

QIAGEN reports results for Q1 2024 ahead of outlook, on track to achieve full-year 2024 guidance

- **Q1 2024: Net sales of \$459 million (-5% actual rates, -5% constant exchange rates, CER); diluted EPS of \$0.36 and adjusted diluted EPS of \$0.46**
 - **Net sales at CER of \$462 million ahead of outlook for at least \$455 million CER and adj. diluted EPS of \$0.47 CER ahead of \$0.44 CER outlook**
 - **Excluding COVID-19 product groups, net sales decline 1% CER**
 - **Diagnostics sales +5% CER on double-digit CER growth in QuantiFERON and QIAstat-Dx**
 - **25.7% adjusted operating income margin on efficiency gains vs. 25.6% in Q1 2023**
 - **Strong operating cash flow rises 85% to \$133 million vs. Q1 2023**
- **2024 outlook reaffirmed for at least \$2.0 billion CER net sales and adj. diluted EPS of at least \$2.10 CER**

Venlo, the Netherlands, April 29, 2024 – QIAGEN N.V. (NYSE: QGEN; Frankfurt Prime Standard: QIA) today announced results for the first quarter of 2024.

Net sales declined 5% to \$459 million, while results at constant exchanges rates (CER) of \$462 million were above the outlook for at least \$455 million CER. The adjusted operating income margin rose to 25.7% from 25.6% in the year-ago period on realized efficiency gains while supporting investments into the portfolio. Adjusted diluted earnings per share (EPS) were \$0.46, and results at CER were \$0.47 and above the outlook for at least \$0.44 CER.

For 2024, QIAGEN has reaffirmed its outlook for net sales of at least \$2.0 billion CER. Adjusted diluted EPS are expected to be at least \$2.10 CER, led by the adjusted operating income margin rising to above 28% of sales for FY 2024 compared to 26.9% in 2023 while supporting investments.

„Our results for the first quarter of 2024 show QIAGEN is on track to achieve the goals that we have set for the year. They also showcase the areas of resilient growth from our strategic investments – particularly with the double-digit sales growth in QuantiFERON, QIAstat-Dx and QIAcuity – as well as our commitment to improving efficiency,” said Thierry Bernard, Chief Executive Officer of QIAGEN.

„As we move on from the pandemic, we are steadfast in our commitment to driving innovation given our ongoing high level of R&D investments that help strengthen our portfolio. QuantiFERON sales continued to grow as we drive conversion of latent TB testing to the modern blood-based test. QIAstat-Dx sales were also robust, with growth in both respiratory and non-respiratory panels for syndromic testing. Building on the tremendous acceptance of QIAcuity among our customers, we are democratizing access to this powerful digital PCR technology and expanding into new oncology applications that can improve healthcare. As we navigate a challenging macro environment, we are well-positioned in 2024 and determined to deliver on our full-year outlook.“

Roland Sackers, Chief Financial Officer of QIAGEN, said: „Our strong operating income margin in Q1 2024 reflects our dedication to efficiency and growth-focused investments despite cautious instrument purchases. As we introduce new products and elevate customer engagement, our commitment to enhancing value for our shareholders remains strong. Having completed the \$300 million synthetic share repurchase in January, we continue to explore opportunities to maximize our business thanks to our healthy balance sheet and strong cash flow through disciplined capital allocation.“

Key figures

In \$ millions (Except EPS and diluted shares)	Q1		
	2024	2023	Change
Net sales	459	485	-5%
Net sales – CER	462		-5%
Operating income	95	97	-2%
Net income	81	85	-5%
Diluted EPS	\$0.36	\$0.37	-3%
Diluted shares (in millions)	227	231	
Adjusted operating income	118	124	-5%
Adjusted net income	104	117	-11%
Adjusted diluted EPS	\$0.46	\$0.51	-10%
Adjusted diluted EPS – CER	\$0.47		-8%

Please refer to accompanying tables in this release for full income statement information and a reconciliation of reported to adjusted figures. Tables may have rounding differences. Percentage changes are to prior-year periods.

- **Sales:** Q1 2024 results absorbed challenging macro demand trends, led by Diagnostic solutions sales rising 5% CER. Core sales declined 1% CER excluding pandemic sales in both periods. Results in Q1 2024 also absorbed the adverse impact of declining OEM sales over the prior year, but these sales are expected to normalize during the course of 2024 compared to 2023 levels. Consumables for the non-COVID product groups were unchanged from Q1 2023. Although instrument sales fell 9% CER due to cautious customer spending, placements under multi-year reagent rental agreements kept up a solid pace.
- **Operating income:** For Q1 2024, the adjusted operating income margin improved to 25.7% of sales from 25.6% in the year-ago period, as efficiency initiatives more than offset the lower level of sales in the 2024 period. In terms of components, the adjusted gross margin was 67.1% of sales in Q1 2024 compared to 67.3% in Q1 2023 amid initiatives to improve production capacity utilization. R&D investments were 11.2% of sales in Q1 2024 compared 11.3% in Q1 2023, remaining at a high level and supporting new product development, particularly for QIAcuity, QIAstat-Dx and the QIAGEN Digital Insights bioinformatics business. Sales and marketing expenses rose to 24.2% of sales in Q1 2024 from 23.6% in Q1 2023. General and administrative expenses fell to 6.0% of sales from 6.8% in Q1 2023.
- **EPS:** For Q1 2024, adjusted diluted EPS were \$0.46, while adjusted diluted EPS of \$0.47 CER were above the outlook for at least \$0.44 CER. The adjusted tax rate was 20% in Q1 2024 compared to 19% in the year-ago period. The number of diluted shares was 226.6 million for Q1 2024, in line with the outlook of 227 million diluted shares that included the reduction due to completion of the \$300 million synthetic share repurchase in January 2024.

Sales by product groups

	Q1			
In \$ millions	2024 sales	2023 sales	Change	CER change
Sample technologies	155	173	-11%	-10%
Diagnostic solutions	170	163	+5%	+5%
Of which QuantiFERON	101	92	+11%	+11%
Of which QIAstat-Dx	25	21	+19%	+21%
Of which NeuMoDx	9	13	-29%	-30%
Of which Other	35	37	-6%	-5%
PCR / Nucleic acid amplification	68	77	-12%	-12%
Genomics / NGS	55	55	-1%	0%
Other	11	17	-35%	-31%

Tables may have rounding differences. Percentage changes are to prior-year periods.

- **Sample technologies:** Q1 2024 results showed higher consumables sales for automated kits used on the QIA Symphony, QIAcube Connect and EZ2 instruments. Overall sales declined due to cautious capital investments among customers into new instruments, as well as the adverse impact of COVID pandemic demand in the year-ago period. Sales in the non-COVID product groups declined at a low-single-digit CER rate over Q1 2023.
- **Diagnostic solutions:** Q1 2024 results were driven by solid growth in consumables. QuantiFERON TB test sales rose 11% CER for another consecutive quarter above \$100 million, supported by solid demand trends in all regions amid conversion from the TB skin test that still represents the majority of worldwide testing. QIAstat-Dx system sales were up 21% CER to \$25 million from instrument placements and significant double-digit CER growth in consumables for both respiratory and non-respiratory panels.
- **PCR / Nucleic acid amplification:** QIAcuity digital PCR sales rose at a solid double-digit CER rate in Q1 2024 amid consumables demand and an ongoing high level of instrument placements. Overall sales declined over Q1 2023 mainly due to the OEM business, with sales trends expected to improve during the course of 2024.
- **Genomics / Next-generation sequencing (NGS):** Sales in Q1 2024 were unchanged at CER compared to Q1 2023. Modest gains were seen in sales of universal library preparation solutions for use with third-party NGS sequencers. QIAGEN Digital Insights (QDI) bioinformatics sales declined modestly in Q1 2024 due to the timing of a large customer contract, but are expected to grow at a double-digit CER pace for the year.

Key cash flow data

	3M		
In \$ millions	2024	2023	Change
Net cash provided by operating activities	133	72	+85%
Purchases of property, plant and equipment	(37)	(33)	10%
Free cash flow	97	39	+149%
Net cash provided by (used in) investing activities	6	(434)	NM
Net cash used in financing activities	(292)	(10)	NM

- **Net cash from operating activities** was \$133 million in the first three months of 2024 compared with \$72 million in the year-ago period. Results for 2024 reflected an overall decrease in working capital requirements, particularly lower accounts receivables. Free cash flow rose 149% to \$97 million, while Property, Plant & Equipment investments were 8% of sales compared to 7% in Q1 2023.

- As of March 31, 2024, **cash, cash equivalents and short-term investments** stood at \$893.1 million compared to \$1.1 billion as of December 31, 2023. Results for the 2024 period included the return of approximately \$300 million to shareholders in January 2024 through the synthetic share repurchase, which involved the repurchase of approximately 6.8 million outstanding shares. The leverage ratio was 0.9x (net debt to adjusted EBITDA) as of March 31, 2024, compared to 0.6x at December 31, 2023. QIAGEN has about \$500 million of convertible notes and \$100 million of German private placements (Schuldschein) reaching maturity in 2024.

Portfolio update

QIAGEN is building momentum in its Sample to Insight portfolio through targeted actions including:

Sample technologies

- The **PAXgene Urine Liquid Biopsy Set** is set for launch in mid-2024 as a non-invasive sampling approach for cell-free DNA in urine (ucfDNA). This technology holds the potential for detecting minimal residual disease, monitoring treatment response and identifying therapeutic targets.
- QIAGEN received two sustainability recognitions from **My Green Lab**, a non-profit organization focused on promoting sustainability in scientific research. A group of new **QIAwave Kits** received the **ACT Environmental Impact Factor Label**. Additionally, QIAGEN's Sample Technologies R&D lab in Hilden, Germany, achieved Platinum certification.

Diagnostic solutions

- QIAGEN has partnered with the **International Panel Physicians Association (IPPA)** to educate physicians worldwide on the latest tuberculosis screening requirements. The initiative will promote greater use of testing based on IGRA technology, such as QIAGEN's **QuantiFERON-TB Plus**. Another element involves supporting the global fight against TB and aligning the updated U.S. Centers for Diseases Control (CDC) guidelines for immigrant TB screening.
- The **QIAstat-Dx Analyzer 2.0** was launched as an upgrade to the QIAstat-Dx syndromic testing system. A new feature allows users to view, comment and confirm test results directly from their devices from anywhere. This upgrade aims to streamline connections between labs and healthcare professionals, ensuring timely and accurate diagnoses for improved patient care.

PCR / Nucleic Acid Amplification

- The **QIAcuity dPCR** portfolio was expanded with the launch of **PanCancer Kits**, which allow researchers to simultaneously detect multiple EGFR and BRAF mutations with high sensitivity. These mutations can result in cancer development. The Kits build on the increasing range of applications available for use on QIAcuity systems based on proprietary digital PCR technology.

Genomics / NGS

- **QIAGEN Biomedical KB-AI, an AI-driven knowledge base** for advancing drug discovery in the pharma and biotech industries, has been launched. Built on a vast dataset of biomedical literature and scientific sources, it extracts causal relationships between genes, diseases, drugs and biological entities. Developed by QIAGEN Digital Insights, this new software solution aids in understanding disease mechanisms, drug targets, biomarkers, and repurposing strategies.

Capital Markets Day 2024 planned for June 17

The Executive Committee of QIAGEN will hold a Capital Markets Day on Monday, June 17, 2024, to provide a strategy update and perspectives on mid-term ambitions. The event will be held at the New York Stock Exchange in New York. Please register at <https://capitalmarketsday2024.qiagen.com> to attend in person or online. An agenda and further details will be available closer to the event.

Outlook

For 2024, QIAGEN has reaffirmed its outlook for net sales of at least \$2.0 billion CER. This reflects full-year total growth of at least 2% CER, with solid mid-single-digit CER sales growth in H2 2024 in the non-COVID portfolio over the year-ago period. This outlook also includes about one percentage point of COVID-19 sales headwinds from 2023. Consumables and related revenues are expected to drive growth, while larger-scale instrument sales remain challenging. Adjusted diluted EPS are expected to be at least \$2.10 CER. This reflects an at least one percentage point improvement in the adjusted operating income margin to above 28% for FY 2024 compared to 26.9% in 2023 while supporting investments in the portfolio, in particular to accelerate growth in the QIAGEN Digital Insights bioinformatics business.

Based on exchange rates as of April 26, 2024, currency movements against the U.S. dollar are expected to have a largely neutral impact on full-year net sales, but an adverse impact of about \$0.01 per share on adjusted EPS results.

For Q2 2024, net sales are expected to be at least \$495 million CER, while adjusted diluted EPS are expected to be at least \$0.52 CER per share.

Based on exchange rates as of April 26, 2024, currency movements against the U.S. dollar are expected to have a largely neutral impact on Q2 2024 net sales, but a negative impact of about \$0.01 per share on adjusted EPS results.

Investor presentation and conference call

A conference call is planned for **Tuesday, April 30, 2024 at 15:00 Frankfurt Time / 14:00 London Time / 9:00 New York Time**. A live audio webcast will be made available in the investor relations section of the QIAGEN website, and a recording will also be made available after the event. A presentation will be available before the conference call at <https://corporate.qiagen.com/investor-relations/events-and-presentations/default.aspx>.

Use of adjusted results

QIAGEN reports adjusted results, as well as results on a constant exchange rate (CER) basis, and other non-U.S. GAAP figures (generally accepted accounting principles), to provide additional insight into its performance. These results include adjusted net sales, adjusted gross income, adjusted gross profit, adjusted operating income, adjusted operating expenses, adjusted operating income margin, adjusted net income, adjusted net income before taxes, adjusted diluted EPS, adjusted EBITDA, adjusted EPS, adjusted income taxes, adjusted tax rate, and free cash flow. Free cash flow is calculated by deducting capital expenditures for Property, Plant & Equipment from cash flow from operating activities. Adjusted results are non-GAAP financial measures that QIAGEN believes should be considered in addition to reported results prepared in accordance with GAAP but should not be considered as a substitute. QIAGEN believes certain items should be excluded from adjusted results when they are outside of ongoing core operations, vary significantly from period to period, or affect the comparability of results with competitors and its own prior periods. Furthermore, QIAGEN uses non-GAAP and constant currency financial measures internally in planning, forecasting and reporting, as well as to measure and compensate employees. QIAGEN also uses adjusted results when comparing current performance to historical operating results, which have consistently been presented on an adjusted basis.

About QIAGEN

QIAGEN N.V., a Netherlands-based holding company, is the leading global provider of Sample to Insight solutions that enable customers to gain valuable molecular insights from samples containing the building blocks of life. Our sample technologies isolate and process DNA, RNA and proteins from blood, tissue and other materials. Assay technologies make these biomolecules visible and ready for analysis. Bioinformatics software and knowledge bases interpret data to report relevant, actionable insights. Automation solutions tie these together in seamless and cost-effective workflows. QIAGEN provides solutions to more than 500,000 customers around the world in Molecular Diagnostics (human healthcare) and Life Sciences (academia, pharma R&D and industrial applications, primarily forensics). As of March 31, 2024, QIAGEN employed more than 5,900 people in over 35 locations worldwide. Further information can be found at <https://www.qiagen.com>.

Forward-Looking Statement

Certain statements contained in this press release may be considered forward-looking statements within the meaning of Section 27A of the U.S. Securities Act of 1933, as amended, and Section 21E of the U.S. Securities Exchange Act of 1934, as amended. To the extent that any of the statements contained herein relating to QIAGEN's products, timing for launch and development, marketing and/or regulatory approvals, financial and operational outlook, growth and expansion, collaborations, markets, strategy or operating results, including without limitation its expected adjusted net sales and adjusted diluted earnings results, are forward-looking, such statements are based on current expectations and assumptions that involve a number of uncertainties and risks. Such uncertainties and risks include, but are not limited to, risks associated with management of growth and international operations (including the effects of currency fluctuations, regulatory processes and dependence on logistics), variability of operating results and allocations between customer classes, the commercial development of markets for our products to customers in academia, pharma, applied testing and molecular diagnostics; changing relationships with customers, suppliers and strategic partners; competition; rapid or unexpected changes in technologies; fluctuations in demand for QIAGEN's products (including fluctuations due to general economic conditions, the level and timing of customers' funding, budgets and other factors); our ability to obtain regulatory approval of our products; difficulties in successfully adapting QIAGEN's products to integrated solutions and producing such products; the ability of QIAGEN to identify and develop new products and to differentiate and protect our products from competitors' products; market acceptance of QIAGEN's new products and the integration of acquired technologies and businesses; actions of governments, global or regional economic developments, weather or transportation delays, natural disasters, political or public health crises, and its impact on the demand for our products and other aspects of our business, or other force majeure events; as well as the possibility that expected benefits related to recent or pending acquisitions may not materialize as expected; and the other factors discussed under the heading „Risk Factors” contained in Item 3 of our most recent Annual Report on Form 20-F. For further information, please refer to the discussions in reports that QIAGEN has filed with, or furnished to, the U.S. Securities and Exchange Commission.

Contacts

John Gilardi
Vice President, Head of Corporate Communications and Investor Relations
+49 2103 29 11711 / john.gilardi@qiagen.com

Phoebe Loh
Senior Director, Global Investor Relations
+49 2103 29 11457 / phoebe.loh@qiagen.com

Dr. Domenica Martorana
Associate Director, Global Investor Relations
+49 2013 29 11244 / domenica.martorana@qiagen.com

Dr. Thomas Theuringer
Senior Director, Head of External Communications
+49 2103 29 11826 / thomas.theuringer@qiagen.com

QIAGEN N.V. SALES OVERVIEW

	Q1			
(In \$ millions)	2024 sales	2023 sales	Change	CER change
Total net sales	459	485	-5%	-5%
By product group				
Sample technologies	155	173	-11%	-10%
Diagnostic solutions	170	163	+5%	+5%
<i>Of which QuantiFERON</i>	101	92	+11%	+11%
<i>Of which QIAstat-Dx</i>	25	21	+19%	+21%
<i>Of which NeuMoDx</i>	9	13	-29%	-30%
<i>Of which Other</i>	35	37	-6%	-5%
PCR / Nucleic acid amplification	68	77	-12%	-12%
Genomics / NGS	55	55	-1%	0%
Other	11	17	-35%	-31%
By customer class				
Molecular Diagnostics	244	250	-3%	-2%
Life Sciences	215	235	-8%	-8%
By product type				
Consumables and related revenues	409	431	-5%	-4%
Instruments	50	55	-10%	-9%
By geographic region				
Americas	234	247	-5%	-5%
Europe / Middle East / Africa	153	155	-2%	-2%
Asia-Pacific / Japan / Rest of World ⁽¹⁾	72	83	-13%	-9%

⁽¹⁾ Rest of World represented less than 1% of sales.

Tables may have rounding differences. Percentage changes are to prior-year periods.

QIAGEN N.V.
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(unaudited)

	Three months ended March 31,	
(In \$ thousands, except per share data)	2024	2023
Net sales	\$458,796	\$485,398
Cost of sales:		
Cost of sales	151,734	161,906
Acquisition-related intangible amortization	16,073	16,016
Total cost of sales	167,807	177,922
Gross profit	290,989	307,476
Operating expenses:		
Sales and marketing	111,121	114,641
Research and development	51,333	54,718
General and administrative	27,568	32,939
Acquisition-related intangible amortization	2,722	2,657
Restructuring, acquisition, integration and other, net	3,298	5,811
Total operating expenses	196,042	210,766
Income from operations	94,947	96,710
Other income (expense):		
Interest income	17,758	18,008
Interest expense	(10,292)	(14,454)
Other (expense) income, net	(123)	8,523
Total other income, net	7,343	12,077
Income before income tax expense	102,290	108,787
Income tax expense	21,617	23,752
Net income	\$80,673	\$85,035
Diluted earnings per common share	\$0.36	\$0.37
Diluted earnings per common share (adjusted)	\$0.46	\$0.51
Shares used in computing diluted earnings per common share	226,572	230,602

QIAGEN N.V.
RECONCILIATION OF REPORTED TO ADJUSTED RESULTS
(In \$ millions, except EPS data)
(unaudited)

Three months ended March 31, 2024	Net Sales	Gross Profit	Operating Income	Pre-tax Income	Income Tax	Tax Rate	Net Income	Diluted EPS*
Reported results	458.8	291.0	94.9	102.3	(21.6)	21%	80.7	\$0.36
Adjustments:								
Business integration, acquisition and restructuring related items (a)	—	0.7	4.1	4.1	(1.0)		3.1	0.01
Purchased intangibles amortization	—	16.1	18.8	18.8	(4.6)		14.2	0.06
Non-cash interest expense charges (b)	—	—	—	4.7	—		4.7	0.02
Non-cash other income, net (c)	—	—	—	(0.1)	—		(0.1)	0.00
Certain income tax items (d)	—	—	—	—	1.0		1.0	0.00
Total adjustments	—	16.8	22.9	27.5	(4.6)		22.9	0.10
Adjusted results	458.8	307.8	117.8	129.8	(26.2)	20%	103.6	\$0.46

*Using 226.6 M diluted shares

Three months ended March 31, 2023	Net Sales	Gross Profit	Operating Income	Pre-tax Income	Income Tax	Tax Rate	Net Income	Diluted EPS*
Reported results	485.4	307.5	96.7	108.8	(23.8)	22%	85.0	\$0.37
Adjustments:								
Business integration, acquisition and restructuring related items (a)	—	3.0	8.8	8.8	(2.2)		6.6	0.03
Purchased intangibles amortization	—	16.0	18.7	18.7	(4.6)		14.1	0.06
Non-cash interest expense charges (b)	—	—	—	8.3	—		8.3	0.04
Non-cash other income, net (c)	—	—	—	(0.4)	—		(0.4)	0.00
Certain income tax items (d)	—	—	—	—	3.3		3.3	0.01
Total adjustments	—	19.0	27.5	35.4	(3.5)		31.9	0.14
Adjusted results	485.4	326.5	124.2	144.2	(27.3)	19%	116.9	\$0.51

*Using 230.6 M diluted shares

Please see footnotes for these tables below.

(a) Results for 2024 include costs for acquisition projects, including continued integration of Verogen Inc. Results for 2023 include acquisition projects including continued integration activities at BLIRT S.A. and the Q1 2023 acquisition of Verogen.

(b) Cash Convertible Notes were recorded at an original issue discount that is recognized as incremental non-cash interest expense over the expected life of the notes.

(c) Adjustment includes the net impact of changes in fair value of the Call Options and the Embedded Cash Conversion Options related to the Cash Convertible Notes.

(d) Includes the impact of the estimated annual effective tax rate applied to the pretax amount in order to calculate the non-GAAP provision for income taxes. Additionally, certain income tax items were excluded from adjusted results that represent updates in QIAGEN's assessment of ongoing examinations or other tax items that are not indicative of the Company's normal future income tax expense.

Tables may contain rounding differences.

QIAGEN N.V.
CONDENSED CONSOLIDATED BALANCE SHEETS

(In \$ thousands, except par value)	March 31, 2024	December 31, 2023
Assets	(unaudited)	
Current assets:		
Cash and cash equivalents	\$513,670	\$668,084
Short-term investments	379,463	389,698
Accounts receivable, net	343,892	381,877
Inventories, net	401,745	398,385
Prepaid expenses and other current assets	251,992	309,516
Total current assets	1,890,762	2,147,560
Long-term assets:		
Property, plant and equipment, net	762,530	765,037
Goodwill	2,448,916	2,475,732
Intangible assets, net	502,006	526,821
Fair value of derivative instruments - long-term	7,187	3,083
Other long-term assets	194,528	196,957
Total long-term assets	3,915,167	3,967,630
Total assets	\$5,805,929	\$6,115,190
Liabilities and equity		
Current liabilities:		
Current portion of long-term debt	\$590,523	\$587,970
Accrued and other current liabilities	359,314	407,168
Accounts payable	75,329	84,155
Total current liabilities	1,025,166	1,079,293
Long-term liabilities:		
Long-term debt, net of current portion	912,814	921,824
Fair value of derivative instruments - long-term	55,677	98,908
Other long-term liabilities	212,643	207,401
Total long-term liabilities	1,181,134	1,228,133
Equity:		
Common shares, 0.01 EUR par value, authorized—410,000 shares, issued—223,904 and 230,829 shares, respectively	2,601	2,702
Additional paid-in capital	1,636,154	1,915,115
Retained earnings	2,486,139	2,456,800
Accumulated other comprehensive loss	(424,156)	(433,830)
Less treasury stock, at cost — 2,057 and 2,627 shares, respectively	(101,109)	(133,023)
Total equity	3,599,629	3,807,764
Total liabilities and equity	\$5,805,929	\$6,115,190

QIAGEN N.V.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)

	Three Months Ended March 31,	
(In \$ thousands)	2024	2023
Cash flows from operating activities:		
Net income	\$80,673	\$85,035
Adjustments to reconcile net income to net cash provided by operating activities, net of effects of businesses acquired:		
Depreciation and amortization	54,330	52,061
Amortization of debt discount and issuance costs	5,055	8,537
Share-based compensation expense	13,831	14,148
Deferred tax benefit	(383)	(4,341)
Other items, net including fair value changes in derivatives	(2,089)	(9,362)
Change in operating assets, net	1,309	(15,278)
Change in operating liabilities, net	(19,648)	(58,874)
Net cash provided by operating activities	133,078	71,926
Cash flows from investing activities:		
Purchases of property, plant and equipment	(36,541)	(33,220)
Purchases of intangible assets	(1,819)	(5,189)
Purchases of short-term investments	(184,027)	(534,488)
Proceeds from redemptions of short-term investments	192,631	295,816
Cash paid for acquisitions, net of cash acquired	—	(148,382)
Cash received (paid) for collateral asset	37,695	(6,980)
Purchases of investments, net	(1,508)	(1,404)
Net cash provided by (used in) investing activities	6,431	(433,847)
Cash flows from financing activities:		
Capital repayment	(292,099)	—
Proceeds from issuance of common shares	—	75
Cash received (paid) for collateral liability	805	(9,903)
Other financing activities	(794)	—
Net cash used in financing activities	(292,088)	(9,828)
Effect of exchange rate changes on cash and cash equivalents	(1,835)	260
Net decrease in cash and cash equivalents	(154,414)	(371,489)
Cash and cash equivalents, beginning of period	668,084	730,669
Cash and cash equivalents, end of period	\$513,670	\$359,180
Reconciliation of free cash flow ⁽¹⁾		
Net cash provided by operating activities	\$133,078	\$71,926
Purchases of property, plant and equipment	(36,541)	(33,220)
Free cash flow	\$96,537	\$38,706

⁽¹⁾ Free cash flow is a non-GAAP financial measure and is calculated from net cash provided by operating activities reduced by purchases of property, plant and equipment.