine the prices, conditions and concessions. They also define the engine development processes prior to the market launch phase of new engines, e.g., the scope of development costs and the payments toward development made by the individual partners in the consortia. As one such partner, MTU has rights of objection and control, and can improve its own position through negotiations. By virtue of these partnerships, MTU is able to participate in the industry-leading engine programs of the major engine manufacturers. In the commercial engine and maintenance sector, the customers of the consortium leaders are airlines and aircraft leasing companies. The marketing of commercial engines always involves making concessions to the end customers. MTU is obliged to absorb these concessions to the extent of its program share in risk- and revenue-sharing arrangements. The fact that the cooperation partners share a common interest helps to prevent excessive concessions during contract negotiations with the end customers.

In the commercial maintenance business, MTU's interests in the Asian market include a 50:50 joint venture, MTU Maintenance Zhuhai Co. Ltd., Zhuhai, China. MTU is involved in further joint ventures in the fields of engine leasing, maintenance and development, which are listed in Note 38 to the consolidated financial statements (Relationships with related companies and persons). In jointly controlled entities, where decisions have to be made by consensus, there is always a risk of differences of opinion.

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From today's standpoint, MTU does not expect these market and program risks or its dependency on cooperative agreements to have any significant impact on the group's continued existence as a going concern.

RISKS ASSOCIATED WITH PRODUCT DEVELOPMENT AND MANUFACTURING

DEVELOPMENT RISKS

In the commercial and military engine business, MTU undertakes to perform development work, during which delays and additional costs may arise. MTU's role as a risk-and-revenue-sharing partner in numerous innovative commercial and military engine programs, including the PW1000G family of GTF engines, the PW800, the GE9X, the GE38, and the TP400-D6, also exposes the company to development risks. The company nevertheless ensures strict adherence to time schedules and budgets by permanently monitoring project management across all the departments involved and applying appropriate corrective measures where necessary. Furthermore, through its involvement in collaborative ventures, it works in partnerships that extend beyond corporate boundaries, thus spreading the risk.

Involvement in collaborative ventures spreads risks

MTU products are subject to extremely stringent safety requirements. The company requires numerous official certifications, particularly from the German Federal Office of Civil Aviation (LBA) and the U.S. Federal Aviation Administration (FAA), in order to carry out its activities. These certifications are valid for limited periods and can be renewed only after further tests have been carried out. Manufacturing and repair processes are documented in detail to ensure compliance with all regulations.

PRODUCTION RISKS

Highly sophisticated components and new materials are called for to meet the requirements of the airlines and OEMs with respect to engine weight, fuel consumption and noise emissions. In order to produce and process such components, MTU develops – and gains official approval for – innovative new manufacturing techniques suited to meeting these challenges and ensuring efficient processing. This can lead to delays in the start of production or temporarily reduce the volume of deliveries to a level below that originally agreed. It could also happen that the new manufacturing processes are not yet sufficiently mature to fully meet requirements when volume production is due to start. MTU counters this risk by providing systematic support for the development and implementation process in the context of technology projects.

MTU responds to the volatility of MRO orders from the market by deploying working-time models that are more flexible and ensuring that its employees are qualified to handle more than one engine type. To this end, the company has developed tailored training models and standardized work processes.

PROCUREMENT AND PURCHASING RISKS

MTU is dependent on suppliers and third-party vendors for some raw materials, individual parts and components, and for the provision of specific services. Risks can arise in the form of the unavailability of suppliers, problems with quality, and price increases. MTU strives to reduce its reliance on individual suppliers by securing the services of several, equally qualified, vendors for materials, parts and services. In the case of single-source suppliers, MTU enters into long-term agreements as a hedge against unforeseen shortages and to reduce the risk of sudden price hikes. The risks involved are manageable thanks to the broad diversity of the links in the supply chain.

Strict project management minimizes risks

Delays may arise when ramping up production of new, high-volume programs involving new production capacities, production processes or workflow systems, thus affecting the agreed delivery deadlines. MTU minimizes this risk through strict project management, the deployment of specialists and the implementation of program-specific preventive measures.

LIABILITY RISKS

In the aviation industry as elsewhere, accidents can still occur despite strict compliance with manufacturing quality standards and utmost diligence in performing maintenance work. In the military engine business (excluding exports), MTU is largely exempt from product risk liability through government agency indemnification. The remaining forms of product liability, especially in the commercial engine business, are covered by contractual clauses and by high-coverage insurance policies, including aircraft liability insurance. Other risks that could threaten the company's status as a going concern, such as loss of income through fire or the interruption of business operations, are similarly covered.

By limiting liability risks and taking out insurance cover, the risks are rendered transparent and manageable. MTU has not identified any risks related to its production, development or procurement activities at the present time that might endanger its status as a going concern.

USE OF FINANCIAL INSTRUMENTS

More than 80% of MTU's revenues are generated in U.S. dollars. On the other hand, a large proportion of expenses is likewise invoiced in U.S. dollars, thus providing a natural hedge. Most other expenses are incurred in euros and, to a lesser extent, in Polish zloty and Canadian dollars. In line with the corporate policy of generating profit solely on the basis of operating activities and not through currency speculation, MTU makes use of hedging strategies for the exclusive purpose of controlling and minimizing the effect of U.S. dollar exchange rate volatility on EBIT.

The forward foreign exchange contracts concluded by MTU cover the greater part of the net exposure to currency risk, leaving only a small portion of the U.S. dollar surplus exposed to this type of risk. The unhedged portion of future cash flows is translated into euros at the average exchange rate prevailing on the date of settlement.

MTU holds a long-term hedge portfolio comprising forward foreign exchange contracts with terms to maturity stretching over several years. At December 31, 2015, the value of the portfolio of hedging instruments with terms until 2018 amounted to U.S. $ 1,180.0 million (which translates to € 1,083.9 million at the exchange rate prevailing on the reporting date).

Detailed information on the financial instruments used to hedge future cash flows is provided in Note 36 to the consolidated financial statements (Financial risks).

→ further information on page 218

In view of this long-term hedging strategy, MTU considers its currency risks to be manageable.

For a detailed description of MTU's financial management system, please refer to the section entitled "Financial situation".

→ further information on page 91

OTHER RISKS PERTAINING TO BUSINESS OPERATIONS

COMPLIANCE RISKS

Compliance risks arise when managers or employees of the company fail to comply with laws and regulations or fail to observe internal guidelines. These risks can arise in all areas of the company.

MTU has implemented a number of measures to minimize these risks and to safe-guard compliance. The corporate units ensure that laws are complied with and internal regulations observed. The quality department, for example, is responsible for compliance with aviation authority regulations, while the environmental health and safety department ensures that environmental protection regulations are adhered to.

Above and beyond that, measures have been put in place to minimize the risks associated with compliance issues:

- Binding rules of conduct valid throughout the group
- Establishment of a central office to receive reports of suspected misconduct
- Establishment of a Compliance Board which reports to the Audit Committee
- Continuous security checks of employees
- Regular training courses

Criminal intent can never completely be ruled out.

NON-PAYMENT RISK

Risk assessment is carried out before any new contract is signed

Airlines in particular are direct and indirect customers of MTU. These companies may find themselves facing financial difficulties that affect the receivables of MTU and its partners. The consortium leaders in the OEM business have extensive receivables management systems in place. In the MRO business, the responsible MTU departments monitor accounts receivable in short cycles. A risk assessment is carried out before any new contract is signed and all necessary precautions are taken, for instance by requesting an export credit guarantee (Hermes coverage) – if available – as protection against political credit risk. As a matter of principle, the group avoids signing contracts for which the parameters cannot be calculated. Hence MTU considers non-payment risks to be transparent and manageable.

ENVIRONMENTAL RISKS

MTU is subject to numerous laws and regulations aimed at protecting the environment. Any tightening of the applicable environmental or health and safety requirements may give rise to additional investment costs in connection with the processing of materials containing nickel and cobalt alloys and with the use of chemicals in manufacturing and test rig emissions. It may even become necessary to find replacement substances for those in use. Further information on this can be found under the section heading “Non-financial performance indicators.” MTU requires special certification in order to operate certain production facilities. The regulations must be strictly observed and all procedures fully documented. An environmental management system certified to EMAS minimizes the risks in this area.

→ further information on page 206

IT RISKS

The main IT risks are loss of confidential data through espionage and system failures. Through its experience in dealing with military customers, MTU is particularly aware of the need to safeguard confidential data and operates a strictly controlled, highly advanced data security system. When new IT systems are introduced, there is a possibility of workflows being disrupted. MTU minimizes these risks by employing qualified experts and using professional project management. Although dealing with these risks is becoming more and more costly for MTU, the company still considers them to be manageable at the present time.

PERSONNEL RISKS

The shortage of skilled workers brought about by demographic change can pose risks to the company. For instance, there may not be enough top performers available to fill vacancies, competent and experienced employees could leave the company and knowledge may be lost. MTU currently considers these individual personnel risks to be low.

RISKS ARISING FROM GENERAL, CUSTOMS AND TAX LEGISLATION

The legal proceedings currently pending do not present any risks that might endanger MTU’s continued existence as a going concern. Risks arising from ongoing tax or customs audits have been taken into account in the financial statements where necessary.

OVERALL ASSESSMENT OF MTU'S RISK EXPOSURE

Risks in each key area of exposure as described above are assessed for the coming financial year according to their probability of occurrence and quantified as a deviation of EBIT from the currently applicable operational planning figures. In MTU's risk management process, risks are assigned to one of four probability levels: Almost certain (> 80 %), Likely (> 50 %), Possible (> 20 %) or Unlikely (≤ 20 %). In the assessment of MTU's top categories of risk exposure in the financial year 2016, the only areas presenting a risk are market and program risks (estimated at € 11.4 million in the OEM segment and € 9.4 million in the MRO segment). No significant risks were identified in the categories of manufacturing and development risks and other operative risks, neither in the OEM segment nor in the MRO segment. The group considers it extremely improbable that all of these risks might arise concurrently. Therefore, aggregated figures must be viewed merely as a rough indication of MTU's overall risk exposure. Beyond the planning horizon of 2016, there is the possibility that MTU might be exposed to other, in some cases significant risk factors, but MTU does not expect any of these risks to result in a net loss, regardless of the planning period to which they apply.

As well as the risks listed above, the risk management process is also used to monitor unplanned events with an impact on free cash flow. In addition to the impact of identified risks on EBIT, this assessment revealed further risk factors affecting liquidity valued at approximately € 30 million. However, these cash outflows are covered by the company's existing lines of credit.

At December 31, 2015, there had been no substantial changes in MTU's risk exposure compared with the end of the previous year. The level of risk exposure is manageable. From the present vantage point, the MTU group's continuing existence as a going concern is not endangered. MTU does not anticipate any fundamental changes in its risk exposure at the present time. MTU has taken every possible organizational measure to ensure early awareness of potential risk situations.

No substantial changes
in MTU's risk exposure

OPPORTUNITIES REPORT

MARKET AND PROGRAM OPPORTUNITIES

Basic research and the constant refinement of engine technologies followed by their deployment in the final products have made MTU one of the world's leading manufacturers of engine components. MTU's new products lead the field in terms of efficiency because they save fuel and reduce emissions, noise and costs. The technologies developed by MTU have been successfully integrated into new engine programs in recent years. The geared turbofan (GTF) engines of the PW1000G family, which are being developed in partnership with Pratt & Whitney, have helped MTU bolster its portfolio of cutting-edge engines and make it fit for the future. The GTF is the exclusive engine of all major regional jets developed in recent years – namely the Embraer E2 E-Jets and the Mitsubishi Regional Jet – as well as the Bombardier CSeries jet, and is offered as an option for the Airbus A320neo and Irkut MS-21. Through its stakes in the GTF programs, MTU will benefit over the decades ahead from growth in the markets for regional jets and small narrowbody aircraft. What is more, MTU has an opportunity to secure bigger market shares in the medium-haul sector because, in addition to its longstanding partnership in the V2500 engine program for the current A320 family, it also has a stake in the A320neo engine, which has been selling very well.

In the interests of a balanced engine portfolio, MTU is also participating in the engine program for the successor to the Boeing 777, the Boeing 777X, which will be exclusively equipped with General Electric's GE9X engine.

Among its customers in the military sector, MTU has established a reputation as a highly qualified partner with comprehensive system know-how in product development, manufacture and maintenance. In particular by driving forward its military-engine maintenance partnership with the German Air Force, MTU sees chances for strengthening its ties with Germany's armed forces. There are opportunities for building on existing customer relationships in the military MRO sector. What is more, ongoing export campaigns – especially for the Eurofighter EJ200 engine and the TP400-D6 engine for the A400M – present opportunities to acquire new customers for military business.

The military-program partnership with GE Aviation is doing well and could generate further opportunities to participate in transatlantic programs going forward.

MRO offered
together with engine sales

While the changed aftermarket scenario in the aviation industry, in which MRO services are increasingly being offered together with engine sales contracts, presents risks to MTU, it also opens up opportunities to develop customer loyalty through integrated service agreements that promise to soften the impact of risks associated with the spare parts market. This integrated approach to MRO enables program partners to become members of an MRO network, giving them access to the entire volume of MRO work associated with an engine series, the so-called network volume, in accordance with their share in the program. Various different work-sharing arrangements are possible. For instance, partners in the MRO network might only perform repairs on their own components, or be allocated a quota of complete shop visits corresponding to their program share. Membership in an MRO network offers lower margins than operating as an independent MRO provider.

The global nature of MRO work regularly presents opportunities to tap new markets and acquire new customers, but such opportunities depend largely on the pace of global economic growth. Geopolitical changes such as embargoes can make it difficult or impossible to do business with individual countries.

The MRO market for the GE90 opens up the longer-term prospect of participating in the steadily growing GE90 market as an independent MRO provider. In particular, as the number of aircraft resold to new owners by the original purchasers begins to rise, there will be opportunities for independent MRO providers like MTU to win new customers in the GE90 market, because in the pre-owned segment the airlines tend to have much weaker ties to the OEM.

Together with Sumitomo Corporation, MTU established two joint ventures in the market for engine leasing in 2014. This widens the company's leasing activities and provides more scope for offering associated MRO services.

OPPORTUNITIES ASSOCIATED WITH PRODUCT DEVELOPMENT AND MANUFACTURING

Development
opens new business opportunities

The risk report describes the risks associated with product development and manufacturing, but MTU's ongoing development activities also open the way to new business opportunities. For example, the new technologies and materials developed by MTU to improve the performance of its products create opportunities for the company to acquire new partnership roles in future engine programs, and thereby maintain a balanced product portfolio covering engines at all different stages of their lifecycle.

The risk report also refers to the challenges involved in ramping up new programs, and here again these challenges can be transformed into opportunities. Production processes and systems can be optimized and new, cutting-edge manufacturing technologies introduced. The risk analyses carried out in order to safeguard production ramp-up, and the measures adopted on the basis of those analyses, can lead to lasting process improvements. The effects of these improvements can not only be felt in new programs, but can also be transposed to existing ones. That leads, for example, to further cost reductions and enhanced delivery reliability.

Shop-floor management entails the continuous enhancement of management tools and management behavior, which results in greater transparency and less wastage in communication and information processes, helps achieve ambitious targets, and makes for faster problem-solving and more lasting improvements. It helps shorten the time needed to respond to deviations from plan and enables the company to find structured and sustainable solutions to problems, making it possible to put in place stable processes and optimize resource deployment. Heightened transparency and efficient communication lead to an altered understanding of leadership and a new corporate culture. Shop-floor management underpins continuous improvement at all levels and safeguards goal achievement in the long term.

OTHER OPPORTUNITIES

As a large part of the company's revenues are based on contracts invoiced in U.S. dollars – especially in the commercial engine business and commercial MRO – a strengthening of the U.S. dollar against the euro would improve MTU's earnings. If energy prices were to stabilize or retreat to a lower level, and if commodity prices were to fall, this would have a positive effect on MTU's cost structure and hence on its business results.

Other opportunities are listed in the SWOT analysis. See the risk report for information on how the opportunities identified can be exploited and the associated risks avoided.

→ further information on page 121

OVERALL ASSESSMENT OF OPPORTUNITIES

No substantial changes in opportunities

At December 31, 2015, the opportunities identified by MTU had not changed substantially compared with the end of the previous year. MTU has taken all the organizational measures necessary to recognize potential opportunities in good time and respond to them adequately. MTU applies the same methods in its assessment of specific opportunities as it does when evaluating risks. As a conservative approach is taken to the identification of risks and opportunities, the opportunities are necessarily limited compared with the risks. With the exception of market and program opportunities in the MRO segment amounting to € 0.6 million, no other quantifiable opportunities have been identified in respect of 2016. Moreover, due to the long cycles on which MTU's business model is based, the company does not foresee the emergence of any major opportunities until after 2015 because the future engine programs (and especially the GTF programs) are currently still in the development phase or in the early stages of production.

MTU does not currently foresee any fundamental changes in its opportunities.

SWOT ANALYSIS

The results of an analysis of the main strengths, weaknesses, opportunities and threats (SWOT) identified in the course of MTU's planning and risk management processes are as follows:

SWOT ANALYSIS OF THE MTU GROUP

Corporate	Market
Strengths	**Opportunities**
Technological leadership – OEM: Low-pressure turbine, high-pressure compressor – MRO: Excellence in advanced repair techniques	Market environment of business units on a long-term growth trend
Balanced engine portfolio across all market segments	Good market opportunities in the regional jet, narrowbody and widebody segment
Focus on high-profit-margin engine business	Export opporunities for military engine applications
Long-term contracts in the OEM business, involvement in consortia and cooperative ventures	Technological leadership opens the way to program investments
Quality and on-time delivery form basis for reliable partnerships	Growth potential in IGT market through participation in further development
	Greater exploitation of synergies between areas of commercial business (Integration MRO in new engine business)
	Positive changes in U.S. dollar exchange rate
Weaknesses	**Threats**
High dependency on U.S. dollar	Low and volatile earnings of end customers (airlines)
Dependency on decisions of consortium partners	Changes to business model in aftermarket – Price competition in maintenance – Changes to price and demand in spare parts business
Partnerships focused on two OEM manufacturers in commercial market	Entry of new participants in engine market
High wage levels at home manufacturing sites	Impact of political conflicts on development of demand in air traffic
	Negative changes in U.S. dollar exchange rate

THE INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM IN RELATION TO THE GROUP ACCOUNTING PROCESS

The current recommendations of German Accounting Standard No. 20 (DRS 20) have been applied in this section of the combined management report concerning the main features of the accounting-related internal control and risk management system.

OBJECTIVES AND COMPONENTS

Control systems are tailored to business model

The Executive Board, Supervisory Board and Audit Committee of MTU attach the greatest importance to ensuring the regularity, accuracy and reliability of MTU's financial reporting. The accounting-related internal control and risk management system, which provides the yardstick for the MTU group's financial statements, helps ensure that these internal and external accounting requirements are systematically complied with. The Executive Board of MTU bears overall responsibility for establishing and refining the required control and monitoring systems. The systems are tailored to the MTU group's business model and company-specific requirements, and are an important part of the comprehensive approach to corporate governance that defines the basic framework for creating sustainable value for shareholders, customers, employees and the public.

- The accounting-related risk management system (RMS) is an integral part of the group's comprehensive company-wide risk management system. It forms the basis for the uniform and appropriate handling of risks and for communicating them within the group. The risks entailed in financial reporting at group level are among the corporate risks to be monitored as a whole.
- The design of the accounting-related internal control system (ICS) at MTU meets the requirements of the German Act to Modernize Accounting Law (BilMoG), the definition provided by the Institute of Public Auditors in Germany (Institut der Wirtschaftsprüfer IDW e.V.), the internationally recognized and established framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO I), and the features specific to MTU. MTU understands an internal control system (ICS) to be the principles, procedures and measures introduced at the company by its management that are aimed at the organizational implementation of the decisions of management to:
  - safeguard the effectiveness and economic efficiency of business operations – which also includes protecting the company's assets,
  - ensure the regularity and reliability of internal and external accounting, and
  - comply with statutory regulations relevant to the company.
- The internal auditing system, which is process-independent, plays an important role in checking the effectiveness of, and improving, the accounting-related ICS and RMS. The corporate audit

department of MTU assesses, and helps to enhance, the controlling and monitoring systems. It is also considered to have an advisory function, contributing toward improving business processes and, ultimately, the effectiveness of the internal control system. The rules of procedure of the corporate audit department comply with national and international requirements as laid down by the Deutsches Institut für Interne Revision and the Institute of Internal Auditors. The corporate audit department is also bound by the code of professional ethics. The administrative standards of the internal auditing department are available to all employees for perusal on MTU's intranet.

- The Audit Committee of the Supervisory Board deliberates on risk management and on the findings of internal auditing. In accordance with Section 107 (3) Stock Corporation Act (AktG), as amended by the German Accounting Law Modernization Act (BilMoG), the Audit Committee is responsible also for monitoring the effectiveness of the risk management system, the internal control systems, the internal auditing systems, the financial reporting process and the audit of the financial statements, and, in particular, for assessing their independence.

MAIN FEATURES

MTU has a clearly defined management structure

- MTU has a clearly defined management and corporate structure. Key functions spanning more than one business unit are managed centrally. The individual subsidiaries nevertheless enjoy an adequate level of autonomy.
- The integrity and responsibility of all employees, also in terms of finances and financial reporting, are ensured by their undertaking to observe the groupwide code of conduct.
- An adequate system of guidelines has been drawn up and is updated as required.
- The departments and business units involved in the accounting process are suitably equipped and regularly trained both in quantitative and qualitative terms.
- The IT systems are protected against unauthorized access by appropriate installations in the IT area. As far as possible, standard software is used in the finance systems area. Within the framework of the comprehensive IT strategy and the IT architecture, the IT system's application controls are reviewed internally and externally on a regular basis against a background of a high level of automatic (plausibility) checks. The general IT controls are checked during internal and external IT audits.
- Suitable controls are in place in all accounting-relevant processes, such as dual control, analytical checks, and programmed plausibility checks during payment cycles in accounting or during the consolidation process.

- The consolidated financial statements and all financial data submitted for inclusion by the group companies are audited by an external auditor once a year. The same auditor also reviews the condensed consolidated financial statements and interim group management report in the half-year financial report.
- Accounting-relevant processes are also checked by the process-independent corporate audit department.

Group accounting department is the central point of contact

- The subsidiaries report directly to the group accounting department, to which they submit their annual and monthly financial statements. This information is used to prepare the consolidated financial statements in accordance with IFRS, which are compiled in consultation with the business administration departments of the group companies.
- The financial data communicated by the group companies for inclusion in the consolidated financial statements are processed and validated on a decentralized basis by the respective business administration departments, taking the groupwide reporting guidelines into account. As a supplementary control measure, (plausibility) checks of the reported data are carried out by the group accounting department during the compilation of its monthly reports and during the consolidation process in connection with the consolidated financial statements.
- The group accounting department is also the central point of contact and controlling body for specific reporting issues – such as questions concerning the balance sheet – at group level or within individual subsidiaries and joint ventures. If necessary, external consultants are called on for support.
- All subsidiaries and joint ventures are obligated to report their business figures to the group in a standardized reporting format on a monthly basis, and the reported data are compared with the planning figures. This allows the company to implement measures to identify risks and limit their consequences in good time.

DISCLOSURES IN CONNECTION WITH THE TAKEOVER DIRECTIVE

The following disclosures are made pursuant to Section 315 (4) of the German Commercial Code (HGB) (takeover directive implementation).

COMPOSITION OF SUBSCRIBED CAPITAL

The company's subscribed capital (capital stock) amounts to €52,000,000 and is divided into 52,000,000 registered non-par-value shares. All shares have equal rights and each share entitles the holder to one vote at the Annual General Meeting.

RESTRICTIONS CONCERNING VOTING RIGHTS AND THE TRANSFER OF SHARE OWNERSHIP

At December 31, 2015, MTU held 881,276 treasury shares (2014: 991,977). No voting rights are exercised in respect of treasury shares. The articles of association of MTU Aero Engines AG do not contain any restrictions concerning voting rights or the transfer of share ownership. The Executive Board has no knowledge of any agreement between shareholders that could give rise to any such restrictions.

SHARES WITH SPECIAL RIGHTS CONFERRING POWERS OF CONTROL ON THE HOLDER

MTU has not issued any shares with special rights conferring powers of control on the holder.

METHOD OF CONTROLLING VOTING RIGHTS WHEN EMPLOYEES OWN STOCK CAPITAL AND DO NOT EXERCISE THEIR CONTROL RIGHTS DIRECTLY

Employees holding shares in MTU Aero Engines AG exercise their control rights like any other shareholder, in strict compliance with statutory regulations and the company's articles of association.

RULES GOVERNING THE APPOINTMENT AND DISMISSAL OF MEMBERS OF THE EXECUTIVE BOARD

The rules for the appointment and dismissal of members of the Executive Board are based on Sections 84 and 85 of the German Stock Corporation Act (AktG) and Section 31 of the German Co-Determination Act (MitbestG) in conjunction with Article 5 of the company's articles of association.

RULES GOVERNING AMENDMENTS TO THE ARTICLES OF ASSOCIATION

All amendments to the articles of association require a resolution on the part of the Annual General Meeting, pursuant to Section 179 of the German Stock Corporation Act (AktG). Under the terms of the articles of association, such resolutions must be carried by a simple majority of the votes or, in cases where a majority of the voting stock must be represented at the meeting, by the simple majority of the voting stock – unless otherwise stipulated by the law (Article 18 (1) of the articles). The right to add amendments of a purely formal nature, for instance changes to the share capital as the result of utilization of the authorized capital, is devolved to the Supervisory Board under the terms of Article 13 of the articles of association.

AUTHORIZATIONS CONFERRED ON THE EXECUTIVE BOARD, ESPECIALLY CONCERNING THE ISSUE AND PURCHASE OF SHARES

Authorized capital

In accordance with Article 4 (5) of the articles of association, the Executive Board is authorized until April 14, 2020, to increase the company's capital stock by up to € 15.6 million, with the prior approval of the Supervisory Board, by issuing, either in a single step or in several steps, new registered non-par-value shares in return for cash contributions (Authorized capital 2015).

Conditional capital

In accordance with Article 4 (6) of the articles of association, the company's capital stock may be conditionally increased by up to € 5.2 million through the issue of up to 5,200,000 new registered non-par-value shares. The purpose of this conditional capital increase is to issue shares to owners or creditors of convertible bonds and/or bonds with warrants in accordance with the authorization granted to the company under a resolution passed by the Annual General Meeting on April 15, 2015. Shares may be issued at a conversion price or warrant exercise price determined on the basis of the conditions laid down in the relevant authorization.

The Executive Board is authorized until April 14, 2020, to issue, in a single step or in several steps and with the prior approval of the Supervisory Board, bearer convertible bonds and/or bonds with warrants (collectively referred to as "securities"), with or without maturity date, with a total nominal value of up to € 500 million, and to grant the owners of convertible bonds and/or bonds with warrants the right, obligation or option to convert them into registered non-par-value shares of the company representing a stake in the capital stock of up to € 5.2 million under the conditions established for the issue of convertible bonds or bonds with warrants. The bonds may be issued in return for cash contributions only. They may be issued in euros or – to an equivalent value – in any other legal currency, for instance that of an OECD country. They may also be issued by an affiliated company in which MTU holds a controlling interest. In such cases, and subject to the prior approval of the Supervisory Board, the Executive Board is authorized to act as guarantor for the securities, and to grant the owners of the securities the right, obligation or option to convert them into new registered non-par-value shares in MTU.

Resolution concerning the authorization to purchase and use treasury shares pursuant to Section 71 (1) item 8 of the German Stock Corporation Act (AktG) and to exclude subscription rights

By resolution of the Annual General Meeting of April 15, 2015, the company was authorized:

- to purchase treasury shares accounting for a proportion of up to 10% of the company's issued capital stock, as applicable on the date of the resolution, during the period from April 15, 2015, through April 14, 2020, pursuant to Section 71 (1) item 8 of the German Stock Corporation Act (AktG). At no point in time may the value of the acquired shares, together with other treasury shares in the company's possession or which are assigned to it pursuant to Section 71a et seq. of the German Stock Corporation Act (AktG), exceed 10% of the company's capital stock. At the

discretion of the Executive Board, the shares may be purchased through the stock exchange or by means of a public offering addressed to all shareholders (or – if legally acceptable – through an open invitation to submit offers for sale). The shares must be sold in return for proceeds that do not lie more than 10% above or below the quoted share price, net of any supplementary transaction charges. In the case of a sale through the stock exchange, the reference for the quoted share price as defined in the above ruling is the average value of share prices in the closing session of Xetra trading (or a comparable successor system) on the last three trading days prior to the publication of the offering or invitation. In the case of shares purchased by means of a public offering addressed to all shareholders (or an open invitation to submit offers for sale), the reference for the quoted share price is the average value of share prices in the closing session of Xetra trading (or a comparable successor system) on the last three trading days prior to the publication of the offering or invitation. In the event of substantial fluctuations in the share price, the Executive Board is authorized to publish a new public offering or invitation to submit offers for sale, based on a recalculated average value of share prices according to the previously mentioned formula. The volume of the offer can be limited in the case of shares purchased by means of a public offering addressed to all shareholders (or an open invitation to submit offers for sale). If the take-up of the offering (or the total number of offers) exceeds this volume, the purchase must be transacted in proportion to the number of shares offered. Preferential treatment may be given to small packages (up to 100 shares) offered for sale. Further conditions may be imposed in the offering or invitation to submit offers;

- to sell the purchased treasury shares in another manner than through the stock exchange or by means of a public offering addressed to all shareholders, on condition that the shares are sold in return for cash contributions at a price that does not lie significantly below the market price of similarly entitled MTU shares at the time of sale;
- with the prior approval of the Supervisory Board, to sell the purchased treasury shares in another manner than through the stock exchange or by means of an offering addressed to all shareholders if the treasury shares are sold to program participants in conjunction with the company's stock option programs and those participants are, or were, employees or officers of the company or one of its affiliated companies. If shares are to be issued to active or former members of the MTU Executive Board under the terms of the company's stock option programs, the Supervisory Board is authorized to transact this issue;
- to use the purchased treasury shares as partial or complete payment in conjunction with business combinations or the acquisition, whether direct or indirect, of businesses, parts of businesses or equity investments;
- with the prior approval of the Supervisory Board, to use the purchased treasury shares to discharge obligations or exercise rights relating to convertible bonds, bonds with warrants, certificates of beneficial interest or income bonds (or combinations of such instruments) issued by the company or by a dependent group company;
- with the prior approval of the Supervisory Board and without any requirement for a further resolution to be passed by the Annual General Meeting, to retire purchased treasury shares in whole or in part. Their retirement may be effected by employing a simplified procedure without any capital reduction, by adapting the actuarial value of the outstanding portion of shares to that of the company's stock capital. The retirement may be limited to a defined fraction of the purchased shares. The authorization to retire shares may be utilized on one or more occasions. If the simplified procedure is employed, the Executive Board is authorized to amend the number of outstanding shares stated in the articles of association.

The above-stated authorizations may be exercised on one or more occasions, in whole or in part, singly or in combination. They may be exercised also by group companies as defined in Section 17 of the German Stock Corporation Act (AktG).

The subscription rights of existing shareholders in respect of these treasury shares are excluded insofar as the shares are utilized in the manner described in the above-stated authorizations.

The authorization to purchase treasury shares granted to the company on April 22, 2010, was revoked as of the effective date of this new authorization. The authorization to use the treasury shares purchased under the terms of the above-mentioned earlier resolution dated April 22, 2010, remains in force.

SIGNIFICANT AGREEMENTS RELATING TO CHANGE OF CONTROL SUBSEQUENT TO A TAKEOVER BID

MTU Aero Engines AG issued a listed bond in June 2012, a registered bond in June 2013 and a note purchase agreement in March 2014. All of these grant the creditor a right of early repayment in the event that a third party assumes control of over 50 % of the company's share capital with voting rights and this change of control has a negative impact on the company's credit rating.

In October 2013, MTU Aero Engines AG agreed a revolving credit facility with a banking syndicate. According to the contract provisions, the lenders are entitled to terminate the credit facility in the event that one or more persons assume control of MTU Aero Engines AG or acquire more than 50 % of the company's issued capital.

MTU Aero Engines AG has risk and revenue sharing agreements with an engine manufacturer containing clauses that allow the risk and revenue sharing agreement to be converted into a long-term supplier contract in the event that a major competitor of the contracting party acquires more than 25 % of the company's voting rights or assets, thus constituting a controlling interest.

In addition, MTU Aero Engines AG has a cooperative agreement with another engine manufacturer. Under this agreement, that manufacturer is entitled to terminate the contract for cause in the event that one of its competitors acquires more than 50 % of the company's voting rights. MTU Aero Engines AG has further cooperative agreements with the same engine manufacturer. Under these agreements, that manufacturer is entitled to terminate the contract for cause in the event that one of its competitors acquires more than 30 % of the company's voting rights.

MTU Aero Engines AG also has equity investments in various joint ventures with other engine manufacturers, the purpose of which is to cooperate in the development and production of aircraft engines. According to the provisions of the corresponding agreements, MTU Aero Engines AG's share in the joint venture may be withdrawn and its participation in the accompanying cooperative agreements terminated if MTU Aero Engines AG is taken over by a competitor of the partners in these consortia.

It is standard market practice to confer contractual rights of this kind. Should an event meeting any of the above definitions of change of control take place, the exercise of rights ensuing from these agreements could have a substantial impact on MTU's net assets, financial position or operating results.

OTHER AGREEMENTS

Claims for compensation in the event of a takeover bid

The company has not entered into any agreements entitling members of the Executive Board or other employees to claim compensation in the event of a takeover bid.

OTHER DISCLOSURES

CORPORATE GOVERNANCE STATEMENT

DECLARATION OF CONFORMITY

The executive and supervisory boards of listed companies issue an annually renewed declaration stating that the recommendations of the Government Commission on the German Corporate Governance Code have been and are being complied with, where necessary citing those recommendations that have not been or are not being applied. The declaration of conformity of MTU Aero Engines is included in the corporate governance section of this Annual Report.

→ further information on page 32

There is also a section devoted to Corporate Governance on the MTU website at www.mtu.de under Investor Relations.

MANAGEMENT PRACTICES EXTENDING BEYOND STATUTORY REQUIREMENTS

A full description of management practices that extend beyond statutory requirements is provided in the corporate governance report published as part of this 2015 Annual Report.

WORKING PROCEDURES OF THE EXECUTIVE BOARD AND THE SUPERVISORY BOARD

A description of the working procedures of the Executive Board and Supervisory Board is provided in the corporate governance report.

GERMAN LAW ON EQUAL PARTICIPATION OF WOMEN AND MEN IN LEADERSHIP POSITIONS

In the context of the new German law on equal participation of women and men in leadership positions (so-called “Frauenquote”), MTU Aero Engines has set itself the following goals:

Firstly, in order to comply with the requirements of this law, the proportion of women holding seats on the Supervisory Board of MTU Aero Engines AG will be gradually increased to at least 30 % as and when positions are vacated and refilled. This proportion currently stands at 16.7 %. Secondly, the overall proportion of women in leadership positions (i.e. in all tiers of management with the exception of the Executive Board) at the company’s three locations in Germany will be increased to 11 % by June 2017, up from 9.4 % at the reference date of June 30, 2015. There are no plans to change the composition of the Executive Board of MTU Aero Engines AG or of the supervisory boards and executive management teams of MTU Maintenance Hannover GmbH, Langenhagen, Germany, and MTU Maintenance Berlin-Brandenburg GmbH, Ludwigsfelde, Germany, before June 2017.

REFERENCE TO MANAGEMENT COMPENSATION REPORT

The compensation awarded to members of the Executive Board is made up of fixed and variable components. A more detailed description, including a table of individual members' compensation entitlements, can be found in the corporate governance section of this Annual Report. The management compensation report forms an integral part of the group management report.

→ further informations on page 38

DIRECTORS' DEALINGS

Pursuant to Section 15a of the German Securities Trading Act (WpHG), members of the Executive Board and the Supervisory Board have a legal obligation to disclose transactions involving the purchase or sale of shares in MTU Aero Engines AG, Munich, or of related financial instruments, on condition that the total amount of the transactions undertaken by a board member or related persons reaches or exceeds € 5,000 within a single calendar year. These transactions were posted on the MTU website at www.mtu.de and published in the register of companies.

The total number of shares in MTU Aero Engines AG, Munich, held by members of the company's Executive Board and Supervisory Board at December 31, 2015, equaled less than 1% of the company's share capital (at December 31, 2014, less than 1%).

Other mandates held by members of the Executive Board in the financial year 2015 were as follows: Dr. Rainer Martens: chairman of the supervisory boards of MTU Maintenance Berlin-Brandenburg GmbH and MTU Maintenance Hannover GmbH; Michael Schreyögg: member of the supervisory board of MTU Maintenance Zhuhai Co. Ltd., China. Other mandates of Supervisory Board members are listed in the corporate governance section of this Annual Report. Information on related-party transactions is provided in Note 38 to the consolidated financial statements (Relationships with related companies and persons).

→ further informations on page 64 and page 223

CONSOLIDATED FINANCIAL STATEMENTS

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED INCOME STATEMENT

CONSOLIDATED INCOME STATEMENT

in € million	Note	2015	2014
Revenues	(1.)	**4,435.3**	**3,913.9**
Cost of sales	(2.)	–3,855.0	–3,375.4
Gross profit		**580.3**	**538.5**
Research and development expenses	(3.)	–66.5	–75.7
Selling expenses	(4.)	–94.3	–87.7
General administrative expenses	(5.)	–65.6	–62.6
Other operating income	(6.)	14.6	11.9
Other operating expenses	(6.)	–13.6	–14.9
Profit/loss of companies accounted for using the equity method	(7.)	29.1	22.0
Profit/loss of companies accounted for at cost	(7.)	1.6	2.0
Earnings before interest and tax (EBIT)		**385.6**	**333.5**
Interest income		2.4	1.3
Interest expenses		–3.5	–10.1
Interest result	(8.)	–1.1	–8.8
Financial result on other items	(9.)	–63.7	–46.0
Financial result		**–64.8**	**–54.8**
Earnings before tax		**320.8**	**278.7**
Income taxes	(10.)	–103.2	–83.3
Earnings after tax		**217.6**	**195.4**
Thereof:			
Shareholders of MTU Aero Engines AG		217.6	195.6
Shares of non-controlling interest			–0.2
Earnings per share in €			
Undiluted (EPS)	(11.)	4.26	3.84
Diluted (DEPS)	(11.)	4.26	3.83

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

in € million	Note	2015	2014
Earnings after tax		**217.6**	**195.4**
Translation differences arising from the financial statements of international entities		12.7	14.2
Financial instruments designated as cash flow hedges		–42.8	–115.1
Items that may subsequently be recycled to profit or loss		**–30.1**	**–100.9**
Actuarial gains and losses on plan assets and pension obligations		–10.5	–98.9
Items that will not be recycled to profit or loss		**–10.5**	**–98.9**
Other comprehensive income after tax	**(24.7.)**	**–40.6**	**–199.8**
Total comprehensive income		**177.0**	**–4.4**
Thereof:			
Shareholders of MTU Aero Engines AG		177.0	–4.2
Shares of non-controlling interest			–0.2

CONSOLIDATED BALANCE SHEET – ASSETS

ASSETS

in € million	Note	Dec. 31, 2015	Dec. 31, 2014
Non-current assets			
Intangible assets	(14.)	2,214.0	2,100.8
Property, plant and equipment	(15.)	632.0	610.1
Financial assets accounted for using the equity method	(16.)	168.0	139.9
Other financial assets	(16.)	85.2	52.0
Prepayments	(23.)	3.2	4.8
Deferred tax assets	(33.)	42.0	29.6
Total non-current assets		**3,144.4**	**2,937.2**
Current assets			
Inventories	(17.)	894.0	741.0
Trade receivables	(18.)	708.5	679.7
Construction contract and service business receivables	(19.)	301.3	271.2
Income tax claims	(22.)		0.3
Other financial assets	(16.)	54.8	81.7
Other assets	(20.)	21.6	24.3
Cash and cash equivalents	(21.)	53.1	64.6
Prepayments	(23.)	10.6	6.3
Total current assets		**2,043.9**	**1,869.1**
Total assets		**5,188.3**	**4,806.3**

CONSOLIDATED BALANCE SHEET – EQUITY AND LIABILITIES

EQUITY AND LIABILITIES

in € million	Note	Dec. 31, 2015	Dec. 31, 2014
Equity	**(24.)**		
Subscribed capital		52.0	52.0
Capital reserves		404.7	397.5
Revenue reserves		1,145.6	1,002.0
Treasury shares		–30.1	–32.2
Other comprehensive income		–271.4	–230.8
Shareholders of MTU Aero Engines AG		**1,300.8**	**1,188.5**
Shares of non-controlling interest		–0.2	–0.2
Total equity		**1,300.6**	**1,188.3**
Non-current liabilities			
Pension provisions	(25.)	777.5	761.9
Other provisions	(27.)	24.8	19.5
Financial liabilities	(28.)	910.2	941.3
Deferred tax liabilities	(33.)	22.7	59.9
Total non-current liabilities		**1,735.2**	**1,782.6**
Current liabilities			
Pension provisions	(25.)	24.2	21.7
Income tax liabilities	(26.)	31.1	30.3
Other provisions	(27.)	495.2	352.0
Financial liabilities	(28.)	512.0	271.0
Trade payables	(29.)	673.4	633.6
Construction contract and service business payables	(30.)	373.8	485.7
Other liabilities	(31.)	42.8	41.1
Total current liabilities		**2,152.5**	**1,835.4**
Total equity and liabilities		**5,188.3**	**4,806.3**

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For further explanatory comments on the components of equity, please refer to Note 24. (Equity).

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

in € million	Subscribed capital	Capital reserves	Revenue reserves	Treasury shares	Other comprehensive income: Translation differences arising from the financial statements of international entities	Other comprehensive income: Actuarial gains and losses[1]	Other comprehensive income: Financial instruments designated as cash flow hedges	**Shareholders of MTU Aero Engines AG**	Shares of non-controlling interest	**Total equity**
Carrying amount at Jan. 1, 2014	**52.0**	**390.2**	**875.1**	**–35.3**	**3.8**	**–95.0**	**60.2**	**1,251.0**		**1,251.0**
Earnings after tax			195.6					195.6	–0.2	195.4
Other comprehensive income					14.2	–98.9	–115.1	–199.8		–199.8
Total comprehensive income			**195.6**		**14.2**	**–98.9**	**–115.1**	**–4.2**	**–0.2**	**–4.4**
Total dividend payment			–68.7					–68.7		–68.7
MAP employee stock option program		5.5		2.4				7.9		7.9
Share Matching Plan		1.8		0.7				2.5		2.5
Carrying amount at Dec. 31, 2014	**52.0**	**397.5**	**1,002.0**	**–32.2**	**18.0**	**–193.9**	**–54.9**	**1,188.5**	**–0.2**	**1,188.3**
Earnings after tax			217.6					217.6		217.6
Other comprehensive income					12.7	–10.5	–42.8	–40.6		–40.6
Total comprehensive income			**217.6**		**12.7**	**–10.5**	**–42.8**	**177.0**		**177.0**
Total dividend payment			–74.0					–74.0		–74.0
MAP employee stock option program		5.9		1.7				7.6		7.6
Share Matching Plan		1.3		0.4				1.7		1.7
Carrying amount at Dec. 31, 2015	**52.0**	**404.7**	**1,145.6**	**–30.1**	**30.7**	**–204.4**	**–97.7**	**1,300.8**	**–0.2**	**1,300.6**

[1] Refers to pension obligations and planned assets

CONSOLIDATED CASH FLOW STATEMENT

CONSOLIDATED CASH FLOW STATEMENT

in € million	Note	2015	2014
Operating activities			
Earnings after tax		**217.6**	**195.4**
Depreciation / appreciation, amortization and impairment of non-current assets		163.2	154.7
Profit/loss of companies accounted for cost		–1.6	–2.0
Profit/loss of companies accounted for using the equity method		–29.1	–22.0
Gains/losses on the disposal of assets		–0.1	3.9
Change in pension provisions	(25.)	4.1	13.7
Change in other provisions	(27.)	148.5	–24.9
Other non-cash items		75.7	54.7
Change in working capital		–255.0	–102.4
Interest result	(8.)	1.1	8.8
Interest paid		–13.5	–15.4
Interest received		2.4	1.3
Dividends received		15.7	13.5
Income taxes	(10.)	103.2	83.3
Income taxes paid		–136.0	–157.8
Cash flow from operating activities		**296.2**	**204.8**
Investing activities			
Capital expenditure on:			
Intangible assets	(14.)	–142.8	–100.8
Property, plant and equipment	(15.)	–129.9	–100.7
Financial assets	(16.)	–49.0	–79.5
Proceeds from disposal of:			
Intangible assets / Property, plant and equipment	(14.) / (15.)	4.5	1.0
Financial assets	(16.)	49.4	45.5
Cash flow from investing activities		**–267.8**	**–234.5**
Financing activities			
Issue of note purchase agreement	(28.)		30.0
Repayment of promissory notes	(28.)		–11.5
Increase in current financial liabilities	(28.)	109.4	10.8
Increase in non-current financial liabilities	(28.)		6.0
Repayment of non-current financial liabilities	(28.)	–1.3	
Total dividend payment		–74.0	–68.7
Sale of shares under the MAP employee stock option program / Share Matching Plan	(28.)	9.3	10.3
Settlement of purchase price liability for PW1000G program shares / V2500 stake increase		–86.1	–49.6
Cash flow from financing activities		**–42.7**	**–72.7**
Net change in cash and cash equivalents during the year		**–14.3**	**–102.4**
Effect of translation differences on cash and cash equivalents		2.8	7.4
Cash and cash equivalents at beginning of financial year (January 1)		64.6	159.6
Cash and cash equivalents at end of financial year (December 31)		**53.1**	**64.6**

REPORTING BY OPERATING SEGMENT

REPORTING BY OPERATING SEGMENT

	Commercial and military engine business (OEM)	
in € million	**2015**	2014
External revenues	2,861.9	2,620.1
Revenues from intersegment sales	35.2	28.2
Total revenues	**2,897.1**	**2,648.3**
Gross profit	**378.9**	**373.9**
Amortization	59.7	54.5
Depreciation	74.5	70.9
Impairment loss		1.7
Total depreciation / amortization and impairment losses	**134.2**	**127.1**
Earnings before interest and tax (EBIT)	**232.8**	**219.5**
Depreciation / amortization effects of purchase price allocation	21.6	21.9
IAE-V2500 stake increase	30.6	24.8
Earnings before interest, tax and depreciation / amortization (adjusted EBIT)	**285.0**	**266.2**
Profit / loss of companies accounted for using the equity method	–2.4	–1.2
Carrying amount of companies accounted for using the equity method	27.6	24.9
Assets	**4,589.5**	**4,285.2**
Liabilities	**3,429.4**	**3,214.8**
Significant non-cash items	**76.4**	**53.8**
Capital expenditure on:		
Intangible assets	160.9	293.7
Property, plant and equipment	102.9	82.9
Total capital expenditure on intangible assets and property, plant and equipment	**263.8**	**376.6**
Key segment data:		
EBIT in % of revenues	8.0	8.3
Adjusted EBIT in % of revenues	9.8	10.1

Detailed explanatory comments on the information disclosed for the operating segments are provided in the following tables and in Part V of these Notes (Segment information), together with information on major customers, and an analysis by geographical area. The key indicator used by management to measure the operating performance of each segment is adjusted earnings before interest, tax, depreciation and amortization (adjusted EBITDA). The contribution to EBIT (earnings before interest and tax) by associated companies and joint ventures accounted for using the equity method amounted to € 29.1 million in the financial year 2015 (2014: € 22.0 million).

Commercial maintenance business (MRO)		Total reportable segments		Consolidation / reconciliation		MTU group	
2015	2014	**2015**	2014	**2015**	2014	**2015**	2014
1,573.4	1,293.8	4,435.3	3,913.9			4,435.3	3,913.9
7.2	5.1	42.4	33.3	–42.4	–33.3		
1,580.6	**1,298.9**	**4,477.7**	**3,947.2**	**–42.4**	**–33.3**	**4,435.3**	**3,913.9**
201.1	**159.3**	**580.0**	**533.2**	**0.3**	**5.3**	**580.3**	**538.5**
10.1	9.4	69.8	63.9			69.8	63.9
23.3	23.2	97.8	94.1			97.8	94.1
0.4		0.4	1.7			0.4	1.7
33.8	**32.6**	**168.0**	**159.7**			**168.0**	**159.7**
152.7	**113.8**	**385.5**	**333.3**	**0.1**	**0.2**	**385.6**	**333.5**
2.5	2.5	24.1	24.4			24.1	24.4
		30.6	24.8			30.6	24.8
155.2	**116.3**	**440.2**	**382.5**	**0.1**	**0.2**	**440.3**	**382.7**
31.5	23.2	29.1	22.0			29.1	22.0
140.4	115.0	168.0	139.9			168.0	139.9
1,273.2	**1,084.3**	**5,862.7**	**5,369.5**	**–674.4**	**–563.2**	**5,188.3**	**4,806.3**
791.7	**625.4**	**4,221.1**	**3,840.2**	**–333.4**	**–222.2**	**3,887.7**	**3,618.0**
–0.5	**–1.6**	**75.9**	**52.2**	**–0.2**	**2.5**	**75.7**	**54.7**
18.9	0.3	179.8	294.0			179.8	294.0
27.0	18.6	129.9	101.5			129.9	101.5
45.9	**18.9**	**309.7**	**395.5**			**309.7**	**395.5**
9.7	8.8	8.6	8.4			8.7	8.5
9.8	9.0	9.8	9.7			9.9	9.8

Intersegment sales are transacted on an arm's-length basis at normal market transfer prices and invoiced in the same way as transactions with external third parties. Significant noncash items mainly comprise translation differences recognized in other comprehensive income.

Compared with the previous year, there were no changes in the delimitation of the segments.

For more information on segment reporting, please see Part V of these Notes (Segment information).

INFORMATION ON REVENUES DERIVED FROM PRODUCTS AND SERVICES

in € million	2015	2014
Commercial engine business		
Manufacturing	2,326.7	2,048.2
Other products	87.3	68.6
Total commercial engine business	**2,414.0**	**2,116.8**
Military engine business		
Manufacturing	298.2	307.0
Other products	184.9	224.5
Total military engine business	**483.1**	**531.5**
Total commercial and military engine business (OEM)	**2,897.1**	**2,648.3**
Commercial maintenance business (MRO)		
Engine maintenance, repair and overhaul	1,367.3	1,145.2
Other products	213.3	153.7
Total commercial maintenance business (MRO)	**1,580.6**	**1,298.9**
Consolidation	**-42.4**	**-33.3**
Group revenues	**4,435.3**	**3,913.9**

In the OEM segment (commercial and military engine business), other products refers to services, grants toward development costs, and revenues from military maintenance contracts. In the MRO segment (commercial maintenance business), revenues from other products mainly relate to the repair of engine parts and the activities of Vericor Power Systems LLC., Alpharetta, USA, and MTU Maintenance Lease Services B.V., Amsterdam, Netherlands.

INFORMATION ON REVENUES FROM MAJOR CUSTOMERS

In the reporting period, three major customers each accounted for more than 10% of total group revenues. Business with the first customer led to revenues of € 1,201.7 million (2014: € 1,043.9 million), with the second € 984.8 million (2014: € 735.5 million) and with the third € 638.9 million (2014: € 518.9 million). In each case, the revenues were generated in both operating segments.

ANALYSIS BY GEOGRAPHICAL AREA

REVENUES ACCORDING TO CUSTOMER'S COUNTRY OF DOMICILE

in € million	2015	2014
Germany	483.7	488.6
Europe	300.3	304.5
North America	3,256.7	2,755.2
Asia	155.8	138.0
Other regions	238.8	227.6
Total	**4,435.3**	**3,913.9**

In 2015, approximately 73% (2014: 70%) of MTU's revenues were generated from business with customers in North America, of which the U.S. market accounted for a share of 71% (2014: 68%).

CAPITAL EXPENDITURE ON INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT

in € million	2015	2014
Germany	293.2	252.0
Europe	14.1	140.6
North America	2.4	2.9
Total	**309.7**	**395.5**

Approximately 95% (2014: approximately 64%) of the capital expenditure on intangible assets and on property, plant and equipment relates to expenditure by group companies in Germany. The higher prior-year amount stated for Europe resulted from the amortization of program assets acquired in connection with the IAE-V2500 stake increase.

NON-CURRENT ASSETS

in € million	Dec. 31, 2015	Dec. 31, 2014
Germany	2,376.9	2,157.3
Europe	743.4	756.8
North America	24.1	23.1
Total	**3,144.4**	**2,937.2**

IMPAIRMENT LOSSES

In the financial year 2015, an impairment loss of € 0.4 million was recognized in respect of the carrying amount of MTU Maintenance Dallas Inc., Grapevine, USA, which is allocated to the MRO segment, and transferred to other operating expenses, due to this company's poor business performance and consequent need for shareholder loan capital. In the previous financial year, an amount of € 1.7 million was recognized under other operating expenses in respect of the identified impairment loss on the shareholder loan granted to AES Aerospace Embedded Solutions GmbH, Munich, which belongs to the OEM segment.

RECONCILIATION OF SEGMENT INFORMATION WITH MTU CONSOLIDATED FINANCIAL STATEMENTS – EARNINGS

RECONCILIATION OF SEGMENT INFORMATION WITH MTU CONSOLIDATED FINANCIAL STATEMENTS – EARNINGS

in € million	2015	2014
Consolidated earnings before interest and tax (EBIT)	**385.6**	**333.5**
Interest income	2.4	1.3
Interest expenses	-3.5	-10.1
Financial result on other items	-63.7	-46.0
Earnings before tax	**320.8**	**278.7**

The cash and cash equivalents belonging to the assets of the German group companies are managed centrally by the parent company in a cash pooling system. The parent company's operating activities are allocated to the OEM segment, which is why the associated interest income and expense mainly arises in that segment.

I. ACCOUNTING POLICIES AND PRINCIPLES

FUNDAMENTALS AND METHODS

MTU Aero Engines AG, Munich, together with its consolidated group of companies (hereinafter referred to as MTU or the MTU group) ranks among the world's largest manufacturers of engine modules and components, and is one of the leading providers of MRO services for commercial aero engines in the world.

The business activities of the MTU group range through the entire lifecycle of an engine program, i.e. from development, construction, testing and production of new commercial and military engines and spare parts, through to maintenance, repair and overhaul of commercial and military engines. MTU divides its activities into two operating segments: the OEM segment (commercial and military engine business) and the MRO segment (commercial maintenance business).

MTU's commercial and military engine business covers the development and production of modules, components and spare parts for engine programs, including final assembly. MTU's military engine business additionally includes maintenance services for these engines. The commercial maintenance business covers activities in the areas of maintenance and logistical support for commercial engines.

The parent company, MTU Aero Engines AG, registered office Dachauer Str. 665, 80995 Munich, Germany, is registered under HRB 157 206 in the commercial registry at the district court of Munich.

The consolidated financial statements were approved for publication by the Executive Board of MTU Aero Engines AG, Munich, on February 22, 2016.

MTU's consolidated financial statements have been drawn up in accordance with International Financial Reporting Standards (IFRS), such as they apply in the European Union (EU), and the supplementary requirements of Section 315a (1) of the German Commercial Code (HGB). All IFRS issued by the International Accounting Standards Board (IASB) that were effective at the time these consolidated financial statements were drawn up and that were applied by MTU have been endorsed by the European Commission for use in the EU.

The consolidated financial statements as at December 31, 2015 and the combined management report for the financial year 2015 have been compiled in accordance with Section 315a (1) of the German Commercial Code (HGB) and published in the Federal Gazette (Bundesanzeiger).

The financial year is identical with the calendar year. Comparative data for the previous year are disclosed in the consolidated financial statements.

In the presentation of the balance sheet, a distinction is made between non-current and current assets and liabilities. A more detailed presentation of certain of these items in terms of their timing is provided in the Notes to the consolidated financial statements. An asset or liability is classified as current if:

- it is held primarily for trading purposes,
- it is expected to be realized or repaid respectively within twelve months of the reporting date,
- it is cash or a cash equivalent, unless the exchange or utilization of the asset for the purpose of fulfilling an obligation is restricted for a period of at least twelve months after the reporting date, or
- it is a construction contract or service business receivable or payable that will be realized during MTU's normal business cycle, even if the period for realization exceeds twelve months.

The income statement is laid out in accordance with the cost-of-sales accounting format, in which revenues are balanced against the expenses incurred in order to generate these revenues, and the expenses are recorded in the appropriate line items by function: manufacturing, research and development, selling and general administration. The consolidated financial statements have been compiled in euros. All amounts are stated in millions of euros (€ million), unless otherwise specified.

The financial statements prepared by MTU Aero Engines AG, Munich, and its subsidiaries are included in the consolidated financial statements. Uniform methods of recognition and measurement are applied throughout the group.

Accounting standards and interpretations, and revised / amended accounting standards and interpretations, applied for the first time in the financial year 2015

The following accounting standards and interpretations, and revised/amended accounting standards and interpretations, were applied for the first time in the 2015 financial statements:

- Annual improvements to IFRS (2011-2013 cycle)
- IFRIC 21 Levies

However, their application did not result in any significant changes to MTU's financial reporting processes.

Accounting standards and interpretations, and revised / amended accounting standards and interpretations, issued but not yet applied

The following accounting standards and interpretations, and revised / amended accounting standards and interpretations, have been issued by the IASB but were not yet effective for annual periods beginning on or after January 1, 2015:

NEW AND AMENDED STANDARDS AND INTERPRETATIONS

Standard	Title
IFRS 9	Financial Instruments [3/4]
IFRS 14	Regulatory Deferral Accounts [1/4]
IFRS 15	Revenue from Contracts with Customers [3/4]
IAS 1	Disclosure Initiative [1]
Amendments to IFRS 10, IFRS 12, IAS 28	Investment Entities: Applying the Consolidation Exception [1/4]
Amendments to IFRS 10, IAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture [5]
Amendments to IFRS 11	Accounting for Acquisitions of Interests in Joint Operations [1]
Amendments to IAS 16 / IAS 38	Clarification of Acceptable Methods of Depreciation and Amortization [1]
Amendments to IAS 16 / IAS 41	Agriculture: Bearer Plants [1]
Amendments to IAS 19	Defined Benefit Plans: Employee Contributions [6]
Amendments to IAS 27	Equity Method in Separate Financial Statements [1]
Annual improvements to IFRS 2010 - 2012	IFRS 2 – Share-based Payment [6] IFRS 3 – Business Combinations [6] IFRS 8 – Operating Segments [6] IFRS 13 – Fair Value Measurement [6] IAS 16 – Property, Plant and Equipment [6] IAS 24 – Related Party Disclosures [6] IAS 38 – Intangible Assets [6]
Annual improvements to IFRS 2012 - 2014	IFRS 5 – Non-current Assets Held for Sale [1] IFRS 7 – Financial Instruments: Disclosures [1] IAS 19 – Discount Rate for Employee Benefits [1] IAS 34 – Interim Financial Reporting (Inclusion of cross-references) [1]

[1] Effective for annual periods beginning on or after January 1, 2016.
[2] Effective for annual periods beginning on or after January 1, 2017.
[3] Effective for annual periods beginning on or after January 1, 2018.
[4] Still awaiting EU endorsement.
[5] Effective date postponed indefinitely.
[6] Effective for annual periods beginning on or after February 1, 2015; later than the IASB effective date due to EU endorsement.

MTU does not intend voluntarily to apply any of these standards and interpretations, or any amendments made to them, in advance of their effective date.

In the interests of efficient reporting practice, the following descriptions of standards and interpretations are limited to those that, in view of MTU's business model and on the basis of the currently available knowledge of business transactions within the MTU group, could potentially have an impact on the methods of reporting used in future reporting periods.

IFRS 9, Financial Instruments

The final version of this standard adds a new expected loss impairment model and amends the classification and measurement model for financial assets by adding a new fair value through other comprehensive income (FVTOCI) category for certain debt instruments and further guidance on how to apply the business model and contractual cash flow characteristics test.

The impairment model in IFRS 9 constitutes a paradigm shift away from the incurred loss model in IAS 39 that was previously utilized. The new expected loss model now requires expected losses to be accounted for at inception of a contract, except in the case of financial assets that were already impaired at the time of acquisition. If an instrument already shows objective indications of impairment at the time of acquisition (i.e. issue or purchase date), a different accounting treatment applies. For these assets, income or expense items are recognized solely for changes to the originally expected loss occurring during the instrument's remaining term to maturity.

IFRS 9 also provides new guidance on hedge accounting and aims to provide a clear picture of an entity's risk management activities.

IFRS 10, IAS 28, Sale or Contribution of Assets between an Investor and its Associate or Joint Venture

The amendments address a conflict between the requirements of IAS 28, Investments in Associates and Joint Ventures, and IFRS 10, Consolidated Financial Statements and clarify that in a transaction involving an associate or joint venture the extent of gain or loss recognition depends on whether the assets sold or contributed constitute a business.

IFRS 11, Joint Arrangements

Accounting for Acquisitions of Interests in Joint Operations (Amendments to IFRS 11) amends IFRS 11 such that the acquirer of an interest in a joint operation in which the activity constitutes a business, as defined in IFRS 3, is required to apply all of the principles on business combinations accounting in IFRS 3 and other IFRS with the exception of those principles that conflict with the guidance in IFRS 11. Accordingly, a joint operator that is an acquirer of such an interest has to:

- measure most identifiable assets and liabilities at fair value;
- expense acquisition-related costs (other than debt or equity issuance costs);
- recognize deferred tax assets and liabilities;
- recognize any goodwill or bargain purchase gain;
- perform impairment tests for the cash generating units to which goodwill has been allocated; and
- disclose required information relevant to business combinations.

The amendments apply to the acquisition of an interest in an existing joint operation and also to the acquisition of an interest in a joint operation on its formation, unless the formation of the joint operation coincides with the formation of the business.

IFRS 15, Revenue from Contracts with Customers

IFRS 15, Revenue from Contracts with Customers, applies to all contracts with customers except for: leases within the scope of IAS 17, Leases; financial instruments and other contractual rights or obligations within the scope of IFRS 9, Financial Instruments, IFRS 10, Consolidated Financial Statements, IFRS 11, Joint Arrangements, IAS 27, Separate Financial Statements and IAS 28, Investments in Associates and Joint Ventures; insurance contracts within the scope of IFRS 4, Insurance Contracts; and non-monetary exchanges between entities in the same line of business to facilitate sales to customers or potential customers.

The new standard provides a single, principles-based five-step model to be applied to all contracts with customers. The five steps are:

- identify the contract with the customer;
- identify the performance obligations in the contract;
- determine the transaction price;
- allocate the transaction price to the performance obligations in the contract;
- recognize revenue when (or as) the entity satisfies a performance obligation.

There is new guidance on whether revenue should be recognized at a point in time or over time, which replaces the previous distinction between goods and services.

Where revenue is variable, a new recognition threshold has been introduced by the standard. This threshold requires that variable amounts are only included in revenue if, and to the extent that, it is highly probable that a significant revenue

reversal will not occur in the future as a result of re-estimation. However, a different approach is applied for sales- and usage-based royalties from licenses of intellectual property; for such royalties, revenue is recognized only when the underlying sale or usage occurs.

The standard provides detailed guidance on various issues such as identifying distinct performance obligations, accounting for contract modifications, and accounting for the time value of money.

Detailed implementation guidance is included on topics such as sales with a right of return, customer options for additional goods or services, principal versus agent considerations, licensing, and bill-and-hold arrangements.

The standard also introduces new guidance on the costs of fulfilling and obtaining a contract and specifying the circumstances in which such costs should be capitalized. Costs that do not meet the criteria must be expensed when incurred.

The standard introduces new, increased requirements for disclosure of revenue in a reporter's financial statements.

MTU is currently in the process of evaluating the concrete impact of IFRS 15 on the group's future financial reporting processes. Major topics being examined in the current analysis phase include the allocation of performance obligations within the context of a contract and the determination of transaction prices, especially with respect to the necessary level of detail when allocating items of revenue and costs.

IAS 16, Property, Plant and Equipment / IAS 38, Intangible Assets

The requirements of IAS 16 were amended to clarify that a depreciation method that is based on revenue generated by an activity that includes the use of an asset is not appropriate. This is because such a method reflects a pattern of generation of economic benefits that arises from the operation of the business of which an asset is part, rather than the pattern of consumption of an asset's expected future economic benefits.

The requirements of IAS 38 were amended to introduce a rebuttable presumption that a revenue-based amortization method for intangible assets is inappropriate for the same reasons as in IAS 16. However, the IASB states that there are limited circumstances when the presumption can be overcome:

- the intangible asset is expressed as a measure of revenue (the predominant limiting factor inherent in an intangible asset is the achievement of a revenue threshold); and
- it can be demonstrated that revenue and the consumption of economic benefits of the intangible asset are highly correlated (the consumption of the intangible asset is directly linked to the revenue generated from using the asset).

Guidance has been introduced into both standards to explain that expected future reductions in selling prices could be indicative of a higher rate of consumption of the future economic benefits embodied in an asset.

IAS 19, Employee Benefits

In "Defined Benefit Plans: Employee Contributions" (Amendments to IAS 19, Employee Benefits), the IASB amended the provisions with respect to the contributions paid by employees or third parties that are linked to duration of service.

- If the amount of the contributions is independent of the number of years of service, the contributions may be recognized as a reduction in the service cost in the period in which the related service is rendered. This approach is permitted, but is not mandatory.
- If the amount of the contributions is dependent on the number of years of service, the contributions must be attributed to the periods of service using the same attribution method as used for the gross benefit in accordance with paragraph 70 of IAS 19.

Invocation of Section 264 (3) of the German Commercial Code (HGB)

MTU Maintenance Hannover GmbH, Langenhagen, and MTU Maintenance Berlin-Brandenburg GmbH, Ludwigsfelde, which are consolidated affiliated companies of MTU Aero Engines AG, Munich, and for which the consolidated financial statements of MTU Aero Engines AG, Munich, constitute the exempting consolidated financial statements, have invoked the provisions of Section 264 (3) of the German Commercial Code (HGB). The official notice of these companies' invocation of the exemption was published in the electronic version of the Federal Gazette (Bundesanzeiger) in the name of MTU Aero Engines GmbH, Munich, on November 9, 2015.

GROUP REPORTING ENTITY

At December 31, 2015, the MTU group including MTU Aero Engines AG, Munich, comprised 31 companies (2014: 29 companies). These are presented in detail in the list of major shareholdings in Note 38 (Relationships with related companies and persons).

Please see below for information on changes in the composition of the group reporting entity. The assets of MTU München Unterstützungskasse GmbH, Munich, are classified as plan assets as defined in IAS 19. For this reason, MTU München Unterstützungskasse GmbH, Munich, is not consolidated.

CHANGE IN COMPOSITION OF GROUP REPORTING ENTITY

The number of group companies and equity investments in associated companies and joint ventures included in the consolidated financial statements developed as follows:

GROUP REPORTING ENTITY

	Germany	International	Total
Shareholdings at Dec. 31, 2013	**12**	**18**	**30**
Acquisitions 2014		1	1
Disposals 2014	–1	–1	–2
Shareholdings at Dec. 31, 2014	**11**	**18**	**29**
Acquisitions 2015		2	2
Disposals 2015			
Shareholdings at Dec. 31, 2015	**11**	**20**	**31**

MTU Aero Engines Finance Netherlands B.V., Amsterdam, Netherlands, was established on April 7, 2015, and entered in the commercial register of Amsterdam on April 8, 2015. The purpose of the business is to promote sales by providing financial services to customers. The company is allocated to the OEM segment (commercial and military engine business). At the reporting date, it was of minor significance as far as the MTU group's net assets, financial situation and operating results are concerned.

On December 15, 2015, MTU acquired a shareholding in International Aero Engines LLC, East Hartford, USA. The company's ownership is divided between Pratt & Whitney Inc. (59%), Japanese Aero Engines Corporation (23%) and MTU Aero Engines AG (18%). The purpose of the business is the development, manufacture and maintenance of PW1100G-JM engines. The equity investment is allocated to the OEM segment (commercial and military engine business). At the reporting date, it was of minor significance as far as the MTU group's net assets, financial situation and operating results are concerned.

After fulfilling its business purpose, MTU München Unterstützungskasse GmbH, Munich, is now in liquidation. Responsibility for the payment of all remaining benefit obligations has been transferred to MTU Aero Engines AG with effect of December 31, 2015.

SUBSIDIARIES

The consolidated financial statements of MTU Aero Engines AG, Munich, include all significant companies in which MTU Aero Engines AG, Munich, has a controlling interest as defined by IFRS 10, in other words entities in which MTU, as the investor, is exposed to, or has rights to, variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. As a general rule, it is assumed that a controlling interest exists if the investor owns a majority of the voting rights in the investee. There were no changes in the classification of these controlling interests during the reporting period.

ASSOCIATED COMPANIES

Associated companies are companies in which MTU has significant powers of control and which are neither subsidiaries nor joint ventures. The equity investments in entities corresponding to this definition, over whose financial and operating policies MTU directly or indirectly exercises significant influence, are accounted for using the equity method, or at cost if the effects of their consolidation at equity would have no significant impact on the presentation of MTU's net assets, financial situation or operating results. Significant powers of control are assumed to exist if MTU directly or indirectly owns 20% or more of the voting stock of an entity. As in 2014, the shares in IAE International Aero Engines AG, Zurich, Switzerland, are accounted for using the equity method. There were no changes in the classification of these associated companies during the reporting period.

JOINT VENTURES

Joint ventures are companies over which MTU exercises joint control together with one or more other entities. Joint control is assumed to exist if each parent company, including MTU, holds equal voting rights in the entity by virtue of its direct or indirect shareholding in the joint venture.

MTU's principal joint ventures, namely

- MTU Maintenance Zhuhai Co. Ltd., Zhuhai, China,
- Pratt & Whitney Canada Customer Service Centre Europe GmbH, Ludwigsfelde, Germany,
- Ceramic Coating Center S.A.S., Paris, France,
- Airfoil Services Sdn.Bhd., Kota Damansara, Malaysia, and
- AES Aerospace Embedded Solutions GmbH, Munich, Germany.

are accounted for in the consolidated financial statements using the equity method. Detailed information on the assets, liabilities and earnings of the joint ventures and associated companies is presented in Note 16. (Financial assets).

NON-SIGNIFICANT INVESTMENTS

Non-significant investments are shares in companies and stakes in engine programs whose overall impact on the group's net assets, financial situation and operating results is not material. These equity investments are accounted for at cost in the consolidated financial statements.

RESTRICTIONS

In individual cases, MTU or its subsidiaries may be subject to restrictions on their ability to transfer liquid funds or other assets to other group companies. Such restrictions may stem from regulatory requirements or from contractual agreements between the investors in the individual companies.

CONSOLIDATION PRINCIPLES

All business combinations are accounted for using the acquisition method in accordance with IFRS 3. Under the acquisition method, the acquirer accounts for the business combination by measuring and recognizing the identifiable assets acquired and the liabilities and contingent liabilities assumed. The identifiable assets, liabilities, and contingent liabilities are measured at fair value. In accordance with IAS 36, goodwill is tested for impairment at least annually, or at shorter intervals if there is an indication that the asset might be impaired. If the group's interest in the net fair value of the acquired identifiable net assets exceeds the cost of the business combination, that excess (negative goodwill) is recognized in the income statement – after remeasurement as required by IFRS 3.36.

The effects of intragroup transactions are eliminated. When accounting for dealings between entities of the consolidated group, accounts receivable are offset against accounts payable and expenses are offset against income. Internal sales are transacted on the basis of market prices and intragroup profits and losses are eliminated.

In accordance with IAS 12, deferred tax assets and liabilities are recognized on temporary differences arising from the elimination of intragroup profits and losses.

CURRENCY TRANSLATION

Transactions in foreign currencies are translated to the functional currency using the exchange rate prevailing on the date of the transaction. At the reporting date, monetary items are translated using the exchange rate prevailing at that date, whereas non-monetary items are translated using the exchange rate prevailing on the transaction date. Translation differences are recognized in the income statement. The assets and liabilities of group companies whose functional currency is not the euro are translated from the corresponding local currency to the euro using the closing exchange rate at the reporting date. In the income statements of foreign group companies whose functional currency is not the euro, income and expense items are translated each month using the exchange rate applicable at the end of the month; the average exchange rate for the year can be derived from these end-of-month exchange rates. The translation differences arising in this way are recognized in other comprehensive income and do not have any impact on the net profit/loss for the year.

ACCOUNTING POLICY AND MEASUREMENT METHODS

The consolidated financial statements of MTU Aero Engines AG, Munich, and its subsidiaries are drawn up using uniform accounting policies based on the International Financial Reporting Standards (IFRS).

REVENUES

Revenues from the sale of goods are recognized in accordance with IAS 18. This means that certain criteria must be met, in particular that the significant risks and rewards of ownership of the goods have been transferred to the purchaser and that MTU retains neither continuing managerial involvement nor effective control over the goods sold. The company's customers are risk- and revenue-sharing partners in engine programs, cooperation entities, public-sector contractors, airlines and other third parties.

Revenues arising from the rendering of services, provided that the criteria specified in IAS 18 are met, are recognized by reference to the stage of completion of the transaction and measured relative to costs incurred or, if the criteria are not met, to the extent of the expenses recognized that are recoverable. The corresponding assets and liabilities are recognized in the balance sheet under "service business receivables" (Note 19.) or under "service business payables" (Note 30.).

Revenues from construction contracts are recorded on the basis of the percentage of completion in accordance with IAS 11. An explanation of the measurement of percentage of completion is provided under the heading "construction contract and service business receivables". These contracts are recognized in the balance sheet under "construction contract receivables" (Note 19.) or under "construction contract payables" (Note 30.). Revenues are always reported net of trade discounts and concessions, customer loyalty awards, and other directly attributable rebates.

The group's forward foreign currency contracts satisfy the conditions for applying hedge accounting in accordance with IAS 39. The instruments used to hedge cash flows are measured at their fair value, with gains and losses recognized initially under other comprehensive income. They are subsequently recorded as revenues when the hedged item is recognized.

COST OF SALES

The cost of sales comprises the manufacturing cost of goods and services sold and the cost of products purchased for resale. In addition to direct material and production costs, it also comprises allocated manufacturing-related overheads, including amortization / depreciation of the production-related intangible assets and production installations, write-downs on inventories and an appropriate portion of production-related administrative overheads. The cost of sales also includes expenses charged by OEMs for marketing engines in conjunction with risk- and revenue-sharing partnerships.

RESEARCH AND DEVELOPMENT EXPENSES

Research costs are charged to expense in the period in which they are incurred.

In the case of development costs, a distinction is drawn between purchased ("externally acquired") development assets and self-created ("internally generated") development assets. Services provided as part of externally funded development projects are allocated to cost of sales.

Development costs generated in the context of company-funded R&D projects are capitalized in accordance with IAS 38 or recognized as an expense in the period in which they are incurred. The capitalized development costs comprise all costs directly attributable to the development process. Capitalized development costs are amortized over the expected product lifecycle from the start of production onward.

Previously capitalized, company-funded development projects that have not been completed by the end of the financial year are subjected to an impairment test at least once a year, in accordance with IAS 36. An impairment loss is recognized if the carrying amount of the associated cash-generating unit exceeds its recoverable amount.

INTANGIBLE ASSETS

Externally acquired and internally generated intangible assets are recognized in accordance with IAS 38 if it is probable that a future economic benefit associated with the asset will flow to the entity and the cost of the asset can be measured reliably.

When intangible assets are acquired that include significant deferred, conditional purchase price components, they are accounted for by analogy with IFRIC 1. Changes resulting from the subsequent measurement of the conditional purchase price components are accounted for as subsequent costs of acquisition or by means of a valuation allowance.

Intangible assets with a finite useful life are carried at their acquisition or construction cost and amortized on a straight-line basis over their useful lives.

Amortization is based on the following useful lives:

USEFUL LIVES OF ASSETS (IN YEARS)	
Program assets including development costs	maximum 30
Program-independent technologies	10
Customer relations	4 – 26
Other intangible assets	3 – 5

Goodwill is tested for impairment on a yearly basis in accordance with IAS 36. Each of the two operating segments, OEM (commercial and military engine business) and MRO (commercial maintenance business), are tested separately.

PUBLIC SECTOR GRANTS AND ASSISTANCE

Public sector grants and assistance are recognized in accordance with IAS 20 only if there is reasonable assurance that the conditions attached to them will be complied with and that the grants will be received. Grants are recognized as income over the periods necessary to match them with the related costs that they are intended to compensate. In the case of capital expenditure on property, plant and equipment and on intangible assets, the amount of the public sector grant awarded for this purpose is deducted from the acquisition or construction costs of the asset. The grants are then recognized in the income statement using reduced depreciation/amortization amounts over the lifetime of the asset.

PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are subject to wear and tear and are carried at their acquisition or construction cost less cumulative depreciation charges and impairment losses. The acquisition and construction costs contain expenses for external services and, in the case of qualifying assets as defined in IAS 23, borrowing costs. The assets are assigned to an appropriate category once they have been completed or are operational. The revaluation model is not applied. Depreciation on property, plant and equipment is calculated using the linear method in accordance with the useful life of the asset.

Depreciation is based on the following useful lives:

USEFUL LIVES OF ASSETS (IN YEARS)	
Buildings	25 – 50
Lightweight structures	10
Property facilities	10 – 20
Technical equipment, plant and machinery	5 – 10
Operational and office equipment	3 – 15

The depreciation of machines used in multi-shift operation is accelerated by using a higher shift coefficient to take account of additional usage.

The useful lives and depreciation methods pertaining to property, plant and equipment are regularly assessed for relevance, at least at every reporting date, and adjustments are made where necessary to the estimates used when compiling the financial statements.

The cost of items of self-constructed plant and equipment comprises all directly attributable costs and an appropriate proportion of production-related overheads.

BORROWING COSTS

Borrowing costs directly related to the acquisition, construction or production of qualifying assets are added to the acquisition or construction costs of those assets until such time as the assets have been made ready for sale or for their intended use. Qualifying assets are those that require a substantial period of time to be made ready for sale or for their intended use.

Borrowing costs as presented in Note 8. are capitalized in accordance with the requirements of IAS 23 only insofar as they relate to the purchase and preparation of qualifying assets for their intended use or sale, and only include activities that commenced on or after January 1, 2009.

LEASING

Leasing contracts are classified as either operating leases or finance leases, depending on which party is attributed the beneficial ownership of the leased asset or bears the substantial risks and rewards associated with ownership of the leased asset. If the lessor retains the substantial risks and rewards (operating lease), the leased asset is recognized in the lessor's balance sheet. The lessee in an operating lease arrangement recognizes lease payments as an expense throughout the duration of the lease arrangement.

If the substantial risks and rewards associated with ownership of the leased asset are transferred to the lessee (finance lease), the leased asset is recognized in the lessee's balance sheet. The leased object is recognized at its fair value as measured at the date of acquisition, or at the present value of future minimum lease payments if lower, and depreciated over its estimated useful life, or the contract duration if shorter. The lessee immediately recognizes a finance lease liability corresponding to the carrying amount of the leased asset. The effective interest rate method is employed to amortize and update the lease liability in subsequent periods.

IMPAIRMENT LOSSES ON INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT

At each reporting date, an analysis is carried out to reveal any indication that the value of intangible assets or assets of property, plant and equipment might be impaired. If impairment is indicated, the value of the asset in question is assessed on the basis of the recoverable amount.

Assets with an indefinite useful life, intangible assets that are not yet ready for use, and goodwill acquired in connection with a business combination are not subject to amortization, but are instead reviewed for impairment at least once each year.

The impairment loss on intangible assets and property, plant and equipment is determined by comparing the carrying amount with the recoverable amount. The recoverable amount is either the fair value of the asset (or of the cash-generating unit) less costs to sell, or the value in use, whichever is higher. The recoverable amount is usually determined using a discounted cash flow (DCF) method. If it is not possible to attribute separate future cash flows to discrete assets that have been generated independently of other assets, then an impairment test must be carried out on the basis of the cash-generating unit to which the asset ultimately belongs. That involves making forecasts of the cash flow that can be generated by the asset or cash-generating unit, and applying a discount rate that takes into account the risks associated with the asset or cash-generating unit.

If the reasons for impairment losses recognized in a prior period no longer exist, the impairment loss on these assets is reversed, except in the case of goodwill.

NON-CURRENT FINANCIAL ASSETS

Investments in joint ventures and associated companies that have a significant impact on the group's net assets, financial situation or operating results are accounted for at equity. The group's share in the profit or loss of these entities is therefore allocated on a pro rata basis to profit/loss and to the corresponding carrying amount of the investment. This profit/loss is reported as a separate line item under "profit/loss of companies accounted for using the equity method."

Investments in subsidiaries that are neither consolidated nor proportionately consolidated, and other equity investments and long-term loans, are carried at cost – with appropriate adjustments for impairment losses where necessary. Income from dividends paid by these equity investments is included in the profit/loss of companies accounted for at cost.

INVENTORIES

Raw materials and supplies are measured at average acquisition cost or net realizable value, whichever is lower. Trade discounts and concessions and customer loyalty awards are taken into account when determining acquisition costs. Acquisition cost comprises all direct costs of purchasing and other costs incurred in bringing the inventories to their present location and condition. Net realizable value is the estimated selling price generated in the ordinary course of business for the finished product in question, less estimated costs necessary to make the sale (costs to complete and selling costs).

Finished products and work in progress are recognized at manufacturing cost or net realizable value, whichever is lower. Manufacturing cost comprises all production-related expenses based on normal capacity utilization. In addition to direct costs, these include an appropriate and necessary portion of the cost of material and production overheads, including production-related depreciation. Administrative expenses are also included to the extent that they can be attributed to production operations.

CONSTRUCTION CONTRACT RECEIVABLES AND SERVICE BUSINESS RECEIVABLES

All receivables arising from construction contracts are recognized in accordance with IAS 11 using the percentage-of-completion (PoC) method. If the outcome of a specific construction contract can be estimated reliably, revenues and income are recognized in proportion to the percentage of completion. The percentage of completion is determined as the ratio of contract costs incurred up to the reporting date to total contract costs or on the basis of a verifiable amount of completed work (measured by means of milestones). If the outcome of a contract cannot be estimated reliably, the zero-profit method is applied, whereby revenues are recognized only to the extent that contract costs have been incurred and are deemed to be recoverable. If services / production under a construction contract have not been invoiced, the respective contract revenue, as far as deemed recoverable, and corresponding contract costs are recognized through P&L. The recognized amount of contructions contract receivables therefore represents the sum of contract costs incurred up to the reporting date plus a proportional amount of contract earnings less losses incurred and partial settlements.

Any advance payments received by the group for construction contracts are deducted from the corresponding construction contract receivables. If the advance payments received are higher than the construction contract receivables, the difference is recognized under construction contract payables. Construction contract receivables and construction contract payables deriving from different customers contracts are not offset against one another.

These principles apply by analogy to service business receivables and payables.

FINANCIAL INSTRUMENTS

A financial instrument is a contract that simultaneously gives rise to a financial asset in one company and to a financial liability or equity instrument in another company. At MTU, financial instruments are measured at the settlement amount.

FINANCIAL ASSETS

Financial assets include, in particular, cash and cash equivalents, trade receivables, loans, other receivables, financial investments held to maturity, and non-derivative and derivative financial assets held for trading.

Financial assets are measured in accordance with their classification as per IAS 39. The measurement of a financial asset subsequent to initial recognition depends on whether the financial instrument is “held for trading,” “held to maturity,” “available for sale,” or whether it falls into the “loans and receivables” category. The assignment of an asset to a measurement category is performed at the time of acquisition and is primarily determined by the purpose for which the financial asset is held. No financial assets were reclassified in the financial year 2015.

At initial recognition, financial assets are measured at their fair value. In the case of financial assets that are not subsequently measured at fair value through profit or loss, the transaction costs directly attributable to the acquisition of the financial asset are included in the initial measurement.

Financial instruments held for trading are measured at fair value through profit or loss. This category primarily includes derivative financial instruments that do not form part of an effective hedging relationship as defined in IAS 39. Any gain or loss resulting from remeasurement is recognized in the income statement.

Financial assets acquired when making financial investments and that are intended and expected, with reasonable certainty, to be held to maturity are measured at amortized cost using the effective interest method.

Financial assets classified as loans and receivables are measured at amortized cost less impairment, using the effective interest method where appropriate.

Other non-derivative financial assets are classified as available for sale. These are always measured at fair value. Resulting gains or losses are recognized directly in equity. If it is not possible to reliably measure the fair value of an equity instrument that is not quoted in an active market, the investment is measured at cost (less impairment where appropriate).

IMPAIRMENT LOSS ON FINANCIAL ASSETS

At each reporting date, the carrying amounts of financial assets that are not measured at fair value through profit or loss are assessed for any indication of impairment.

Examples of such indications include significant financial difficulties of the debtor or a high probability that the debtor will enter bankruptcy or financial reorganization, the closure of an active market, significant changes in technological, economic, legal or market conditions affecting the issuer, or a significant or persistent decline in the fair value of the financial asset below its amortized cost, including any previously recognized impairment losses. The amount of the impairment loss is recognized in the income statement. If impairment is indicated for “available-for-sale” financial assets, the amounts previously recognized in other comprehensive income are eliminated from equity up to the amount of the assessed impairment loss and recycled to the income statement.

If, in a subsequent period, there is objective evidence that the fair value has increased due to an event occurring after the impairment was originally recognized, the impairment loss is reversed through profit or loss. Impairment losses affecting “available-for-sale” equity instruments and equity instruments not quoted in an active market are not allowed to be reversed through profit or loss until they are effectively recovered.

The fair value of securities classified as “held-to-maturity” financial instruments and the fair value of loans and receivables correspond to the present value of future estimated cash flows discounted at the financial asset’s original effective interest rate. The fair value of equity instruments not quoted in an active market is calculated on the basis of the future estimated cash flows discounted at the current rate consistent with the specific risks to which the investment is exposed.

FINANCIAL LIABILITIES

Financial liabilities often oblige the holder to return the instrument to the issuer in return for cash or another financial asset. Financial liabilities include, in particular, bonds and other debts evidenced by certificates, trade payables, liabilities to banks, finance lease liabilities, borrowers’ note loans and derivative financial liabilities.

Financial liabilities are measured at their fair value at the time of acquisition, which is normally equivalent to the net loan proceeds. Transaction costs directly attributable to the acquisition are deducted from the amount of all financial liabilities. If a financial liability is interest-free or bears interest at below the market rate, it is recognized at an amount below the settlement price or nominal value. The financial liability initially recognized at fair value is amortized subsequent to initial recognition using the effective interest method.

CASH AND CASH EQUIVALENTS

The salient features of cash and cash equivalents, which include demand deposits and short-term bank deposits, are that they have a maturity of three months or less from the date of acquisition, and are measured at their nominal value.

DERIVATIVE FINANCIAL INSTRUMENTS

MTU uses derivative financial instruments as a hedge against currency, interest rate and price risks arising out of its operating activities and financing transactions.

At initial recognition and when measured subsequently, derivative financial instruments are measured at their fair value, using quoted market prices in an active market. If no quoted market prices in an active market are available, the fair value is calculated using recognized financial mathematical models (DCF method). The fair value of derivative financial instruments is represented by the amount that MTU would receive or would have to pay at the reporting date when the financial instrument is terminated. This value is determined on the basis of the relevant exchange rates, interest rates and credit standing of the contractual partners at the reporting date.

HEDGE ACCOUNTING (HEDGING RELATIONSHIPS)

MTU satisfies the requirements of IAS 39 concerning instruments used to hedge future cash flows. When a hedge is undertaken, the relationship between the financial instrument designated as the hedging instrument and the underlying transaction is documented, as are the risk management objective and strategy for undertaking the hedge. This includes assessing the effectiveness of the hedging instrument used. Existing cash flow hedges are checked for effectiveness on a regular basis.

MTU uses cash flow hedges to hedge the exposure of future payment cash flows transacted in U.S. dollars (underlying transactions) to fluctuations in foreign currency exchange rates. At remeasurement subsequent to initial recognition, the effective portion of the hedging instrument is recognized in equity under other comprehensive income, together with attributable deferred taxes, until such time as the underlying hedged transaction is realized. The ineffective portion of the change in value of the hedging instrument is recognized on each reporting date in the financial result.

The amounts recognized in other comprehensive income at remeasurement are recycled to the income statement as soon as the underlying hedged transaction is recognized.

ACTUAL AND DEFERRED TAXES

Actual and deferred tax assets and liabilities are recognized in the consolidated financial statements in the manner prescribed in the relevant tax jurisdictions. Actual and deferred tax assets and liabilities are recognized in equity if they relate to business transactions that directly lead to a decrease or increase in equity. Interest in connection with tax payments and refunds for prior periods resulting from tax field audits is recognized under income taxes.

Deferred tax assets and liabilities are established for temporary differences between the tax bases of assets and liabilities and their carrying amount in the consolidated balance sheet (“balance sheet liability method”). Tax assets are established on tax credits available for carry-forward at such time as the conditions attached to the award of the tax credit have been fulfilled. Similarly, deferred tax assets are established on tax losses available for carry-forward. Deferred tax assets are recognized to the extent of the probability that taxable income will be available against which the deductible temporary difference can be applied together with losses that are permitted to be carried forward for tax purposes and tax refunds. Deferred tax assets and liabilities are measured using the tax rates applicable on the date when the temporary differences are reversed. Deferred tax assets and liabilities are offset insofar as this meets the requirements of IAS 12.74.

PENSION OBLIGATIONS

Pension provisions are accounted for using the projected unit credit method in accordance with IAS 19. This method takes account not only of pension and other vested benefits known at the reporting date, but also of expected increases in pensions and salaries, applying a conservative assessment of the relevant parameters.

Actuarial gains and losses – from the measurement of the defined benefit obligation (DBO) and the plan assets – may arise either from changes in the actuarial assumptions used or when the actual development diverges from those assumptions. They are recognized in other comprehensive income in the period in which they arise, and are recognized separately in the statement of comprehensive income. Past service cost is recognized directly in profit and loss. Where reinsurance claims exist and the criteria given in IAS 19 are met, these claims are treated as plan assets and netted against the pension obligations. The interest expense resulting from the reversal of the discount on the net liability, comprising pension obligations less the corresponding plan assets, is recognized under the financial result on other items. Service cost is recognized in the income statement as personnel expenses allocated to the relevant costs by function.

OTHER PROVISIONS

In accordance with IAS 37, other provisions are recognized to cover obligations if it is likely that an outflow of economic resources will be necessary to fulfill the obligation, and if it is possible to reliably estimate the amount of the obligation. Such obligations regularly arise in connection with claims on warranties and the risk of pending losses on onerous contracts, the recognition of losses arising from the settlement of accounts and subsequent costs, personnel costs, various taxes (especially consumer taxes), and other costs such as the risk of legal action and lawsuits, for instance in connection with government investigations. Non-current provisions for liabilities with an identifiable due date more than one year beyond the reporting date are measured on the basis of their settlement amount, discounted to the reporting date. The company measures provisions for pending losses on onerous contracts at the lower of the expected costs on settlement of the contract and the expected costs on termination of the contract.

Provisions for personnel obligations are recognized in accordance with IAS 19 or IAS 37. Obligations relating to pre-retirement part-time working arrangements and long-service awards are measured on the basis of actuarial reports.

CONTINGENT LIABILITIES

Contingent liabilities are potential obligations arising from past events whose existence depends on the occurrence or non-occurrence of one or more uncertain future events that are not wholly within the control of MTU. It is considered that there is unlikely to be an outflow of economic resources, or that the amount of the obligation cannot be reliably estimated.

SHARE-BASED PAYMENT TRANSACTIONS

Under IFRS 2 (Share-based Payment), a distinction is made between payment transactions settled in cash and those settled using equity. In the case of both instruments, the fair value is calculated at the grant date using recognized option pricing models and recorded as a compensation expense over the period during which the beneficiary earns a vested right to the promised instruments. MTU recalculates the fair value of cash-settled commitments at the end of every reporting period and again on the relevant settlement date.

DIVIDEND PAYMENT AND PROFIT DISTRIBUTION

The claims of shareholders to dividend payments and profit distribution relating to a specific reporting period (financial year) are recognized as a liability in the period in which the corresponding resolution is passed. Disclosures relating to the Executive Board's proposal to the Annual General Meeting concerning the dividend payment are provided in Part VII of these Notes (Determination of the net profit available for distribution on the basis of the German GAAP annual financial statements).

DISCRETIONARY SCOPE, MEASUREMENT UNCERTAINTIES AND SENSITIVITY

Preparation of the consolidated financial statements in accordance with the IFRS requires that assumptions and estimations be made that have an impact not only on the amounts of the assets and liabilities, income and expenses, and contingent liabilities, but also on how these items are recognized. These assumptions and estimations conform with the circumstances prevailing at the reporting date and, to that extent, also influence the amount of income and expenditure recognized in the financial years presented. The assumptions and estimations relate primarily to the determination of the useful lives of assets that apply group-wide, the calculation of the fair value of financial instruments, the measurement and recognition of provisions and tax credits, and assumptions in connection with impairment tests and purchase-price allocations.

Actual values may occasionally deviate from the assumed and estimated values. Changes are made when more reliable information becomes available and these may have an impact on the figures of the period in which the changes are effected and, where applicable, on subsequent periods.

- Due to the prolonged product lifecycle, changes in the applied interest rates and payment flows have a significant impact on the measurement of engine programs.
- A sensitivity analysis of the extent of possible consequences of changes to measurement parameters, in particular those relating to claims on warranties, price and quantity structures, the risk of pending losses on onerous contracts, the risk of losses arising from the settlement of accounts, and the measurement of risks arising from legal action and lawsuits, is not sufficiently detailed to assess the consequences of individual events, due to the multitude of sensitivity scenarios presenting high degrees of uncertainty.
- The measurement of property, plant and equipment, intangible assets and financial assets involves the use of estimations. Judgments by management form the basis for determining the fair value of assets and liabilities and the useful life of assets.
- In the process of determining impairment losses, estimations are made concerning such parameters as the source, timing and amount of the impairment loss. Many different factors can give rise to an impairment loss, e. g. changes in the competitive situation, expectations concerning the growth of air travel and the aircraft industry, changes in the cost of capital, changes in the future availability of financing funds, aging and obsolescence of technologies, replacement costs, or purchase prices paid in comparable transactions.
- Estimates are also involved when calculating the recoverable amounts for both operating segments and the fair value of assets during impairment tests on goodwill. They concern the identification and verification of indicated impairments, expected cash flows, relevant discount rates, corresponding useful lives and residual values. In particular, the estimation of cash flows on which the recoverable amounts are based in the case of new engine programs depends on the assumption that it will be possible to raise funds on a continuous basis and that it will be necessary to make continuous ongoing investments. If the demand for engines is slower than expected, this could reduce earnings and cash flows and possibly lead to the recognition of impairment losses. These estimations and the method used to obtain them have a significant impact on the recoverable amount determined and on the amount of the impairment loss recognized on goodwill. Reference is made to Note 35. (Sensitivity analysis of goodwill) for a sensitivity analysis of the goodwill of the two operating segments.
- Management creates allowances for doubtful accounts. Payables are identified as being in need of a valuation allowance on the basis of factors such as the repayment structure of the balance of settlements and by monitoring the customer's credit standing. If the customer's credit standing should deteriorate, the volume of the allowances that then have to be created or debts to be written off may exceed the previously recognized amount.
- In certain cases, financial liabilities may be linked to deferred, conditional purchase price components, resulting in the need to make predictions about the conditions upon which their subsequent measurement is dependent. A particular case in point, as in 2014, is the purchase price obligation arising from the IAE-V2500 stake increase. To account for

changes in this liability, MTU makes use of publicly available market data (interest rates, U.S. dollar exchange rates) and, in particular, an input parameter that is not publicly observable, namely the number of flight hours that a part of the V2500 engine fleet is expected to accumulate, on which the deferred payments up to the year 2027 are based. To predict the future number of flight hours, MTU makes use of an in-house forecasting model that is based on internally available information concerning the in-service V2500 fleet. The sensitivity analysis takes into account both the absolute number of flight hours on which payments are based and the time period within which these hours arise.

- Revenues arising from construction contracts and from the provision of services are recognized in progressive stages as the work advances, using the percent-age-of-completion method, if it is sufficiently probable that future economic benefits associated with the business will flow to MTU. Because in some cases it may not be possible to reliably estimate the outcome, revenues calculated using the percentage-of-completion method are recognized on the basis of the contract costs incurred up to the reporting date, to the extent that it is probable that these costs can be recovered. The measurement uncertainty is consistent with the complexity and long-term nature of the manufacturing contracts and service agreements. Management regularly reviews all estimations made in connection with these construction and service contracts, making adjustments to the accounts where necessary.
- The cost of sales for engine components and spare parts in the month of December is partially based on estimates for bookkeeping purposes. These estimations are derived principally from preliminary data supplied by the consortium leaders and from material flow data. Moreover, the settlement of insurance claims in connection with construction contracts and customized MRO services may in certain cases require the use of estimations as to the probability that the claimed amount will ultimately be paid.
- Income taxes must be determined for each tax jurisdiction in which the group operates. Estimates are required when measuring actual and deferred taxes. The utilization of deferred tax assets depends on the possibility of generating sufficient taxable income in a particular tax category and tax jurisdiction. A variety of factors are used to assess the probability that it will be possible to utilize deferred tax assets, including past operating results, operating business plans and the periods over which losses can be carried forward. If the actual results deviate from these estimations, or if these estimations have to be adjusted in a future period, this may have an impact on the group's net asset position, financial situation and operating results.
- The discount rate is an important factor when determining the provisions to be allocated for pensions and similar obligations. The total value of pension obligations and therefore the expenses in connection with employees' retirement benefits are determined using actuarial methods based on assumptions concerning interest rates, the implementation of optional payment modalities, salary and pension trends, and life expectancy. If it should become necessary to modify these assumptions, this could have a significant effect on the future amount of pension provisions or the future expenses for pensions.
- The measurement and recognition of other provisions, accrued liabilities (as defined in IAS 37) and contingent liabilities involve substantial estimations on the part of MTU. Similarly, when accounting for aircraft financing agreements, estimations are required concerning the probability that the loans will be realized, the consistency of the terms with market conditions, and the change in value of the pledged securities. Due to the uncertainties attached to this assessment, the actual expenses may deviate from those originally estimated, and hence from the amount of the provision.

All assumptions and estimates are based on the prevailing conditions and judgments made at the reporting date. Any subsequent changes occurring before the financial statements are published are taken into account. Estimations of future business developments also take into account the economic environment of the industry and the regions in which MTU is active, such as are deemed realistic at that time. In order to obtain new information, MTU also relies on the services of external consultants such as actuaries and legal counsels. Changes to the estimations of these obligations can have a significant impact on future operating results.

II. NOTES TO THE CONSOLIDATED INCOME STATEMENT

1. REVENUES

Revenues developed in the reporting period as follows:

REVENUES

in € million	2015	2014
Commercial engine business		
Manufacturing	2,326.7	2,048.2
Other products	87.3	68.6
Total commercial engine business	**2,414.0**	**2,116.8**
Military engine business		
Manufacturing	298.2	307.0
Other products	184.9	224.5
Total military engine business	**483.1**	**531.5**
Total commercial and military engine business (OEM)	**2,897.1**	**2,648.3**
Commercial maintenance business (MRO)	**1,580.6**	**1,298.9**
Consolidation	**–42.4**	**–33.3**
Total revenues	**4,435.3**	**3,913.9**

The item “Other products” under the subheading “Military engine business” includes revenues from engine maintenance services.

A more detailed presentation of revenues, with tables showing external and intersegment revenues, their derivation from products and services, and their attribution to major customers, is provided in the section preceding these Notes, under “Reporting by operating segment”. Additional information can be found in “Operating results” of the combined management report.

2. COST OF SALES

COST OF SALES

in € million	2015	2014
Cost of materials	–3,183.1	–2,696.1
Personnel expenses	–480.6	–458.4
Depreciation and amortization	–162.5	–143.1
Other cost of sales	–28.8	–77.8
Total cost of sales	**–3,855.0**	**–3,375.4**

The change in cost of sales is consistent with the growth in revenues in the reporting period and continues to reflect the production ramp-up in connection with MTU’s share in new engine programs.

The item “Other cost of sales” includes an amount of € 76.0 million recognized in respect of the increase in inventories for work in progress and finished products (2014: a decrease of € 20.0 million), and the effect of translation differences on trade payables, which amounted to a loss of € 43.3 million (2014: a loss of € 40.0 million).

3. RESEARCH AND DEVELOPMENT EXPENSES

Company-funded research and development expenditure developed as follows:

RESEARCH AND DEVELOPMENT EXPENSES

in € million	2015	2014
Cost of materials	–106.6	–98.8
Personnel expenses	–60.6	–59.3
Depreciation and amortization	–1.5	–1.9
Company-funded research and development expenditure	**–168.7**	**–160.0**
of which the following amounts were capitalized:		
Development costs (OEM)	102.2	84.3
Capitalized development costs	**102.2**	**84.3**
Research and development expenditure recognized as expense	**–66.5**	**–75.7**

For more information on changes in research and development expenditure, please refer to “Research and development” of the combined management report.

4. SELLING EXPENSES

SELLING EXPENSES

in € million	2015	2014
Cost of materials	–16.9	–16.2
Personnel expenses	–64.3	–57.5
Depreciation and amortization	–1.5	–1.7
Other selling expenses	–11.6	–12.3
Total selling expenses	**–94.3**	**–87.7**

Selling expenses comprise expenses for advertising and marketing, expenses in connection with air shows, trade fairs and exhibitions, media relations expenses, and valuation allowances and write-downs on trade receivables.

5. GENERAL ADMINISTRATIVE EXPENSES

GENERAL ADMINISTRATIVE EXPENSES

in € million	2015	2014
Cost of materials	–6.6	–6.7
Personnel expenses	–51.6	–40.8
Depreciation and amortization	–2.1	–11.3
Other administrative expenses	–5.3	–3.8
Total general administrative expenses	**–65.6**	**–62.6**

General administrative expenses are expenses incurred in connection with administrative activities unrelated to development, production or sales activities.

6. OTHER OPERATING INCOME AND EXPENSES

OTHER OPERATING INCOME AND EXPENSES

in € million	2015	2014
Income		
Gains from the disposal of intangible assets and property, plant and equipment	0.4	0.4
Reimbursement of insurance claims	3.2	4.3
Rental income from		
property owned by MTU	2.5	2.1
sublet property owned by third parties	0.8	0.8
Sundry other operating income	7.7	4.3
Total other operating income	**14.6**	**11.9**
Expenses		
Losses from the disposal of intangible assets and property, plant and equipment	–0.3	–4.3
Rental payments for sublet property	–0.8	–0.8
Expenses associated with insurance claims	–3.3	–5.2
Sundry other operating expenses	–9.2	–4.6
Total other operating expenses	**–13.6**	**–14.9**
Balance of other operating income and expenses	**1.0**	**–3.0**

The MTU group does not hold any investment property. An insignificant part of the buildings recognized under property, plant and equipment is rented out to external third parties.

A significant item recognized under sundry other operating income in 2015 is the reversal of the previously recognized impairment loss in respect of the shareholder loan granted to AES Aerospace Embedded Solutions GmbH, Munich, which has meanwhile been repaid. The loan was repaid in conjunction with an increase of € 6.0 million in the equity capital of AES, with equal amounts being invested by each joint venture partner. In 2015, as in the previous year, other operating income did not include any government grants.

Significant items recognized under sundry other operating expenses in 2015 are an accrual for customs risk and the write-down of the carrying amount of the group's interest in and short-term receivables from its non-consolidated subsidiary MTU Maintenance Dallas Inc., Grapevine, USA. This write-down was deemed necessary in view of the sustained need by MTU Maintenance Dallas Inc. for shareholder financing owing to its poor business performance.

7. PROFIT/LOSS OF COMPANIES ACCOUNTED FOR USING THE EQUITY METHOD OR AT COST

PROFIT/LOSS OF COMPANIES ACCOUNTED FOR USING THE EQUITY METHOD OR AT COST

in € million	2015	2014
Profit/loss of companies accounted for using the equity method		
Associates	0.4	–0.1
Joint ventures	28.7	22.1
Total profit/loss of companies accounted for using the equity method	**29.1**	**22.0**
Profit/loss of companies accounted for at cost		
Military program coordination and management companies	0.5	0.6
Other related companies	1.1	1.4
Total profit/loss of companies accounted for at cost	**1.6**	**2.0**

As in 2014, the development of business by the joint venture MTU Maintenance Zhuhai Co. Ltd., Zhuhai, China, was responsible for a significant part of MTU's share of the profit/loss of companies accounted for using the equity method.

8. INTEREST RESULT

INTEREST RESULT

in € million	2015	2014
Interest income	**2.4**	**1.3**
Interest expense on		
Corporate bonds and notes	–11.5	–11.5
Liabilities to banks	–0.9	–1.0
Finance lease agreements	–0.4	–0.3
Other interest expenses	–1.2	–2.6
Capitalized borrowing costs for qualifying assets	10.5	5.3
Interest expenses	**–3.5**	**–10.1**
Interest result	**–1.1**	**–8.8**
Thereof: on financial instruments classified in accordance with IAS 39 as:		
Loans and receivables	2.1	1.1
Available-for-sale financial assets	1.9	1.1
Financial liabilities measured at amortized cost	-3.5	–10.1

In the financial year 2015, borrowing costs in the amount of € 10.5 million (2014: € 5.3 million), were capitalized for qualifying assets acquired or constructed in connection with the group's stake in the PW1000G, PW800 and GE9X engine programs. The capitalized amount was determined on the basis of a cost of debt capital of 3.18% (2014: 3.32%). No actual borrowing costs were incurred for the specific qualifying assets in question in the reporting period.

9. FINANCIAL RESULT ON OTHER ITEMS

FINANCIAL RESULT ON OTHER ITEMS

in € million	2015	2014
Effects of currency translation: exchange rate gains/losses on		
Currency holdings	7.8	–12.0
Financing transactions	–8.9	4.4
Fair value gains/losses on derivatives		
Currency and interest rate derivatives	–33.7	–19.9
Forward commodity sales contracts	–0.9	0.1
Interest portion included in measurement of assets and liabilities		
relating to pension funds	–13.3	–20.4
Receivables, other provisions and liabilities	–16.7	-0.9
Financial result on sundry other items	2.0	2.7
Financial result on other items	**–63.7**	**–46.0**
Thereof: on financial instruments classified in accordance with IAS 39 as:		
Financial assets at fair value through profit or loss - held for trading	41.5	22.7
Financial liabilities at fair value through profit or loss - held for trading	-74.1	–40.4

The financial result on other items deteriorated in the reporting period, with the net expense increasing by € 17.7 million to € 63.7 million (2014: net expense of € 46.0 million). In 2015, the main contributing factors were fair-value losses on derivatives amounting to € 34.6 million (2014: € 19.8 million), foreign currency translation losses on financing transactions amounting to € 8.9 million (2014: gains amounting to € 4.4 million), and the net interest expense arising from the subsequent measurement of receivables, other provisions and liabilities, which totaled € 16.7 million (2014: € 0.9 million). The latter relates in particular to the subsequent measurement of financial liabilities arising from the IAE-V2500 stake increase. It should be noted that the prior-year figures include an amount for the unwinding of discount on the corresponding provisions. Components of the financial result on other items which improved compared with 2014 were the interest cost on pension obligations which, due to changes in the applied discount rate, decreased from € 20.4 million in 2014 to € 13.3 million in 2015, and foreign currency translation gains amounting to € 7.8 million (2014: translation losses amounting to € 12.0 million).

The financial result on other items includes all income and expense components of financial instruments classified as “held for trading” in accordance with IAS 39.

10. INCOME TAXES

Recognized income taxes comprise current income taxes paid or payable in the countries in which the group operates, and deferred tax income or expense, including interest in connection with tax payments and refunds for prior periods resulting from tax field audits.

ANALYSIS OF CURRENT AND DEFERRED TAX EXPENSES

in € million	2015	2014
Tax expense incurred in current period	-115.7	–112.6
Tax expense incurred in prior periods	-21.4	–38.0
Current tax expense	**–137.1**	**–150.6**
Deferred tax income resulting from temporary differences	39.6	50.7
Deferred tax income resulting from tax credits	–4.2	9.0
Deferred tax income resulting from tax losses carried forward	–1.5	7.6
Deferred tax income	**33.9**	**67.3**
Recognized tax expense	**–103.2**	**–83.3**

The tax expense incurred in prior periods includes interest payments amounting to € 8.6 million (2014: € 4.1 million).

TAX RECONCILIATION

As a basic principle, deferred tax assets and liabilities are measured using the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on current tax legislation in the countries concerned.

In the financial year 2015, the tax assets and liabilities of the German entities were measured using an income tax rate of 32.2% (2014: 32.6%). This rate comprises the uniform corporation tax rate of 15.0% (2014: 15.0%) plus a solidarity surcharge of 5.5% (2014: 5.5%) on the calculated corporation tax expense, and takes into account an average municipal trade tax rate of 16.4% (2014: 16.8%).

The tax assets and liabilities of companies outside Germany were measured using the relevant tax rates for the countries in question, which range between 19% and 39%.

Information on changes in deferred tax assets and liabilities is provided in Note 33. (Deferred tax assets and liabilities).

Reconciliation of expected tax expense to recognized tax expense:

TAX RECONCILIATION

in € million	2015	2014
Earnings before tax	320.8	278.7
Income tax rate (including municipal trade tax)	32.2%	32.6%
Expected tax expense	**–103.3**	**–90.9**
Impact of		
Recognition and measurement adjustments and write-downs on deferred tax assets	–2.6	–8.8
Non-tax-deductible expenses and tax-exempt income	–1.4	–0.4
Lower tax rate for companies outside Germany	–6.0	–3.1
Investments accounted for using the equity method	9.1	5.3
Tax field audit	1.7	3.4
Tax credits available for carry-forward	–2.4	11.3
Source tax on dividend paid by MTU Maintenance Zhuhai	–1.3	-0.9
Change in overall tax rate on corporate income	2.1	
Other impacts	0.9	0.8
Recognized tax expense	**–103.2**	**–83.3**
Effective tax rate	**32.2%**	**29.9%**

11. EARNINGS PER SHARE

Diluted earnings per share are calculated by dividing earnings after tax by the sum obtained when the number of common shares that could potentially be issued through the granting of equity instruments is added to the weighted average number of outstanding shares.

In 2015, the group generated earnings after tax amounting to € 217.6 million (2014: € 195.4 million).

In the reporting period, the weighted average number of outstanding shares was 51,073,326 (2014: 50,946,842 shares). A further 791 shares (2014: 13,413 shares) could potentially be issued through the Share Matching Plan (SMP). Following a resolution passed in 2015, it was decided that any not-yet-exercisable SMP share options would be settled in cash, with the Performance Share Plan (PSP) and SMP options of the Executive Board replaced in 2016 by a Restricted Stock Program (for more details, see the management compensation report that forms part of the Corporate Governance Report).

Based on these parameters, undiluted earnings per share amounted to € 4.26 in 2015 (2014: € 3.84), while diluted earnings per share also amounted to € 4.26 (2014: € 3.83).

12. ADDITIONAL DISCLOSURES RELATING TO THE INCOME STATEMENT

After adjustments to eliminate the effect of purchase price allocation in connection with the acquisition of the group companies, and of non-recurring items, and after addition of depreciation and amortization, the following intermediate results are obtained:

RECONCILIATION OF EBIT TO ADJUSTED EBIT, DEPRECIATION/ AMORTIZATION EXPENSE AND NON-RECURRING ITEMS

in € million	2015	2014
Earnings before interest and tax (EBIT)	**385.6**	**333.5**
+ Depreciation/amortization effect of purchase price allocation / V2500 stake increase		
Intangible assets	54.2	48.4
Property, plant and equipment	0.5	0.8
Total depreciation/ amortization expense	**54.7**	**49.2**
Adjusted EBIT	**440.3**	**382.7**

Costs by function include the following personnel expenses items:

PERSONNEL EXPENSES

in € million	2015	2014
Wages and salaries	546.0	513.0
Social security, pension and other benefit expenses	104.8	96.3
Total personnel expenses	**650.8**	**609.3**

Pension benefits account for € 20.4 million (2014: € 15.1 million) of these expenses. Other social security expenses amounted to € 84.4 million (2014: € 81.2 million).

The average number of persons employed during the financial year 2015 breaks down as follows:

DISCLOSURES RELATING TO THE AVERAGE NUMBER OF EMPLOYEES

Average number of	2015	2014
Industrial staff	3,633	3,600
Administrative staff	3,660	3,691
Employees on temporary contracts	487	417
Trainees	336	352
Students on work experience projects	232	257
Total average number of employees	**8,348**	**8,317**

Costs by function include the following cost-of-materials items:

COST OF MATERIALS

in € million	2015	2014
Cost of raw materials and supplies	1,222.5	1,006.8
Cost of purchased services	2,017.3	1,729.2
Total cost of materials	**3,239.8**	**2,736.0**

The fees charged by the accounting firm Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft for the auditing of the consolidated financial statements for the financial year 2015 in accordance with Section 314 (1) no. 9 of the German Commercial Code (HGB), and other independent auditing services, amounted to a total of € 1.2 million (2014: € 0.7 million).

FEES PAID TO THE AUDITOR

in € million	2015	2014
Financial statement auditing services	1.0	0.6
Other independent auditing services	0.2	0.1
Total fees paid to the auditor	**1.2**	**0.7**

III. NOTES TO THE CONSOLIDATED BALANCE SHEET

13. ANALYSIS OF CHANGES IN INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT 2015

CHANGES IN NON-FINANCIAL ASSETS – COST OF ACQUISITION AND CONSTRUCTION 2015

in € million	Balance at Jan. 1, 2015	Translation differences	Additions	Transfers	Disposals	Balance at Dec. 31, 2015
Program assets	1,762.2	1.6	50.8	39.2	–4.7	1,849.1
Program-independent technologies	124.7					124.7
Customer relations	56.5					56.5
Rights and licenses	107.0	1.0	20.3	0.5	–0.1	128.7
Goodwill	391.5	0.6				392.1
Prepayments on intangible assets	38.5			–38.5		
Development costs	309.4		108.7	4.5		422.6
Intangible assets	**2,789.8**	**3.2**	**179.8**	**5.7**	**–4.8**	**2,973.7**
Land, leasehold rights and buildings, including buildings on non-owned land	418.4	–0.7	2.6	14.3	–1.0	433.6
Technical equipment, plant and machinery	498.0	–1.1	18.0	19.9	–10.5	524.3
Other equipment, operational and office equipment	410.2	0.2	60.8	–0.4	–18.4	452.4
Advance payments and construction in progress	49.4	0.1	48.5	–39.5		58.5
Property, plant and equipment	**1,376.0**	**–1.5**	**129.9**	**–5.7**	**–29.9**	**1,468.8**
Total	**4,165.8**	**1.7**	**309.7**		**–34.7**	**4,442.5**

CHANGES IN NON-FINANCIAL ASSETS – DEPRECIATION / AMORTIZATION AND CARRYING AMOUNT 2015

in € million	Balance at Jan. 1, 2015	Translation differences	Additions	Transfers	Disposals	Balance at Dec. 31, 2015	Carrying amount Dec. 31, 2015
Program assets	440.1	–0.5	56.6			496.2	1,352.9
Program-independent technologies	124.7					124.7	
Customer relations	36.2		2.5			38.7	17.8
Rights and licenses	81.0	1.0	8.4		–0.1	90.3	38.4
Goodwill							392.1
Prepayments on intangible assets							
Development costs	7.0		2.3	0.5		9.8	412.8
Intangible assets	**689.0**	**0.5**	**69.8**	**0.5**	**–0.1**	**759.7**	**2,214.0**
Land, leasehold rights and buildings, including buildings on non-owned land	112.8	–0.3	13.1		–0.1	125.5	308.1
Technical equipment, plant and machinery	384.3	–0.7	35.0	–0.9	–9.7	408.0	116.3
Other equipment, operational and office equipment	268.6	0.1	49.7	0.6	–15.7	303.3	149.1
Advance payments and construction in progress	0.2			–0.2			58.5
Property, plant and equipment	**765.9**	**–0.9**	**97.8**	**–0.5**	**–25.5**	**836.8**	**632.0**
Total	**1,454.9**	**–0.4**	**167.6**		**–25.6**	**1,596.5**	**2,846.0**

ANALYSIS OF CHANGES IN INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT 2014

CHANGES IN NON-FINANCIAL ASSETS – COST OF ACQUISITION AND CONSTRUCTION 2014

in € million	Balance at Jan. 1, 2014	Translation differences	Additions	Transfers	Disposals	**Balance at Dec. 31, 2014**
Program assets	1,613.2	–17.4	166.4			1,762.2
Program-independent technologies	124.7					124.7
Customer relations	56.5					56.5
Rights and licenses	102.9	1.1	1.6	1.4		107.0
Goodwill	391.0	0.5				391.5
Prepayments on intangible assets			38.5			38.5
Development costs	225.8		87.5		–3.9	309.4
Intangible assets	**2,514.1**	**–15.8**	**294.0**	**1.4**	**–3.9**	**2,789.8**
Land, leasehold rights and buildings, including buildings on non-owned land	406.6	–0.4	7.8	5.1	–0.7	418.4
Technical equipment, plant and machinery	472.1	–0.3	12.8	19.8	–6.4	498.0
Other equipment, operational and office equipment	374.9	0.4	45.4	11.7	–22.2	410.2
Advance payments and construction in progress	52.3	–0.2	35.5	–38.0	–0.2	49.4
Property, plant and equipment	**1,305.9**	**–0.5**	**101.5**	**–1.4**	**–29.5**	**1,376.0**
Total	**3,820.0**	**–16.3**	**395.5**		**–33.4**	**4,165.8**

CHANGES IN NON-FINANCIAL ASSETS – DEPRECIATION / AMORTIZATION AND CARRYING AMOUNT 2014

in € million	Balance at Jan. 1, 2014	Translation differences	Depreciation/ amortization	Disposals	**Balance at Dec. 31, 2014**	**Carrying amount Dec. 31, 2014**
Program assets	390.8	–1.5	50.8		440.1	1,322.1
Program-independent technologies	124.7				124.7	
Customer relations	33.8		2.4		36.2	20.3
Rights and licenses	71.4	1.2	8.4		81.0	26.0
Goodwill						391.5
Prepayments on intangible assets						38.5
Development costs	4.9		2.3	–0.2	7.0	302.4
Intangible assets	**625.6**	**–0.3**	**63.9**	**–0.2**	**689.0**	**2,100.8**
Land, leasehold rights and buildings, including buildings on non-owned land	100.6		12.4	–0.2	112.8	305.6
Technical equipment, plant and machinery	353.1	0.2	37.2	–6.2	384.3	113.7
Other equipment, operational and office equipment	245.9	0.3	44.3	–21.9	268.6	141.6
Advance payments and construction in progress			0.2		0.2	49.2
Property, plant and equipment	**699.6**	**0.5**	**94.1**	**–28.3**	**765.9**	**610.1**
Total	**1,325.2**	**0.2**	**158.0**	**–28.5**	**1,454.9**	**2,710.9**

14. INTANGIBLE ASSETS

Intangible assets mainly comprise program assets and program-independent technologies, a portion of which were capitalized as part of the purchase price allocation in connection with the acquisition by Kohlberg Kravis Roberts & Co. Ltd. (KKR) on January 1, 2004, of the shareholding in MTU previously held by DaimlerChrysler AG, and acquired goodwill. This item also includes capitalized development costs and software (the latter mostly for engineering applications).

In the financial year 2015, capitalized intangible assets totaling € 179.8 million (2014: € 294.0 million) were recognized, of which € 131.5 million (2014: € 255.6 million) were externally acquired and € 48.3 million (2014: € 38.4 million) were internally generated. New engine programs accounted for € 159.5 million (2014: € 165.9 million) of this amount, while € 98.0 million (2014: € 120.6 million) derived from the partnership with Pratt & Whitney and € 61.5 million (2014: € 45.3 million) from that with General Electric.

Changes to program assets in the financial year 2015 also include a decrease of € 4.7 million (2014: increase of € 126.5 million) in the carrying amount of the V2500 program asset due to amortization and stemming from the settlement and subsequent reevaluation of the corresponding conditional purchase price obligation.

The amortization expense on intangible assets is included in the following line items at the following amounts: cost of sales € 68.7 million (2014: € 52.0 million), research and development expenses € 0.3 million (2014: € 1.3 million), selling expenses € 0.4 million (2014: € 0.7 million), and general administrative expenses € 0.4 million (2014: € 9.9 million). Significant intangible assets are program assets for which the cost of acquisition and construction exceeds € 100 million. They are amortized on a straight-line basis over a period of up to 30 years.

15. PROPERTY, PLANT AND EQUIPMENT

Through its capital investment in property, plant and equipment, MTU aims to expand its production capacity and modernize equipment and machinery to state-of-the-art standards.

In the financial year 2015, the group's total capital expenditure on property, plant and equipment amounted to € 129.9 million (2014: € 101.5 million). The depreciation expense on property, plant and equipment is included in the presentation of the following line items: cost of sales € 93.8 million (2014: € 91.1 million), research and development expenses € 1.2 million (2014: € 0.6 million), selling expenses € 1.1 million (2014: € 1.0 million), and general administrative expenses € 1.7 million (2014: € 1.4 million).

Additions to the item land, leasehold rights and buildings, including buildings on non-owned land, in the financial year 2015 amounted to € 2.6 million (2014: € 7.8 million) and relate mainly to the extension of the facility operated by MTU Aero Engines Polska.

Capital expenditure on technical equipment, plant and machinery totaling € 18.0 million (2014: € 12.8 million) relates mainly to the purchase of CNC lathes and CNC grinding / milling machines in order to increase the production capacity for components needed for new engine programs.

The capital expenditure on other equipment, and office equipment primarily comprises special tools and equipment, fixtures and other tools required for the expansion of capacity at MTU's locations in Munich, Rzeszów and Hannover.

Additions to advance payments and construction in progress in the financial year 2015 amounted to € 48.5 million (2014: € 35.5 million) and relate mainly to the purchase of technical equipment, plant and machinery and of operational and office equipment for the Munich and Hannover sites.

Capitalized assets under finance lease agreements are based on the following components:

LEASE PAYMENTS UNDER FINANCE LEASE AGREEMENTS

in € million	2015	2014
Lease payments		
Due in less than one year	1.7	1.7
Due in more than one and less than five years	6.6	6.7
Due in more than five years	5.0	6.6
Total future minimum lease payments	**13.3**	**15.0**
Interest included in lease payments		
Due in less than one year	0.2	0.3
Due in more than one and less than five years	0.6	0.6
Due in more than five years	1.7	1.8
Total interest portion of future minimum lease payments	**2.5**	**2.7**
Present value of lease payments		
Due in less than one year	1.5	1.4
Due in more than one and less than five years	6.0	6.1
Due in more than five years	3.3	4.8
Total present value of future minimum lease payments	**10.8**	**12.3**

A net carrying amount of € 11.8 million (2014: € 14.2 million) was recognized for the capitalized assets under finance lease agreements at the reporting date. Property, plant and equipment acquired under such agreements are subject to restrictions of use.

The most significant leased asset is a logistics center in Langenhagen, for which a net carrying amount of € 5.9 million (2014: € 6.0 million) was capitalized at December 31, 2015. The lessor is Wirtschaftsförderungs-Gesellschaft Langenhagen Flughafen mbH (WFG). The center is situated on land owned partly by MTU and partly by the Entwicklungsgesellschaft Langenhagen mbH. In order to construct this facility, MTU acquired heritable building rights from WFG permitting the site and its buildings to be utilized for a total period of 33 years. The lease became effective in 2013 and has a fixed contractual term that expires at the end of 2025, with a renewal option that allows the contract to be extended for an additional 5 years. The lease payments are on a level with those normally charged in the region and include ground rent, interest charges, depreciation charges and administrative expenses. MTU is responsible for the upkeep of the property, including general maintenance and repairs. The contract also includes a clause allowing MTU to purchase the real estate, comprising land and buildings, based on terms equivalent to those that prevail in arm's-length transactions.

Taking advantage of the currently attractive financing conditions, MTU has adopted the finance lease model to fund the expansion of production capacity through the addition of technical equipment, plant and machinery and of operational and office equipment. At December 31, 2015, the carrying amount of assets financed in this way amounted to € 5.8 million (2014: € 8.0 million). The majority of the underlying finance lease agreements run for contractual periods up to 2021. At the end of the contractual period, the machinery becomes the property of MTU. The agreements do not include price adjustment clauses.

16. FINANCIAL ASSETS

FINANCIAL ASSETS ACCOUNTED FOR USING THE EQUITY METHOD

The financial assets accounted for in the consolidated financial statements using the equity method amounted to € 168.0 million at the reporting date (2014: € 139.9 million).

ASSOCIATED COMPANIES

MTU owns 25.25% of the shares in IAE International Aero Engines AG, Zurich, Switzerland (IAE). The company IAE was formed for the purpose of coordinating the development, production and marketing of the V2500 engine and the provision of related services. MTU's investment in IAE is accounted for in the MTU consolidated financial statements using the equity method. A summary of non-audited financial data for IAE is provided below:

IAE INTERNATIONAL AERO ENGINES AG

in € million	Dec. 31, 2015	Dec. 31, 2014
Balance Sheet		
Current assets	2,681.0	1,969.0
Non-current assets	287.4	516.3
Current liabilities	1,818.5	1,471.0
Non-current liabilities	1,072.2	948.7
Equity	77.7	65.6
Proportional share of equity	19.6	16.6
Reconciliation	5.3	5.4
Carrying amount of the equity investment in IAE	24.9	22.0
Income Statement	**2015**	2014
Revenues	3,100.6	2,444.6
Earnings after tax	3.7	2.9
Other comprehensive income		
Total comprehensive income	3.7	2.9

As in 2014, IAE International Aero Engines AG did not issue any dividend in 2015.

JOINT VENTURES

Information on the principal joint ventures in which MTU holds an equity investment is provided in the table below:

PRINCIPAL JOINT VENTURES

Name of joint venture	Domicile	Share-holding
MTU Maintenance Zhuhai Co.Ltd.	Zhuhai, China	50%
Airfoil Services Sdn. Bhd.	Kota Damansara, Malaysia	50%
Ceramic Coating Center S.A.S.	Paris, France	50%
AES Aerospace Embedded Solutions GmbH	Munich, Germany	50%
Pratt & Whitney Canada Customer Service Centre Europe GmbH	Ludwigsfelde, Germany	50%

All of the companies listed in this table are accounted for using the equity method in the 2015 consolidated financial statements.

MTU Maintenance Zhuhai Co. Ltd., Zhuhai, China, specializes in the maintenance, repair and overhaul of V2500 (IAE) and CFM56 (CFMI) engines, and serves the regions of China and Southeast Asia.

The business purpose of Airfoil Services Sdn. Bhd., Kota Damansara, Malaysia, is the repair of blades used in low-pressure turbines and high-pressure compressors.

Ceramic Coating Center S.A.S., Paris, France, specializes in high-tech coatings. One of its most important products is high-performance ceramic thermal insulation coatings for turbine parts.

AES Aerospace Embedded Solutions GmbH, Munich, develops safety-critical software and hardware for applications in military and commercial aviation. A focal point of the company is its access to numerous future development programs in the aerospace and defense industries around the globe.

The business purpose of Pratt & Whitney Canada Customer Service Centre Europe GmbH, Ludwigsfelde, is the marketing of MRO services for P&WC engines to customers in Europe, Africa and the Middle East.

The table below provides a summary of non-audited financial data concerning the principal joint ventures in the MTU group for the reporting period:

INCOME STATEMENTS, STATEMENTS OF COMPREHENSIVE INCOME AND BALANCE SHEETS OF THE PRINCIPAL JOINT VENTURES 2015

in € million	Pratt & Whitney Canada Customer Service Centre Europa GmbH	Ceramic Coating Center S.A.S.	AES Aerospace Embedded Solutions GmbH	Airfoil Services Sdn. Bhd.	MTU Maintenance Zhuhai Co. Ltd.
Income statement disclosures					
Revenues	185.1	6.7	16.3	24.8	640.3
Depreciation / amortization and valuation allowances		-0.4	-0.7	-1.7	-5.2
Interest income					0.2
Interest expenses			-0.1	-0.1	-2.0
Income tax credits	0.9		0.1		
Income tax expense	-0.4	-0.3		-0.2	-4.6
Other income and expenses	-180.4	-5.3	-16.2	-16.1	-577.7
Earnings after tax	**5.2**	**0.7**	**-0.6**	**6.7**	**51.0**
Other comprehensive income			-0.2	4.0	
Total comprehensive income	**5.2**	**0.7**	**-0.8**	**10.7**	**51.0**
Balance sheet disclosures					
Non-current assets	2.0	3.8	1.8	16.8	87.0
Cash and cash equivalents	49.4	1.4	7.3	7.4	28.1
Other current assets	46.2	2.1	2.2	6.8	386.7
Total assets	**97.6**	**7.3**	**11.3**	**31.0**	**501.8**
Equity	11.8	5.5	2.8	24.2	244.9
Non-current financial liabilities			3.5		42.6
Other non-current liabilities				1.2	
Current financial liabilities	31.8	1.1	3.8	5.6	179.4
Other current liabilities	54.0	0.7	1.2		34.9
Total equity and liabilities	**97.6**	**7.3**	**11.3**	**31.0**	**501.8**
Dividend received from the joint ventures		**0.4**		**0.4**	**13.3**
Proportional share of equity	5.9	2.7	1.4	12.1	122.4
Reconciliation of carrying amount			-1.4		
Carrying amount of companies accounted for using the equity method	**5.9**	**2.7**		**12.1**	**122.4**

The non-audited comparative data for 2014 are as follows:

INCOME STATEMENTS, STATEMENTS OF COMPREHENSIVE INCOME AND BALANCE SHEETS OF THE PRINCIPAL JOINT VENTURES 2014

in € million	Pratt & Whitney Canada Customer Service Centre Europe GmbH	Ceramic Coating Center S.A.S.	AES Aerospace Embedded Solutions GmbH	Airfoil Services Sdn. Bhd.	MTU Maintenance Zhuhai Co. Ltd.
Income statement disclosures					
Revenues	145.2	7.1	15.4	16.4	475.4
Depreciation / amortization and valuation allowances	–0.6	–0.7	–0.6	–1.8	–4.2
Interest income					0.2
Interest expenses			–0.1	–0.1	–1.8
Income tax credits					
Income tax expense	–0.1	–0.2		–0.1	–6.3
Other income and expenses	–142.1	–5.2	–19.4	–13.2	–425.2
Earnings after tax	**2.4**	**1.0**	**–4.7**	**1.2**	**38.1**
Other comprehensive income			–0.4	0.9	
Total comprehensive income	**2.4**	**1.0**	**–5.1**	**2.1**	**38.1**
Balance sheet disclosures					
Non-current assets	1.1	4.1	2.1	14.5	87.0
Cash and cash equivalents	39.1	0.2	4.0	3.6	20.5
Other current assets	49.0	3.4	1.9	4.4	321.4
Total assets	**89.2**	**7.7**	**8.0**	**22.5**	**428.9**
Equity	6.6	5.9	–2.6	16.3	207.1
Non-current financial liabilities			7.5	2.5	26.7
Other non-current liabilities				0.9	
Current financial liabilities	32.0	1.1	2.6	2.8	168.0
Other current liabilities	50.6	0.7	0.5		27.1
Total equity and liabilities	**89.2**	**7.7**	**8.0**	**22.5**	**428.9**
Dividend received from the joint ventures		**0.9**		**1.3**	**9.4**
Proportional share of equity	3.3	2.9	–1.3	8.2	103.5
Reconciliation of carrying amount			1.3		
Carrying amount of companies accounted for using the equity method	**3.3**	**2.9**		**8.2**	**103.5**

The reporting date for Ceramic Coating Center S.A.S., Paris, France, and for Pratt & Whitney Canada Customer Service Centre Europe GmbH, Ludwigsfelde, Germany, is November 30 of each calendar year.

OTHER FINANCIAL ASSETS

The carrying amounts of financial assets included in the consolidated financial statements are presented below:

COMPOSITION OF OTHER FINANCIAL ASSETS

	Total		Non-current		Current	
in € million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Loans and receivables (LaR) and sundry other financial assets	**95.1**	**61.7**	**78.5**	**43.8**	**16.6**	**17.9**
Loans to third parties	60.7	37.4	60.7	37.4		
Loans to related companies	13.8	6.4	13.1	6.4	0.7	
Receivables from employees	0.9	1.1			0.9	1.1
Receivables from suppliers	2.3	8.3			2.3	8.3
Sundry other financial assets	17.4	8.5	4.7		12.7	8.5
Available-for-sale financial assets (AfS)	**44.0**	**69.4**	**6.1**	**6.4**	**37.9**	**63.0**
Other interests in related companies	6.1	6.4	6.1	6.4		
Securities	37.9	63.0			37.9	63.0
Derivatives without hedging relationship (FAHFt)	**0.2**	**2.6**	**0.1**	**1.8**	**0.1**	**0.8**
Derivatives with hedging relationship (n.a.)	**0.7**		**0.5**		**0.2**	
Total other financial assets	**140.0**	**133.7**	**85.2**	**52.0**	**54.8**	**81.7**

The additions to long-term loans to third parties relate primarily to payments to aircraft manufacturers for the purpose of funding development activities and to sales financing, in both cases in connection with MTU's partnership in commercial engine programs.

The receivables from suppliers primarily include short-term credit notes which were received for returned goods, amendments to invoices, and trade discounts and concessions.

Sundry other financial assets amounting to € 17.4 million (2014: € 8.5 million) relate mainly to outstanding credit notes for trade discounts and a multiplicity of separate non-significant items. At the reporting date, these financial assets, and the receivables from employees and suppliers, did not require adjustment and were not past due.

Other interests in related companies include the carrying amounts of MTU's share in companies that are neither consolidated nor accounted for using the equity method. Securities refer to investments for the purpose of liquidity management with an original maturity of more than three months.

At the reporting date, derivative financial assets comprised the following instruments:

DERIVATIVE FINANCIAL INSTRUMENTS

	Total		Non-current		Current	
in € million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Forward foreign exchange contracts	0.7		0.5		0.2	
Currency options / swaps	0.2	2.6	0.1	1.8	0.1	0.8
Total derivative financial instruments	**0.9**	**2.6**	**0.6**	**1.8**	**0.3**	**0.8**

17. INVENTORIES

The carrying amount of inventories, after write-downs, comprises the following components:

INVENTORIES

in € million	Change in valuation allowance	Dec. 31, 2015 Gross	Dec. 31, 2015 Valuation allowance	Dec. 31, 2015 Carrying amount	Dec. 31, 2014 Gross	Dec. 31, 2014 Valuation allowance	Dec. 31, 2014 Carrying amount
Raw materials and supplies	-3.1	355.3	-34.1	321.2	277.8	-31.0	246.8
Finished products	-6.3	339.8	-28.2	311.6	271.3	-21.9	249.4
Work in progress	-0.9	256.7	-10.3	246.4	235.1	-9.4	225.7
Advance payments		14.8		14.8	19.1		19.1
Total inventories	**-10.3**	**966.6**	**-72.6**	**894.0**	**803.3**	**-62.3**	**741.0**

Out of the total volume of inventories, an amount valued at € 266.9 million (2014: € 217.6 million) was considered to be impaired at the reporting date.

18. TRADE RECEIVABLES

TRADE RECEIVABLES

in € million	Dec. 31, 2015	Dec. 31, 2014
Third parties	640.9	617.6
Related companies	67.6	62.1
Total trade receivables	**708.5**	**679.7**

Transactions with related companies are presented in more detail in Note 38 (Relationships with related companies and persons).

The valuation allowances on trade receivables changed as follows:

VALUATION ALLOWANCES

in € million	2015	2014
Allowances at January 1	**6.9**	**6.0**
Translation differences		0.2
Additions (expense for specific allowances)	2.3	3.5
Utilized	–0.9	–1.9
Reversed	–1.2	–0.9
Allowances at December 31	**7.1**	**6.9**

The net expense for bad debts on trade receivables written off as uncollectable offset against income from bad debts recovered amounted to € 1.3 million (2014: a net expense of € 2.2 million).

As in prior years, all expense and income amounts arising from valuation allowances and the write-off of uncollectable bad debts on trade receivables are recognized as selling expenses.

The following table shows the impairment status and due dates of trade receivables and of construction contract and service business receivables (see Note 19.) at the reporting date:

IMPAIRMENT STATUS / DUE DATES OF TRADE RECEIVABLES AND OF CONSTRUCTION CONTRACT AND SERVICE BUSINESS RECEIVABLES

in € million	Dec. 31, 2015	Dec. 31, 2014
Neither impaired nor past due at the reporting date	**1,170.6**	**1,105.6**
Not impaired and due in the following time windows	**95.3**	**112.8**
Less than 90 days	40.4	72.7
Between 90 and 180 days	15.7	25.0
Between 181 and 360 days	23.1	10.3
More than 360 days	16.1	4.8
Impaired	**7.1**	**6.9**
Total receivables	**1,273.0**	**1,225.3**

The impaired portion of these receivables amounting to € 7.1 million mainly concerns payments owed by insolvent customers. The majority of the impaired receivables are due in more than 360 days.

In order to minimize the non-payment risk, an active receivables management system is operated both in the OEM segment, partly with the support of the consortium leaders, and in the MRO segment. Should doubts arise as to a debtor's creditworthiness, the corresponding receivables are written down to the amount that is likely to be recovered.

19. CONSTRUCTION CONTRACT AND SERVICE BUSINESS RECEIVABLES

CONSTRUCTION CONTRACT AND SERVICE BUSINESS RECEIVABLES

in € million	Dec. 31, 2015	Dec. 31, 2014
Construction contract receivables	383.7	431.1
Thereof: Advance payments received for construction contracts	-263.2	-274.4
Service business receivables (based on percentage of completion)	180.8	114.5
Total construction contract and service business receivables	**301.3**	**271.2**

Advance payments directly attributable to a specific construction contract are offset against the amount of receivables for that contract. If the amount of the directly attributable advance payments received exceeds the amount of the receivables, the balance is recognized under construction contract payables (see Note 30.).

The overall increase in construction contract and service business receivables compared with the previous year reflects the higher volume of contracts in the commercial MRO service business for which settlement has not yet been received (based on percentage of completion at the reporting date), whereas the decrease in construction contract receivables in the military engine business, mainly due to partial settlements, had a far less significant impact. No relevant amounts were retained for partial settlement of construction contract receivables at the reporting date.

CONSTRUCTION CONTRACTS IN PROGRESS AT THE REPORTING DATE

in € million	Dec. 31, 2015	Dec. 31, 2014
Incurred construction costs incl. recognized income and losses	654.7	600.1
Partial settlements	-271.0	-169.0
Total construction contract receivables	**383.7**	**431.1**

In the financial year 2015, revenues arising from construction contracts amounting to € 192.3 million (2014: € 249.5 million) were recognized using the percentage-of-completion method, measured on the basis of the relative proportion of contract costs incurred or on the basis of milestones reached.

20. OTHER ASSETS

Other assets relate exclusively to claims for tax refunds, in particular resulting from input tax surpluses.

21. CASH AND CASH EQUIVALENTS

The cash and cash equivalents amounting to € 53.1 million (2014: € 64.6 million) comprise cash in hand and bank deposits. This item also includes foreign currency holdings amounting to the equivalent of € 52.2 million (2014: € 62.3 million).

22. INCOME TAX CLAIMS

At the reporting date, no income tax claims were filed with tax jurisdictions in Germany or any other country. The prior-period amount of € 0.3 million relates to tax jurisdictions outside Germany.

23. PREPAYMENTS

The prepayments of € 13.8 million (2014: € 11.1 million) consist primarily of amounts disbursed for maintenance charges, insurance premiums and rents.

24. EQUITY

Changes in group equity are set out in the consolidated statement of changes in equity.

24.1. SUBSCRIBED CAPITAL

The company's subscribed capital (capital stock) is unchanged at € 52.0 million and is divided into 52.0 million non-par bearer shares.

24.2. AUTHORIZED CAPITAL

The Executive Board in authorized until April 14, 2020, to increase the company's capital stock by up to € 15.6 million (15.6 million shares), with the prior approval of the Supervisory Board, by issuing, either in a single step or in several steps, new registered non-par-value shares in return for cash contributions (Authorized capital 2015).

24.3. CONDITIONAL CAPITAL

At the Annual General Meeting on April 15, 2015, the Executive Board was authorized until April 14, 2020, to issue conditional capital increases with the prior approval of the Supervisory Board:

The company's capital stock may be conditionally increased by up to € 5.2 million through the issue of up to 5,200,000 new registered non-par-value shares, each corresponding to a proportional amount (one euro) of the company's total capital stock. The purpose of this conditional capital increase is to issue shares to holders or creditors of convertible bonds and/or bonds with warrants.

The Executive Board is authorized until April 14, 2020 to issue, in a single step or in several steps and with the prior approval of the Supervisory Board, bearer convertible bonds and/or bonds with warrants (collectively referred to as "bonds") with or without maturity date, with a total nominal value of up to € 500 million. At the same time, the creditors are to be granted the right, obligation or option to convert the bonds into registered non-par-value shares of the company representing a stake in the capital stock of up to € 5.2 million under the conditions established for the issue of convertible bonds or bonds with warrants. The bonds may be issued in return for cash contributions only. They may be issued in euros or in any other legal currency. They may also be issued by an affiliated company in which MTU holds a controlling interest. In such cases, and subject to the prior approval of the Supervisory Board, the Executive Board is authorized to act as guarantor for the bonds.

24.4. CAPITAL RESERVES

Capital reserves include premiums from the issue of shares and the equity component (net of proportional transaction costs) of the bond issued in 2007 and repaid/converted in the first quarter of 2012. In addition, they contain the fair value of shares granted under the Share Matching Plan, and an amount of € 5.9 million (2014: € 5.5 million) representing the difference between the proceeds of shares sold under the MAP employee stock option program and their original acquisition cost. The MAP employee stock option program is described in Note 28 (Financial liabilities).

Share Matching Plan (SMP) for the MTU Executive Board

In the reporting period, the MTU Supervisory Board passed a resolution to introduce a new performance-related compensation system for the Executive Board as of January 1, 2016 (see management compensation report in the Corporate Governance section of this Annual Report). The transition to the new system is accompanied by an agreement between the Supervisory Board and the Executive Board according to which not-yet-exercised entitlements under the Performance Share Plan (PSP) and Share Matching Plan (SMP) will be transferred to a Restricted Stock Program (RSP). Prior to the transition, the following rules applied: The members of the Executive Board are entitled to use the post-tax benefits payable under each tranche of the Performance Share Plan (PSP) (see description under "Other provisions") to purchase MTU Aero Engines AG shares, provided the Supervisory Board resolves to offer the Share Matching Plan in the year in question. At the end of the three-year vesting period, these shares are matched on the basis of the Share Matching Plan (SMP), with each Executive Board member being awarded one additional free share for every three MTU shares acquired in this way. The total value of the free shares allocated at the end of the vesting period is limited to three times the purchase price of the shares originally acquired through the PSP. Alternatively, the Supervisory Board may decide to offer a cash payment equivalent to the value of the matching shares.

The number of future matching shares depends on the cash amount paid out under the PSP. In order to determine the fair value of the SMP, a combined Monte Carlo simulation and Black-Scholes pricing model was used. The expected cash settlement was determined on the basis of the exact same assumptions as those used to measure the value of the PSP. The amount of the cash settlement serves as a basis for measuring the value of the forward options granted under the terms of the SMP. Until now, the fair value of the forward options at the grant date was calculated on the basis of defined parameters; an option period of 52 months, a vesting period of 88 months and a fluctuation rate of 4 % were assumed for all tranches.

In view of the agreement to convert unexpired share options granted to the Executive Board under the SMP into a one-time cash settlement for subsequent reinvestment in MTU shares subject to disposal restrictions (RSP), the SMP was accounted for at the reporting date in accordance with IFRS 2 as an acceleration of the vesting period due to cancellation or settlement of equity instruments. Consequently, the amount recognized for equity-settled share-based payments in the reporting period was € 0.4 million (2014: € 0.2 million).

For a detailed description of the former Share Matching Plan and the agreement concluded with respect to the transition to the new system of performance-related compensation for the Executive Board as of January 1, 2016, please refer to the management compensation report in the Corporate Governance section of this Annual Report.

24.5. REVENUE RESERVES

Revenue reserves comprise the post-acquisition and non-distributed earnings of consolidated group companies.

24.6. TREASURY SHARES

Purchase of treasury shares in accordance with the authorization granted by the Annual General Meeting on April 15, 2015

The Executive Board of MTU Aero Engines AG, Munich, has been authorized by resolution of the Annual General Meeting to buy back shares. These shares may be purchased on the stock market or by means of a public offering addressed to all shareholders. The purchase price paid in consideration of these shares must not exceed or undercut the market value by more than 10%, net of any supplementary transaction fees.

The Executive Board of MTU was thus authorized to purchase treasury shares with an aggregate nominal value not exceeding 10% of the company's issued capital stock, as applicable on the date of the resolution, during the period from April 15, 2015 through April 14, 2020, pursuant to Section 71 (1) item 8 of the German Stock Corporation Act (AktG). At no point in time may the value of the acquired shares, together with other treasury shares in the company's possession or which are assigned to it pursuant to Section 71a et seq. of the German Stock Corporation Act (AktG), exceed 10% of the company's capital stock.

Purchase of treasury shares

The shares purchased by MTU in prior years serve the purpose of issuing shares in connection with the MAP employee stock option program, and to make shares available for issue under the Share Matching Plan (SMP). As in 2014, MTU did not purchase any treasury shares in the financial year 2015.

Reconciliation of weighted average number of outstanding shares

In the financial year 2015, the weighted average number of outstanding shares totaled 51,073,326 (2014: 50,946,842). At December 31, 2015, the number of outstanding shares of MTU Aero Engines AG, Munich, totaled 51,118,724 (2014: 51,008,023). The number of treasury shares at December 31, 2015 amounted to 881,276 (December 31, 2014: 991,977).

Issue of shares

A total of 90,237 shares (2014: 117,575 shares) were sold to group employees in the financial year 2015 under the MAP employee stock option program. A further 20,464 treasury shares (2014: 34,822 treasury shares) were sold to eligible senior managers and members of the Executive Board under the Share Matching Plan.

24.7. OTHER COMPREHENSIVE INCOME

In the financial year 2015, other comprehensive income was reduced by € 40.6 million to a negative balance of € 271.4 million (2014: a negative balance of € 230.8 million), principally as a result of translation differences arising from the financial statements of international entities, actuarial gains and losses on plan assets and pension obligations, and changes in the fair value of cash flow hedging instruments.

The table shows the income and expenses recognized in other comprehensive income, including the associated deferred amounts of income taxes:

ITEMS RECOGNIZED IN OTHER COMPREHENSIVE INCOME

	2015			2014		
		Income taxes			Income taxes	
in € million	before		after	before		after
Translation differences arinsing from the financial statements of international entities	12.7		12.7	14.2		14.2
Actuarial gains and losses on plan assets and pension obligations	–14.0	3.5	–10.5	–146.8	47.9	–98.9
Financial instruments designated as cash flow hedges	–54.7	11.9	–42.8	–161.3	46.2	–115.1
Income and expenses recognized in other comprehensive income	**–56.0**	**15.4**	**–40.6**	**–293.9**	**94.1**	**–199.8**

24.8. DISCLOSURES RELATING TO CAPITAL MANAGEMENT

MTU strives to maintain a strong financial profile in the interests of assuring the company's continued existence as a going concern within a flexible financing framework and of generating confidence on the part of its shareholders. It observes the statutory requirements on capital maintenance as part of its capital management and the company's articles of association do not stipulate any capital requirements. In general, the dividend policy is based on distributing around 30% of the adjusted annual earnings after tax to shareholders if the financial situation permits this and the corporate bodies give their approval. The group's capital management activities are focused on optimizing the balance between equity and net financial debt and on optimizing the equity ratio. For a description of the financial indicators MTU is obliged to meet in the context of its liabilities to banks, please refer to Note 28 (Financial liabilities).

25. PENSION PROVISIONS

Defined benefit and defined contribution plans are in place for MTU employees. In the case of defined contribution plans, the company has no further obligations beyond the payment of fixed contributions to the plan. In the case of defined benefit plans, the company has an obligation to fulfill commitments to current and former employees. For group companies in Germany, these benefits are financed primarily by provisions recognized in the financial statements, which are covered only to a minor extent by plan assets. In contrast, MTU Maintenance Canada Ltd., Richmond, Canada, has a fund-financed retirement benefit plan.

In some cases, it is difficult to differentiate between defined contribution and defined benefit plans. In Germany, for example, a minimum level of benefits is guaranteed for defined contribution plans, such that, even when the plan is organized via an external fund or insurance company, it is still the employer that remains liable. The socalled "ultimate liability of the employer" is governed by Section 1 (1) sentence 3 of the German Law on Retirement Pensions (BetrAVG). For financial reporting purposes, the term "defined benefit plan" is required to be interpreted on the basis of the underlying economic substance of the arrangement. Insofar as the MTU group has no major obligations beyond its so-called ultimate liability once the contributions have been paid to state and private retirement funds, these plans are classified as defined contribution plans. Current contributions are recognized as expenses in the period in which payments are made.

25.1. DEFINED CONTRIBUTION PLANS

Since January 1, 2007, no direct pension commitments have been granted to new employees in Germany other than senior managers. Instead, for employees who joined the company after that date, MTU paid contributions in the amount of € 1.1 million in 2015 (2014: € 1.1 million) to a company-sponsored external fund. Other plans that exist within the MTU group are direct insurance contracts funded by employee contributions.

Employer's contributions to the state pension scheme in the financial year 2015 totaled € 38.0 million (2014: € 38.1 million).

25.2. DEFINED BENEFIT PLANS

The pension obligations of MTU are measured using the projected unit credit method in accordance with IAS 19, taking account of future salary and pension increases and other adjustments expected to be made to benefits and pension plans. The provision for defined benefit plans recognized in the balance sheet corresponds to the present value of the benefits payable for current and past service (the defined benefit obligation) of beneficiaries less the fair value of plan assets at the reporting date. Extensive actuarial reviews and computations are carried out annually for each pension plan by independent actuaries.

Actuarial gains or losses may arise in connection with increases or decreases either in the present value of the defined benefit obligation or in the fair value of the plan assets. Causes of actuarial gains or losses include the effect of changes in the measurement parameters, changes in the assessment of risks on pension obligations, and differences between the actual return on plan assets and the proportional share of interest on the net liability.

In order to calculate the funding status or the pension obligation recognized, the present value of the provision-financed and fund-financed obligations is offset against the fair value of the plan assets. In Germany, there are no laws or regulations stipulating a minimum required allocation of funds in this context.

The present value and funding status of the defined benefit obligation is as follows:

PRESENT VALUE OF DEFINED BENEFIT OBLIGATION (DBO)

in € million	Dec. 31, 2015	Dec. 31, 2014
Present value of provision-financed pension obligations	801.9	784.8
Fair value of plan assets	–0.2	–1.8
Total Germany	**801.7**	**783.0**
Present value of fund-financed pension obligations	24.2	26.1
Fair value of plan assets	–25.1	–25.5
Total other countries (negative value = plan assets surplus)	**–0.9**	**0.6**
Recognized pension obligations	**800.8**	**783.6**

The following parameters were applied to measure the pension obligations at December 31 of the respective year and to measure the pension plan expense in the respective reporting period:

ACTUARIAL ASSUMPTIONS: GERMANY

in %	Dec. 31, 2015	Dec. 31, 2014
Interest rate for accounting purposes	2.05	1.70
Salary trend	2.70	2.50
Pension trend	1.75	1.50

ACTUARIAL ASSUMPTIONS: OTHER COUNTRIES

in %	Dec. 31, 2015	Dec. 31, 2014
Interest rate for accounting purposes	4.00	4.00
Salary trend	3.00	3.00
Pension trend	2.50	2.50

The market yields on high-quality, fixed-interest corporate bonds with similar maturities in Germany increased marginally compared with 2014. But in view of the duration of the obligations, which currently stands at 12 years, pension obligations were discounted at December 31, 2015, using a discount rate of 2.05%. The biometric tables issued by Prof. Dr. Heubeck (RT 2005 G) were used for the purpose of measuring the obligations of pension plans in Germany. In the case of group companies in other countries, up-to-date biometric assumptions for each relevant country were applied. The expected salary trend refers to the expected rate of increases in salaries and other compensation, which is estimated depending on inflation and the length of service of employees within the group. Employee turnover, mortality and disability rates were estimated on the basis of statistical data.

The present value of pension obligations changed as follows in the financial year 2015:

CHANGE IN PRESENT VALUE OF PENSION OBLIGATIONS

in € million	2015	2014
Defined benefit obligation at January 1	**810.9**	**649.0**
Current service cost	17.1	12.1
Past service cost	0.7	
Contributions for pension plan subscribers	6.7	5.8
Interest cost	14.1	21.4
Translation differences / transfers	–1.8	1.1
Actuarial gains (-) / losses (+)		
Financial assumptions	–34.4	141.9
Assumptions based on experience	49.4	6.1
Plan settlements / transfers	–10.4	–4.5
Pension benefit and capital payments	–26.2	–22.0
Defined benefit obligation at December 31	**826.1**	**810.9**

The actuarial losses on assumptions based on experience relate in particular to the decisions made by beneficiaries of the company pension scheme when choosing the mode of payment.

The obligations resulting from plan settlements and curtailments are attributable to the deconsolidation of group companies and the conversion of pension benefits into fixed-sum payments.

The fair value of plan assets changed as follows in the financial year 2015:

CHANGE IN THE FAIR VALUE OF PLAN ASSETS

in € million	2015	2014
Fair value of plan assets at January 1	**27.3**	**25.9**
Interest income on plan assets	1.0	1.1
Actuarial gains / losses resulting from:		
Income / expenses (-) arising from plan assets	0.7	1.4
Translation differences / transfers	-1.8	1.0
Employer contributions	1.1	1.1
Employee contributions to plan	0.1	0.1
Pension benefit payments	-3.1	-3.3
Fair value of plan assets at December 31	**25.3**	**27.3**

COMPOSITION OF PLAN ASSETS

in %	2015	2014
Share investments	59.7	59.1
Fixed-interest securities	40.3	40.9
Total plan assets	**100.0**	**100.0**

Each year, the company's investment strategy for the plan assets is reviewed on the basis of a risk and reward profile for the purpose of asset/liability management and adjusted where necessary. The pension fund's statement of principles defines restrictions to be observed when choosing investments. Accordingly, at the reporting date, the plan assets were made up of 60% equity and 40% debt instruments. The group has made no changes to its risk management process compared with that used in previous years.

The expense from defined benefit pension plans and similar obligations recognized in the income statement for the relevant reporting periods comprises the following items:

EXPENSE FROM DEFINED BENEFIT PENSION PLANS AND SIMILAR OBLIGATIONS

in € million	2015	2014
Current service cost	17.1	12.1
Past service cost	0.7	
Total service cost	**17.8**	**12.1**
Interest cost	14.1	21.4
Interest income on plan assets	–1.0	–1.1
Net interest cost	**13.1**	**20.3**
Interest expense for one-time capital payments (included in liabilities)	**0.2**	**0.1**
Total expense	**31.1**	**32.5**

Current and past service cost are recognized under personnel expenses. The other components of the expense from defined benefit pension plans and similar obligations are recognized in the financial result on other items. Actuarial gains and losses on plan assets and pension obligations are recognized in the statement of comprehensive income as part of other comprehensive income.

Expected future pension benefit payments

The company expects the following distribution of pension benefit payments in the coming years. This information is used to calculate pension provisions and the amount of pension obligations:

EXPECTED YEARLY AMOUNTS OF PENSION BENEFIT PAYMENTS

in € million	2016	2017	2018	2019
Expected yearly amounts of pension benefit payments	28.8	27.9	30.9	33.0

The expected yearly amounts of pension benefit payments are based on the assumption that beneficiaries will choose to receive their retirement benefits either as payments by installment (administrative staff) or as a one-time cash settlement (Executive Board) or according to one of the alternative payment options available at the reporting date.

The main actuarial assumptions used to calculate the defined benefit obligation (DBO) are the discount rate, salary and pension trends, and assumed life expectancy. The following sensitivity analysis shows how the DBO would have been influenced by potential changes in the underlying assumptions:

SENSITIVITY ANALYSIS OF THE DEFINED BENEFIT OBLIGATION

in € million	Dec. 31, 2015	Dec. 31, 2014
Discount rate 50 basis points higher	-53.7	–45.7
Discount rate 20 basis points lower	21.9	19.1
Pension trend 50 basis points higher	14.6	15.8
Assumed life expectancy 1 year higher	13.7	13.0

There are interdependencies between certain of the actuarial assumptions, especially between changes in the discount rate and the expected pension and purchasing power trends. The sensitivity analysis does not take these interdependencies into account.

26. INCOME TAX PAYABLE

The income tax payable amounting to € 31.1 million at the reporting date (2014: € 30.3 million) comprises German corporation and municipal trade tax plus taxes on the income of group companies outside Germany.

INCOME TAX PAYABLE

in € million	2015	2014
Balance at January 1	**30.3**	**38.1**
Utilized	–30.3	–38.1
Allocated	31.1	30.3
Balance at December 31	**31.1**	**30.3**

The income tax liabilities are due for payment within one year.

27. OTHER PROVISIONS

OTHER PROVISIONS

	Total		Non-current		Current	
in € million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Warranty obligations and risks from pending losses on onerous contracts	176.1	142.2	4.5		171.6	142.2
Personnel obligations	73.7	67.9	17.0	18.7	56.7	49.2
Losses arising from the settlement of accounts	90.4	56.6			90.4	56.6
Subsequent costs	137.1	77.6			137.1	77.6
Other obligations	42.7	27.1	3.3	0.8	39.4	26.3
Other tax obligations		0.1				0.1
Total other provisions	**520.0**	**371.5**	**24.8**	**19.5**	**495.2**	**352.0**

Non-current other provisions developed as follows:

NON-CURRENT OTHER PROVISIONS 2015

in € million	Balance at Jan. 1, 2015	Transferred	Utilized	Allocated	Discount reversed	Balance at Dec. 31, 2015
Warranty obligations and risks from pending losses on onerous contracts				4.5		4.5
Personnel obligations	18.7	–9.7	–0.1	7.6	0.5	17.0
Other obligations	0.8			2.5		3.3
Total non-current other provisions	**19.5**	**–9.7**	**–0.1**	**14.6**	**0.5**	**24.8**

NON-CURRENT OTHER PROVISIONS 2014

in € million	Balance at Jan. 1, 2014	Transferred	Utilized	Dissolved	Allocated	Discount reversed	Balance at Dec. 31, 2014
Personnel obligations	22.3	–9.1	–0.4	–0.3	5.7	0.5	18.7
Other obligations	10.4			–10.3	0.7		0.8
Total non-current other provisions	**32.7**	**–9.1**	**–0.4**	**–10.6**	**6.4**	**0.5**	**19.5**

The following cash outflows are expected from the carrying amounts of non-current other provisions:

EXPECTED CASH OUTFLOW FROM NON-CURRENT OTHER PROVISIONS

in € million	Carrying amount Dec. 31, 2015	Expected cash outflow 2017
Personnel obligations	17.0	9.4
Other obligations	7.8	2.5
Total expected cash outflow from non-current other provisions	**24.8**	**11.9**

EXPECTED CASH OUTFLOW FROM NON-CURRENT OTHER PROVISIONS

in € million	Carrying amount Dec. 31, 2014	Expected cash outflow 2016
Personnel obligations	18.7	9.0
Other obligations	0.8	
Total expected cash outflow from non-current other provisions	**19.5**	**9.0**

MTU expects that the stated personnel obligations will become due within the next five years.

Current other provisions developed as follows:

CURRENT OTHER PROVISONS 2015

in € million	Balance at Jan. 1, 2015	Transferred	Utilized	Dissolved	Allocated	Translation differences	Balance at Dec. 31, 2015
Warranty obligations and risks from pending losses on onerous contracts	142.2		–40.4	–2.0	72.0	–0.2	171.6
Personnel obligations	49.2	9.7	–49.2	–0.2	47.1	0.1	56.7
Losses arising from the settlement of accounts	56.6		–23.9	–2.1	60.4	–0.6	90.4
Subsequent costs	77.6		–25.0	–24.2	108.7		137.1
Other obligations	26.3		–10.9	–1.8	25.6	0.2	39.4
Other tax obligations	0.1		–0.1				
Total current other provisons	**352.0**	**9.7**	**–149.5**	**–30.3**	**313.8**	**–0.5**	**495.2**

CURRENT OTHER PROVISONS 2014

in € million	Balance at Jan. 1, 2014	Transferred	Utilized	Dissolved	Allocated	Translation differences	Balance at Dec. 31, 2014
Warranty obligations and risks from pending losses on onerous contracts	138.9		–39.1	–10.4	52.7	0.1	142.2
Personnel obligations	43.4	9.1	–41.6	–0.8	38.9	0.2	49.2
Losses arising from the settlement of accounts	60.1		–21.4	–11.5	28.7	0.7	56.6
Subsequent costs	100.0		–42.0	–22.9	42.5		77.6
Other obligations	21.2		–10.2	–1.6	16.7	0.2	26.3
Other tax obligations	0.1						0.1
Total current other provisons	**363.7**	**9.1**	**–154.3**	**–47.2**	**179.5**	**1.2**	**352.0**

The cash outflows resulting from the carrying amounts of current other provisions are expected to be realized in the calendar year following the reporting period.

Warranty obligations and risks from pending losses on onerous contracts

The main component of this item of provisions is an amount of € 169.9 million (2014: € 141.1 million) for the liabilities associated with warranty obligations in connection with the delivery of goods and services.

MTU has identified onerous contracts in its commercial maintenance business in which the unavoidable costs of fulfilling contractual obligations are higher than the expected inflow of economic benefits from these contracts. A provision of € 6.2 million (2014: € 1.1 million) was recognized to cover the difference. When measuring and recognizing this provision, priority was given to impairment losses on assets relating to these contracts.

Personnel obligations

The provisions for personnel expenses include provisions for long-service awards amounting to € 4.4 million (2014: € 4.6 million). The provisions for preretirement part-time working arrangements are based on the collective agreement on phased retirement and related works agreements. On the basis of these agreements, obligations amounting to € 10.8 million (2014: € 13.3 million) – after deduction of corresponding plan assets amounting to € 11.2 million (2014: € 11.2 million) – were recognized at December 31, 2015. A further line item is provisions for profit-sharing bonuses, which amounted to € 57.1 million (2014: € 48.5 million). These relate in the first instance to the annual performance bonus and performance-related compensation with long-term incentive effect for the Executive Board. At December 31, 2015, an amount was also recognized under financial liabilities in respect of obligations arising from the agreed transfer of unexercised share options under the PSP and SMP to a new Restricted Stock Program (see management compensation report in the Corporate Governance section of this Annual Report). These provisions moreover include performance-related compensation awarded to senior managers, employees covered by the collective wage agreement and exempt employees.

For more detailed explanatory comments concerning the annual performance bonus (APB) for the Executive Board, please refer to the management compensation report in the Corporate Governance section of this Annual Report. One half of the annual performance bonus is paid in the calendar year following the financial year in which it was awarded. The remaining 50% of the APB is deferred and paid out in two equal portions over the following two financial years. The deferred components of the APB are measured on the basis of the level of goal achievement attained in the subsequent financial years. In the reporting period, a resolution was passed to modify the performance-related compensation system for the Executive Board as of January 1, 2016. A detailed description of the modifications is provided in the management compensation report in the Corporate Governance section of this Annual Report.

A portion of the annual performance bonus for senior managers – 70% for tier-1 (OFK) and 80% for tier-2 (FK) – is paid in the calendar year following the financial year in which it was awarded. Payment of the remaining 30% (OFK) or 20% (FK) is deferred to the subsequent year. The deferred component is measured on the basis of the level of goal achievement attained in the subsequent financial year.

The long-term compensation awarded to members of the Executive Board and senior management is granted in annual tranches under the Performance Share Plan (PSP). Through this plan, part of the target direct compensation is paid in the form of virtual shares (so-called performance shares), with different conditions applying to the Executive Board, tier-1 senior managers (OFK) and tier-2 senior managers (FK).

The number of performance shares granted to the Executive Board is determined in accordance with the level of performance-related compensation as approved by the Supervisory Board, taking into account the average MTU share price (Xetra) in the period preceding the grant date.

In the case of the Executive Board, the cash settlement for performance shares is disbursed after a vesting period of four years; in the case of senior managers, the vesting period is three years for the first tier and two years for the second. The value of the performance shares is measured on the basis of the average MTU share price (Xetra) prior to the end of the vesting period. The number of performance shares on which payment is based depends on the MTU share performance during the vesting period compared with that of other MDAX companies, in terms of total shareholder return (TSR). Depending on the relative performance level, the PSP participants can expect to receive a payment equivalent to between 0% and 150% of the value of the individually allocated performance shares. If the minimum performance threshold – ranking at least 45th in the MDAX TSR rating – is not achieved, the PSP participants receive no payment. The amount paid out is capped at three times the individual participant's long-term target compensation as assigned at the grant date.

In the reporting period, a resolution was passed to introduce a new performance-related compensation system for the Executive Board with effect of January 1, 2016, accompanied

by an agreement according to which not-yet-exercised entitlements under the PSP and SMP Share Matching Plan (SMP) will be transferred to a Restricted Stock Program (RSP). A detailed description of the modifications and the conversion of unexpired PSP and SMP share options is provided in the management compensation report in the Corporate Governance section of this Annual Report. The redemption or conversion amount of PSP and SMP share options granted to Executive Board members was measured on the basis of their fair value at December 31, 2015.

The fair value of the expected cash settlement for performance shares was calculated for each tranche and for each category of PSP participants using a combined Monte Carlo simulation and Black-Scholes pricing model. In this way, the fair values of the PSP tranches were reduced to make allowance for the residual probability that they might lapse. The calculation therefore incorporated an assumed fluctuation rate of 4 % p.a. for the senior management category. Given that a collective method of calculation was used, no individual departure probabilities based on age or years of service were factored in.

PERFORMANCE SHARE PLAN

Number of shares or value in €	Average Xetra share price[1]	Granted performance shares			Exercisable performance shares[2]	Forfeited performance shares	Lapsed performance shares[2]	Not-yet-exercisable performance shares		Time to end of vesting period for performance shares
Financial year 2015	€	Number at Jan. 1, 2015 shares	Acquired in 2015 shares	Number at Dec. 31, 2015 shares	Performance shares 2015 shares	Performance shares 2015 shares	Performance shares 2015 shares	Number at Dec. 31, 2015 shares	Fair value at Dec. 31, 2015 €	Time at Dec. 31, 2015 months
Executive Board										
Performance shares tranche 3 granted 2012[3]	47.47	23,448		23,448	7,537		15,911			
Performance shares tranche 4a granted 2013[3]	67.16	16,573		16,573	5,327		11,246			
Performance shares tranche 4b granted 2013	76.59	1,763		1,763			1,763			
Performance shares tranche 5 granted 2014[3]	69.87	22,464		22,464	5,121		17,343			
Performance shares tranche 6 granted 2015[3]	70.38		19,602	19,602	1,271		18,331			
Total / average	**63.33**	**64,248**	**19,602**	**83,850**	**19,256**		**64,594**			
Tier-1 senior managers (OFK)										
Performance shares tranche 4 granted 2013	67.16	14,171		14,171	597		13,574			
Performance shares tranche 5 granted 2014	69.87	14,250		14,250	343			13,907	70.88	12
Performance shares tranche 6 granted 2015	70.38		15,980	15,980				15,980	69.01	24
Total / average	**69.19**	**28,421**	**15,980**	**44,401**	**940**		**13,574**	**29,887**	**69.88**	**18**
Tier-2 senior managers (FK)										
Performance shares tranche 5 granted 2014	69.87	26,053		26,053		692	25,361			
Performance shares tranche 6 granted 2015	70.38		26,857	26,857				26,857	72.13	12
Total / average	**70.13**	**26,053**	**26,857**	**52,910**		**692**	**25,361**	**26,857**	**72.13**	**12**
Cumulative total / average	**66.75**	**118,722**	**62,439**	**181,161**	**20,196**	**692**	**103,529**	**56,744**	**70.95**	**15**

Note: No performance shares lapsed or were forfeited in the financial year 2015.

[1] Average Xetra share price during the 30 trading days prior to the grant date.

[2] As of December 31, 2015, the option rights from all tranches of PSP shares for Executive Board Members are exercised, either in view of their conversion in 2016 into MTU shares subject to disposal restrictions or as part of the cash settlement awarded to Dr. Stefan Weingartner in the financial year 2015.

[3] Member of the Executive Board until March 31, 2015. A cash settlement corresponding to the value of the performance shares granted in 2012, 2013, 2014 and 2015 was awarded to Dr. Stefan Weingartner in the financial year 2015. The amount of this settlement was based on a goal achievement level of 100% and the average Xetra share price during the 30 trading days prior to March 31, 2015.

The comparative data for the financial year 2014 are presented below:

PERFORMANCE SHARE PLAN

Number of shares or value in €	Average Xetra share price[1]	Granted performance shares			Exercisable performance shares	Not-yet-exercisable performance shares		Time to end of vesting period for performance shares
Financial year 2014	€	Number at Jan. 1, 2014 shares	Acquired in 2014 shares	Number at Dec. 31, 2014 shares	Performance shares 2014 shares	Number at Dec. 31, 2014 shares	Fair value at Dec. 31, 2014 €	Time at Dec. 31, 2014 months
Executive Board								
Performance Shares Tranche 2 aus 2011	47.03	22,325		22,325	22,325			
Performance Shares Tranche 3 aus 2012	47.47	23,448		23,448		23,448	36.68	12
Performance Shares Tranche 4a aus 2013	67.16	16,573		16,573		16,573	30.08	24
Performance Shares Tranche 4b aus 2013	76.59	1,763		1,763		1,763	31.96	30
Performance Shares Tranche 5 aus 2014	69.87		22,464	22,464		22,464	49.30	36
Total / average	**57.53**	**64,109**	**22,464**	**86,573**	**22,325**	**64,248**	**39.26**	**24**
Tier-1 senior managers (OFK)								
Performance Shares Tranche 3 aus 2012	47.47	17,816		17,816	17,816			
Performance Shares Tranche 4 aus 2013	67.16	14,171		14,171		14,171	24.83	12
Performance Shares Tranche 5 aus 2014	69.87		14,250	14,250		14,250	50.64	24
Total / average	**60.41**	**31,987**	**14,250**	**46,237**	**17,816**	**28,421**	**37.77**	**18**
Tier-2 senior managers (FK)								
Performance Shares Tranche 4 aus 2013	67.16	26,811		26,811	26,811			
Performance Shares Tranche 5 aus 2014	69.87		26,053	26,053		26,053	51.14	12
Total / average	**68.50**	**26,811**	**26,053**	**52,864**	**26,811**	**26,053**	**51.14**	**12**
Cumulative total / average	**61.37**	**122,907**	**62,767**	**185,674**	**66,952**	**118,722**	**41.51**	**20**

Note: No performance shares lapsed or were forfeited in the financial year 2014.

[1] Average Xetra share price during the 30 trading days prior to the grant date.

The fair value of the performance shares granted under each tranche of the PSP was as follows:

PERFORMANCE SHARE PLAN

Fair value at the grant date	Tranche 6 granted in financial year 2015	Tranche 5 granted in financial year 2014	Tranche 4b granted in financial year 2013	Tranche 4a granted in financial year 2013	Tranche 3 granted in financial year 2012	Tranche 2 granted in financial year 2011	Tranche 1b granted in financial year 2010	Tranche 1a granted in financial year 2010
Exective Member	49.49	50.42	52.20	47.98	34.26	31.26	27.13	22.96
Tier-1 senior managers (OFK)	51.55	52.56		50.15	36.27	34.40		
Tier-2 senior managers (FK)	53.32	54.37		51.93	37.91	37.25		

Share-based compensation gave rise to the following expenses:

PERFORMANCE SHARE PLAN (PSP)

in € million	Expense 2015	At Dec. 31, 2015	Expense 2014	At Dec. 31, 2014
Total expense recognized for cash settlement of share-based compensation	7.7		2.9	
Total carrying amount of liabilities arising from the cash settlement of share-based compensation		9.3		5.7
Total expense for Performance Share Plan	**7.7**	**9.3**	**2.9**	**5.7**

Losses arising from the settlement of accounts

Losses arising from the settlement of accounts relate to retrospective adjustments to contractual prices agreed with customers; this refers particularly to consortium leaders and public-sector customers in the OEM segment and to commercial customers in the MRO segment. The increase reflects above all the company's business performance in the fourth quarter; provisions for these outstanding adjustments of revenues were recognized at the reporting date.

Subsequent costs

Subsequent costs comprise amounts of cost of sales recognized in respect of outstanding payments, especially to suppliers and service providers, arising from particular contracts with customers. The increase reflects above all the company's business performance in the fourth quarter; the amount recognized in this item corresponds to the situation at the reporting date and provisions were recognized for obligations in connection with outstanding purchase invoices.

Other obligations

Provisions for other obligations cover a multitude of identifiable individual risks and contingent liabilities of immaterial importance. The increase in the reporting period relates in particular to the recognition of obligations arising from identifiable risks of legal action or lawsuits, also in connection with government investigations by export and customs authorities, and expected retrospective claims in connection with contracts with customers.

28. FINANCIAL LIABILITIES

FINANCIAL LIABILITIES

	Total		Non-current		Current	
in € million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Corporate bond	353.2	352.7	347.2	346.7	6.0	6.0
Financial liabilities arising from IAE-V2500 stake increase	419.6	414.6	367.1	367.8	52.5	46.8
Financial liabilities arising from other program participations	111.8	130.5	56.0	79.5	55.8	51.0
Financial liabilities to banks						
Promissory notes	30.1	30.1	30.0	30.0	0.1	0.1
Revolving credit facility	99.1	9.6			99.1	9.6
Other liabilities to banks	20.0				20.0	
Liabilities to related companies		0.1				0.1
Finance lease liabilities	12.9	14.2	11.6	12.9	1.3	1.3
Total gross financial debt	**1,046.7**	**951.8**	**811.9**	**836.9**	**234.8**	**114.9**
Derivatives without hedging relationship	38.3	12.2	22.3	10.0	16.0	2.2
Derivatives with hedging relationship	102.9	71.4	27.4	34.1	75.5	37.3
Personnel-related financial liabilities	30.6	18.0	14.1	6.4	16.5	11.6
Other financial liabilities						
Repayment of grants toward development costs	38.5	46.3	29.3	36.9	9.2	9.4
Sundry other financial liabilities	165.2	112.6	5.2	17.0	160.0	95.6
Total other financial liabilities	**375.5**	**260.5**	**98.3**	**104.4**	**277.2**	**156.1**
Total financial liabilities	**1,422.2**	**1,212.3**	**910.2**	**941.3**	**512.0**	**271.0**

Corporate bonds

In order to finance the purchase price components of the increase in the company's stake in the IAE-V2500 engine program, MTU Aero Engines AG, Munich, issued a bond for a nominal amount of € 250.0 million with effect from June 21, 2012. The bond earns an annual rate of interest of 3.0% from the date of issue (June 21, 2012) until the repayment date (June 21, 2017). The interest is payable in arrears on June 21 of each year. The bond, including transaction costs and a discount of € 1.5 million, was recognized at amortized cost.

MTU Aero Engines AG issued a registered bond on June 12, 2013 for a total nominal amount of € 100.0 million. The registered bond is repayable on June 12, 2028, and is subject to interest of 3.55% p.a. Interest is payable in arrears on June 12 of each year, for the first time on June 12, 2014. The registered bond, including transaction costs and a discount of € 2.7 million, was recognized at amortized cost.

The following rules apply to both bonds in the event of a change of control: every bondholder is entitled to declare due part or all of his/her bond units for the nominal amount plus any accrued interest. This does not apply if the issuer has already called in the bonds. A change-of-control event occurs if the rating is lowered in the course of the change of control. A lowering of the rating occurs if (1) during the change-of-control period a rating previously granted by a rating agency to MTU or to one of its outstanding non-current liabilities is withdrawn or is changed from an investment grade rating (equivalent to or higher than Baa3 (Moody's) or BBB- (Fitch or S&P), or if (2) at the time of the change of control, no investment grade rating has been awarded by a rating agency to the bonds or to MTU and no rating agency awards an investment grade rating to the bond within the change-of-control period.

Financial liabilities arising from the increase and acquisitions of program shares

These items include both the deferred purchase price components arising from the IAE-V2500 stake increase and the acquisition of stakes in new engine programs. The latter are referred to in the following as financial liabilities arising from other program participations.

Financial liability arising from IAE-V2500 stake increase

The agreement signed by MTU in the financial year 2012 in order to increase its stake in the V2500 engine program by five percentage points to 16% included a deferred purchase price component contingent upon the number of flight hours performed over the next 15 years by the V2500 engine fleet in service at time of the stake increase. For a detailed description of the initial measurement of the IAE-V2500 stake increase, please refer to page 129 et seq. of the 2012 Annual Report.

Financial liabilities arising from other program participations

The financial liabilities arising from other program participations mainly relate to deferred program entry payments for the PW1000G family of GTF engines, the PW800, and the LM6000-PF+.

Financial liabilities to banks

Note purchase agreement

MTU Aero Engines AG issued a note purchase agreement on March 28, 2014 for a total nominal amount of € 30.0 million and with a maturity date of March 27, 2021. The note purchase agreement has a variable interest rate corresponding to the 6-month Euribor rate plus a percentage margin. The initial interest rate amounts to 1.72%. The interest is calculated and paid twice a year, in March and September.

Revolving credit facility

The company has access to a revolving credit facility of € 400.0 million (2014: € 400.0 million) with five banks, which previously ran until October 30, 2019. This facility was renewed for a further year in 2015 and now runs until October 30, 2020. Any credit utilized is subject to interest at the customary market reference rates plus an additional margin. Unused credit facilities are subject to a loan commitment fee. A total of € 113.7 million (2014: € 22.5 million) had been drawn down under this facility at December 31, 2015, € 14.6 million of which in the form of guarantees in favor of third parties (2014: € 12.9 million).

MTU has undertaken to ensure that certain financial indicators remain within defined boundaries throughout the respective terms of the revolving credit facility as follows: MTU's debt-equity ratio (consolidated net financial debt in relation to adjusted EBITDA) at the end of each quarter shall not exceed 3.0; the times interest earned ratio (adjusted EBITDA in relation to the consolidated net interest expense) at the end of each quarter shall not fall below 4.0. These financial indicators are obtained from the quarterly interim financial reports.

Other liabilities to banks

Other liabilities to banks relates to a money-market line that allows MTU to borrow or invest liquid funds on a short-term basis at money-market conditions. This uncommitted facility is limited to € 20 million.

Finance lease liabilities

Finance lease liabilities represent obligations under finance lease arrangements that are capitalized and amortized using the effective interest rate method; see Note 15 (Property, plant and equipment).

Liabilities arising out of derivatives

The financial liabilities arising out of derivatives stem from the portfolio of derivative financial instruments in the amount of € 141.2 million (2014: € 83.6 million) held at the reporting date for the purpose of hedging exchange-rate and commodity-price risks. The increase in these liabilities is a result of the development of the euro/U.S.-dollar exchange rate in 2015.

Personnel-related financial liabilities

Personnel-related financial liabilities amounting to € 30.6 million (2014: € 18.0 million) include liabilities to group employees in Germany under the MAP employee stock option program of € 5.1 million (2014: € 4.6 million), which was offered again in the financial year 2015 by the Executive Board of MTU Aero Engines AG, Munich. Under this program, MTU offers all eligible employees covered by the collective wage agreement and exempt employees who do not form part of senior management the opportunity to invest in MTU shares and in return to receive a taxable matching payment at the end of a two-year vesting period corresponding to 50% of the amount invested by the employee in MTU shares at the beginning of the program.

The number of shares sold to group employees under the terms of the MAP employee stock option program in the financial years 2015 and 2014 was as follows:

MAP EMPLOYEE STOCK OPTION PROGRAM

Issue date	Number of shares sold	Average cost of acquisition in € million	Total proceeds of sale in € million	Selling price per share in €
June 2015	90,237	1.7	7.6	84.07
June 2014	117,575	2.4	7.9	67.34

The total expense for the matching exercise in connection with the MAP employee stock option program in the financial year 2015 amounted to € 4.2 million (2014: € 3.1 million) and was recognized in the income statement on a pro rata basis over the duration of the respective tranche.

The purchase price for the MTU shares allocated in the financial year 2015 amounted to € 84.07 per share. The shares transferred to the employees, measured at the average acquisition cost, were removed from the equity item “treasury shares”. The difference between the proceeds of the sale and the original acquisition cost amounted to € 5.9 million (2014: € 5.5 million) and was allocated to capital reserves.

Personnel-related financial liabilities additionally include liabilities amounting to € 0.6 million (2014: € 0.4 million) arising from the Share Matching Plan (SMP) for senior managers, which was offered again in the financial year 2015 by the Executive Board of MTU Aero Engines AG, Munich. Under the SMP, MTU offers all eligible senior managers the opportunity to invest in MTU shares and in return to receive a taxable matching payment at the end of a two-year vesting period corresponding to one third of the amount originally invested by the senior manager in MTU shares.

SHARE MATCHING PLAN FOR SENIOR MANAGERS (OFK/FK)

Issue date	Number of shares sold	Average cost of acquisition in € million	Total proceeds of sale in € million	Selling price per share in €
June 2015	16,099	0.3	1.3	84.07
June 2014	20,917	0.4	1.4	67.34

The total expense for the matching exercise in connection with the Share Matching Plan for senior managers in the financial year 2015 amounted to € 0.5 million (2014: € 0.3 million) and was recognized in the income statement on a pro rata basis over the duration of the respective tranche.

The purchase price for the MTU shares allocated in the financial year 2015 amounted to € 84.07 per share. The shares transferred to senior managers, measured at the average acquisition cost, were removed from the equity item "treasury shares". The difference between the proceeds of the sale and the original acquisition cost amounted to € 1.0 million (2014: € 1.0 million) and was allocated to capital reserves.

Finally, personnel-related financial liabilities also include one-time capital payments and payments by installment totaling € 15.4 million (2014: € 7.3 million) relating to the company pension scheme, together with numerous other, non-significant payment obligations in connection with daily allowances and out-of-pocket expenses.

Repayment of grants toward development costs

In the financial years from 1976 through 1991, MTU received grants from the German Federal Ministry of Economics and Technology toward the development costs of the PW2000 engine program. Once the sales figures of PW2000 production engines for the Boeing 757 and C-17 as set down in the grant notice have been reached, MTU is obliged to reimburse the full sum of the grants received within a timeframe of ten years. In the financial years 2011 through 2014, a total amount of € 15.5 million was repaid and in 2015 a further € 9.4 million.

Sundry other financial liabilities

The sundry other financial liabilities totaling € 165.2 million (2014: € 112.6 million) include an amount of € 111.4 million (2014: € 80.4 million) relating to obligations arising from externally acquired development services for the PW1000G family and PW800 engine programs. This item also includes customer credit amounting to € 23.0 million (2014: € 3.4 million) and numerous other smaller amounts relating to individual obligations arising from contracts with suppliers and customers.

29. TRADE PAYABLES

TRADE PAYABLES

in € million	Dec. 31, 2015	Dec. 31, 2014
Accounts payable to:		
Third parties	606.6	572.4
Related companies	66.8	61.2
Total trade payables	**673.4**	**633.6**

Trade payables totaling € 673.4 million (2014: € 633.6 million) include open purchase invoices and amounts payable for purchased goods and services.

The total amount of trade payables is due within one year.

30. CONSTRUCTION CONTRACT AND SERVICE BUSINESS PAYABLES

Construction contract and service business payables represent the excess amount after advance payments received have been offset against the corresponding receivables, measured using the percentage-of-completion method (see Note 19. Construction contract and service business receivables).

CONSTRUCTION CONTRACT AND SERVICE BUSINESS PAYABLES

in € million	Dec. 31, 2015	Dec. 31, 2014
Advance payments received for construction contracts	471.4	594.3
Amount of above offset against construction contract receivables	–263.2	–274.4
Advance payments received for service business	165.6	165.8
Total construction contract and service business payables	**373.8**	**485.7**

The advance payments received relate to future deliveries of engine modules and parts, and to the provision of engine maintenance services.

31. OTHER LIABILITIES

OTHER LIABILITIES

	Total		Non-current		Current	
in € million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Personnel-related liabilities						
Social security	1.9	2.0			1.9	2.0
Other personnel-related liabilities	27.7	27.6			27.7	27.6
Other tax liabilities	12.8	11.3			12.8	11.3
Sundry other liabilities	0.4	0.2			0.4	0.2
Total other liabilities	**42.8**	**41.1**			**42.8**	**41.1**

Personnel-related liabilities

The social security liabilities mainly comprise an amount of € 0.2 million (2014: € 0.2 million) for contributions to insurance schemes for occupational accidents and an amount of € 1.7 million (2014: € 1.8 million) for accounts payable to health insurance providers. Other personnel-related liabilities concern vacation entitlements and flex-time credits.

Other tax liabilities

The other tax liabilities amounting to € 12.8 million (2014: € 11.3 million) concern payable wage and church taxes, solidarity surcharges, and domestic and foreign transactional taxes.

32. ADDITIONAL DISCLOSURES RELATING TO FINANCIAL INSTRUMENTS

Carrying amounts, measurement/recognition methods and fair value aggregated by category

In the following tables, the carrying amounts of financial instruments are aggregated by category, irrespective of whether or not the instruments fall within the scope of IFRS 7 or IAS 39. The information presented also includes separate amounts for each category as a function of the measurement/recognition method applied. Finally, the carrying amounts are set opposite the fair values for comparison.

DISCLOSURES RELATING TO FINANCIAL INSTRUMENTS
CARRYING AMOUNTS, MEASUREMENT / RECOGNITION METHODS AND FAIR VALUE AGGREGATED BY CATEGORY 2015

in € million	Category as defined in IAS 39 / other categories	Carrying amount Dec. 31, 2015
ASSETS		
Other assets		
Loans and receivables and sundry other financial assets	LaR	95.1
Held-to-maturity investments	HtM	
Available-for-sale financial assets	AfS	44.0
Financial assets held for trading	FAHfT	
Trade receivables	LaR	708.5
Construction contract and service business receivables	LaR	301.3
Derivative financial assets		
Derivatives without hedging relationship	FAHfT	0.2
Derivatives with hedging relationship	n. a.	0.7
Cash and cash equivalents	LaR	53.1
EQUITY AND LIABILITIES		
Trade payables	FLAC	673.4
Financial liabilities		
Corporate bonds	FLAC	353.2
Financial liabilities arising from increase and acquisitions of program shares	FLAC	531.4
Other gross financial debt	FLAC	149.2
Derivative financial liabilities		
Derivatives without hedging relationship	FLHfT	38.3
Derivatives with hedging relationship	n. a.	102.9
Financial lease liabilities	n. a.	12.9
Other financial liabilities	FLAC / n.a.	234.3
Thereof aggregated by category as defined in IAS 39		
Loans and receivables	LaR	1,158.0
Held-to-maturity investments	HtM	
Available-for-sale financial assets	AfS	44.0
Financial assets held for trading	FAHfT	0.2
Financial liabilities measured at amortized cost	FLAC / n.a.	1,941.5
Financial liabilities held for trading	FLHfT	38.3

Abbreviations:
LaR = Loans and Receivables
HtM = Held-to-Maturity
AfS = Available-for-Sale Financial Assets
FAHfT = Financial Assets Held for Trading
FLAC = Financial Liabilities Measured at Amortised Cost
FLHfT = Financial Liabilities Held for Trading
FLtPL = Financial liabilities measured at fair value through profit or loss

Amount carried in balance sheet in accordance with IAE 39				Amount carried in balance sheet IAS 17	Financial instruments not within the scope of IAS 39 or IFRS 7	Total	**Fair value Dec. 31, 2015**
Measured at amortized cost	Measured at cost	Fair value recognized in equity	Fair value recognized in income statement				
94.2					0.9	95.1	95.1
	6.1	37.9				44.0	44.0
708.5						708.5	708.5
301.3						301.3	301.3
			0.2			0.2	0.2
		0.7				0.7	0.7
53.1						53.1	53.1
673.4						673.4	673.4
353.2						353.2	361.1
531.4						531.4	534.8
149.2						149.2	149.2
			38.3			38.3	38.3
		102.9				102.9	102.9
				12.9		12.9	12.9
203.7					30.6	234.3	237.4
1,157.1					0.9	1,158.0	1,158.0
	6.1	37.9				44.0	44.0
			0.2			0.2	0.2
1,910.9					30.6	1,941.5	1,955.9
			38.3			38.3	38.3

Financial instruments not within the scope of IFRS 7 or IAS 39 comprise liabilities arising from employee benefits and the corresponding plan assets accounted for in accordance with IAS 19.

The table below provides comparative information on the carrying amounts, measurement/recognition methods and fair values aggregated by category for the financial year 2014:

DISCLOSURES RELATING TO FINANCIAL INSTRUMENTS:
CARRYING AMOUNTS, MEASUREMENT/RECOGNITION METHODS AND FAIR VALUE AGGREGATED BY CATEGORY 2014

in € million	Category as defined in IAS 39 / other categories	**Carrying amount Dec. 31, 2014**
ASSETS		
Other assets		
Loans and receivables and sundry other financial assets	LaR	61.7
Held-to-maturity investments	HtM	
Available-for-sale financial assets	AfS	69.4
Financial assets held for trading	FAHfT	
Trade receivables	LaR	679.7
Construction contract and service business receivables	LaR	271.2
Derivative financial assets		
Derivatives without hedging relationship	FAHfT	2.6
Derivatives with hedging relationship	n. a.	
Cash and cash equivalents	LaR	64.6
EQUITY AND LIABILITIES		
Trade payables	FLAC	633.6
Financial liabilities		
Corporate bonds	FLAC	352.7
Financial liabilities arising from increase and acquisitions of program shares	FLAC	545.1
Other gross financial debt	FLAC	39.8
Derivative financial liabilities		
Derivatives without hedging relationship	FLHfT	12.2
Derivatives with hedging relationship	n. a.	71.4
Financial lease liabilities	n. a.	14.2
Other financial liabilities	FLAC / n.a.	176.9
Thereof aggregated by category as defined in IAS 39		
Loans and receivables	LaR	1,077.2
Held-to-maturity investments	HtM	
Available-for-sale financial assets	AfS	69.4
Financial assets held for trading	FAHfT	2.6
Financial liabilities measured at amortized cost	FLAC / n.a.	1,748.1
Financial liabilities held for trading	FLHfT	12.2

Abbreviations:
LaR = Loans and Receivables
HtM = Held-to-Maturity
AfS = Available-for-Sale Financial Assets
FAHfT = Financial Assets Held for Trading
FLAC = Financial Liabilities Measured at Amortised Cost
FLHfT = Financial Liabilities Held for Trading
FLtPL = Financial liabilities measured at fair value through profit or loss

Amount carried in balance sheet in accordance with IAE 39				Amount carried in balance sheet IAS 17	Financial instruments not within the scope of IAS 39 or IFRS 7	Total	**Fair value Dec. 31, 2014**
Measured at amortized cost	Measured at cost	Fair value recognized in equity	Fair value recognized in income statement				
61.7						61.7	61.7
	6.4	63.0				69.4	69.4
679.7						679.7	679.7
271.2						271.2	271.2
			2.6			2.6	2.6
64.6						64.6	64.6
633.6						633.6	633.6
352.7						352.7	365.0
545.1						545.1	547.2
39.8						39.8	39.8
			12.2			12.2	12.2
		71.4				71.4	71.4
				14.2		14.2	14.2
156.3				2.6	18.0	176.9	181.1
1,077.2						1,077.2	1,077.2
	6.4	63.0				69.4	69.4
			2.6			2.6	2.6
1,727.5				2.6	18.0	1,748.1	1,766.7
			12.2			12.2	12.2

Cash and cash equivalents, trade receivables and other receivables are generally due within a relatively short time. The carrying amounts of these assets therefore correspond approximately to their fair value at the reporting date. As a rule, trade payables and other payables are due within a relatively short time. The amounts recognized for these liabilities therefore correspond approximately to their fair value at the reporting date.

Classification of fair-value measurements of financial assets and liabilities according to the fair-value hierarchy

In order to evaluate the significance of the factors used as input when measuring financial assets and liabilities at their fair value, MTU assigns these assets and liabilities to three levels of a fair-value hierarchy.

The three levels of the fair-value hierarchy are described below, together with their utilization when measuring financial assets and liabilities:

Level 1 Quoted prices in active markets for identical assets or liabilities (unadjusted input);

Level 2 Prices of assets or liabilities that can be observed directly or indirectly (derived);

Level 3 Unobservable inputs used to measure prices of assets or liabilities.

The following tables show the allocation of financial assets and liabilities measured at fair value to the three levels of the fair-value hierarchy for 2015 and 2014:

CLASSIFICATION WITHIN THE FAIR VALUE HIERARCHY FOR THE FINANCIAL YEAR 2015

in € million	Level 1	Level 2	Level 3	Total
Financial assets measured at fair value				
Derivative financial instruments		0.9		0.9
Available-for-sale financial assets		37.9		37.9
Total financial assets		**38.8**		**38.8**
Financial liabilities measured at fair value				
Derivative financial instruments		141.2		141.2
Total financial liabilities		**141.2**		**141.2**

CLASSIFICATION WITHIN THE FAIR-VALUE HIERARCHY FOR THE FINANCIAL YEAR 2014

in € million	Level 1	Level 2	Level 3	Total
Financial assets measured at fair value				
Derivative financial instruments		2.6		2.6
Available-for-sale financial assets		63.0		63.0
Total financial assets		**65.6**		**65.6**
Financial liabilities measured at fair value				
Derivative financial instruments		83.6		83.6
Total financial liabilities		**83.6**		**83.6**

The fair value of the derivative financial instruments and securities assigned to level 2 is measured using the discounted cash flow (DCF) method. The fair value of available-for-sale financial assets corresponds approximatively to their nominal value, due to the interest rate conditions and creditworthiness of the respective contractual partners.

Payment cash flows for financial liabilities

The following tables list the contractually agreed payments of interest and principal on the non-derivative financial liabilities and derivative financial instruments held by MTU, measured at fair value through profit of loss.

PAYMENT CASH FLOWS FOR FINANCIAL LIABILITIES 2015

		Cashflow 2016			Cashflow 2017			Cashflow 2018			Cashflow 2019 ff.		
in € million	Carrying amount Dec. 31, 2015	Fixed interest	Variable interest	Principal	Fixed interest	Variable interest	Principal	Fixed interest	Variable interest	Principal	Fixed interest	Variable interest	Principal
Trade payables	673.4			673.4									
Corporate bonds	353.2	11.0			11.0		250.0	3.6			35.5		100.0
Financial liabilities arising from increase and acquisitions of program shares	531.4			108.5			89.6			74.7			339.7
Other gross financial debt	149.2		0.5	119.2		0.5			0.5			1.2	30.0
Derivative financial liabilities													
Derivatives without hedging relationship	38.3			16.0			22.3						
Derivatives with hedging relationship	102.9			75.5			24.6			2.8			
Finance lease liabilities	12.9	0.4		1.4	0.3		1.3	0.3		1.4	2.7		8.8
Other financial liabilities	234.3			185.7			14.2			11.7			27.1

PAYMENT CASH FLOWS FOR FINANCIAL LIABILITIES 2014

		Cashflow 2015			Cashflow 2016			Cashflow 2017			Cashflow 2018 ff.		
in € million	Carrying amount Dec. 31, 2014	Fixed interest	Variable interest	Principal	Fixed interest	Variable interest	Principal	Fixed interest	Variable interest	Principal	Fixed interest	Variable interest	Principal
Trade payables	633.6			633.6									
Corporate bonds	352.7	11.0			11.0			11.0		250.0	38.5		100.0
Financial liabilities arising from increase and acquisitions of program shares	545.1			98.7			85.6			73.8			374.9
Other gross financial debt	39.8		0.5	9.7		0.5			0.5			1.7	30.0
Derivative financial liabilities													
Derivatives without hedging relationship	12.2			2.2			1.8			8.2			
Derivatives with hedging relationship	71.4			37.3			28.5			5.6			
Finance lease liabilities	14.2	0.4		1.3	0.4		1.4	0.3		1.4	3.0		10.1
Other financial liabilities	**176.9**			116.6			18.2			13.3			40.0

The statement includes all instruments in the portfolio at December 31, 2015 for which payment terms had been contractually agreed. Amounts denominated in a foreign currency are translated at the exchange rate prevailing on the respective reporting date. The variable-rate interest payments on the financial instruments are based on the most recent interest rate fixed prior to December 31, 2015. Financial liabilities with no fixed repayment date are always assigned to cash flows on the basis of the earliest likely repayment dates.

Within the scope of its partnerships in engine programs, MTU is a party to aircraft financing agreements for the purpose of promoting sales. Such loan commitments are only ever entered into jointly with other partners in the engine consortium. They are provided in two basic forms: predelivery payment (PDP) and backstop commitments. In both cases, any funds made available to the purchaser are always transferred directly to the aircraft manufacturer by the consortium leader.

MTU classifies loan commitments offered up to the reporting date totaling a nominal amount, translated into euros, of € 404.6 million (2014: € 413.5 million) as part of its gross risk in accordance with the requirements of IFRS 7. However, based on experience, it is considered to be very unlikely that these notional loan amounts will actually be utilized to their full extent. In the event that loan commitments are utilized, MTU considers the associated liquidity and credit risks to be manageable.

There are several reasons for this. Firstly, the proposed financing agreement does not become effective until it is taken up in contractual form. In this respect, it should be noted that the conditions of the loan are at least equivalent to normal market conditions and in the case of backstop commitments are cost-prohibitive. In the case of PDP financing, the consortium has collateral rights to the aircraft while it is still in production and thus in the possession of the aircraft manufacturer – in the case of backstop commitments, the consortium retains direct ownership of the asset up to the delivery date. After delivery the lender retains a security interest in the aircraft. MTU also assumes that other lenders will become third parties to any loans that are established, particularly in view of the offered modes of financing. Another factor that will tend to limit credit risks is the incorporation of supplementary restrictive clauses in the proposed agreements, which require the aircraft purchaser to provide evidence that their financial means are sufficient before the loan contract is signed.

With respect to the impact on MTU's liquidity of the notional loan amounts of the proposed financing agreements, the company makes sure that its lines of credit (see Note 28.) provide adequate liquidity reserves, even in the unlikely case that all offers of financing agreements are taken up at the same time, and bears in mind the possibility of extending these lines of credit in order to back up additional offers.

Explanatory comments relating to net gain/loss on financial instruments by category

The tables below show the gains/losses arising from transactions involving financial instruments, aggregated by category, for 2015 and 2014. Interest income and expense in connection with financial assets and liabilities that are measured at fair value through profit or loss are not included here:

NET GAIN/LOSS ON FINANCIAL INSTRUMENTS BY CATEGORY 2015

Aggregated by category as defined in IAS 39	from interest	from investments	from remeasurement			from disposal	Net gain/loss 2015
			at fair value through profit or loss	currency translation	valuation allowances		
in € million							
Loans and receivables (LaR)	2.1			39.1	-1.5		39.7
Held-to-maturity investments (HtM)							
Available-for-sale financial assets (AfS)	1.9	1.9					3.8
Financial assets held for trading (FAHfT)			41.5				41.5
Financial liabilities measured at amortized cost (FLAC)	-3.5		-18.3	-52.3			-74.1
Financial liabilities held for trading (FLHfT)			-74.1				-74.1
Financial instruments not within the scope of IFRS 7 or IAS 39		29.1		7.8			36.9
Total	**0.5**	**31.0**	**-50.9**	**-5.4**	**-1.5**		**-26.3**

NET GAIN/LOSS ON FINANCIAL INSTRUMENTS BY CATEGORY 2014

Aggregated by category as defined in IAS 39	from interest	from investments	from remeasurement			from disposal	**Net gain/loss 2014**
			at fair value through profit or loss	currency translation	valuation allowances		
in € million							
Loans and receivables (LaR)	1.1			77.6	–3.2		75.5
Held-to-maturity investments (HtM)							
Available-for-sale financial assets (AfS)	1.1	2.1				0.6	3.8
Financial assets held for trading (FAHfT)			22.7				22.7
Financial liabilities measured at amortized cost (FLAC)	–10.1		–11.3	–35.6			–57.0
Financial liabilities held for trading (FLHfT)			–40.4				–40.4
Financial instruments not within the scope of IFRS 7 or IAS 39		22.0		–12.0			10.0
Total	**–7.9**	**24.1**	**–29.0**	**30.0**	**–3.2**	**0.6**	**14.6**

The interest component of financial instruments is recognized under net interest expense (see Note 8.). Other components of net income or loss are presented in MTU's financial statements in the financial result on other items (Note 9.), with the exception of the expense for valuation allowances on trade receivables, which comes under the category of loans and receivables and is recognized under selling expenses. Moreover, gains / losses arising from translation differences on trade receivables and payables are recognized under revenues or cost of sales respectively.

Explanatory comments relating to net interest expense

The net interest expense of € 3.5 million (2014: € 10.1 million) on financial liabilities classified as "financial liabilities measured at amortized cost" mainly comprises interest expenses associated with the corporate bonds, loan agreements with banks, and finance lease liabilities.

Explanatory comments relating to measurement subsequent to initial recognition

The net gain/loss on financial instruments measured at fair value mainly comprises exchange rate gains and losses arising from the measurement of derivatives without hedging relationship. The item "financial liabilities measured at amortized cost" contains changes in the discount rate applied when measuring this category of liabilities and provisions.

Gains amounting to € 39.14 million (2014: € 77.6 million) from the currency translation of financial assets classified as loans and receivables are mainly attributable to the measurement of trade receivables. These gains are offset principally by currency translation losses amounting to € 52.3 million (2014: € 35.6 million) on trade payables, which are classified as financial liabilities measured at amortized cost.

33. DEFERRED TAX ASSETS AND LIABILITIES

Deferred tax assets and liabilities arise on temporary differences between the tax bases of assets and liabilities of the individual group companies and their carrying amounts in the consolidated balance sheet.

Deferred tax assets and liabilities were recognized in connection with the subsequent measurement of pension obligations and the corresponding plan assets and in connection with the fair-value measurement of derivative financial instruments for which an effective hedging relationship was established. Deferred tax assets were also recognized for tax credits and losses available for carry-forward.

CHANGES IN DEFERRED TAX ASSETS AND LIABILITIES

In € million	Dec. 31, 2015 Deferred tax assets in the balance sheet	Dec. 31, 2015 Deferred tax liabilities in the balance sheet	Dec. 31, 2014 Deferred tax assets in the balance sheet	Dec. 31, 2014 Deferred tax liabilities in the balance sheet	2015 Tax income / expense (-) in income statement	2015 in equity
Assets						
Intangible assets	0.1	243.1	0.2	225.5	–17.3	–0.4
Property, plant and equipment	4.4	48.6	4.5	57.3	8.6	
Financial assets		2.3		0.8	–1.5	
Inventories	4.3	1.0	7.6	4.8	0.4	0.1
Receivables and other assets	0.8	3.8	1.3	16.3	11.9	0.1
Total assets	**9.6**	**298.8**	**13.6**	**304.7**	**2.1**	**–0.2**
Equity						
Balance of hedging instrument assets and liabilities	36.8		24.9			11.9
Actuarial gains and losses on plan assets and pension obligations	96.7		93.2			3.5
Total equity	**133.5**		**118.1**			**15.4**
Liabilities						
Pension provisions	5.6	1.6	12.8	1.9	–6.9	
Other provisions	22.5	0.3	21.3	0.4	1.3	
Liabilities	152.5		109.4		42.9	0.2
Total liabilities	**180.6**	**1.9**	**143.5**	**2.3**	**37.3**	**0.2**
Deferred taxes on assets and liabilities	**323.7**	**300.7**	**275.2**	**307.0**	**39.4**	**15.4**
Tax credits and tax losses available for carry-forward						
Tax credits available for carry-forward	15.7		19.7		–4.2	0.2
Tax losses available for carry-forward	25.1		21.7		3.7	–0.3
Valuation allowances and unrecognized recoverable tax payments						
Valuation allowances on tax losses carried forward	–19.0		–14.1		–5.2	0.3
Temporary differences for which no deferred tax assets were recognized	–25.5		–25.8		0.2	0.1
Tax credits and losses carried forward	**–3.7**		**1.5**		**–5.5**	**0.3**
Deferred tax assets / liabilities before offset	**320.0**	**300.7**	**276.7**	**307.0**	**33.9**	**15.7**
Offset	–278.0	–278.0	–247.1	–247.1		
Net deferred tax assets / liabilities	**42.0**	**22.7**	**29.6**	**59.9**	**33.9**	**15.7**

Reference is made to Note 10 (Income taxes) for further information relating to actual and deferred tax assets and liabilities resulting from the balance sheet and other items listed above and to the reconciliation between expected and recognized tax expense.

Tax assets and liabilities are offset against one another only if they relate to the same type of tax levied by the same tax jurisdiction, and are due within the same period.

Deferred tax assets were recognized for deferred tax losses / credits available for carry-forward in the case of the following group companies:

DEFERRED TAX ASSETS RECOGNIZED FOR TAX LOSSES / CREDITS AVAILABLE FOR CARRY-FORWARD AT DECEMBER 31

in € million	U.S. 2015	Poland 2015	Netherlands 2015	Total 2015	Total 2014
Unused tax losses	18.2	93.2	1.2	112.6	94.6
Tax credits available for carry-forward		15.7		15.7	19.7
Potential tax impact of tax losses / credits available for carry-forward	**7.1**	**33.4**	**0.3**	**40.8**	**41.4**
Valuation allowance on tax losses carried forward	–7.1	–11.9		–19.0	–14.1
Balance sheet effect of deferred tax assets on tax losses / credits available for carry-forward		**21.5**	**0.3**	**21.8**	**27.3**

United States

Unused tax losses amounting to € 11.5 million (2014: € 12.6 million) incurred by MTU Aero Engines North America Inc., Rocky Hill, USA, (AENA) related to federal tax. In addition, both AENA and Vericor Power Systems LLC., Alpharetta, USA, had unused tax losses relating to state tax. In the interests of efficient reporting practice, the stated amount of these tax losses available for carry-forward was calculated using the respective basic tax rates for U.S. companies. The deferred tax assets derived from these losses were fully written down through valuation allowances, as in the prior year, on the principle that tax accounts should be identical with commercial accounts, and therefore no deferred tax assets were recognized for these companies at the reporting date. In the United States, tax losses can be carried forward for 20 years.

Temporary differences for which no tax assets were recognized totaled € 0.6 million in 2015 (2014: € 0.5 million) and related to MTU Aero Engines North America Inc., Rocky Hill, USA. The resulting potential tax impact of € 0.2 million (2014: € 0.2 million) was not taken into account in the computation of income tax expense.

Poland

MTU Aero Engines Polska Sp. z o. o. receives government support in the context of Poland's economic development program by virtue of its location in a special economic zone. Because its business investments help to create jobs, the company has been awarded tax credits in respect of the profits it expects to achieve through its production activities, with separate amounts being accorded each year through to 2026. Deferred tax assets amounting to € 15.7 million (2014: € 19.7 million) were recognized on the basis of the business investments realized up to the reporting date, taking into account the currently expected earnings from the activities for which tax credits were awarded, including valuation allowances of € 8.3 million (2014: € 2.0 million) on these deferred tax assets. In addition to the activities for which tax advantages are granted, the company also provides services that are subject to normal taxation. In the financial years 2012 through 2015, this area of business resulted in tax losses totaling € 93.2 million. These tax losses can be carried forward for no more than five years and a ceiling is imposed on the amount carried forward each financial year. As a result, it was only possible to recognize deferred tax assets amounting to € 5.8 million (2014: € 7.4 million), in view of the currently expected earnings from the relevant activities. A valuation allowance corresponding to the difference between this amount and the maximum allowable amount of deferred tax assets was therefore recognized in the balance sheet.

At the reporting date, there were temporary differences of amounting to € 133.5 million (2014: € 134.7 million) for which no deferred tax assets were recognized. The resulting potential tax impact of € 25.3 million (2014: € 25.6 million) was therefore not taken into account in the computation of income tax expense.

Netherlands

In 2014 and 2015, MTU Maintenance Lease Services B.V., Amsterdam, Netherlands, accumulated tax losses totaling € 1.2 million (2014: € 1.0 million), leading to the recognition of deferred tax assets amounting € 0.3 million (2014: € 0.2 million). In the Netherlands, tax losses can be carried forward for 9 years.

Deferred tax liabilities for taxable differences arising from investments in subsidiaries and joint ventures

In accordance with IAS 12, no deferred tax liabilities were recognized for permanent differences amounting to € 155.7 million (2014: € 141.2 million) that arose in connection with investments in subsidiaries and joint ventures. If these differences were to lead to the creation of deferred tax liabilities, they would result in a tax liability amounting to € 10.6 million (2014: € 8.5 million), based on the current tax legislation.

IV. OTHER DISCLOSURES

34. MEASUREMENT OF THE RECOVERABLE AMOUNT OF OPERATING SEGMENTS TO WHICH GOODWILL HAS BEEN ATTRIBUTED

The group tests the goodwill of its cash-generating units (CGUs) for impairment annually. Goodwill is deemed to be impaired if the carrying amount determined for each CGU exceeds its recoverable amount. At MTU, the identifiable CGUs utilized for the purpose of the goodwill impairment test are its two operating segments – OEM (commercial and military engine business) and MRO (commercial maintenance business).

The value in use of each of the two operating segments at June 30, 2015, was calculated in order to determine their respective recoverable amounts, based on the operational planning data for the second year of the assessment period. In the period between the the impairment testing date and the reporting date, no new information came to our knowledge that might affect goodwill measurement.

The calculations of the recoverable amounts are based on the following assumptions: The first step involves the use of models to predict future changes in the engine fleet and the corresponding market share of engines for which MTU holds or expects to hold the responsibility for supplying series-production modules and components, including an estimation of the present and future value of related contracts of present or future significance to its service business, especially in the MRO segment. MTU applies these forecasts systematically as a basis for its capacity planning and corresponding revenue forecasts, from which the planned EBIT and cash flow for each of the two operating segments are derived. The outcome of this process is therefore necessarily based on expectations as regards future market shares, growth in the individual markets, the profitability of products as well as macroeconomic developments such as trends in exchange rates, interest rates and commodity prices. The values in use, and the corresponding carrying amounts, are determined without reference to financing activities.

The payment cash flow on which the value in use of the OEM segment (commercial and military engine business) is based included an average growth rate within the detailed planning horizon of 7.5% per annum (2014: 2.3% per annum), EBITDA margins of between 12.0% and 14.8% (2014: 12.0% – 17.9%), and a discount rate before tax of 9.2% (2014: 10.8%). The corresponding payment cash flow for the MRO segment (commercial maintenance business) is based on an average growth rate within the detailed planning horizon of 9.4% per annum (2014: 6.3% per annum), EBITDA margins of between 10.5% and 12.8% (2014: 10.2% – 12.4%), and a discount rate before tax of 9.3% (2014: 11.1%). The parameters taken into account when determining the value of the perpetuity for the period beyond the 5-year detailed planning horizon, based on an assumed perpetuity growth rate of 1%, were: for the OEM segment, the average of the revenues and EBIT margin used for long-term planning purposes and for the MRO segment, given its shorter business cycles, the revenues and EBIT margin of the last year of the planning period.

When applying the discounted cash flow (DCF) method, the weighted average cost of capital (WACC) before tax for each segment is determined iteratively on the basis of a corresponding after-tax discount rate. This is derived from the cost of equity capital after tax, which is based on a risk-free base interest rate and a risk premium for the company (market risk premium multiplied by the beta coefficient calculated on the basis of a peer group analysis). The cost of debt capital, taken as the average cost of debt capital of the peer-group companies, is also factored into the calculation. Cost of equity and cost of debt capital are weighted according to the average capital structure of the peer-group companies when determining the WACC after tax. In order to determine the weighted average cost of capital (WACC) in the reporting period, MTU used a risk-free base interest rate of 1.25%, a market risk premium of 6.00%, and a beta coefficient of 1.02. The cost of debt capital was 2.55% after tax.

The recognized amount of goodwill in the OEM segment (commercial and military engine business) was unchanged compared with 2014, at € 304.4 million, and the recognized amount for goodwill in the MRO segment (commercial maintenance business) was € 87.7 million (2014: € 87.1 million). The increase in the amount of goodwill recognized for the MRO segment is due to the effect of currency translation. The value in use of the OEM segment is € 4,315.8 million, and that of the MRO segment is € 2,107.7 million. The corresponding carrying amounts of the cash-generating units are € 2,239.6 million for the OEM segment and € 647.8 million for the MRO segment. There is therefore no indication that the recognized amounts of goodwill are impaired.

35. SENSITIVITY ANALYSIS OF GOODWILL

Sensitivity analyses were carried out to determine the possible impact that a sustained reduction in planned earnings before interest and tax (EBIT) might have on the goodwill amounts allocated to each of the two operating segments. This analysis included sensitivity factors affecting the calculation of the weighted average cost of capital.

Assuming an unchanged weighted average cost of capital (WACC), the sensitivity analyses concluded that there would be no necessity to recognize an impairment loss on goodwill either in the OEM or MRO operating segment, even in the event of a sustained reduction in EBIT ranging to 30% below the earnings forecast established by management. This similarly applies in the hypothetical case in which EBIT in both segments remains unchanged while the weighted average cost of capital rises by 30%.

36. FINANCIAL RISKS

In the course of its ordinary business activities, MTU is exposed to credit risks, liquidity risks, and market risks. The objective of financial risk management is to minimize the risks arising from operating activities and the resulting financing requirements through the use of selected derivative and non-derivative hedging instruments.

Risks in connection with the procurement, financing, and sale of MTU's products and services are described in detail in the combined management report. In order to counter financial risks, MTU has put in place an integrated risk management system, which is monitored by the Supervisory Board. The principles of this system aim at rapidly identifying, analyzing, and communicating risks and taking countermeasures. Market risks, particularly commodity price risks, currency risks, and interest risks, are analyzed in respect of their potential impact on earnings before interest and tax (EBIT) and on the interest result, and managed through the targeted use of derivative financial instruments.

36.1. CREDIT RISK

MTU is exposed to credit risks arising from its operating activities in both the OEM and MRO segments. The company strives to minimize these risks by means of an integrated, structured risk management system. Consequently, all financial transactions are embedded in a detailed process environment with a clearly defined separation of functions.

In view of the importance of managing credit risks in the case of engine and aircraft financing agreements, to which MTU is a party in connection with its partnership in engine programs and MRO cooperations, a specialized central unit has been set up to provide additional support in such cases. More detailed information on engine and aircraft financing agreements is provided in Note 32 (Additional disclosures relating to financial instruments) and in the explanatory comments on risks and opportunities in the combined management report.

Financing transactions in connection with liquidity management, e.g. time deposits or forward foreign exchange contracts, also expose the group to a certain degree of credit risk. MTU's internal guidelines therefore stipulate that such transactions may only be conducted by the central treasury department, and only with partners with a credit rating of at least investment grade.

The maximum credit risk is represented by the carrying amounts of the financial assets recognized in the balance sheet. No material agreements, other than security rights in the context of issued engine and aircraft financing loans, existed at the reporting date that could reduce the maximum credit risk. Nonetheless, MTU is exposed to other, shared liability risks and hence potential additional credit risks as a result of obligations assumed in connection with its membership of engine consortia and the associated contingent liabilities. At the reporting date, MTU's proportionate share of these contingent liabilities totaled a nominal amount of € 50.5 million (2014: € 52.4 million).

36.2. MARKET RISKS

Currency risk

More than 80% of MTU's revenues are generated in U.S. dollars. Approximately half of this currency risk is offset in the normal course of business by costs invoiced likewise in U.S. dollars. Most other costs are incurred in euros and in Chinese yuan renminbi, and to a lesser extent in Canadian dollars and Polish zloty. Changes in currency exchange rates in the unhedged portion of the portfolio have a direct impact on net income and cash flow.

Hedging strategy

MTU uses a hedging model to protect certain portions of its expected net foreign currency surplus in order to minimize the effects of the volatility of the U.S. dollar exchange rate on the company's net income and cash flow. Translation differences arising from the translation of financial statements of international entities into the group's functional currency are not included here.

Forward foreign exchange contracts and financial instruments designated as cash flow hedges

At December 31, 2015, MTU held forward foreign exchange contracts for a contractual period up to April 2018 to sell a nominal volume of U.S. $ 1,180.0 million (which translates to € 1,083.9 million at the exchange rate prevailing at the reporting date). Changes in the fair value of the forward foreign exchange contracts amounted to a loss of € 30.8 million in 2015 (2014: a loss of € 114.4 million). At December 31, 2014, MTU had hedged cash flows for the financial years 2015–2017 amounting to U.S. $ 1,080.0 million (which translates to € 889.5 million at the exchange rate prevailing at December 31, 2014).

The open forward foreign exchange contracts at the reporting date have the following maturities:

FORWARD FOREIGN EXCHANGE CONTRACTS

in U.S. $ million	2015	2014
2015		600.0
2016	630.0	370.0
2017	420.0	110.0
2018	130.0	
Total	**1,180.0**	**1,080.0**
Translated into € at the exchange rate prevailing on the reporting date	**1,083.9**	**889.5**

The company also holds other financial instruments designated as cash flow hedges covering periods extending to 2027 and representing a nominal amount of U.S. $ 539.7 million (2014: U.S. $ 603.3 million), which translates to € 495.7 million (2014: € 496.6 million) at the exchange rate prevailing at the reporting date.

In the financial year 2015, a loss of € 88.7 million (2014: a gain of € 9.2 million) was realized from transactions involving forward foreign exchange contracts that formed part of effective cash flow hedging relationships, and recognized under revenues in the income statement. An additional loss of € 17.1 million was also recognized under revenues in respect of the fair value of open forward foreign exchange contracts for which the designated underlying transaction had been accounted for at December 31, 2015. In addition, at the reporting date, fair value losses on forward foreign exchange contracts amounting to € 57.7 million, net of deferred taxes (2014: € 48.1 million) were recognized directly in equity.

There were no transactions for which hedging relationships were established in prior periods that are no longer expected to occur.

As a further element of its hedging strategy, MTU employs derivative financial instruments that do not form part of a hedging relationship as defined by IAS 39:

Currency option transactions

Simple option transactions enable MTU to sell a defined quantity of U.S. dollars at agreed euro exchange rates at a specific time. The risk of financial loss from these transactions is limited to the premiums that have already been paid. At December 31, 2015, MTU held put options amounting to U.S. $ 20.0 million (2014: U.S. $ 20.0 million). In addition to these simple options, MTU also holds short-position options, which were concluded in order to reduce the amount paid in premiums. Losses exceeding the amount of premiums received for these options can be incurred if the exchange rate falls since MTU is obliged to sell U.S. dollars at a previously agreed euro/U.S. dollar exchange rate. At December 31, 2015, the volume of options sold amounted to U.S. $ 40.0 million (2014: U.S. $ 40.0 million).

Currency swaps

During the financial year 2015, U.S. dollar holdings were sold at the daily rate and repurchased after a short time using a swap. As the selling and purchase prices differ marginally, these swaps are immaterial in terms of risk. The purpose of this transaction was to optimize the hedging of currency risk. At December 31, 2015, a currency swap line was in place covering a total amount of U.S. $26.0 million (2014: U.S. $120.0 million), with a maturity date of January 4, 2016.

Collective forward transactions

At December 31, 2015, MTU held open forward foreign exchange contracts in the form of collective forward transactions for a nominal amount of U.S. $190.0 million. The contract-specific hedging rates lie between 1.1720 and 1.3160 U.S. dollars to the euro for maturity dates in the years 2016 and 2017. If the effective daily rate of the U.S. dollar lies within the corridor specified in a given contract, a fixed volume of U.S. dollars is hedged. If the rate is above the corridor, no volume is hedged; if it is below the corridor, the volume is doubled. The corridors in the contracts are generally between 1.172 and 1.50 U.S. dollars to the euro. The negative fair value of these contracts amounted to € 35.1 million at the reporting date (2014: € 7.1 million). This amount was recognized in the balance sheet under financial liabilities, while the change in the amount compared with the prior period was recognized in the income statement under financial result on other items.

Exchange rate sensitivity analysis

The sensitivity analysis showing the effects of hypothetical changes in exchange rates on earnings after tax and equity is related to the foreign currency holdings included in the respective balance sheet items at the reporting date. In this context, it is assumed that the holding at the reporting date is representative of the whole year.

A significant proportion of trade receivables and payables, and of finance lease liabilities, is invoiced in U.S. dollars, and is thus exposed to exchange rate fluctuations. All other non-derivative financial instruments are already denoted in the functional currency and are hence not included in the exchange rate sensitivity analysis. The equity instruments held by the group are not of a monetary nature, and so consequently do not present a currency risk as defined by IFRS 7.

If it is assumed that the exchange rate of the euro to the U.S. dollar at December 31, 2015, or at the prior year's reporting date had been 10% higher or lower than the actual closing rate, this would have produced the following hypothetical effects on earnings after tax and equity:

EXCHANGE RATE SENSITIVITY ANALYSIS

in € million	2015		2014	
	–10%	+10%	–10%	+10%
Exchange rate sensitivity (€ /U.S. $) Closing exchange rate Dec. 31, 2015: 1.0887 (Dec. 31, 2014: 1.2141)	0.98	1.20	1.09	1.34
Earnings after tax	**-41.8**	**32.4**	**–39.8**	**26.3**
Equity[1]	**-100.1**	**88.5**	**–94.7**	**82.1**
Thereof: hedge reserve (fair value)[1]	-105.3	92.8	–100.6	86.9

[1] after tax

Interest rate risk

MTU is exposed to interest rate risk principally in the euro zone, and to a lesser extent in Canada, China, Poland, and the United States. MTU's interest rate risks are mainly related to pension obligations and financial liabilities.

Interest rate sensitivity analysis

IFRS 7 requires the presentation of interest rate risk in the form of a sensitivity analysis. This demonstrates the effects of changes in market interest rates on interest payments, interest income and expense, other income statement items, earnings after tax, and equity. The interest rate sensitivity analysis is based on the following assumptions:

Changes in the market interest rate of non-derivative financial instruments bearing fixed interest rates have an effect on earnings after tax and equity only if these financial instruments are classified as "at fair value through profit or loss" or were so designated at initial recognition. Consequently, all fixed-interest financial instruments measured at amortized cost have

no interest-rate-induced effects on earnings after tax and equity that must be accounted for.

Changes in the market interest rate of financial instruments that have been designated as hedging instruments for the purposes of a cash flow hedge to reduce exposure to variations in payment due to interest rates have an impact on the hedge reserve in equity and are therefore included in the sensitivity analysis. Consequently, financial instruments that do not form part of a hedging relationship as defined by IAS 39 have an effect on the "financial result on other items" (adjustment of fair value of derivative instruments). These effects are taken into account in the earnings-related sensitivity analysis.

In the financial year 2015, no significant risks were discernable with respect to the financial instruments bearing variable interest rates or financial instruments measured at fair value that were held by MTU at the reporting date.

Price risk

Commodity price risk

The risk of price increases is an inherent feature of the commodity markets. This risk is minimized mainly through commodity sales contracts with appropriate price agreements and only to a small extent through derivative financial instruments for forward commodity sales contracts for nickel.

At December 31, 2015, MTU had concluded forward commodity sales contracts with financial institutions for a volume of 200 metric tons of nickel (2014: 100 metric tons) for the years 2016 and 2017 and contracted fixed prices for nickel between U.S. $10,200 and 15,800 per metric ton (2014: U.S. $15,500 – 15,800 per metric ton).

If the market price for nickel on the respective due date exceeds the agreed fixed price, MTU will receive a payment for the difference from the bank. In the opposite case, MTU is obligated to compensate the bank. No effective hedging relationship as defined in IAS 39 has been established for these transactions. The fair value losses of € 0.9 million (2014: gains of € 0.1 million) arising from these forward commodity sales contracts are recognized in the financial result on other items (see Note 9.).

If it is assumed that the market price of forward commodity sales contracts for nickel had been 10% higher or lower, earnings after tax would have been € 0.1 million higher or lower, respectively (2014: € 0.1 million).

36.3. LIQUIDITY RISK

MTU's liquidity risk consists in non-compliance with past-due payment obligations on account of insufficient cash or cash equivalents. In order to ensure the solvency and financial flexibility of MTU at all times, long-term credit lines and liquid funds are held available based on multi-year financial planning and rolling monthly liquidity planning.

MTU has concluded long-term syndicated loans and bilateral credit agreements with a number of banks. The established lines of credit at the reporting date are considered sufficient to meet potential obligations arising from loans granted in connection with sales financing agreements in the years to come. For further details, please see Notes 28 (Financial liabilities) and 32 (Additional disclosures relating to financial instruments).

37. CONTINGENT LIABILITIES AND OTHER FINANCIAL OBLIGATIONS

37.1. CONTINGENT LIABILITIES

CONTINGENT LIABILITIES

in € million	Dec. 31, 2015	Dec. 31, 2014
Contingent liabilities arsing from risk-and revenue-sharing partnerships with:		
IAE International Aero Engines AG	47.1	49.3
Pratt & Whitney Aircraft Company	2.6	2.4
General Electric Company	0.8	0.7
Subtotal	**50.5**	**52.4**
Guarantees and other contingent liabilities	10.9	15.6
Total contingent liabilities	**61.4**	**68.0**

The contingent liabilities with respect to IAE result from MTU's membership of the consortium formed to manage the V2500 engine program, which is constituted as a risk- and revenue-sharing partnership, and hence also include liabilities arising from MTU's indirect share in this program via Pratt & Whitney Aero Engines International GmbH, Lucerne, Switzerland (PWAEI).

Guarantees and other contingent liabilities relate to service agreements for gas turbine maintenance amounting to € 2.6 million (2014: € 4.4 million), and investment grants amounting to € 8.3 million (2014: € 8.3 million).

Proceedings are pending before the tax courts contesting land transfer tax assessments in connection with mergers. In view of these proceedings, processing of the land transfer tax statements in connection with the merger of MTU Aero Engines GmbH into MTU Aero Engines Holding AG has been suspended by the tax authorities. According to current estimates, the ultimate land transfer tax expense could amount to € 10.5 million. As in 2014, MTU does not consider this eventuality to be a material tax risk.

MTU receives a minor amount in public sector grants and assistance, both in the shape of investment subsidies and of grants toward research and development activities. The risk of repayment obligations exists until such time as the relevant project has been completed and all the conditions associated with it complied with. At the reporting date, the probability that risks of this kind could materialize was deemed to be very low.

37.2. OTHER FINANCIAL OBLIGATIONS

Obligations arising from operating lease arrangements

The rental and lease contracts for buildings, machines, tools, office, and other equipment have terms of one to ten years and in certain cases contain extension and purchase options and/or price adjustment clauses. With regard to rental and lease agreements, payments of € 20.4 million (2014: € 21.3 million) were expensed in the financial year 2015.

The nominal total of future minimum lease payments arising from non-terminable operating lease agreements is as follows (based on due payment dates):

NOMINAL TOTAL OF FUTURE MINIMUM LEASE PAYMENTS

in € million	Dec. 31, 2015	Dec. 31, 2014
Due in less than one year	13.2	12.8
Due in more than one year and less than five years	29.6	34.2
Due in more than five years	4.0	5.9
Total future minimum lease payments	**46.8**	**52.9**

The nominal total of future minimum lease payments amounted to € 46.8 million at December 31, 2015, which is € 6.1 million less than the previous year's amount of € 52.9 million. This year-on-year decrease was mainly attributable to the progressive change in the remaining terms of the relevant contracts between the two reporting dates.

The main individual obligations arising from operating lease arrangements are as follows:

- Leasing of engines from MTU Maintenance Lease Services B.V., Amsterdam, Netherlands, under contracts with durations of between 3 months and 8 years, some of which include price adjustment clauses to account for the escalation of use fees. Some of these contracts are based on variable leasing rates, indexed to the 6-month U.S. dollar LIBOR rate and adjusted accordingly at 6-month intervals. None of these contracts permit an extension of the originally agreed duration, but certain of them do include a purchase option when the leasing term expires.
- Rent for the buildings occupied by MTU Maintenance Canada Ltd., Richmond, Canada, under contracts with durations of between 2 and 6 years. Some of these contracts include price adjustment clauses to account for the escalation of leasing rates. None of these contracts contain renewal or purchase options.
- Rental payments for offices occupied by MTU Aero Engines AG, Munich, under 15-year lease agreements. These contracts include price adjustment clauses linked to consumer price indices. If the consumer price index rises by more than 10% since the last rent increase, the rental payments are increased accordingly. One of these contracts includes a renewal option for a further 5 years.
- Lease payments for the building at the air base in Erding made available for an undetermined duration as part of a cooperative arrangement with the German air force. This contract contains neither renewal nor purchase options. The annual rent is fixed to the end of 2019.
- Rental payments for industrial trucks under a 5-year contract. This contract does not contain price adjustment clauses, and includes neither renewal nor purchase options.

Future income and expenses arising from sublease agreements

At December 31, 2015 the future minimum income from sublease agreements for office space amounted to € 6.6 million (2014: € 5.9 million). The total future minimum expenses associated with sublease agreements amount to € 6.2 million (2014: € 5.9 million). Payments amounting to € 0.8 million (2014: € 0.8 million) for these sublease agreements were recognized as an expense in the financial year 2015.

Order commitments for financial obligations

At December 31, 2015, order commitments for the purchase of intangible assets amounted to € 7.2 million (2014: € 1.3 million) and order commitments for the purchase of property, plant and equipment amounted to € 31.9 million (2014: € 27.5 million). These financial obligations were thus within normal limits.

38. RELATIONSHIPS WITH RELATED COMPANIES AND PERSONS

38.1. RELATED COMPANIES

Transactions between group companies and joint ventures or associated companies were, without exception, conducted in the context of their normal business activities and made on terms equivalent to those that prevail in arm's length transactions.

Business transactions between companies included in the consolidated financial statements were eliminated in the course of the preparation of these statements and are therefore not disclosed separately in these Notes.

Business with related companies

During the course of the financial year, intra-group transactions involving the supply of goods and services were conducted by group companies as part of their normal operating activities (e.g. development, repairs, assembly, and IT support). The current receivables and liabilities that represent the outstanding balance of business transactions carried out with non-consolidated related companies in the financial years 2015 and 2014 are presented in the following tables:

ACCOUNTS RECEIVABLE FROM RELATED COMPANIES

	Outstanding balance Receivables		Value of business transactions Revenues/income/sales		Expenses/purchases	
in € million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
Eurojet Turbo GmbH, Hallbergmoos	15.1	18.1	185.5	185.0	–1.7	–0.6
EPI Europrop International GmbH, Munich	32.2	35.3	114.8	97.8	–6.7	–28.3
International Aero Engines LLC, East Hartford, Connecticut, USA	8.3		8.2			
MTU Turbomeca Rolls-Royce ITP GmbH, Hallbergmoos	2.8	3.2	9.1	10.9	–0.1	–1.0
Pratt & Whitney Canada Customer Service Centre Europe GmbH, Ludwigsfelde	2.9		54.9	43.8		
Ceramic Coating Center S. A. S., Paris, France	0.1	0.1			–3.6	–2.8
Turbo Union Ltd., Bristol, England	2.3	3.3	82.6	87.4		
MTU Maintenance Zhuhai Co. Ltd., Zhuhai, China	2.0		6.7	4.5	–55.2	–64.8
Airfoil Services Sdn. Bhd., Kota Damansara, Malaysia		0.7	0.2	0.2	–6.8	–5.6
Middle East Propulsion Company Ltd., Riad, Saudi Arabia	0.3		0.4	0.1	–1.4	–1.4
Gesellschaft zur Entsorgung von Sondermüll in Bayern GmbH, Munich					–0.2	–0.2
Sumisho Aero Engines Lease B.V., Amsterdam, Netherlands	0.2	0.5	0.4	0.5	–5.4	–2.1
MTU Maintenance Service Centre Australia Pty. Ltd., Perth, Australia			0.2	0.4	–0.7	–0.3
AES Aerospace Embedded Solutions GmbH, Munich		0.3	0.9	4.3	–7.7	–7.4
MTU Maintenance Dallas Inc., Grapevine, USA	0.2		0.2		–0.5	–0.8
MTU Maintenance IGT Service do Brasil Ltda., São Paulo, Brazil	0.1	0.1		0.1	–0.4	–0.6
MTU Aero Engines Shanghai Ltd., Shanghai, China		0.1				
MTU Maintenance Service Center, Ayutthaya Ltd., Ayutthaya, Thailand	1.1	0.4	0.8	0.3	–0.7	–0.4
Total	**67.6**	**62.1**	**464.9**	**435.3**	**–91.1**	**–116.3**

LIABILITIES TO RELATED COMPANIES

	Outstanding balance Liabilities		Value of business transactions Revenues/income/sales		Expenses/purchases	
in € million	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014	Dec. 31, 2015	Dec. 31, 2014
IAE International Aero Engines AG, Zurich, Switzerland	65.4	54.0	899.7	775.8	–919.3	–698.9
MTU Turbomeca Rolls-Royce GmbH, Hallbergmoos	0.4	0.2	4.5	3.6		–0.7
MTU Versicherungsvermittlungs- und Wirtschaftsdienst GmbH, Munich					–8.6	–8.1
Pratt & Whitney Canada Customer Service Centre Europe GmbH, Ludwigsfelde		1.6				
MTU Maintenance Zhuhai Co. Ltd., Zhuhai, China		3.8				
Airfoil Services Sdn. Bhd., Kota Damansara, Malaysia	1.0					
MTU München Unterstützungskasse GmbH, Munich		1.6				
Total	**66.8**	**61.2**	**904.2**	**779.4**	**–927.9**	**–707.7**

Major shareholdings

The list of major shareholdings shows MTU's capital share in each company and, unless otherwise specified, the equity that this represents at December 31, 2015, and the profit or loss generated by each company in the reporting period:

MAJOR SHAREHOLDINGS

Name and registered office of entity	Consolidation method[7]	Shareholding in % Dec. 31, 2015	Equity in € 000 Dec. 31, 2015	Profit/loss in € 000 2015
I. Investments in subsidiaries				
MTU Maintenance Hannover GmbH, Langenhagen	Full	100.00	65,470	[2]
MTU Maintenance Berlin-Brandenburg GmbH, Ludwigsfelde	Full	100.00	88,620	[2]
MTU Aero Engines North America Inc., Rocky Hill, USA	Full	100.00	8,919[3]	2,856[4]
MTU Maintenance Canada Ltd., Richmond, Canada	Full	100.00	52,926[3]	13,116[4]
Vericor Power Systems LLC., Alpharetta, USA	Full	100.00	32,615[3]	13,140[4]
MTU Aero Engines Polska Sp. z o.o., Rzeszów, Poland	Full	100.00	127,886[3]	-80,126[4]
MTU Versicherungsvermittlungs- und Wirtschaftsdienst GmbH, Munich	at cost	100.00	26	[2]
MTU München Unterstützungskasse GmbH, Munich (in liquidation)	[9]	100.00	26	-1,553
MTU Maintenance Service Centre Ayutthaya Ltd., Ayutthaya, Thailand	at cost	100.00	138[1.5]	28[1.6]
MTU Maintenance Dallas Inc., Grapevine, USA	at cost	75.00	-432[3]	-481[4]
MTU Maintenance IGT Service do Brasil Ltda., Sao Paulo, Brazil	at cost	100.00	201[1.6]	50[1.6]
MTU Maintenance Lease Services B.V., Amsterdam, Netherlands	Full	80.00	-897	-60
MTU Aero Engines Finance Netherlands B.V., Amsterdam, Netherlands	at cost	100.00	[10]	[10]
MTU Maintenance Service Centre Australia Pty.Ltd., Perth, Australia	at cost	100.00	402[1.5]	-86[1.6]
MTU Aero Engines Shanghai Ltd., Shanghai, China	at cost	100.00	117[3]	-2[4]
II. Investments in associated companies				
IAE International Aero Engines AG, Zurich, Switzerland	at equity	25.25	64,948[1.5]	8,658[1.6]
III. Equity investments in joint ventures				
MTU Maintenance Zhuhai Co. Ltd., Zhuhai, China	at equity	50.00	201,049[3]	55,089[4]
MTU Maintenance Hong Kong Ltd., Hong Kong, China [8]	at cost	50.00	34[3]	3[4]
Pratt & Whitney Canada Customer Service Centre Europe GmbH, Ludwigsfelde [8]	at equity	50.00	11,764	5,246
Ceramic Coating Center S.A.S., Paris, France	at equity	50.00	5,522	697
Airfoil Services Sdn. Bhd., Kota Damansara, Malaysia	at equity	50.00	24,157[3]	6,692[4]
AES Aerospace Embedded Solutions GmbH, Munich	at equity	50.00	3,110	-689
Turbo Union Ltd., Bristol, England	at cost	39.98	290[1]	3[1]
EUROJET Turbo GmbH, Hallbergmoos	at cost	33.00	1,986[1]	870[1]
EPI Europrop International GmbH, Munich	at cost	28.00	472[1]	413[1]
MTU Turbomeca Rolls-Royce GmbH, Hallbergmoos	at cost	33.33	69[1]	30[1]
MTU Turbomeca Rolls-Royce ITP GmbH, Hallbergmoos	at cost	25.00	260[1]	233[1]
IV. Other equity investments				
Middle East Propulsion Company Ltd., Riyadh, Saudi Arabia	at cost	19.30	22,214[1.5]	1,965[1.6]
IAE International Aero Engines LLC., East Hartford, USA	at cost	18.00	[10]	[10]
Sumisho Aero Engines Lease B.V., Amsterdam, Netherlands	at cost	10.00	23,169[1.5]	-748[1.6]

[1] Data for previous year, actuals not available
[2] Profit/loss for German GAAP purposes transferred 2015
[3] Translated at closing exchange rate Dec. 31, 2015
[4] Translated at annual average exchange rate for 2015
[5] Translated at closing exchange rate Dec. 31, 2014
[6] Translated at annual average exchange rate for 2014
[7] full = fully consolidated
– at cost = measured at cost of acquisition, because fair value cannot be reliably determined
– at equity = carrying amount of investment increased or reduced to reflect changes in equity of group's percentage interest
[8] Indirect shareholding
[9] Plan assets
[10] Newly formed: first year-end results under preparation

38.2. RELATED PERSONS

No group company has conducted any business subject to disclosure requirements with members of the group's Executive Board or Supervisory Board or with any other individuals holding key management positions, or with companies in which these persons hold a seat on the managing or supervisory board, with the exception of the transactions presented later in this Note, under "Other related party transactions". This also applies to close family members of this group of persons.

Members of the Executive Board

At December 31, 2015, the Executive Board of MTU Aero Engines AG, Munich, comprised the following members:

MEMBERS OF THE EXECUTIVE BOARD

Reiner Winkler Chief Executive Officer	Munich
Dr. Rainer Martens Chief Operating Officer	Munich
Michael Schreyögg Chief Program Officer	Munich

Dr. Stefan Weingartner relinquished his post as President MTU Maintenance at MTU Aero Engines AG with effect of March 31, 2015. On December 12, 2014, in view of his pending departure, the Supervisory Board of MTU Aero Engines AG, Munich, passed a resolution to reduce the number of Executive Board members thereafter from four to three.

Executive Board compensation

More detailed information on the compensation system for MTU's Executive Board, including their company pension entitlements, is provided in the management compensation report in the Corporate Governance section of this Annual Report.

The members of the Executive Board received total compensation amounting to € 6.8 million (2014: € 6.2 million) in the financial year 2015 for their services as board members. This total amount can be broken down into the following components:

EXECUTIVE BOARD COMPENSATION

	2015 in € million[1]	2015 in %	2014 in € million[1]	2014 in %
Short-term employee benefits				
Non-performance-related components	1.9		2.2	
Performance-related components without long-term incentive effect[2]	1.1		1.2	
Performance-related components with long-term incentive effect[3/4]	1.4		1.0	
Total	**4.4**	**64.7**	**4.4**	**71.0**
Post-employment benefits				
Service cost / past service cost	0.7		0.5	
Total	**0.7**	**10.3**	**0.5**	**8.0**
Share-based payment benefits				
Performance-related components with long-term incentive effect[5]	1.1		1.3	
Other[6]	0.6			
Total	**1.7**	**25.0**	**1.3**	**21.0**
Total compensation	**6.8**	**100.0**	**6.2**	**100.0**

[1] Amounts relate to compensation awarded to active members of the Executive Board in the respective financial years for their services as board members.
[2] Non-deferred portion of annual performance bonus (APB) for the financial year 2015; will be paid in 2016.
[3] 2nd deferred portion of APB for the financial year 2013 will be paid in 2016.
[4] 1st deferred portion of APB for the financial year 2014 will be paid in 2016.
[5] Fair value at the grant date.
[6] Amounts correspond to differences between cash settlement values and cumulated fair value at the grant date of the redeemed share-based payment benefits. In view of the transition to the new system of long-term compensation as of the financial year 2016, granted performance shares (tranches 2013-2015) as well as entitlements granted under the Share Matching Plan (tranches 2010-2015) are converted in the subsequent year into shares subject to disposal restrictions (2-year vesting period).

The amount stated for share-based payment benefits corresponds to their fair value at the grant date. The total expense for share-based payments recognized in the financial year 2015 amounted to € 4.3 million (2014: € 1.6 million).

Members of the Executive Board did not receive any compensation for mandates on boards of the group's own companies.

At December 31, 2015, as in the previous year, no loan facilities or advances were granted to members of the Executive Board. Similarly, as in the previous year, no contingent liabilities were assumed by the company in favor of members of the Executive Board.

At December 31, 2015, the provisions for current and future pension obligations toward former members of the Executive Board amounted to € 7.2 million (2014: € 7.5 million).

Members of the Supervisory Board

As in 2014, the members of the Supervisory Board did not receive any additional compensation for supervisory board mandates over and above that received for their supervisory board mandate with MTU Aero Engines AG, Munich. Compensation for active members of the Supervisory Board amounted to € 1.1 million (2014: € 1.1 million).

In the financial year 2015, the MTU employees who held seats as employee representatives on the Supervisory Board of MTU Aero Engines AG received salaries under their normal employment contracts (excluding Supervisory Board compensation) totaling € 0.6 million (2014: € 0.6 million). This amount represents the sum of their respective gross salaries.

At December 31, 2015, as in the previous year, no loan facilities or advances were granted to members of the Supervisory Board. Similarly, as in the previous year, no contingent liabilities were assumed by the company in favor of members of the Supervisory Board.

For details of the compensation awarded to individual members of the Supervisory Board, and other related information, please refer to the management compensation report in the Corporate Governance section of this Annual Report.

Other related party transactions

As in 2014, MTU shares and options bought or sold by members of the Executive Board and the Supervisory Board in the financial year 2015 were bought or sold under terms equivalent to those that prevail in arm's length transactions. The transactions were published in the commercial registry and posted on the MTU website at www.mtu.de/en under Investor Relations > Corporate Governance > Directors' Dealings.

Shareholders

Pursuant to Section 160 (1) item 8 of the German Stock Corporation Act (AktG), information must be provided on the existence of shareholdings which have been notified to the company pursuant to Section 21 (1) or (1a) of the German Securities Trading Act (WpHG). For detailed information, please refer to the chapter "The MTU share."

V. SEGMENT INFORMATION

39. SEGMENT REPORTING

MTU reports on two operating segments: the OEM segment (commercial and military engine business) and the MRO segment (commercial maintenance business). Segmentation is based on classifications used in the internal organizational structure and reporting system, which takes into account the risks and returns to which the segments are subject. A detailed description of the operating segments is provided after the consolidated financial statements in the section headed "Reporting by operating segment".

Commercial and military engine business (OEM)

In the commercial and military engine business, the group develops, manufactures, assembles and delivers commercial and military engines and components. The maintenance, repair and overhaul of military engines is also included in this segment.

Commercial maintenance business (MRO)

In the commercial maintenance business, the group maintains, repairs and overhauls aircraft engines and industrial gas turbines. In addition to complete engine maintenance, the services provided also include engine module and parts repairs.

Profit/loss of companies accounted for using the equity method

The carrying amount and the share in profit/loss of consolidated group companies accounted for using the equity method are included in reporting by operating segment if such companies can be directly allocated to an operating segment.

Segment assets and segment liabilities

Segment assets comprise all assets that can be allocated to specific operating activities and whose positive or negative operating results have an impact on earnings before interest and tax (EBIT / adjusted EBIT). Assets and liabilities are allocated to the operating segment in which they are used to generate business. The consolidation/reconciliation amount in the segment assets line relates to the consolidation of the carrying amount of subsidiaries and of accounts receivable from intersegment sales of € 674.4 million (2014: € 563.2 million) and to segment liabilities of € 333.4 million (2014: € 222.2 million).

Segment capital expenditure

Segment capital expenditure relates to additions to intangible assets and to property, plant and equipment.

Consolidation/reconciliation column

The amounts in the "consolidation/reconciliation" column for earnings before interest and tax (EBIT/adjusted EBIT) are used to eliminate the effect of intersegment sales.

Segment information by geographical area

External revenues, capital expenditure on intangible assets and property, plant and equipment, and non-current assets are devided into the following regions: Germany, Europe (excluding Germany), North America, Asia and other regions.

Revenues from business with third parties are allocated to the geographical area in which the customer is domiciled. Capital expenditure on intangible assets and property, plant and equipment, and non-current assets are allocated to geographical areas according to the location of the asset in question.

VI. EVENTS AFTER THE REPORTING DATE

No events of material importance with any significant impact on the financial situation, net assets or operating results of the MTU group occurred after the end of the reporting period.

VII. DETERMINATION OF THE NET PROFIT AVAILABLE FOR DISTRIBUTION ON THE BASIS OF THE GERMAN GAAP ANNUAL FINANCIAL STATEMENTS

Unlike the consolidated financial statements, which are based on the IFRS issued by the IASB and endorsed by the EU, the annual financial statements of MTU Aero Engines AG, Munich, are prepared in accordance with the requirements of the German Commercial Code (HGB) and German Stock Cooperation Act (AktG). The IFRS rules are also applied in the separate annual financial statements where it is permissible and fitting to do so. In certain cases, however, the German GAAP standards require different accounting policies to be applied when compiling the annual financial statements of MTU Aero Engines AG, Munich and those of the German subsidiaries compared with the accounting policies applied in the consolidated financial statements.

INCOME STATEMENT

	Change 2015 - 2014		2015	2014
in € million	in € million	in %	in € million	in Mio. €
Revenues	**358.5**	**15.7**	**2,645.3**	**2,286.8**
Cost of sales	-378.0	-18.6	-2,406.6	–2,028.6
Gross profit	**-19.5**	**-7.6**	**238.7**	**258.2**
Selling expenses	14.5	23.2	-47.9	–62.4
General administrative expenses	-20.9	-78.6	-47.5	–26.6
Balance of other operating income and expenses	-53.2	<-100	-5.3	47.9
Financial result	41.1	51.6	120.7	79.6
Earnings from ordinary operating activities	**-38.0**	**-12.8**	**258.7**	**296.7**
Non-recurring earnings	-3.1	-100.0		3.1
Tax expense	25.0	28.2	-63.6	–88.6
Net profit for the year	**-16.1**	**-7.6**	**195.1**	**211.2**
Allocation to other reserves	8.1	7.7	-97.5	–105.6
Net profit available for distribution	**-8.0**	**-7.6**	**97.6**	**105.6**

Allocation to revenue reserves

In accordance with Section 58 (2) of the German Stock Corporation Act (AktG), a total of € 97.5 million of the 2015 net profit was allocated to other reserves by the Board of Management and the Supervisory Board of MTU Aero Engines AG (2014: € 105.6 million).

Proposed profit distribution

At the Annual General Meeting on April 14, 2016, the Executive Board and the Supervisory Board of MTU Aero Engines AG, Munich, intend to recommend that a dividend of € 1.70 (2014: € 1.45) per share be distributed for the financial year 2015 after transfers to other reserves. On the condition that this proposal is accepted by the Annual General Meeting, the total dividend payment for the 51,118,724 shares entitled to a dividend will amount to € 86.9 million. Based on the quoted share price at the close of 2015 of € 90.10 (2014: € 72.16), this is equivalent to a dividend yield of 1.9% (2014: 2.0%).

Pending approval by the Annual General Meeting, the dividend for the financial year 2015 is to be paid on April 15, 2016.

Federal Gazette (Bundesanzeiger)

The annual financial statements, consolidated financial statements and combined management report of MTU Aero Engines AG, Munich, are published in the Electronic Federal Gazette (elektronischer Bundesanzeiger). Print copies can be obtained on request from MTU Aero Engines AG, 80995 Munich, Germany.

Declaration of conformity with the German Corporate Governance Code

The declaration of conformity by the Executive Board and Supervisory Board of MTU Aero Engines AG, Munich, pursuant to Section 161 of the German Stock Corporation Act (AktG) is published in the MTU Annual Report 2015 and also permanently available to shareholders on the MTU website at www.mtu.de.

STATEMENT BY THE LEGAL REPRESENTATIVES

We hereby affirm that, to the best of our knowledge, the consolidated financial statements present a true and fair view of the group's net assets, financial position and operating results in accordance with the applicable financial reporting standards, and that the combined management report provides a faithful and accurate review of the group's business performance, including operating results and situation, and outlines the significant risks and opportunities of the group's likely future development.

Munich, February 22, 2016

Reiner Winkler

Chief Executive Officer

Dr. Rainer Martens

Chief Operating Officer

Michael Schreyögg

Chief Program Officer

AUDIT OPINION

We have audited the consolidated financial statements prepared by MTU Aero Engines AG, Munich, comprising the Consolidated Income Statement, the Consolidated Statement of Comprehensive Income, the Consolidated Statement of Financial Position, the Consolidated Statement of Changes in Equity, the Consolidated Cash Flow Statement and the Notes to the Consolidated Financial Statements, together with the combined management report of the Company and the Group ("combined management report") for the fiscal year from January 1, 2015 to December 31, 2015. The preparation of the consolidated financial statements and the combined management report of the Company and the Group in accordance with IFRS as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315a (1) HGB ["Handelsgesetzbuch": "German Commercial Code"] are the responsibility of the parent company's management. Our responsibility is to express an opinion on the consolidated financial statements and on the combined management report of the Company and the Group based on our audit.

We conducted our audit of the consolidated financial statements in accordance with Sec. 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with the applicable financial reporting framework and in the combined management report of the Company and the Group are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the combined management report of the Company and the Group are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in the consolidation, the determination of entities to be included in the consolidation, the accounting and consolidation principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements and the combined management report of the Company and the Group. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the consolidated financial statements comply with IFRS as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315a (1) HGB and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. The combined management report of the Company and the Group is consistent with the consolidated financial statements and as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Munich, February 29, 2016

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

(Keller)
German Public Auditor

(Westermeier)
German Public Auditor

ADDITIONAL INFORMATION

GLOSSARY OF ENGINE TERMS

COMBUSTOR

A combustor or combustion chamber consists of an outer casing and an inner liner within which the actual combustion takes place. Inside, the inflowing air from the compressor is mixed with fuel and ignited. The combustion process generates tem-peratures of over 2,000 degrees Celsius. In order to withstand these high temperatures, especially the inner liner of the combustion chamber must be cooled and must be protected by special thermal barrier coatings.

COMPRESSOR

The task of the compressor is to ingest air and compress it before it is fed into the combustor. Compressors consist of bladed disks (rotors) that rotate at very high speed between stationary guide vanes (stators). In order to achieve a compression ratio of over 40:1, which is standard in all modern two-shaft engines, it is necessary to use multi-stage low-pressure and high-pressure compressors rotating at different speeds on dual concentric shafts. These are driven by the corresponding turbines.

FAN

The first rotor of the low-pressure compressor is called the fan. It accelerates the bypass stream flowing aftward and provides the engine's main thrust. It is driven by the low-pressure turbine via the low-pressure shaft.

GEARED TURBOFAN™

Geared turbofan™ engines consume far less fuel and generate significantly less noise than today's engine types. They therefore have every chance of becoming the standard type for use in future aircraft. Normally, an engine's fan, low-pressure compressor and low-pressure turbine are all rigidly connected to one shaft. In contrast, the geared fan is "decoupled" from the low-pressure section by means of a reduction gear unit. This enables the low-pressure turbine and the low-pressure compressor to run at their optimum high speeds, while the fan rotates at a much lower speed (in a ratio of approx. 3:1). This results in significantly improved overall engine efficiency and greatly reduced noise levels.

INDUSTRIAL GAS TURBINES

The operating principle of an industrial gas turbine is essentially the same as that of an aero engine. However, instead of the customary low-pressure turbine used in aircraft, industrial gas turbines have a power turbine. This turbine delivers the power, either directly or via a gear unit, to an additional attached power unit such as a pump or generator. Nearly all industrial gas turbines of the lower and intermediate power classes are aero-engine derivatives.

MRO BUSINESS

MRO stands for maintenance, repair and overhaul. At MTU, the term "MRO business" is also used more specifically to designate one of the company's two business segments, where it refers to maintenance services for commercial engines, or commercial MRO.

OEM BUSINESS

OEM stands for original equipment manufacturer. At MTU, the term "OEM business" is used to designate one of the company's two operating segments, where it refers to the development, manufacture and assembly of (new) commercial and military engines. Spare parts for (in-service) commercial and military engines and maintenance services for military engines are also included in this operating segment.

RISK- AND REVENUE-SHARING PARTNERSHIP

In a risk- and revenue-sharing partnership, each partner contributes a certain share of the resources needed for a specific engine program (work capacity and funding), thus bearing part of the risk. In return, each partner is entitled to a corresponding percentage of the overall sales revenue from that program.

SUBSYSTEM

A complete aircraft engine is made up of a number of subsystems. These include the high-pressure and low-pressure compressors, the combustor, the high-pressure and low-pressure turbines and the engine control system.

THRUST CLASS

Jet engines are generally grouped into three thrust classes: engines with a thrust of between 2,500 and around 20,000 pounds (roughly 10 to 90 kN), mainly used to power business and regional jets, engines with a thrust of between 20,000 and approximately 50,000 pounds (roughly 90 to 225 kN), used to power medium-haul aircraft, and engines with a thrust ranging from 50,000 to over 100,000 pounds (roughly 225 to 450 kN), used to power long-haul aircraft.

TURBINE

In a turbine, the energy contained in the gases emerging at high pressure and velocity from the combustor is converted into mechanical energy. Like the compressor, the turbine is subdivided into a high-pressure and a low-pressure section, each of which is directly connected to the corresponding compressor via the respective shaft. The turbine has to withstand much higher stresses than the compressor, as it has to deal not only with the high gas temperatures but also with extreme centrifugal forces of several tons acting on the outer rim of its disks.

TURBINE CENTER FRAME

The turbine center frame connects the high-pressure to the low-pressure turbine. It has to be able to withstand high mechanical and thermal loads. The center frame includes struts to support the shaft bearings, clad with an aerodynamic fairing, and the air and oil supply lines.

TURBOFAN ENGINE

The turbofan is an advancement of the turbojet principle, the main difference being its enlarged first compressor stage, the fan. While in turbojet engines, all of the ingested air flows consecutively through the compressor, the combustor and the turbine, turbofans separate the air stream behind the fan. A fraction of the air reaches the combustor via a number of further compressor stages and is burned. The rest, however – which constitutes a much larger fraction – is channeled around the inner components. The ratio between these two airflows is known as the bypass ratio. In modern commercial engines, this ratio can be higher than 10:1. The greater the bypass ratio, the more economical, environmentally compatible and silent the engine. Turbofans are far more fuel-efficient than turbojets.

TURBOPROP ENGINE

The most noticeable external feature of a turboprop is its propeller. Inside, however, the engine differs only slightly from the turbojet and the turbofan. The turbine is larger, and drives not only the compressor but also the propeller, the latter via a gear unit. Consequently, more energy has to be drawn from the exhaust gas stream in the turbine of a turboprop than in that of other engine types. Over 90 percent of the energy is required for the compressor and the propeller. Turboprop airplanes can achieve flight speeds of up to 800 km/h. They are thus slower than turbojets or turbofans, but they do have the advantage of consuming far less fuel. This predestines them for use in roles where speed is less important, such as on short-haul routes or for air freight.

TURBOSHAFT ENGINE

Turboshaft engines are used in helicopters and are similar to turboprops.

OVERVIEW OF ENGINES

COMMERCIAL ENGINES

Long-haul airliners	
CF6	Airbus A300, A310, A330, Boeing 747, 767, DC-10, MD-11, KC-10
GE90-110B/-115B*	Boeing 777-200LR, 777-200F, 777-300ER
GE9X	Boeing 777X
GEnx	Boeing 787, 747-8
GP7000	Airbus A380
PW4000Growth	Boeing 777
Short- and medium-haul aircraft	
CF34*	business and regional jets
CFM56*	Boeing 737, Airbus A318–A321
JT8D-200	Boeing MD-80-series
PW1000G	Airbus A320neo, Bombardier CSeries, Mitsubishi Regional Jet, Embraer E-170/E-190, Irkut MS-21
PW2000	Boeing 757, C-17
PW6000	Airbus A318
V2500	Airbus A319, A320, A321, Boeing MD-90, Embraer KC-390
Business jets	
PT6A**	business and regional jets
PW100/150A**	ATR42, 72, Fokker 50, Bombardier Q400
JT15D**	Cessna Citation I/II/V/Ultra, Beechjet 400
PW300	medium-weight business and regional jets
PW500	light and medium-weight business jets
PW600**	Cessna Mustang, Eclipse 500, Embraer Phenom 100
PW800	Gulfstream G500, G600, long-range business jets, regional airliners, single-aisle aircraft
Helicopters	
PT6B/-C/-T**	Agustawestland 119, 139, Airbus Helicopters H175
PW200**	light-to-medium weight twin-engined helicopters

* *MRO only*
** *MRO only: over Pratt & Whitney Canada Customer Service Centre Europe GmbH*

MILITARY ENGINES

Fighter jets	
EJ200	Eurofighter
F110	Lockheed F-16, Boeing F-15K
F414	Boeing F/A-18 Super Hornet, Boeing EA-18G Growler
Larzac 04	Alpha Jet
RB199	Panavia Tornado
Helicopters	
GE38	Sikorsky CH-53K
MTR390/MTR390 Enhanced	Airbus Helicopters Tiger
T64	Sikorsky CH-53G
Transporters	
TP400-D6	Airbus A400M
Tyne	Breguet Atlantic und Transall C-160

INDUSTRIAL GAS TURBINES

ASE8/40/50, TF40/50, ETF40	Electrical power systems, power systems for ships, mechanical power systems, generator sets
LM2500/LM2500+	Electrical power stations, mechanical power systems, oil and gas industry, power systems for ships
LM5000	Electrical power stations, mechanical power systems, oil and gas industry
LM6000 / LM6000-PF+	Electrical power stations

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LIST OF CHARTS AND ILLUSTRATIONS

FINANCIAL CALENDAR

April 14, 2016	Annual General Meeting
April 28, 2016	Interim Report as at March 31, 2016
	Conference call with analysts and investors
July 26, 2016	Interim Report as at June 30, 2016
	Conference calls with journalists, analysts and investors
October 25, 2016	Interim Report as at September 30, 2016
	Conference calls with journalists, analysts and investors
December 14, 2016	MTU Investor and Analyst Day

MTU SHARE DATA

Number of shares	52 million shares of no-par stock
Type of share	Registered shares
Equity capital	€ 52 million
Voting rights	One vote per share
German Securities Identification Number (WKN)	A0D9PT
International Securities Identification Number (ISIN)	DE000A0D9PT0
Stock exchange symbol	MTX
Trading segment	Prime Standard
Stock-market segment	MDAX
Financial year	Identical with calendar year
Accounting rules	IFRS
Designated sponsor	Goldman Sachs
Official notices	Electronic version of the Federal Gazette (Bundesanzeiger)

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Translation
The German version takes precedence.

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