

Q&A Summary

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Questioner 1

Q: What are your expectations for MHI's FY2024 business plan considering the Japan Ministry of Defense's budget request for FY2024, which was issued in August 2023? You mentioned that MHI is planning to generate ¥1 trillion in annual revenue from FY2024 to FY2026. Based on the defense budget request, please tell me which product areas will be opportunities for MHI, including monetary amounts.

Eguchi: The FY2024 defense budget is currently being discussed within the Japanese government and has not been officially decided. That said, areas related to MHI are thoroughly accounted for within the announced budget request. This includes stand-off missiles, items related to the Next-Generation Fighter Aircraft, and a variety of naval ships and land systems. There is still some time before the end of FY2023, but based on the situation from April 2023 to now, we believe that order intake in FY2023 will exceed ¥1 trillion. Order intake in FY2024 will also likely exceed ¥1 trillion. However, ¥1 trillion is the amount of order intake, and revenue contribution will occur gradually three to four years after order booking, since contracts in the Defense business usually take around four to five years to complete. Revenue will not suddenly increase in FY2024.

Questioner 2

Q: When you said that annual revenue will be ¥1 trillion from FY2024 to FY2026, do you mean that revenue will reach ¥1 trillion in FY2026, the final year of the next three-year medium-term business plan?

Eguchi: Yes, current revenue levels are around ¥500 billion, so revenue is expected to increase gradually.

Q: Regarding efforts by the Japan Ministry of Defense to improve margins, page 15 of the presentation materials shows current margins at 7.7% rising to a total 15% going forward. Will this margin change slightly when converted to MHI's business profit margin? On the face of it, the maximum margin seems to be 15%, but is it possible that MHI's margins will exceed 10%?

Eguchi: Going forward, margins based on QCD assessment and the cost inflation adjustment rate will be taken into account. Between these two components, the cost

inflation adjustment rate is a slightly difficult factor to pin down. Based on past experience, we assume that cases where there is no cost inflation will be rare. For example, as is the case where a final purchase amount increased to ¥400 million from an initial estimate of ¥300 million, cost inflation tends to decrease profit. However, from now on, the cost inflation adjustment rate will compensate for that inflation, so there is no longer this kind of risk. In other words, because the cost inflation adjustment rate will compensate for cost inflation, in actuality, it will be difficult for all of the cost inflation adjustment rate to become profit. If risks do not materialize, there is a possibility that margins may exceed 10%.

Questioner 3

Q: You mentioned active investment as a part of your business plan going forward. Given the rapid expansion of the Defense business, which has been at around ¥500 billion in revenue for nearly 20 years, what is your plan for personnel, development expenses, and capital investment?

Eguchi: As revenue increases over the next three years, we will need to increase the number of development and design engineers, as well as manufacturing site personnel. We will also need to expand manufacturing equipment and possibly buildings. We are currently working on estimates for the next medium-term business plan, which begins in FY2024. Specific figures are still under review, but we will likely need to increase our workforce – which currently assumes ¥500 billion in annual revenues – by 20% to 30%. Also, we will need to increase annual investment in manufacturing facilities to around twice current levels. However, if we increase resources according to revenue, we will have a hard time if we lose orders, so we will maintain investments within a reasonable range.

Questioner 4

Q: Can we already expect 10% margins at the time of booking for the projects received in FY2023?

Eguchi: Profitability at the time of order booking has already improved a little since the end of the last fiscal year, and new contract margins are close to 10%. This will gradually contribute to improving profit margins in the Defense business as a whole.

Q: I understand that the risk is small because cost inflation can be passed on to sales prices, but in terms of product development and production, is there any risk that actual margins will fall below the margins from when the orders were booked? Please let us know if there is a scenario where profit margins will decrease.

Eguchi: The biggest downside risk lies in development work. The largest project currently under development is the stand-off missile program. There is a risk that unforeseen problems may arise in the development process, which may necessitate the production of additional prototypes or cause delays in delivery. It is possible that actual margins for development programs will be less than those at the time of order booking. During the production phase, while there is some downside risk, in my experience, this risk is not that high.

Questioner 5

Q: Regarding the current margin of 7.7% shown on page 15, when is this figure from? My understanding is that 7.7% was the margin before additional development costs, which often arise during projects. Is that correct?

Eguchi: The 7.7% margin figure does not represent our actual performance, but rather the standard profit level possible under Japan Ministry of Defense contracts. This does not include downside factors, which can serve to decrease margins.

Q: In the past, the best possible margin MHI could obtain was 7%, but I think the final actual figure was around 4% to 5%. From now on, will margins start at 10%, with the possibility of upward or downward fluctuations?

Eguchi: Correct.

Q: Now that your margins are increasing, I think that there is interest in the portion that will go to MHI's suppliers. Will you return profit to your suppliers?

Eguchi: It depends on the supplier, but basically our partners' margins depend on price negotiations with us and have therefore not been limited to 7.7% in the past. As such, there is not necessarily a link between our profit margin and that of our partner companies. However, one interpretation of the government's defense policy is that our partner companies should also benefit, so we intend to consider how we can increase their share of profits. Furthermore, the cost inflation adjustment rate is also money that can be allocated to partner companies.

Q: I know that there are arguments about whether such a thing is possible or not, but I think there may be situations where you increase international sales activities and joint development with companies outside Japan. I think that working as a subcontractor for overseas companies might also be more profitable than Japan Ministry of Defense contracts. What action is MHI taking in this area?

Eguchi: Since the relaxation of the Three Principles on Transfer of Defense Equipment and Technology – the rules governing Japan’s defense exports – we have been involved in a variety of efforts regarding equipment export. Although we did not end up winning the contract, we have in the past made proposals to Australia for the export of submarines. The export of defense equipment is a matter of national policy, and it is up to the Japan Ministry of Defense to make decisions in this regard. If possible, I think it would be good if we could work on development with manufacturers outside Japan.

Questioner 6

Q: I think MHI’s QCD assessment would likely have a margin of 8% to 9%, which if added to a cost inflation adjustment rate of 4% for a four-year contract would total 12% to 13%. I believe that the current profit margin of 7.7% does not include the cost inflation adjustment rate, so if we use this as a base case, does the Ministry of Defense guidance not suggest a margin close to 15%? I believe MHI’s actual margins are close to 6% compared to the maximum 7.7%, so if the guidance including the cost inflation adjustment rate is 15%, I think margins will exceed 10%.

Eguchi: Even without the cost inflation adjustment rate, if development risks do not materialize, I think we can aim for a margin close to 10%. That said, it will be difficult to realize all of the cost inflation adjustment rate as profit, but if each project proceeds without issues, our margin may exceed 10%.

Q: How much of MHI's defense contracts are prime contracts?

Eguchi: The majority of the projects that we book are prime contracts. We are a subcontractor in some programs, but these probably make up less than 10% of total business.

Questioner 7

Q: Page 15 shows a maximum margin of 15%. Defense expenditures are increasing beginning in FY2023, the yen is progressively depreciating, and semiconductors for defense applications are likely highly specific and expensive. Is it possible that recent cost increases could easily eat up these approximately 10% margins, causing you to make losses? Please let us know your thoughts on this topic. For example, perhaps you could compensate for this by shifting to long-range missiles, which are expected to generate high profits.

Eguchi: First off, there are foreign exchange provisions included in Japan Ministry of Defense contracts such that the Ministry of Defense will compensate us for cost

differences caused by foreign exchange rates. Although there are some defense equipment expense items that are not covered by these provisions, and the impact of the weaker yen is not zero, we expect that foreign exchange effects will be hedged by the provisions. Next, with regard to the impact of cost increases due to the shortage of semiconductors, many of the semiconductors used in defense equipment have special specifications, and the cost impact is not as large as that of semiconductors used in the automotive industry or general manufacturing industry.

Questioner 8

Q: You are planning to increase personnel by 20% to 30%, but how will you recruit these people? Also, where will your focuses be during this process?

Eguchi: We will accept employees transferred from other divisions within the company and also increase new graduate and mid-career hires. If there is still a shortage of human resources after this, we will consider looking outside of the company including engineering services companies.

Q: What kind of staffing do you need?

Eguchi: In addition to aerospace mechanical engineers, we need a larger proportion of electrical and software/IT engineers than previously.

Q: From which departments are you going to transfer personnel into Defense?

Eguchi: There are no specific departments, rather we will transfer personnel from those divisions with the ability to do so. We hire personnel with common skills that can also be applied to Defense, so even employees transferred from other divisions are usually able to carry out normal work duties after six months to one year of on-the-job training.

Questioner 9

Q: What is the current number of employees and the amount of capital expenditures?

Eguchi: The number of employees in Defense is around 6,000 to 7,000. Annual capital expenditures are several billion yen, although sometimes this can reach the double-digit billion yen range.

Q: I am surprised by how low your capital expenditures are. With orders increasing this much, are you not at full capacity? Are there areas that you are prioritizing for increases? Also, are you planning more M&A like Mitsui E&S's Tamano Factory in Okayama Prefecture?

Eguchi: Capacity is tight in our missiles business, which is largely affected by the increase in order intake, so we will focus capital investment there. The other businesses do not

require the same amount of capital investment as missiles, and we will invest mainly in the upgrade of aging facilities while increasing their production capacity by making them more efficient. We will consider M&A in cases where there is synergy with our products, as was the case with our acquisition of Mitsui E&S's Naval and Governmental Ships Division based in Tamano.

Questioner 10

Q: You are developing missiles simultaneously for a variety of platforms. Has there ever been this kind of parallel development with other models?

Eguchi: In my experience as a staff-level employee, there have been similar situations in the past. The people from those days are now managers, and their teams work well together. We have established an organization that is capable of parallel development.

Questioner 11

Q: Please tell us more about the background, estimates, and assumptions regarding the operating environment informing the over ¥1 trillion/year in revenue you are expecting from FY2027 to FY2029. I think the Japan Ministry of Defense's ¥43 trillion budget lasts through FY2027, but is the growth in the Space Domain Program mentioned in your presentation based specifically on contracts for the continued purchase of systems from MHI? Also, delivery of Next-Generation Fighter Aircraft will begin in 2035, but do you foresee any delays?

Eguchi: The new five-year Japan Defense Build-Up Plan, which started this fiscal year and amounts to ¥43 trillion, aims to begin a variety of programs. Many of the production contracts from the Ministry of Defense specify delivery four to five years after signing, and if ¥43 trillion in program contracts is signed over the next five years, these programs will not end five years from now. Rather, they will rather continue as production contracts for eight or nine years. Therefore, from FY2027 to FY2029, we will still be in the process of manufacturing products under contracts related to the current ¥43 trillion Japan Defense Build-Up Plan, and our revenue forecast for beyond FY2027 is also ¥1 trillion. It remains to be seen what will happen with the next Japan Defense Build-Up Plan, but based on the discussions so far, I believe that we will be able to maintain the same level of revenue. While we do have estimates for revenue from FY2027 onward, these are not firm figures.

Q: I understand the point about contracts. Regarding the operating environment, I know that it is still a long way off, but am I correct in understanding that these revenue figures assume that the current tense national security environment will continue until then?

Eguchi: Strictly speaking, MHI cannot make forecasts about national security, and it is difficult to assume anything other than continuation of the status quo. Therefore, as a manufacturer, we need to run a tight ship to ensure that that we do not suddenly make losses if we stop winning contracts. We need to manage the business with the minimum number of employees and facilities necessary to make sure that there is no significant impact even if there is a decrease in work.

Questioner 12

Q: On the topic of revenue reaching ¥1 trillion by FY2026, will the average amount over three years be ¥1 trillion? Or will revenue gradually increase after FY2026 and finally reach ¥1 trillion?

Eguchi: Over the next three years, we expect revenue to gradually increase, reaching ¥1 trillion around FY2026.

Q: When are you planning to gradually increase capital investment and personnel?

Eguchi: The core of our business expansion will be in missiles, which are currently in the development stage. During development, production volumes will not increase significantly. Therefore, immediate capital investment is not necessary. We will gradually increase production capacity, expanding facilities so that they will be able to operate at full capacity from around FY2026 to FY2028. As for personnel, development engineers will be required before capital investment, and we will make large increases in headcount from FY2024 to FY2025.

Q: I would like to know what your plans are in the dual-use area going forward.

Eguchi: There are two approaches to dual-use: spin-on – using civilian technology in defense businesses – and spin-off – using defense technology in civilian businesses. MHI has been actively utilizing both of these approaches internally. For example, we have used civilian technologies such as image processing in missile programs, and we are using cybersecurity and unmanned vehicle technologies developed for defense products in our civilian businesses. We plan to will continue these efforts in the dual-use area.

Questioner 13

Q: What type of Next-Generation Fighter Aircraft development facilities are included in revenue from FY2024 to FY2026? In other words, what is MHI's role in the joint development with BAE Systems, which includes operation systems such as the airframe? What kind of development will actually be needed going forward?

Eguchi: At the moment, the division of labor is still under discussion, so the portion of development for which Japan will be responsible is yet to be decided. It has also not yet been determined exactly how much will be needed in terms of manufacturing facilities. During the initial stage of development, we will basically need facilities such as buildings for engineers and equipment such as computers to perform a variety of calculations.

Q: Is it correct to understand that you will need software?

Eguchi: Yes, design work mainly using software is required in the early stages of development. Going forward, we will develop the infrastructure related to that.

Q: Is it true that the Next-Generation Fighter Aircraft joint development program is the longest-running project MHI is currently working on? I hear that deployment will be delayed from 2035 to 2040, but is this your longest project with the highest risk?

Eguchi: Fighter jet programs have long life cycles. For example, the F-15 has been going for around 40 years, and the F-2 for around 25 years. The PATRIOT Missile Program has also continued for around 40 years. Through a process of periodic upgrades, defense equipment programs are long-term projects which can last for 30 or 40 years. Similarly, the Next-Generation Fighter Aircraft is a long-term project, and there are of course risks in developing these kinds of state-of-the-art systems. Together with the Japan Ministry of Defense, MHI has been producing experimental prototypes of elemental fighter jet technologies for the past 10 years, and while this has helped us to hedge risk to some extent, there still remains some risk. We will work to define and manage development risks going forward.

Q: What kinds of risk are there specifically?

Eguchi: To provide one example, during general aerospace development, after designing a fuselage, we build wings and conduct strength tests. However, in some cases, the initial expectations for strength are not met. Risks such as this are almost never zero. Aircraft, missiles, and ships will inevitably fail to perform as designed in a variety of areas, and in such cases, rework will occur. Even with onboard avionics, when we connect devices developed by partner companies, the system as a whole may not work as designed. In these cases, we may rebuild some parts of the interface and modify the software, which may cause us to do some manual rework or go over the set development period. These are some specific examples of major development risks.

Questioner 14

Q: Regarding internal movement of personnel, when you announced the discontinuation of SpaceJet, we heard that the people working on that program would be able to utilize their expertise on the Next-Generation Fighter Aircraft. How is this going in reality? In what areas can you apply the know-how acquired during SpaceJet development?

Eguchi: Because SpaceJet personnel were also located in the Nagoya area, they are currently working on the Next-Generation Fighter Aircraft and stand-off missile teams. There are commonalities between civil and defense aerospace engineering, so these employees have hit the ground running, utilizing their expertise to make contributions in such areas as structural, mechanical, electrical, and overall system design.

Q: Please tell us about the significance and aim of MHI's participation in Next-Generation Fighter Aircraft development.

Eguchi: The Next-Generation Fighter Aircraft is extremely important for the continuation of our jet fighter business from a business, technology, and manufacturing capability perspective. On the topic of international joint development projects, the F-2 fighter was jointly developed between Japan and the US. However, that project was a little different from the Next-Generation Fighter Aircraft, as the non-Japanese partner was the subcontractor that time. We expect different experiences and results from international joint development with European rather than American companies and with completely equal relationships among the parties. International joint development may become the mainstream for this kind of large-scale equipment project, considering how difficult it is for countries to pursue such efforts independently. The Next-Generation Fighter Aircraft is of great significance to us in terms of the lessons we can learn about this kind of development.

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