



Harmonic Drive Systems Inc.

Financial Results for the Fiscal Year Ended March 31, 2020

May 22, 2020

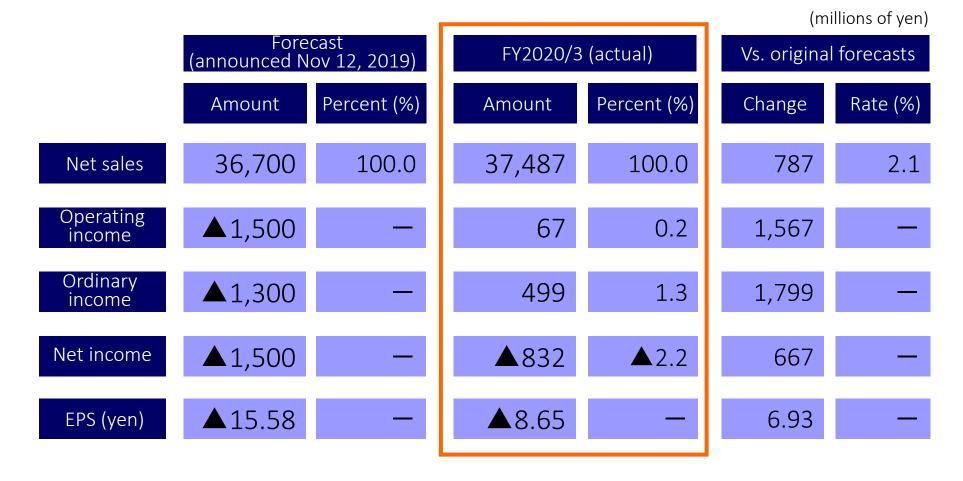
This presentation contains forward-looking statements relating to expected future performance as of May 22, 2020. Such statements are based on the views and assumptions of company management and involve risks and uncertainties such as changes in the business environment that may cause the actual results to differ materially from expectations.



Performance Summary for FY 2020/3



Consolidated results for FY 2020/3 (versus original forecasts)



Net income refers to net income attributable to owners of parent.





Consolidated results for FY 2020/3 (year-on-year change)

| | | | (millions of yen) | | | |
|-----------------------|----------|-------------|-------------------|--------------|---------------------|---------------|
| | FY2019/3 | | FY2020/3 | | Year-on-year change | |
| | Amount | Percent (%) | Amount | Percent (%) | Change | Rate (%) |
| Net sales | 67,809 | 100.0 | 37,487 | 100.0 | ▲30,321 | ▲ 44.7 |
| Operating income | 16,903 | 24.9 | 67 | 0.2 | ▲ 16,836 | ▲99.6 |
| Ordinary income | 17,464 | 25.8 | 499 | 1.3 | ▲ 16,965 | ▲ 97.1 |
| Net income | 11,601 | 17.1 | ▲832 | ▲ 2.2 | ▲ 12,434 | _ |
| EPS (yen) | 120.52 | _ | ▲8.65 | _ | ▲ 129.17 | _ |
| Capital investment | 23,876 | _ | 7,892 | _ | ▲ 15,983 | ▲ 66.9 |
| Depreciation costs | 6,247 | _ | 7,467 | _ | 1,220 | 19.5 |
| R&D costs | 2,476 | _ | 2,195 | _ | ▲280 | ▲ 11.3 |

Net income refers to net income attributable to owners of parent.

Depreciation costs include depreciation cost of tangible assets and amortization cost of intangible assets and goodwill.





Performance of main group companies in FY2020/3

(millions of yen)

| | | Equity | Net s | sales | Net ir | icome |
|----------|--|---------------|--------|-------------------------|--------------|-------------------------|
| | | stake | Amount | Year-on-year change (%) | Amount | Year-on-year change (%) |
| | Harmonic Drive Systems Inc. | - | 19,788 | ▲59.8 | ▲ 160 | _ |
| *2 *5 | HD Systems, Inc. (Harmonic Drive L.L.C.) (U.S.A) | 100% (51%) | 6,258 | ▲8.7 | 364 | ▲26.2 |
| | Harmonic AD, Inc. | 100% | 1,779 | ▲ 47.2 | 14 | ▲ 96.0 |
| *3 | Harmonic Drive Systems (Shanghai) Co., Ltd. | 100% | 3,330 | ▲ 17.7 | 199 | 2.6 |
| *4 *6 | Harmonic Drive SE (Germany) | 74.7% | 12,744 | ▲20.1 | 441 | ▲81.1 |

^{*1} For overseas subsidiaries, the fiscal year ends December 31.

^{*6} The figures for Harmonic Drive SE are on a consolidated basis, including results of its subsidiaries; net income is before excluding non-controlling interests.





^{*2} Exchange rates: FY18/12 1USD = 110.43yen, FY19/12 1USD = 109.05yen

^{*3} Exchange rates: FY18/12 1CNY = 16.72yen, FY19/12 1CNY = 15.78yen

^{*4} Exchange rates: FY18/12 1EUR = 130.42yen, FY19/12 1EUR = 122.07yen

^{*5} Net income of US subsidiaries (consolidated) is after excluding non-controlling interests.

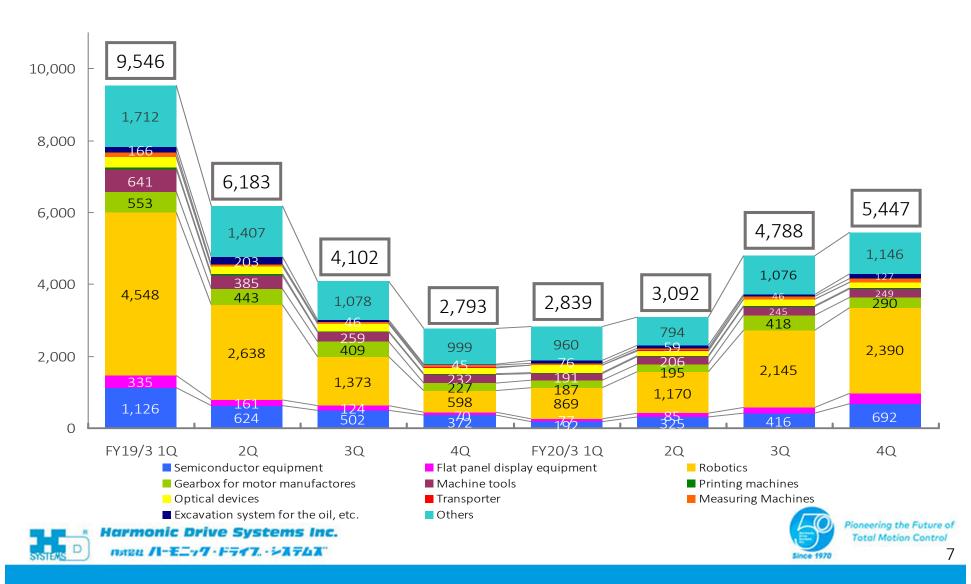
Non-consolidated results for FY2020/3 (year-on-year change)

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| | FY2019/3 | | FY2020/3 | | Year-on-year change | |
|-----------------------|----------|-------------|--------------|-------------|---------------------|---------------|
| | Amount | Percent (%) | Amount | Percent (%) | Change | Rate (%) |
| Net sales | 49,249 | 100.0 | 19,788 | 100.0 | ▲ 29,461 | ▲ 59.8 |
| Operating income | 13,798 | 28.0 | 380 | 1.9 | ▲ 13,418 | ▲97.2 |
| Ordinary income | 14,213 | 28.9 | 848 | 4.3 | ▲ 13,365 | ▲ 94.0 |
| Net income | 10,413 | 21.1 | ▲ 173 | ▲0.9 | ▲ 10,587 | _ |
| EPS (yen) | 108.18 | _ | ▲ 1.8 | _ | ▲ 109.98 | _ |
| Capital investment | 15,945 | _ | 5,022 | _ | ▲ 10,922 | ▲68.5 |
| Depreciation costs | 2,458 | _ | 3,289 | _ | 830 | 33.8 |
| R&D costs | 1,629 | _ | 1,572 | _ | ▲ 56 | ▲3.5 |

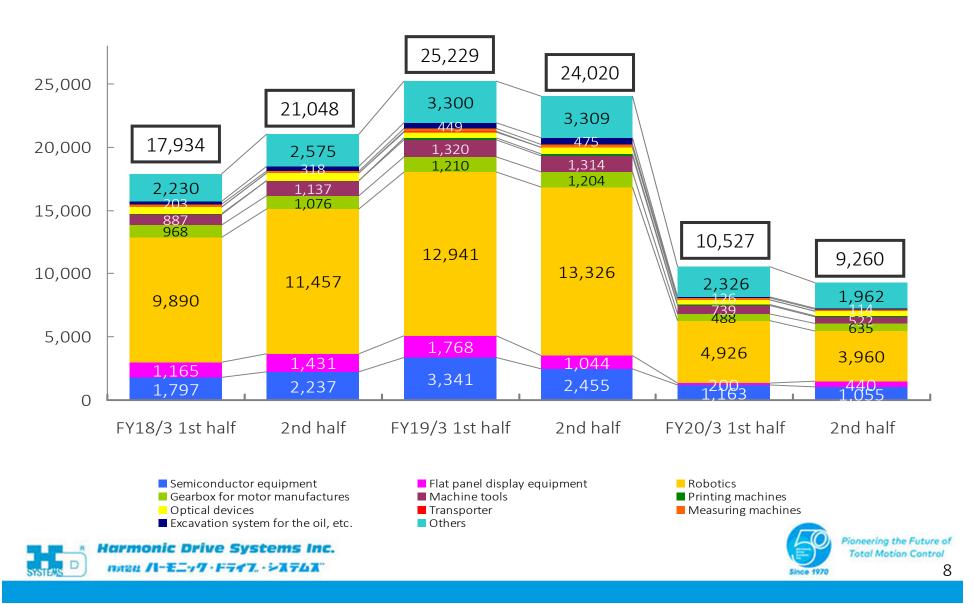
Non-consolidated bookings by application (quarterly)

(millions of yen)

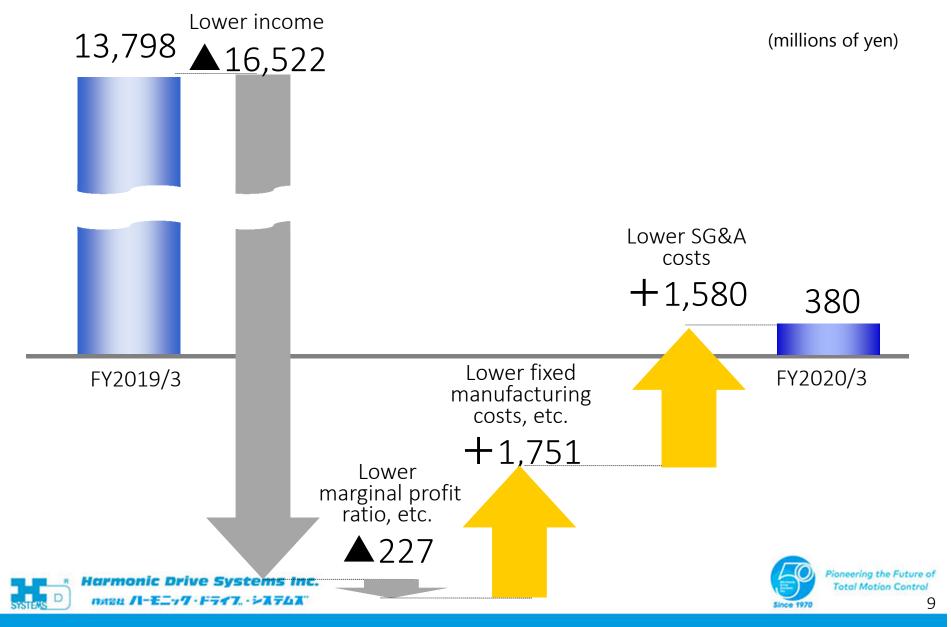


Non-consolidated net sales by application (half-yearly)

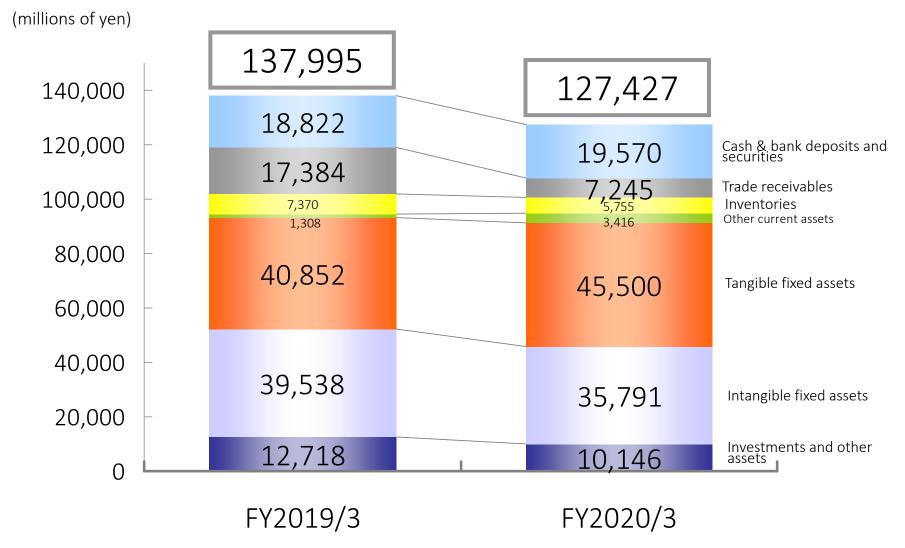
(millions of yen)



Factors in year-on-year change in non-consolidated operating income (FY2020/3)



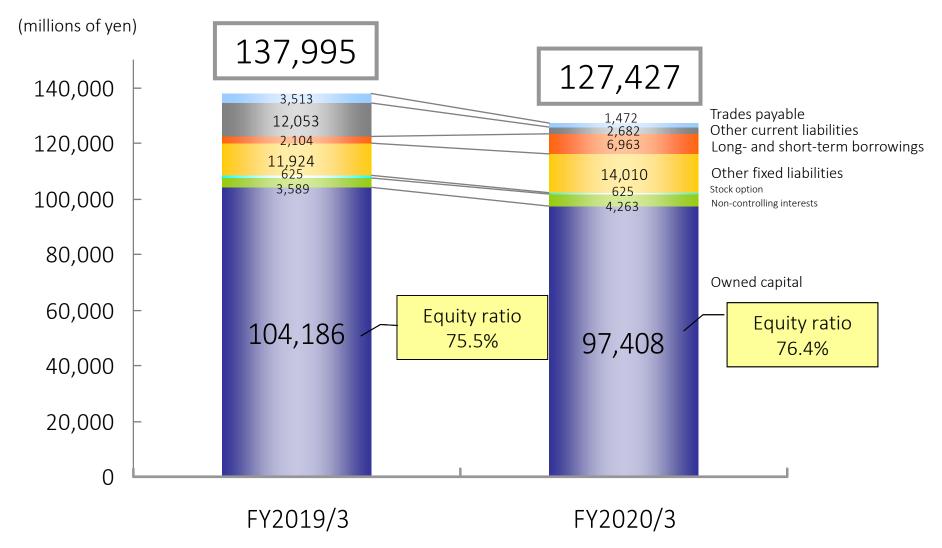
Status of consolidated assets







Status of consolidated liabilities and net assets







Status of consolidated cash flows

| (millions of yen) | FY2019/3 | FY2020/3 |
|--|-----------------|-----------------|
| Cash flow from operating activities | 15,121 | 9,769 |
| Cash flow from investing activities | ▲ 22,399 | ▲ 11,357 |
| Cash flow from financing activities | ▲ 3,271 | 2,362 |
| Effect of exchange rate changes on cash and cash equivalents | ▲ 171 | ▲ 33 |
| Net increase (decrease) in cash and cash equivalents | ▲ 10,720 | 742 |
| Cash and cash equivalents at end of year | 17,600 | 18,342 |





Status of Initiatives Outlined in Medium-term Management Plan FY2018–FY2020



Basic policies of medium-term management plan spanning FY2018 to FY2020

50th Anniversary of Founding

Seize rapidly expanding growth opportunities and advance to next stage



Significantly increase global production capacity

Kaise capabilities of Group companies to strengthen all-around abilities

increase customer satisfaction by raising QCDS capabilities

Strengthen management foundation to support future growth





(1) Significantly increase global production capacity

(2) Raise capabilities of Group companies

1. Strain wave gearing devices (Numbers indicate units produced per month) To Jan. 2017 Aug. 2017 Apr. 2018 Mar. 2019 (peak) Target production capacity Hotoka Factory Total for two 130,000+ 85,000+ 66,000 factories: Ariake Factory Japan: Ariake Factory 200,000 (new factory building) Harmonic **Drive Systems** Inc. 120,000-150,000 Limburg Factory Germany: 15.000+ 30,000-10,000+ Harmonic 50,000 Drive SE **Boston Factory** US: 10,000-Harmonic 30,000 Drive LLC Total: 240,000-120,000-Total: 98,000+ Total: 148,000+ 2. Crossed roller bearings 280.000 150.000 Current factory Japan: 150,000 Harmonic Precision Corp. Limburg Factory Germany: New factory 10,000+ 30,000 Harmonic Drive SE Total: 80,000+ Total: 70,000+ Total: 180,0



Harmonic Drive Systems Inc. nsteu バーモニック・ドライス・システムズ

Pioneering the Future of **Total Motion Control**

(3) Raising QCDS capabilities to increase customer satisfaction — 1

Issue

Need to normalize and shorten lead time from receipt of order to product shipment

Initiatives

- (1) Expand production capacity at all production sites
- (2) Promote production automation by introducing advanced technologies and strengthening quality controls
- (3) Strengthen cooperation and support in our supply chain

Results & future initiatives

- Completely normalized lead time
- (4) Further reduction of lead time
 - Decided to implement new production management system; preparations now underway





(3) Raising QCDS capabilities to increase customer satisfaction — 2

Expand applications

- Surgical robots
- Power-assist
- Mobility
- Aerospace

New products

- Small
- Lightweight

Research

- Joint R&D with external research institutes
- Mutual use of Group resources

Strengthen tech proposal capability and support system

(4) Strengthen management foundation to support future growth

Initiatives for a work environment that prioritizes safety and security

- Greatest consideration for worksites that support manufacturing
- Put in place a telework environment

Maintain stable production system

- Demonstrate true value and power of technology and skills accumulated over many years
- Create a system that can withstand demand fluctuations
- Tangible and intangible support for partner companies

Strive for sound cash flows

- Halt unnecessary investments and thoroughly review expenses
- Sign contract for ¥8.5 billion commitment line





Currently Anticipated Operating Environment





Our operating environment

Consolidated bookings gradually recovering



Coronavirus impact negligible as of end-FY2019

- (1) Supply chain in good shape
- (2) Labor-saving investment related demand is firm



(3) Managing business with awareness of possible sudden sharp reductions in demand

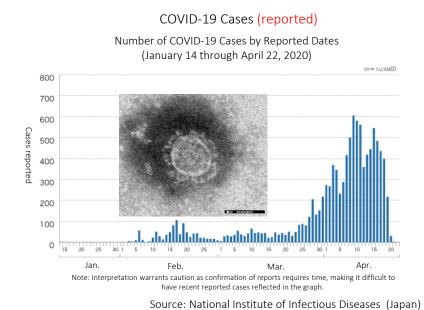




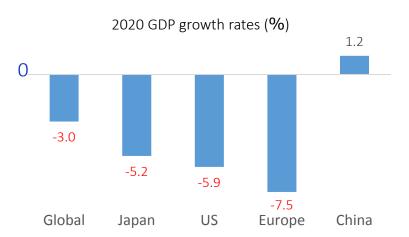
General social conditions

We expect the "corona shock" to subside but assume prolongation of severe social conditions

- 1. Unprecedented economic turmoil (concerns that global economic indicators will suffer biggest drops since the Great Depression)
- 2. Worldwide concerns about employment (fears of unemployment rates in excess of 10% in developed countries) could cause stagnation in consumer activities (middle class' concerns about future could prompt them to postpone or forego purchases)
- 3. Growing concern that rekindling of US-China trade friction could fragment the global economy
- 4. Uncertain post-coronavirus social structure



IMF Forecast of Coronavirus' Economic Impact (Economic growth rates assuming pandemic subsided in 2H 2020)



Source: HDIS, based on IMF materials





Basic policy in response to the "corona shock"

Safety and security of employees and stakeholders is No. 1 priority

- Above all else, protect lives and health
- Prioritize safety and business continuity over immediate efficiency
- Promote teleworking and dispersion in onsite work environments

Steadfast maintenance of production system

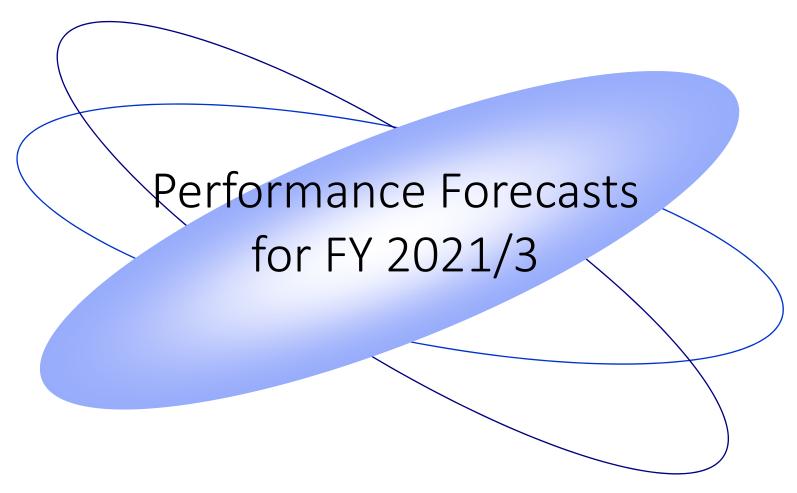
- Effectively use assets, such as new factory wing, to promote social distancing and ensure safety
- Maintain fundamental production system to meet expected increase in demand after the coronavirus subsides
- Protect our supply chain

Secure funding to support long-term management

- Secure additional commitment lines of credit
- Halt unnecessary investments and thoroughly review expenses
- Strengthen fund procurement system to ensure ability to secure needed capital









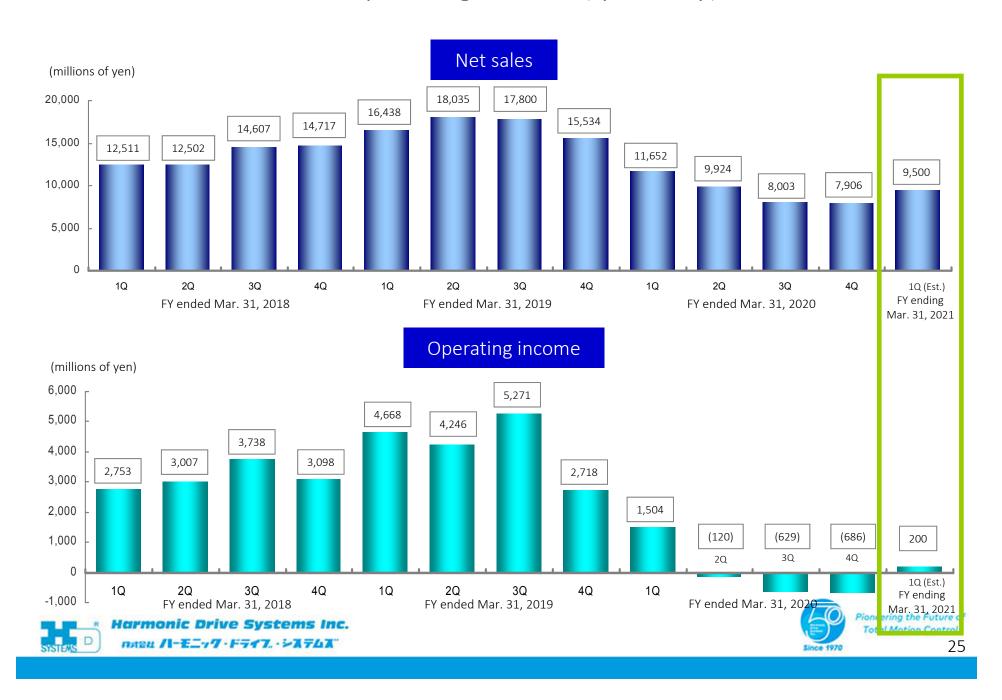
Consolidated performance forecasts for 1st-quarter FY 2021/3

| | | | (n | nillions of yen) | | |
|--------------------|--------------------------------------|-------------|--------------------------------------|------------------|---------------------|---------------|
| | 1st-quarter FY ending Mar.31,2020 | | 1st-quarter FY ending Mar.31,2021 | | Year-on-year change | |
| | Amount | Percent (%) | Amount | Percent (%) | Change | Rate (%) |
| Net sales | 11,652 | 100.0 | 9,500 | 100.0 | ▲ 2,152 | ▲ 18.5 |
| Operating income | 1,504 | 12.9 | 200 | 2.1 | ▲ 1,304 | ▲ 86.7 |
| Ordinary income | 1,498 | 12.8 | 200 | 2.1 | ▲ 1,298 | ▲86.7 |
| Net income | 382 | 3.3 | 50 | 0.5 | ▲332 | ▲86.9 |
| EPS (yen) | 3.98 | _ | 0.52 | _ | ▲3.46 | ▲86.9 |

Assumed exchange rate for 1^{st} -quarter FY21/3 forecasts 1USD = \$105.00 1EUR = \$115.00 1CNY = \$15.00 Net income refers to net income attributable to owners of parent.



Consolidated net sales & operating income (quarterly)



Non-consolidated performance forecasts for 1st-Quarter FY 2021/3

| | | | (millions of yen) | | | |
|------------------|--------------------------------------|-------------|--------------------------------------|-------------|---------------------|---------------|
| | 1st-quarter FY ending Mar.31,2020 | | 1st-quarter FY ending Mar.31,2021 | | Year-on-year change | |
| | Amount | Percent (%) | Amount | Percent (%) | Change | Rate (%) |
| Net sales | 6,014 | 100.0 | 5,300 | 100.0 | ▲ 714 | ▲ 11.9 |
| Operating income | 501 | 8.3 | 350 | 3.7 | ▲ 151 | ▲30.3 |
| Ordinary income | 554 | 9.2 | 380 | 4.0 | ▲ 174 | ▲ 31.4 |
| Net income | 54 | 0.9 | 200 | 2.1 | 145 | 267.5 |
| EPS (yen) | 0.57 | _ | 2.08 | _ | 1.51 | 267.5 |
| | | | | | | |

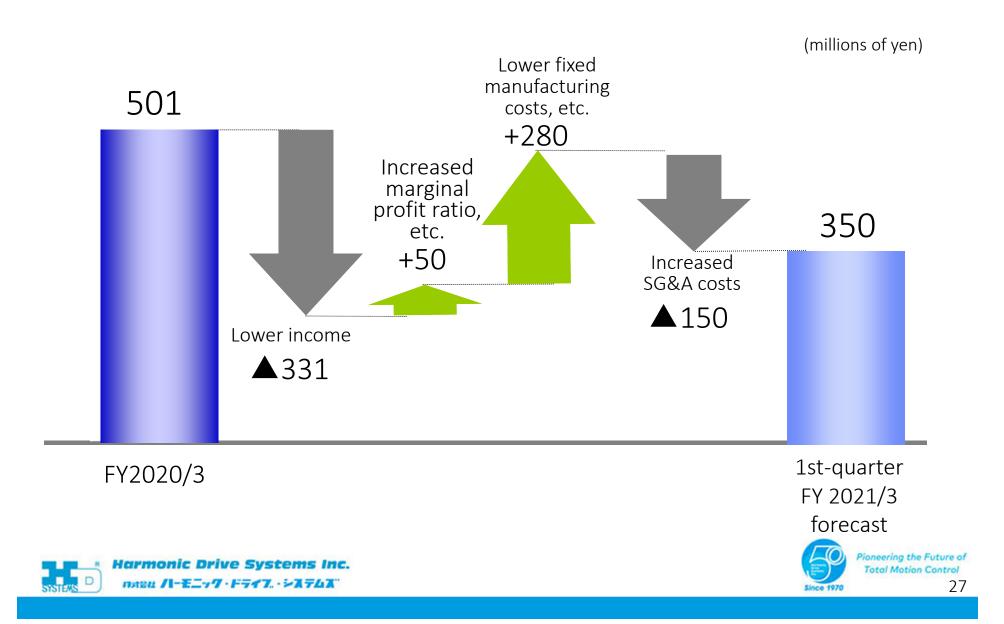
Assumed exchange rate for 1st-quarter FY21/3 forecasts 1USD = \$105.00 1EUR = \$115.00 1CNY = \$15.00





(millions of ven)

Factors in year-on-year change in non-consolidated operating income (1st-Quarter FY 2021/3)





Harmonic Drive Systems Inc. 株式会社 /1-モニック・ドライフ..・システムズ"

