GlobalWafers Co., Ltd.
環球晶圓股份有限公司

GlobalWafers (6488 TT)
Industry Overview

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Executive Comments

➢ Financial Highlights

- **Revenue**
  - ✓ June → NT$6.2 billion, 3.3% MoM, 15.4% YoY, record high!
  - ✓ Q222[1] → NT$17.5 billion, 7.6% QoQ, 15.3% YoY, record high!
  - ✓ Since the first quarter of 2020, GWC's revenue has increased sequentially!

(NT$ mn)	Q419	Q120	Q220	Q320	Q420	Q121	Q221	Q321	Q421	Q122	Q222
Revenue	13,506	13,515	13,701	14,006	14,137	14,806	15,208	15,364	15,752	16,307	17,540

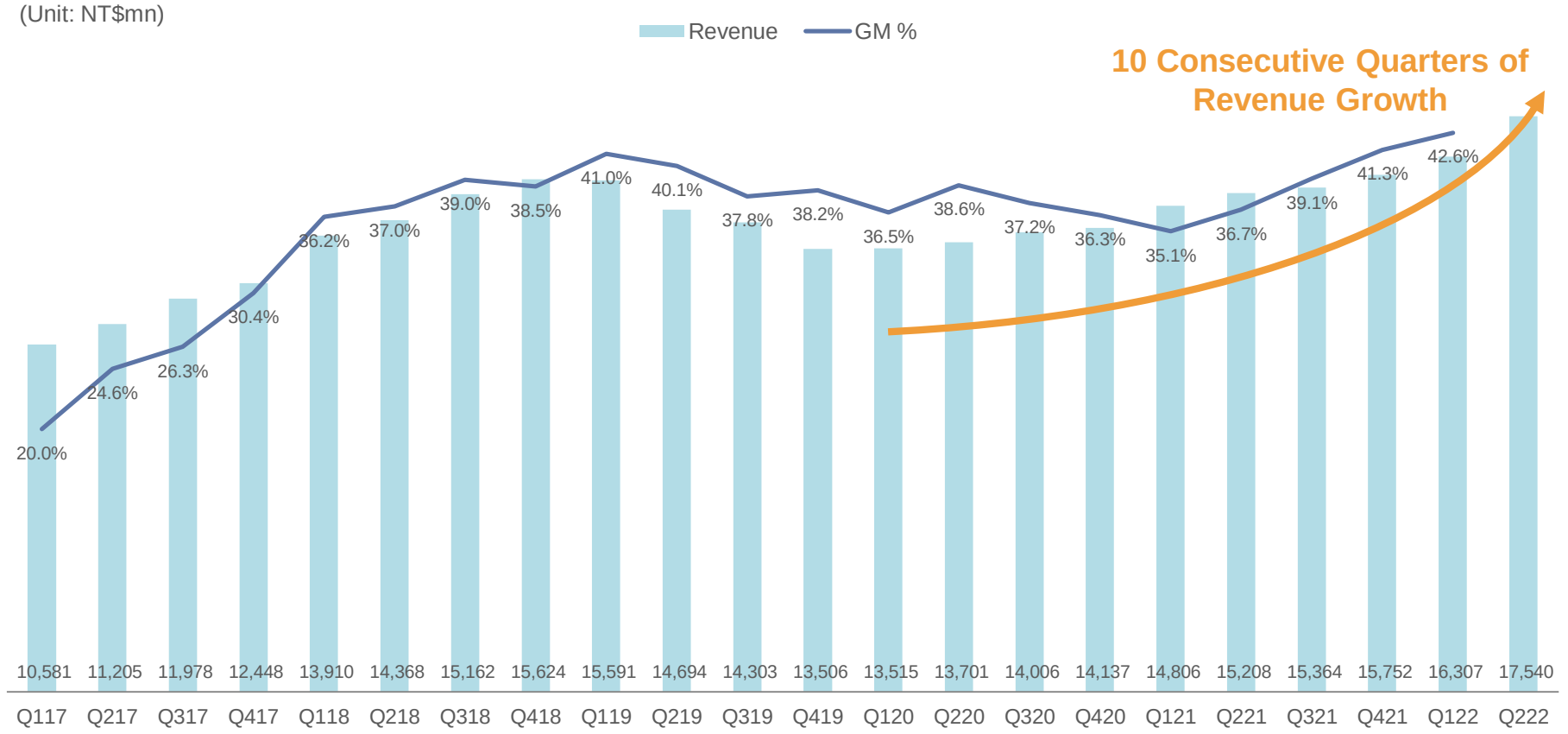
  - ✓ 1H22[2] → NT$33.8 billion, 12.8% YoY
    Surpassed the 33 billion milestone and achieved record-breaking high!

1. *Q222: Second quarter of 2022*
2. *1H22: First half year of 2022*

Executive Comments

➢ Financial Highlights

Revenue & Gross Margin



➢ Industry & Overview

- **Global Economy**

  World Bank's June report lowers world GDP growth to 2.9% in 2022, down from the 4.1% predicted in January, and expects 2023 to stay near at similar level.

- **Semiconductor Industry**
  - ✓ Despite of stagflation and slowing consumer electronics, semiconductor industry remains resilient with network infrastructure and digital transformation.
  - ✓ The increasing Si content growth in end applications like automotive, industrial, 5G and cloud serves as structural support for long-term growth drivers.

- **Potential implication of the Ukraine crisis**
  - ✓ Expected to affect metals and noble gas supply chains which will in turn direct impact the semiconductor industry.
  - ✓ Triggering a sharp increase energy costs, leading to significant adverse affect, especially in Europe.
  - ✓ Despite all these risks, semiconductor companies continue to downplay impact, which may change depending on the length of war.

➢ Industry & Overview

- **5G**

  Though a weaker global economy and the uncertainties caused by Russia's invasion of Ukraine have impacted smartphone sales, 5G adoption continues because service providers switch on 5G and launch commercial 5G services globally, taking 5G into the mainstream.

- **Automotive**
  - ✓ With China limited production, supply chain issues and the war in Ukraine, key component shortages are likely to continue. However, the slowdown in mobile and consumer electronics will help to transition foundry capacity to automotive.
  - ✓ In addition, automotive HPC, EV/HEV and advanced driver assistance systems will continuously consume more automotive semiconductors to meet cutting-edge functionalities.

➢ Planned Dividend Payout

- 2021 Dividend ー NT$ 16 (1H21: NT$8 + 2H21: NT$8)
- 2021 Payout Ratio ー 58.7%
- Record Date ー July 18, 2022
- Payment Date ー August 5, 2022

➢ Taiwan Wafer Manufacture Index

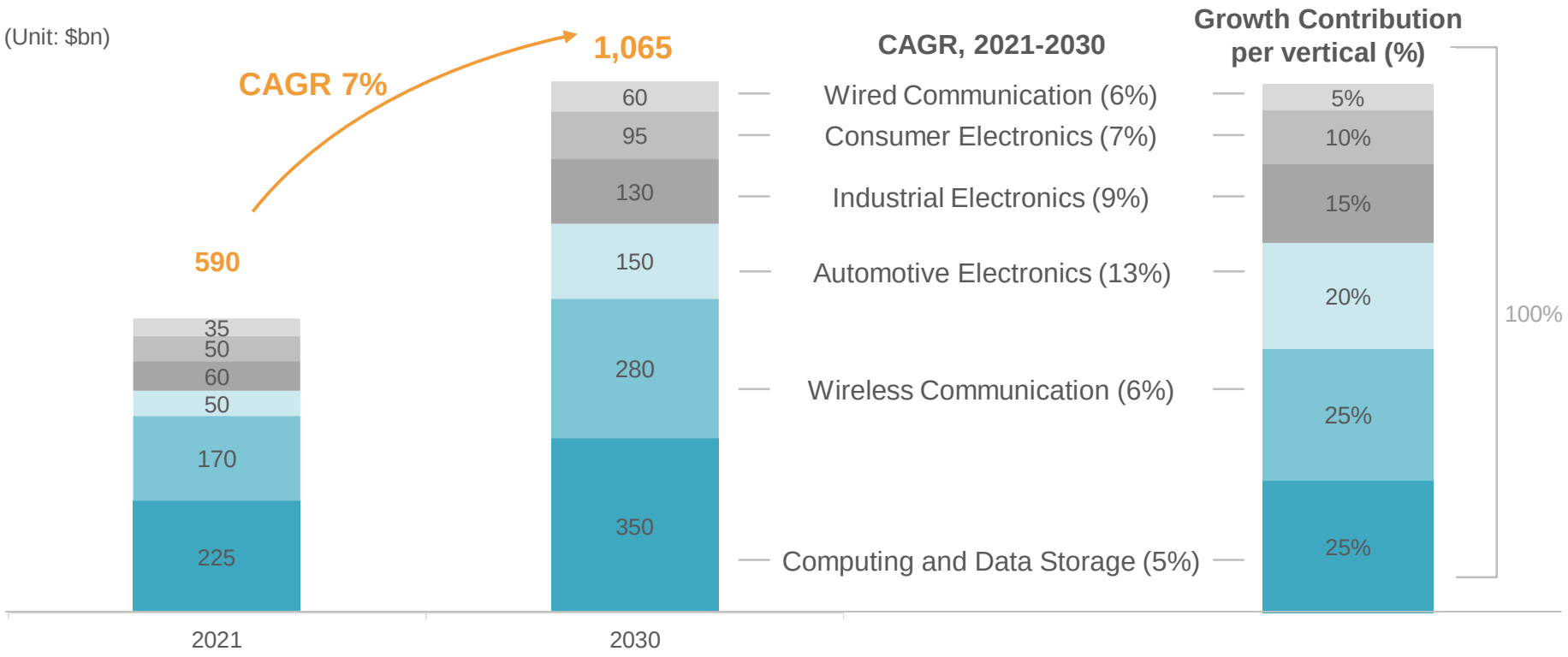
Listed in TIP(Taiwan Index Corporation) Customized Taiwan Wafer Manufacture Index (Top 10) since 2022/7/4.

Capacity Expansion Plan

Strategic Rationale (1) – Semiconductor - A Trillion-Dollar Industry by 2030

- Semiconductor industry is anticipated to grow at 7% CAGR and become a trillion-dollar industry by 2030.
- Compared to last decade largely driven by wireless demand, whereas growth in the next decade is deemed more sustainable growth from a more balanced set of drivers - wireless plus automotive, computing and data storage (cloud), industrial/IoT.

Semiconductor Market Value Forecast



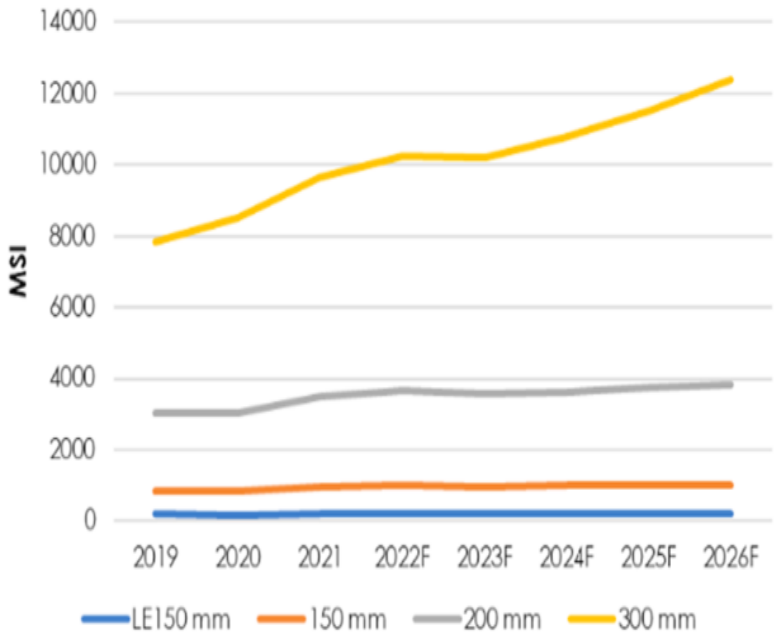
Source: McKinsey & Company, April 2022

Strategic Rationale (2) –
Solid Demand for High-End 300mm Silicon Wafers

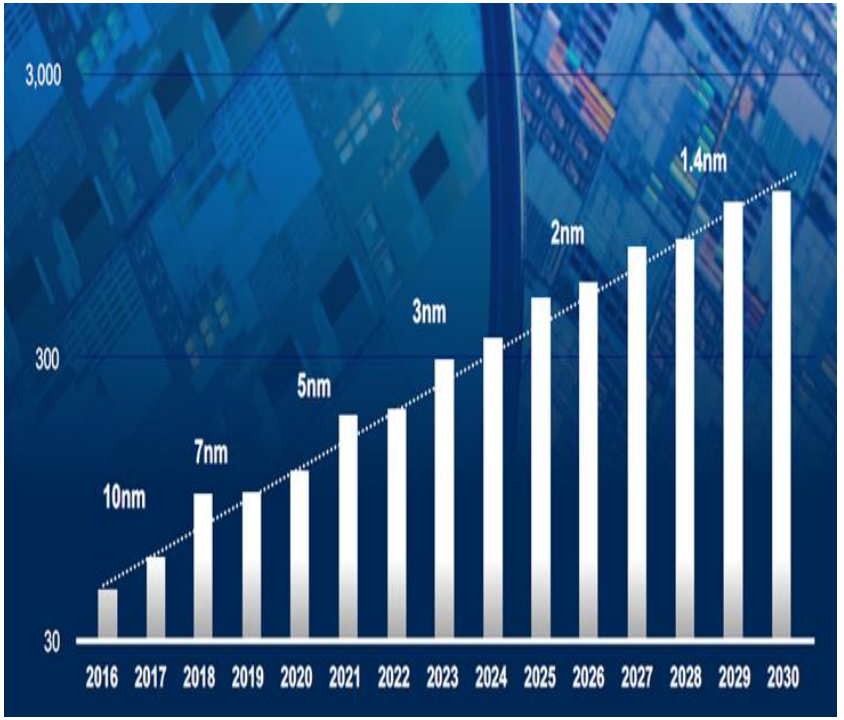
- Wireless, automotive, HPC, and IoT are areas with stable demand for advanced 300mm silicon wafers and generate steady shipment growth between 2022 and 2026.
- By 2030, the transistor density of 1.4nm logic technology will reach 1 billion per square millimeter of silicon wafer, and Moore's Law will never end.

Silicon Wafer Shipment Forecast

(Unit: MSI)



1.4nm Logic Technology of Transistor Density



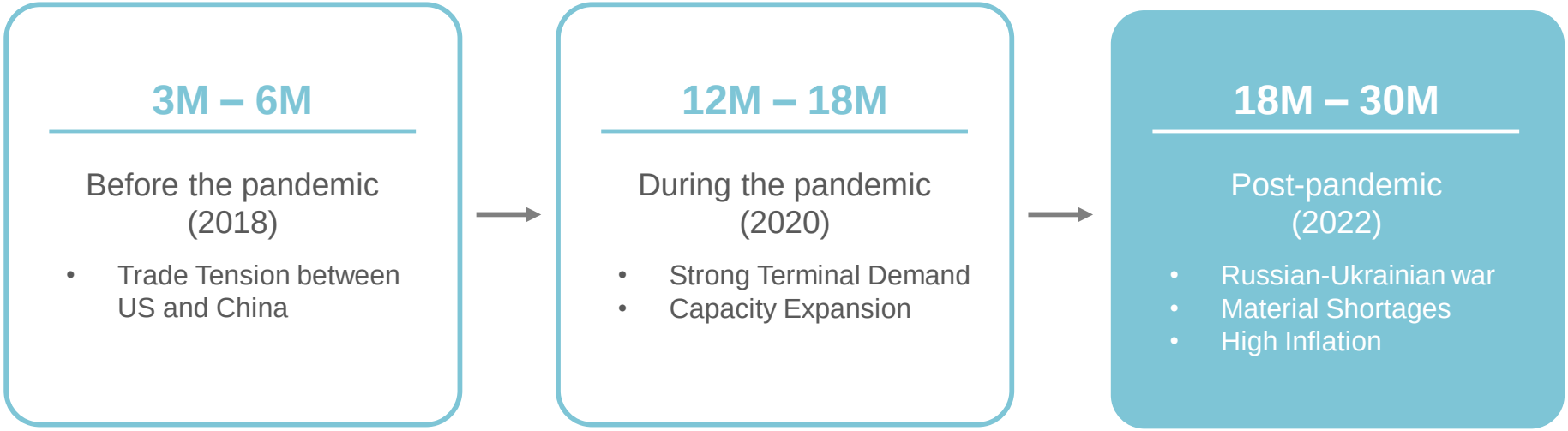
Source: Techcet, February 2022 / Gartner

Strategic Rationale (3) –
Delayed Equipment Lead Time Eases Concern of Oversupply

- Before the pandemic, the lead time of semiconductor equipment was about 3 to 6 months and have extended to 12-18 months since 2020. After that, factors such as Russian-Ukrainian war, material shortages have delayed the delivery time to 18-30 months.
- The foundry expansion project is affected by equipment delivery delays, resulting in a decline in the annual growth rate of global foundry capacity to 8% in 2023. TrendForce believes that the extended expansion process will offset concerns about oversupply in 2023.

The Lead Time of Semiconductor Equipment

An extended expansion process will offset concerns about oversupply in 2023.



Source: TrendForce, June 2022

Capacity Expansion Plan

Total Capital Expenditures

NT$100 bn

- Brownfield 45%
- Greenfield 55%

GlobalWafers has announced a NT$100 billion capacity expansion plan in Q122 with 55% capital invest in Greenfield project to aim at advanced technology process.

Why Now?

Being the key enabler, semiconductors are necessary to keep infrastructure and the society functioning, deemed essential to facilitate daily life.

Technological advancements drive both unit and content growth, megatrends like 5G, computing and data storage empower sustainable growth .

300 mm Greenfield Expansion in Texas, USA

This investment will be the largest fab of its kind in the USA and among the largest in the world along with secured abundance of land to support any required further growth.

- Location: USA
- Production: 2025
- Multiple stages of equipment installation and in alignment with market and LTA
- Floor Area: 3.2m square-foot
- 300mm Advanced Silicon Wafers

With state-of-the-art facility, this expansion will close a critical semiconductor supply chain gap of US semi industry.

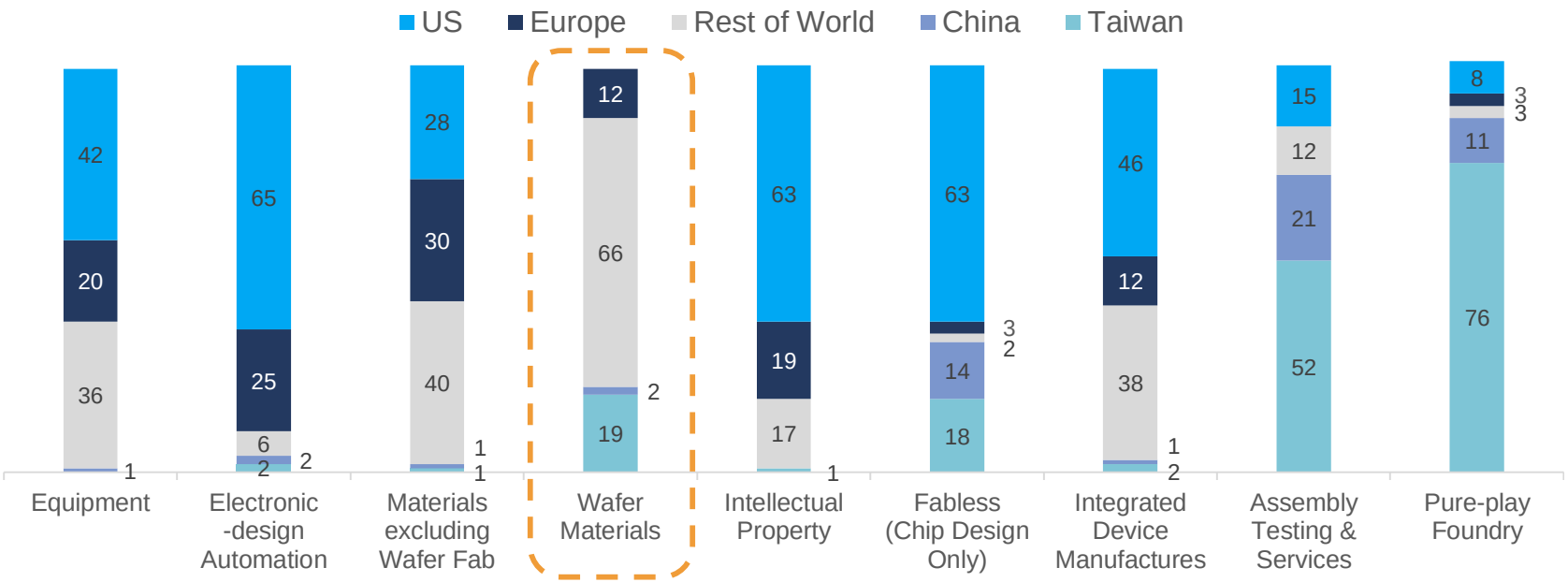
Texas Governor Greg Abbott
May 18, 2022

Why US? (1)

01 Complement US Supply Chain

By supplying 300mm silicon wafers locally in the U.S., as the starting material for all advanced semiconductor manufacturing sites, GlobalWafers avoids geopolitical tensions, responds to customers in a timely manner and complements US supply chain with advanced 300mm wafer fab.

Semiconductor sales along the value chain[1] (% Share)



Source: Mckinsey & Company, June 2022.
Note: 1. As of 2020

Why US? (2)

02 Major Customer Growth

Numerous semiconductor manufacturers such as Intel, Samsung, Texas Instruments and TSMC have announced US expansions, which require stable supply of wafers, and will in turn afford a more diverse customer portfolio.

03 Government Support

With incentives provided by the US federal and state governments, GlobalWafers is able to lower operating costs, solidify financial structure and pursue higher profit margin.

04 Utility Cost & Land Availability

US utility costs and land availability are best globally, providing GlobalWafers lower running cost and higher margin.

05 Green Solution

Instead of importing wafers from Asia, GlobalWafers will produce and supply wafers locally thereby reducing significant carbon footprint, benefitting both customers and GWC in the current ESG tide worldwide.

06 Experienced Team

GWC's subsidiary, GlobiTech, is only 600m away from the Greenfield site, talented management team with decades of devotion in semiconductor business could apply experiences and boost productivity effectively.

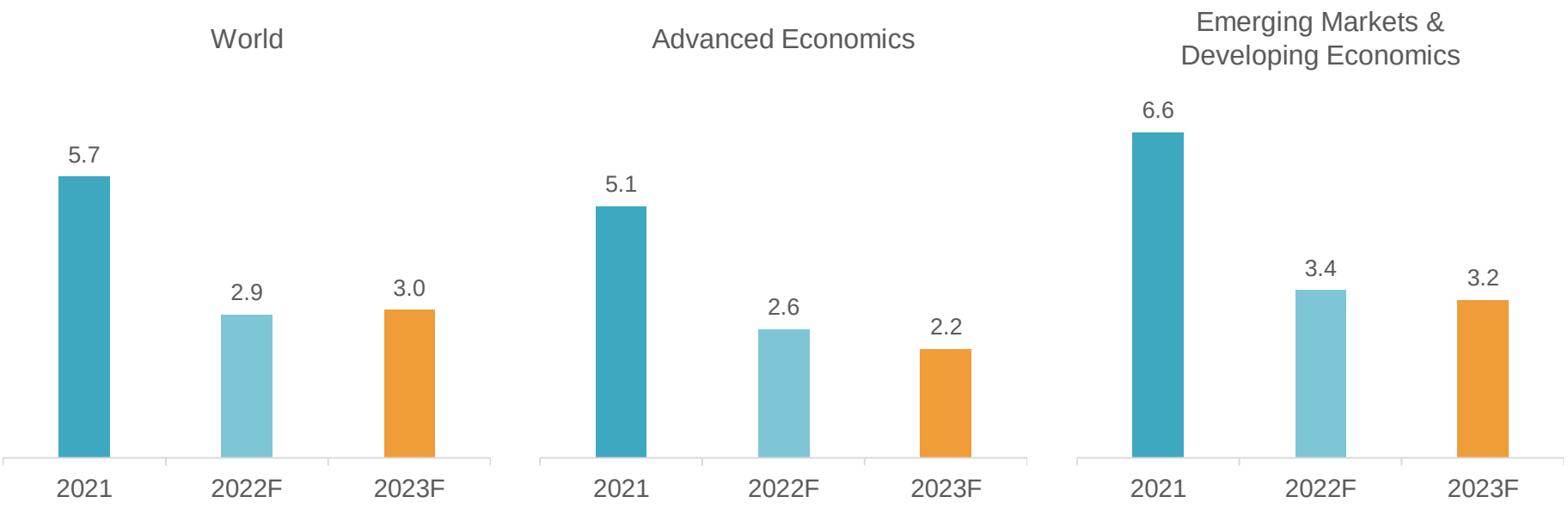
Industry Overview

Global GDP Growth Forecast

- After the pandemic and the war between Russia and Ukraine, global GDP is dragged form 5.7% in 2021 to 2.9% in 2022 and 3.0% in 2023.
- The risk of stagflation is rising among middle and low-income economics with higher inflation and tighter financial conditions.
- The economic downturn will hover around 2023 and 2024 and will hammer GDP growth.

2022 World Economic Outlook

(Unit: %)

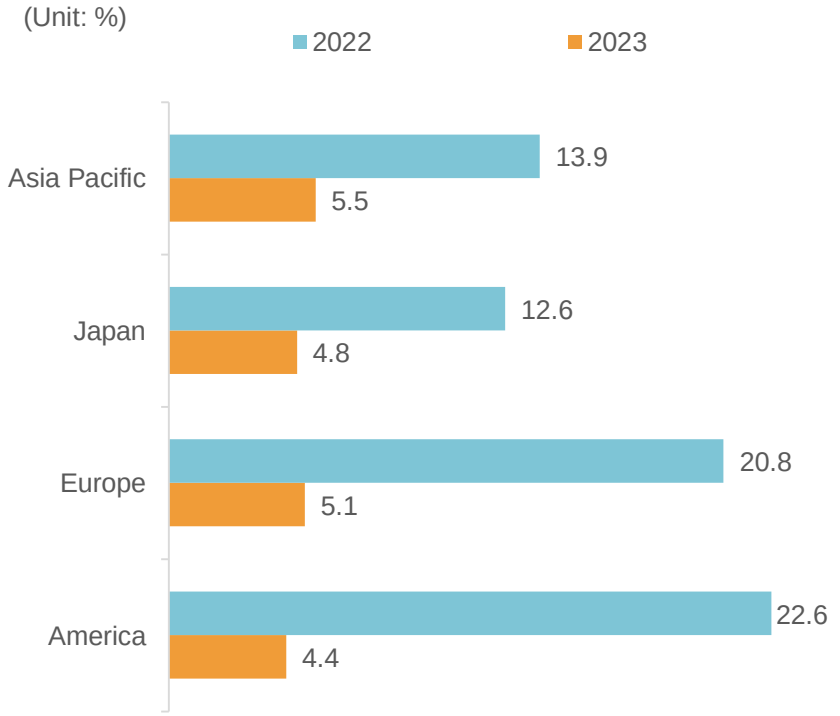


Source: World Bank, June 2022.

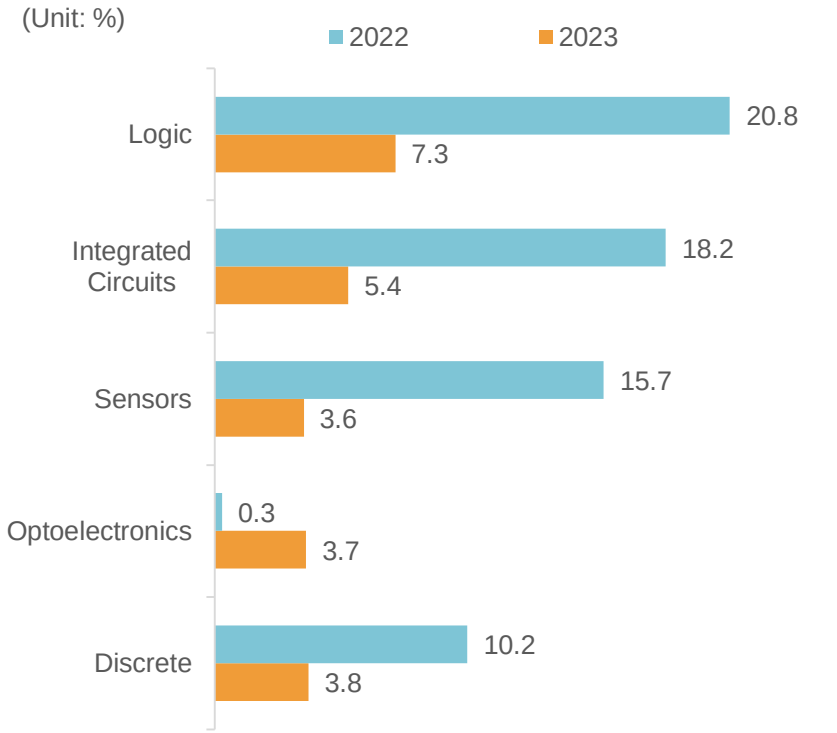
Worldwide Semiconductor Forecast

- In 2022, WSTS predicts the logic segment will see the highest growth at 20.8%. The firm also predicts the most 2022 growth in the Americas region at 22.6%
- 2023 YoY growth expected to be low single digits for most categories, with the highest again in logic at 7.3% and APAC with 5.5%.

Semiconductor Growth Forecast by Region



Semiconductor Growth Forecast by Products

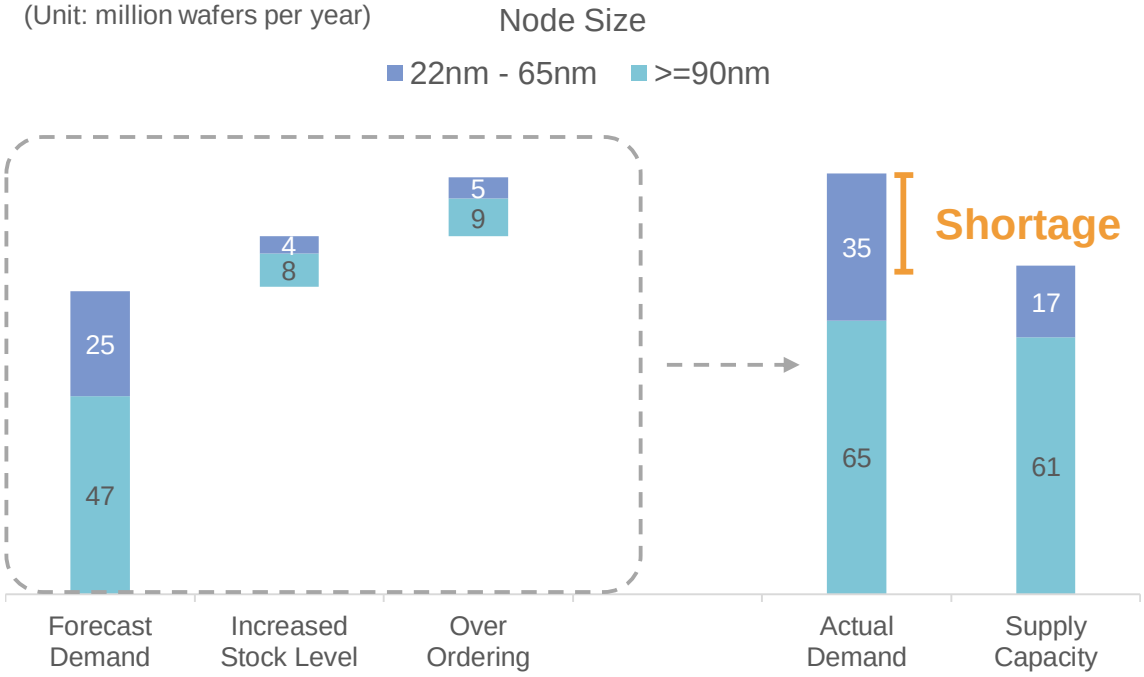


Source: WSTS, June 2022

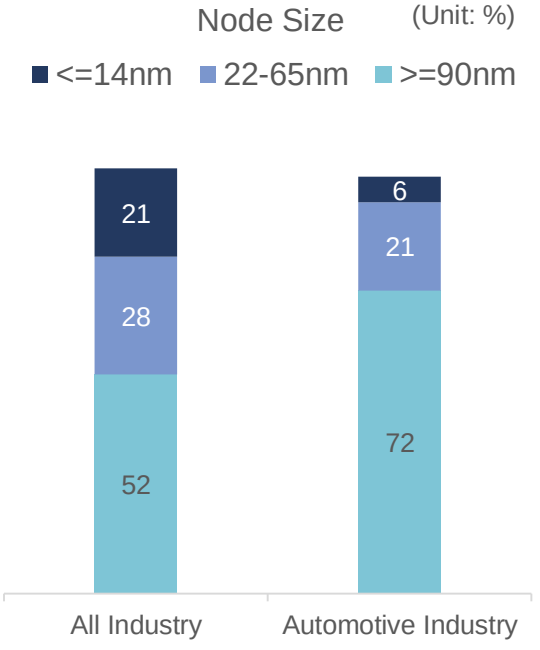
Automotive Industry under Semiconductor Shortage

- Semiconductor shortages are likely to persist for at least 3 to 5 years in selected technology nodes. The reason for the persistent shortage is insufficient capacity, but overordering and increasing inventory level from automotive companies also exacerbate the problem.
- For nodes above 90nm, a major demand in the automotive industry, shortages appear to be in place for longer due to lower profit margins.

Global Semiconductor Demand and Supply for 300mm Equivalent[1]



Demand Structure[2]

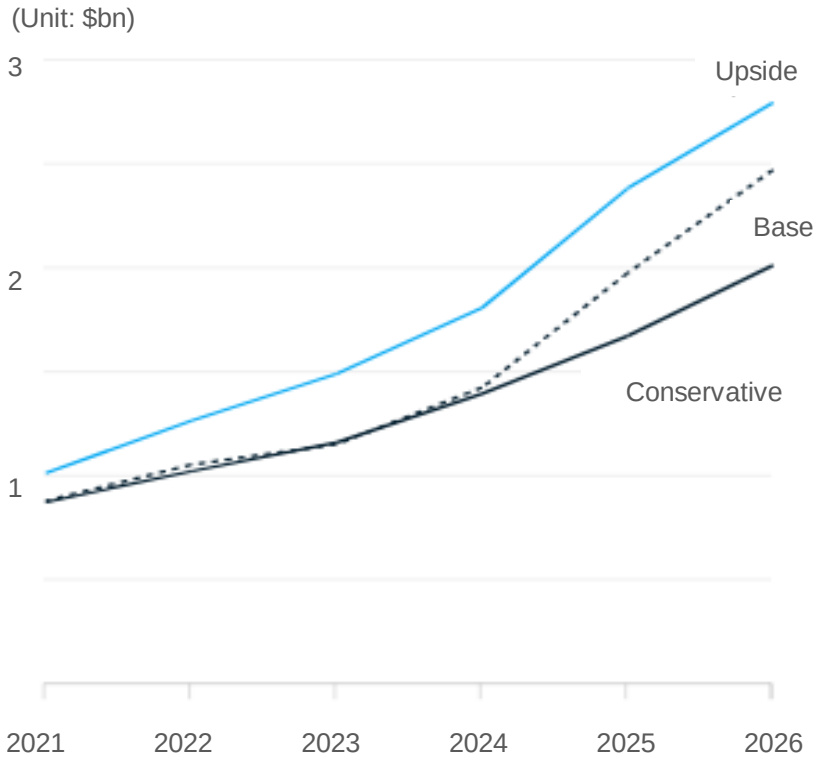


Source: Mckinsey & Company, June 2022
Note: 1. As of May 2022
2. As of 2021

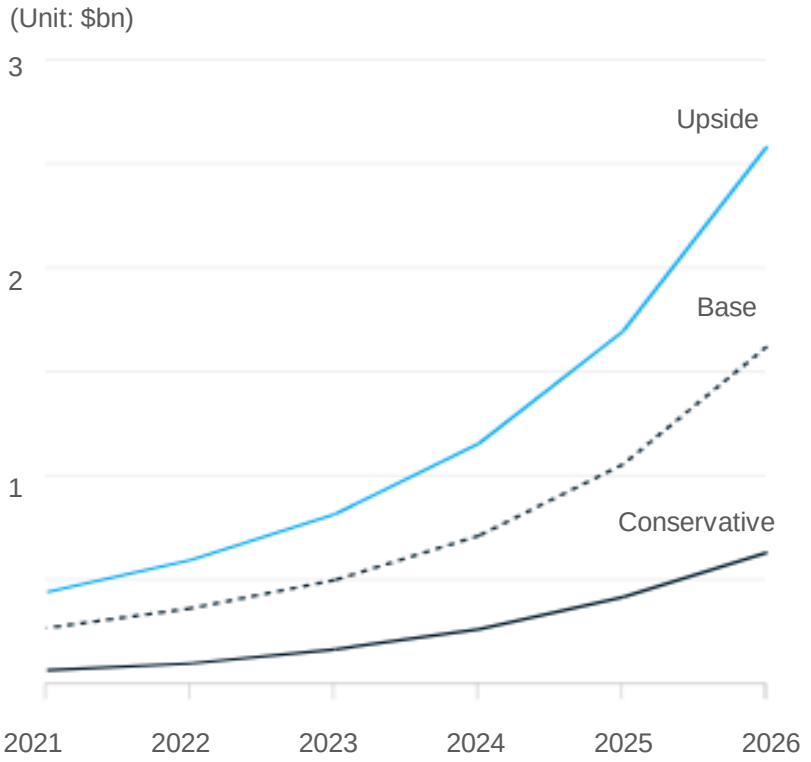
SiC & GaN Power Devices

- Instead of pursuing “more than Moore”, some semiconductor companies turn their interest in SiC and GaN power devices due to their higher conversion efficiency and lower energy loss.
- In the base case, the annual market growth rate is expected to be 23% for SiC power devices and 40% for GaN power devices.

Revenue Forecast for SiC Power Devices



Revenue Forecast for GaN Power Devices



Source: Mckinsey & Company, April 2022

Q&A

Financial Statements

Income Statement

Income Statement

(NT$mn)	2019	2020	2021	Q121	Q221	Q321	Q421	Q122
Revenue	**58,094**	**55,359**	**61,131**	**14,806**	**15,208**	**15,364**	**15,752**	**16,307**
Growth (%)	*-1.6%*	*-4.7%*	*10.4%*	*4.7%*	*2.7%*	*1.0%*	*2.5%*	*3.5%*
Gross Profit	**22,847**	**20,568**	**23,286**	**5,193**	**5,584**	**6,010**[2]	**6,498**[2]	**6,948**
Gross Profit Margin (%)	*39.3%*	*37.2%*	*38.1%*	*35.1%*	*36.7%*	*39.1%*	*41.3%*	*42.6%*
EBITDA	**22,648**	**21,967**	**22,507**	**5,051**	**6,919**[1]	**5,393**[3]	**5,144**	**1,802**[5]
EBITDA Margin (%)	*39.0%*	*39.7%*	*36.8%*	*34.1%*	*45.5%*	*35.1%*	*32.7%*	*11.1%*
Operating Profit	**17,897**	**15,287**	**17,693**	**3,952**	**4,259**	**4,664**	**4,819**	**5,891**
Operating Profit Margin (%)	*30.8%*	*27.6%*	*28.9%*	*26.7%*	*28.0%*	*30.4%*	*30.6%*	*36.1%*
Profit before Tax	**18,554**	**16,615**	**16,445**	**3,529**	**5,408**[1]	**3,881**[3]	**3,627**[4]	**304**[5]
Profit before Tax Margin (%)	*31.9%*	*30.0%*	*26.9%*	*23.8%*	*35.6%*	*25.3%*	*23.0%*	*1.9%*
Net Profit	**13,636**	**13,104**	**11,870**	**2,690**	**3,955**	**3,105**	**2,120**	**1,746**[5&6]
Net Profit Margin (%)	*23.5%*	*23.7%*	*19.4%*	*18.2%*	*26.0%*	*20.2%*	*13.5%*	*10.7%*
EPS (NT$)	**31.35**	**30.11**	**27.27**	**6.18**	**9.09**	**7.13**	**4.87**	**4.01**[5&6]

1&3. Due to Siltronic share evaluation at fair value.
2. Due to higher ASP and production mix.
4. Due to NT$1.6 billion (EUR 50 million) of termination fee from Siltronic M&A.
5. Due to realized loss of Siltronic shares measured at fair value through profit or loss.
6. Reversing the deferred tax liability based on no dividend distribution of offshore earning.

Balance Sheet

Balance Sheet

(NT$mn)	2019	2020	2021	Q121	Q221	Q321	Q421	Q122
Assets								
Cash and cash equivalents	32,822	22,439	65,894	12,700[1]	46,768[4]	56,919[5]	65,894	70,354
Account receivable	8,140	8,037	9,118	9,094	8,874	9,176	9,118	9,436
Inventories	6,849	7,208	7,295	6,772	6,974	7,036	7,295	7,496
Property, plant and equipment	34,697	37,111	33,943	35,331	34,163	33,210	33,943	34,995
Other assets	14,078	20,056	34,395	32,684[2]	34,723	33,407	34,395	27,525
Total assets	**96,586**	**94,852**	**150,645**	**96,581**	**131,502**	**139,747**	**150,645**	**149,806**
Liabilities								
Short-term loan	9,886	9,871	6,264	15,445[3]	10,543	6,464	6,264	6,384
Account payable	3,837	3,895	4,340	4,075	4,027	3,918	4,340	3,953
Long term loan	0	0	45,125	0	32,479[4]	45,045[5]	45,125	45,204
Other liabilities	37,789	36,930	49,284	32,314	38,955	36,909	49,284	46,978
Total liabilities	**51,513**	**50,697**	**105,013**	**51,834**	**86,004**	**92,336**	**105,013**	**102,520**
Shareholder equity	**45,073**	**44,155**	**45,632**	**44,747**	**45,497**	**47,411**	**45,632**	**47,286**

1. Due to Siltronic shares acquisition and cash dividends distribution
2. Due to Siltronic shares acquisition
3. Due to increasing bank loan for acquiring Siltronic shares
4. Due to issuance of ECB & corporate bond
5. Due to issuance of corporate bond

Thank You