In managing its liquidity, DEUTZ focuses on free cash flow as a key performance indicator. Also, as a technology-oriented company, we consider the R&D ratio, which represents the ratio of research and development expenditure (less reimbursements) to revenue, to be a key management variable as part of our internal performance indicator system. On the basis of these KPIs, the Group's financial flexibility is subject to constant analysis in the form of a comparison between budget and actual so that we can take swift, appropriate action in the event of significant variances. One-off items are defined as material income and expenses that are exceptional and unlikely to recur.

In order to enable us to be proactive and respond promptly, DEUTZ has set up an early warning system based on the performance indicators. A monthly/quarterly reporting process enables the Board of Management to track changes in the performance indicators. This approach ensures that we can respond immediately to the latest business developments. At the same time, we operate a sound system of causal analysis to ensure that we minimise risks and make the most of opportunities. Three times a year we produce an annual forecast for all key performance indicators. In this way, we ensure optimum transparency in our business performance, benefiting both the Group and all stakeholders.

In addition to the financial performance indicators which form part of the management system described above, we also employ a range of other parameters to measure our economic performance. These include, but are not limited to, new orders received, revenue and unit sales on the income side, the working capital as at the reporting date with regard to tied-up capital, and earnings before interest, taxes, depreciation and amortisation (EBITDA). Moreover, the Group net income and the DEUTZ AG statutory income in accordance with the German Commercial Code are significant factors for us as regards dividend payments.

CONTINUOUS OPTIMISATION OF THE CONTROL SYSTEM

Regardless of fluctuations in the economic cycle, one of the DEUTZ Group's overriding aims is the continuous optimisation of its management systems. This essentially involves the annual planning of all specified performance indicators. This planning is based on both internal estimates of future business and benchmark figures from competitors. Each organisational unit prepares detailed plans for its area of responsibility, which are then coordinated with the management strategy. Both the specific unit sales and revenue targets and the customer and product-related targets (EBIT margins) are aligned with the operating units each year, taking groupwide objectives into consideration. This means that they are available at the relevant hierarchical level for use by the operational management.

We specify working capital targets for the individual companies in the DEUTZ Group in order to optimise the capital tied up in the business. These overall figures are then broken down and specific targets for inventories, trade receivables and trade payables are allocated to the relevant individual employees.

We are pursuing long-term growth objectives. In order to secure the financial basis for this, we have made the management of capital expenditure a central element in the management of tied-up capital: clearly specified budget figures set out the framework for the level of capital expenditure and development expenditure; actual requirements are derived from the medium-term planning of unit sales and the resulting requirements in terms of capacity and technologies. Annual budget meetings are held to coordinate individual projects, development expenditure and planned capital expenditure with the groupwide financial planning process and to record the outcomes. An additional detailed review is carried out before projects are actually approved. To this end, we use standard investment appraisal methods (internal rate of return, amortisation period, net present value, the impact on the income statement and cost comparisons). A project with an appropriate budget is only approved if there is a clear positive outcome from this investment appraisal.

BUSINESS PERFORMANCE IN THE DEUTZ GROUP

ECONOMIC ENVIRONMENT

Global economic growth remained weak in 2015 As in previous years, the economy did not live up to expectations in 2015. Forecasts were successively lowered as the year progressed. The reporting year was shaped by various factors, including geopolitical crises, weak growth in emerging markets, lower prices for commodities, oil, gas and agricultural goods, quantitative easing (particularly by the European Central Bank [ECB]), the first interest rate hike carried out by the US Federal Reserve at the end of the year, strong exchange rate movements and waves of migration to Europe. These factors resulted in palpable uncertainty and a reluctance to invest, although European exports received a small boost from the weak euro exchange rate.

The International Monetary Fund (IMF)[1] is expecting worldwide growth of 3.1 per cent for 2015 as a whole, which is below the 2014 level of 3.4 per cent. The eurozone economy expanded by 1.5 per cent in 2015, which is considerably stronger than the 2014 rate of 0.9 per cent. The German economy's growth was on a par with 2014 at 1.5 per cent. Spain's economic performance was very encouraging – despite the country only having emerged from recession in the previous year – with growth of

[1] IMF World Economic Outlook, January 2016.

3.2 per cent. Italy also moved out of recession, expanding by 0.8 per cent. There was also positive news from France, where the economy grew by 1.1 per cent.

As in 2014, the US economy was one of the major drivers of global economic growth. It expanded by 2.5 per cent (2014: 2.4 per cent) thanks, in particular, to favourable conditions in the labour market.

At 6.9 per cent, the pace of growth in the Chinese economy continued to slow. This trend is set to continue in the years ahead. Conditions remained difficult in the truck and construction equipment sector, which is a core market for DEUTZ. The Russian economy slipped into recession due to the crisis and sanctions; the growth engine was still not running smoothly in South America either.

Weakness in DEUTZ's customer industries Demand in our main customer markets fell in 2015. According to DEUTZ's own estimates, demand for construction equipment – excluding the effect of the advance production of engines – was down by around 10 per cent in Europe and was unchanged year on year in North America. In China, however, demand fell by around 44 per cent[1]. According to the VDMA[2], the agricultural machinery sector in Europe contracted by 8 per cent in the year under review. The market for medium and heavy-duty trucks contracted by 29 per cent in China[3].

IMPACT OF ECONOMIC CONDITIONS ON BUSINESS PERFORMANCE

DEUTZ suffering from customers' reluctance to invest Whereas the global economy grew by 3.1 per cent in 2015, DEUTZ's revenue fell by 18.5 per cent and its unit sales by 29.8 per cent. The even greater decrease in unit sales was due to the growing proportion of unit sales accounted for by higher-value engines. Overall, most of our key customer sectors experienced significant negative growth. DEUTZ's performance was therefore similar to that of its customer sectors.

The economy in the eurozone expanded by 1.5 per cent in the year under review. DEUTZ's key customer sectors in this region did poorly, however: volumes in the agricultural machinery sector were down by roughly 8 per cent, for example, and demand for construction equipment declined by around 10 per cent. Furthermore, European customers drew on their inventories of the engines that they had purchased on a large scale in 2014 in anticipation of the new emissions standard. DEUTZ's revenue in our biggest market, EMEA (Europe, Middle East and Africa), went down by 27.6 per cent in 2015; the decrease in unit sales was 38.6 per cent. US economic output grew by a relatively strong 2.5 per cent in 2015, and demand for construction equipment in North America was at the same level as in 2014. Our unit sales in the Americas region fell by 11.0 per cent, but we were able to increase our revenue by 7.3 per cent. Momentum in China, our key international market, continued to slow, with economic growth of 6.9 per cent year on year. In this environment, the markets for construction equipment and medium and heavy-duty trucks declined by approximately 44 per cent and 29 per cent respectively. By contrast, DEUTZ's revenue rose by 18.8 per cent and its unit sales by 14.4 per cent in the Asia-Pacific region. However, the revenue generated by our DEUTZ (Dalian) Engine Co., Ltd. joint venture, which is not included in consolidated revenue, dropped by 5.6 per cent year on year; its unit sales were down by a substantial 29.5 per cent.

[1] China Construction Machinery Association, January 2016; own estimates.
[2] Konjunkturbulletin of the German Engineering Federation (VDMA), November 2015.
[3] China Automotive Information Net, January 2016.

RESEARCH AND DEVELOPMENT

Research and development expenditure (after deducting grants)[1]

€ million (R&D ratio in %)

2015	**40.8**	**(3.3)**
2014	53.1	(3.5)
2013	52.6	(3.6)
2012	62.1	(4.8)
2011	84.6	(5.5)

[1] Spending on research and development after deducting grants received from major customers and development partners.

R&D spending scaled back as planned Expenditure on research and development in 2015 amounted to €49.5 million (2014: €68.7 million). After deducting grants received from major customers and development partners, expenditure was €40.8 million (2014: €53.1 million). The R&D ratio (after deducting grants), i.e. the ratio of net development expenditure to consolidated revenue, fell marginally as planned to 3.3 per cent (2014: 3.5 per cent). This decrease in R&D expenditure was largely due to all engines for the latest emissions standards, EU Stage IV/US Tier 4, having being launched in the market in 2014. In the year under review, 31.9 per cent of development expenditure after deducting grants was capitalised (2014: 49.5 per cent).

Spending by the DEUTZ Compact Engines segment after deducting grants came to €38.2 million (2014: €48.1 million) and that of the DEUTZ Customised Solutions segment came to €2.6 million (2014: €5.0 million).

Stage V ready During previous years, we had completely overhauled our engine portfolio for the EU Stage IV/US Tier 4 emissions standards. This has resulted in very compact engines, featuring low lifecycle costs and exhaust aftertreatment designs tailored to customer needs. Our engines in the 2.9 to 7.8 litre cubic capacity range that are equipped with diesel particulate filters already meet the next European emissions standard, EU Stage V, which is expected in 2019[4]. There are currently no plans for a further emissions standard in the USA.

[4] The EU Commission's Stage V proposals as published on 25 September 2014.