

# TOSHIBA

## **FY2018 ended March 31, 2019 Financial Results**

Toshiba Memory Holdings Corporation  
May 13, 2019 (Corrected August 9, 2019)

# Disclaimer

On April 1, 2017, Toshiba Corporation spun off its memory business into the former Toshiba Memory Corporation ("Former TMC"). On June 1, 2018, Toshiba Corporation sold all of the shares of Former TMC to K.K. Pangea, a special purpose acquisition company formed by a consortium led by Bain Capital Private Equity, LP, and as a result, Former TMC became a wholly-owned subsidiary of K.K. Pangea. On August 1, 2018, K.K. Pangea merged with Former TMC, with K.K. Pangea as the legally surviving entity. On the same date, K.K. Pangea was renamed Toshiba Memory Corporation ("TMC"). On March 1, 2019, Toshiba Memory Holdings Corporation ("TMCHD" or "we") was established as the holding company for TMC through a sole-share transfer, whereby TMC's then-existing shareholders became the shareholders of TMCHD and TMC became a wholly-owned subsidiary of TMCHD.

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# Financial Results Overview<sup>(1)</sup>

[billion yen]	FY18 Q3 (TMC)	FY18 Q4 (TMCHD <sup>(2)</sup> )	QoQ	FY17 (Former TMC)	FY18		
					① 18/4-18/5 (Former TMC) <sup>(3)</sup>	② 18/6-19/3 (TMCHD) <sup>(2)(6)</sup>	①+② (Sum) <sup>(7)</sup>
Sales	310.6	247.0	(63.6)	1,229.4	189.4	1,074.5	1,263.9
Operating Income	54.0	(28.4)	(82.4)	456.8	70.4	45.9	116.3
Margin	17%	(11)%	(29)pt	37%	37%	4%	9%
Net Income	29.9	(19.3)	(49.2)	718.6	48.9	11.6	60.5
Margin	10%	(8)%	(17)pt	58%	26%	1%	5%
Depreciation and Amortization	97.1	100.8	+3.7	179.1	36.1	319.0	355.1
PPA Impact <sup>(4)</sup>	(27.2)	(26.1)	+1.1	0	0	(227.2)	(227.2)
Income Tax <sup>(5)</sup>	11.3	(20.7)	(32.0)	(259.0)	20.7	(7.8)	12.9

1. Based on the audited consolidated financial statements of Former TMC for FY17, FY18 Q3 and FY18 Q4, and the unaudited consolidated financial reports of Former TMC and TMCHD for FY18. All figures are prepared under IFRS.

2. TMCHD has assumed the financial reports of TMC, which became TMCHD's wholly-owned subsidiary through a sole-share transfer on March 1, 2019.

3. Based on the financial reports of Former TMC as a wholly-owned subsidiary of Toshiba Corporation, before the acquisition by K.K. Pangea.

4. Amount of financial impact of PPA on operating income, which was caused by the acquisition of Former TMC by K.K. Pangea (refer to p5 for details).

5. Income tax for FY17: current income taxes 75.6 billion yen + deferred income taxes (334.6) billion yen including the aggregate amount of four-year tax effect of tax deductible goodwill resulting from a non-tax-qualified spin off of the memory business in April 2017 (310.4 billion yen).

6. Based on the unaudited consolidated financial reports of TMCHD from April 2018 to March 2019, which includes the income statement impact of K.K. Pangea's financing activities during the first two months of the period. The period June 2018 to March 2019 is referred to in the table above because the results for April and May 2018 do not include the results of Former TMC, which operated the substantive business during those two months.

7. The figures are presented on a simple, combined basis, and adjustments that are necessary to enable a strict comparison against the previous year's figures have not been made.

# Highlights (1/3)

## Recent Sales Trends

	FY18 Q3	FY18 Q4
Bit growth (QoQ)	Lower teens % increase	Mid single digit % range decline
ASP (QoQ)	Mid 20% range decline	Mid 20% range decline

- Weak datacenter- and smartphone-related demand due to seasonality
- GB shipments decreased due to reduction of 15 nm NAND production
- Ratio of BiCS FLASH™ production surpassed 90% in March 2019 (bit basis)
- ASP continued to decline since late 2018

## Establishment of Toshiba Memory Holdings Corporation

- Under our new structure, TMCHD was established on March 1, 2019, aiming to contribute to the value of TMC and its respective subsidiary companies, including by strengthening governance through enhanced management and oversight of group companies, including TMC, and by assuming responsibility for group strategy including M&A, resource allocation, risk management, fund raising, etc.

## Products and Technology Development

- Developed 96-layer BiCS FLASH™ with QLC Technology (July 20, 2018)
- Started shipment of SSD “XG6 Series” utilizing 96-layer BiCS FLASH™ (July 24, 2018)
- Started shipment of NVMe™ SSD “BG4 Series” which places both 96-layer BiCS FLASH™ and an all-new controller into one package (January 9, 2019)
- Developed new bridge chip utilizing PAM4 for high-speed and high-capacity SSD (February 21, 2019)
- Started shipment of embedded flash memory products for automotive applications utilizing BiCS FLASH™ (March 26, 2019)

# Highlights (2/3)

## PPA Impact Overview

### PPA Impact

	(billion yen)
Preliminary balance of goodwill before reflecting PPA	784.1
(Effects of PPA)	
①Inventories	-) 138.8
②Fixed assets	-) 429.5
③Deferred tax liabilities	+) 172.0
Balance of goodwill after reflecting PPA	387.8

### Impact of PPA on Operating Income/Net Income

(billion yen)	Q1 (Includes only June)	Q2	Q3	Q4	FY18
①Cost impact from increased inventory	(50.0)	(88.8)	-	-	(138.8)
②Depreciation/amortization cost impact from increased fixed assets, etc.	(8.3)	(26.8)	(27.2)	(26.1)	(88.4)
<b>PPA Impact (Operating Income)</b>	<b>(58.3)</b>	<b>(115.6)</b>	<b>(27.2)</b>	<b>(26.1)</b>	<b>(227.2)</b>
Tax effect	+17.7	+35.0	+8.2	+7.9	+68.8
<b>PPA Impact (Net Income)</b>	<b>(40.6)</b>	<b>(80.6)</b>	<b>(19.0)</b>	<b>(18.2)</b>	<b>(158.4)</b>

- We completed the purchase price allocation (PPA) in FY18 Q3 based on the fair value as of the date Former TMC was acquired (June 1, 2018), which resulted in fair value adjustments that retroactively increased inventory and fixed assets by 138.8 billion yen and 429.5 billion yen, respectively, as of June 1, 2018. (\*)
- PPA impact on FY18 results of operations is described in the upper right chart. We expect to record additional fixed asset depreciation/amortization costs, etc., due to the effects of PPA of approximately 100 billion yen/year from FY19 to FY21, which together will cover more than 95% of the total depreciation/amortization costs, etc., in relation to PPA.

(\*) There are some differences from the related information released by Toshiba Corporation due to differences in accounting standards.

# Highlights (3/3)

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## Industry/Market Trends and Outlook

- On the supply side, memory manufacturers reduced flash memory production through lower capital expenditures and lower fab utilization. On the demand side, general market expectations are for inventory levels to begin normalizing from the second half of CY19 driven by an accelerated replacement of HDDs with SSDs and a continued increase in the amount of storage per smartphone due to the decline of ASP and the recovery of datacenter-related demand.
- We significantly reduced our capital expenditures (order based) in FY18 compared to the previous year in light of trends in the flash memory market. We made investments related to the shift to 96-layer BiCS FLASH™ at our Fab6 in Yokkaichi, Mie Prefecture and for the construction of our new fab in Kitakami, Iwate Prefecture. We view these investments as necessary for the enhancement of cost efficiencies and business competitiveness

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