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**Winbond Electronics Corporation**



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- We have made forward-looking statements in this presentation. Our forward-looking statements contain information regarding, among other things, our financial condition, future expansion plans and business strategies. We have based these forward-looking statements on our current expectations and projections about future events. Although we believe that these expectations and projections are reasonable, such forward-looking statements are inherently subject to risks, uncertainties and assumptions about us.
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# Financial Results



# Statement of Comprehensive Income - Consolidated

Unit: NT\$ M	4Q17		3Q17		2017		2016		YoY Change	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Net Sales	13,206	100	12,550	100	47,592	100	42,092	100	5,500	13
Gross Profit	4,993	38	4,628	37	16,324	34	12,018	29	4,306	36
Operating Income	2,234	17	2,099	17	6,656	14	3,713	9	2,943	79
Pretax Income	2,238	17	2,528	20	7,098	15	3,755	9	3,343	89
Net Income	1,847	14	2,166	17	5,823	12	3,140	7	2,683	85
EPS (NT\$)	0.49		0.58		1.54		0.81		0.73	
EBITDA	3,929	30	3,646	29	12,740	27	9,383	22	3,357	36



## Balance Sheet - Consolidated

	Dec. 31 '17		Jun. 30 '17		Dec. 31 '16		YoY Change	
	Amount	%	Amount	%	Amount	%	Amount	%
Unit: NT\$ M								
Current Assets	37,240	42	26,872	37	27,260	40	9,980	37
Net Fixed Assets	43,829	50	39,846	54	34,373	51	9,456	28
Total Assets	88,116	100	73,609	100	67,989	100	20,127	30
L/T Debt	8,729	10	7,984	11	6,638	10	2,091	32
Total Equity	61,627	70	46,210	63	45,221	67	16,406	36
Current Ratio	2.29		1.50		1.87			
Debt / Equity Ratio	0.43		0.59		0.50			



# Statement of Cash Flows - Consolidated

	4Q17	3Q17	2017	2016	YoY Change
Unit: NT\$ M	Amount	Amount	Amount	Amount	Amount
Operating Cash Flow	4,709	3,056	12,143	9,991	2,152
Investing Cash Flow	(3,076)	(3,072)	(15,030)	(4,747)	(10,283)
Financing Cash Flow	7,286	(637)	9,446	(3,096)	12,542
Cash & Equivalents	14,172	5,278	14,172	7,684	6,488
Depreciation and Amortization	1,695	1,547	6,084	5,671	413
CAPEX	(2,936)	(3,579)	(15,412)	(4,989)	(10,423)



# Statement of Comprehensive Income - Memory

Unit: NT\$ M	4Q17		3Q17		2017		2016		YoY Change	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
Net Sales	10,835	100	10,077	100	38,103	100	33,534	100	4,569	14
Gross Profit	3,948	36	3,495	35	12,158	32	8,260	25	3,898	47
Operating Income	2,002	18	1,801	18	5,711	15	2,970	9	2,741	92
Pretax Income	2,149	20	2,391	24	6,652	17	3,371	10	3,281	97
Net Income	1,789	17	2,085	21	5,551	15	2,898	9	2,653	92
EPS (NT\$)	0.49		0.58		1.54		0.81		0.73	90
EBITDA	3,632	34	3,281	33	11,532	30	8,382	25	3,150	38





## Balance Sheet - Memory

Unit: NT\$ M	Dec. 31 '17		Jun. 30 '17		Dec. 31 '16		YoY Change	
	Amount	%	Amount	%	Amount	%	Amount	%
Current Assets	31,047	37	21,047	30	21,270	33	9,777	46
Net Fixed Assets	42,969	51	39,000	56	33,608	52	9,361	28
Total Assets	84,410	100	69,947	100	64,399	100	20,011	31
L/T Debt	8,729	10	7,984	11	6,638	10	2,091	32
Total Equity	60,212	71	44,944	64	43,921	68	16,291	37
Current Ratio	2.16		1.32		1.67			
Debt / Equity Ratio	0.40		0.56		0.47			



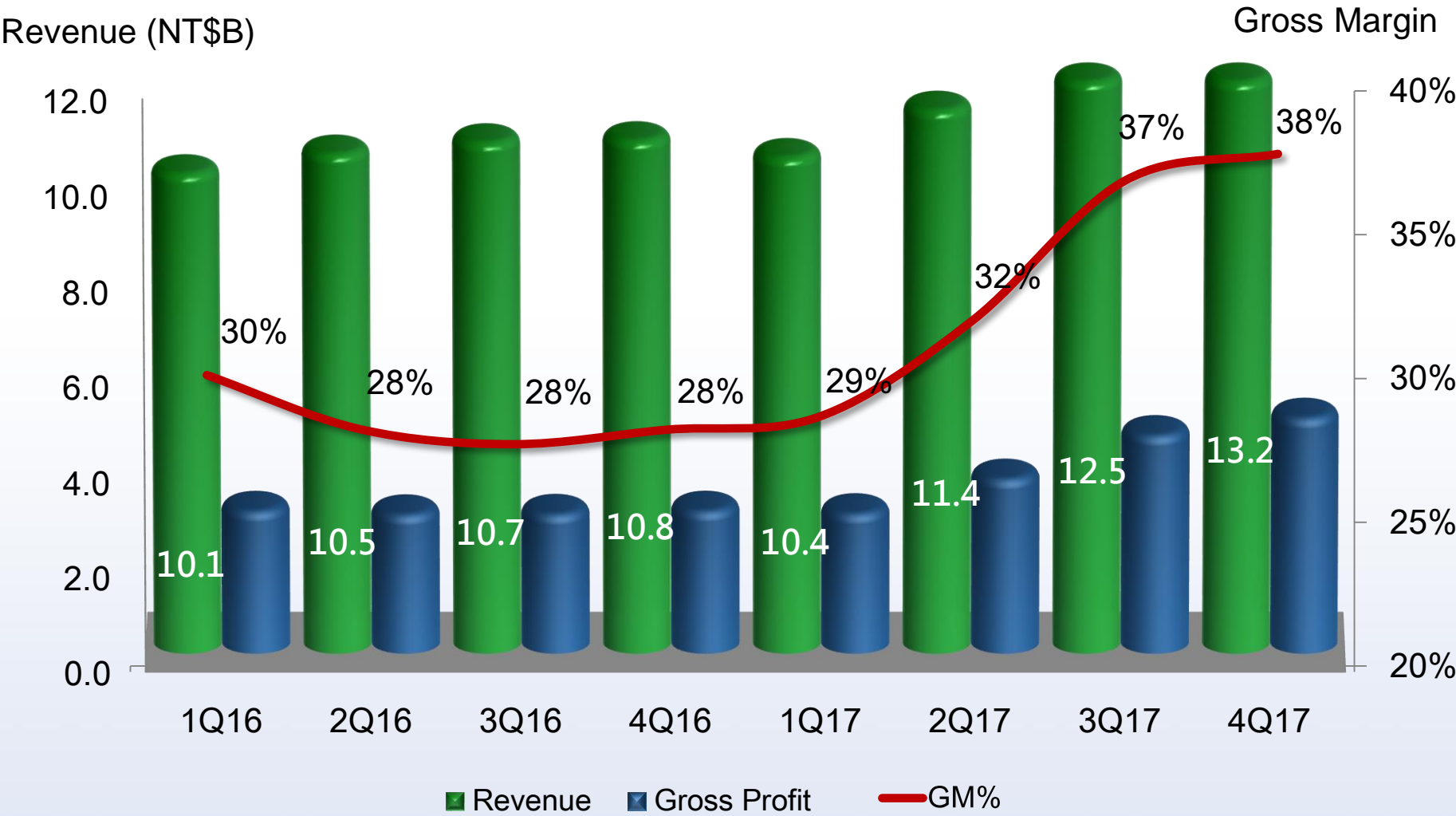


# Statement of Cash Flows-Memory

	4Q17	3Q17	2017	2016	YoY Change
Unit: NT\$ M	Amount	Amount	Amount	Amount	Amount
Operating Cash Flow	4,227	3,136	11,879	9,338	2,541
Investing Cash Flow	(2,909)	(2,971)	(14,598)	(4,349)	(10,249)
Financing Cash Flow	7,290	(592)	9,503	(3,749)	13,252
Cash & Equivalents	11,658	3,049	11,658	4,874	6,784
Depreciation and Amortization	1,630	1,480	5,821	5,412	409
CAPEX	(2,851)	(3,538)	(15,108)	(4,797)	(10,311)

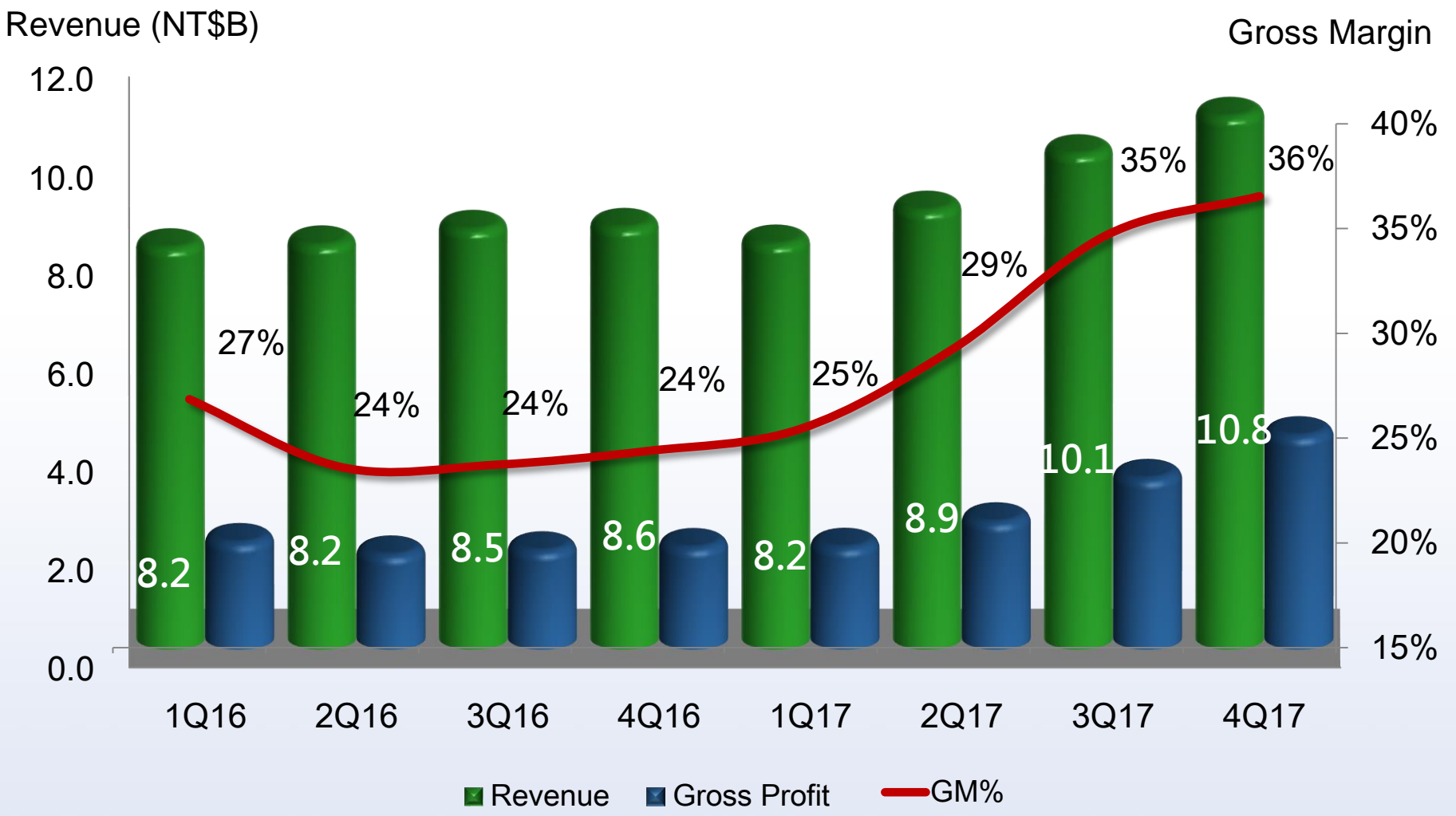


# Revenue and GM Trend- Consolidated



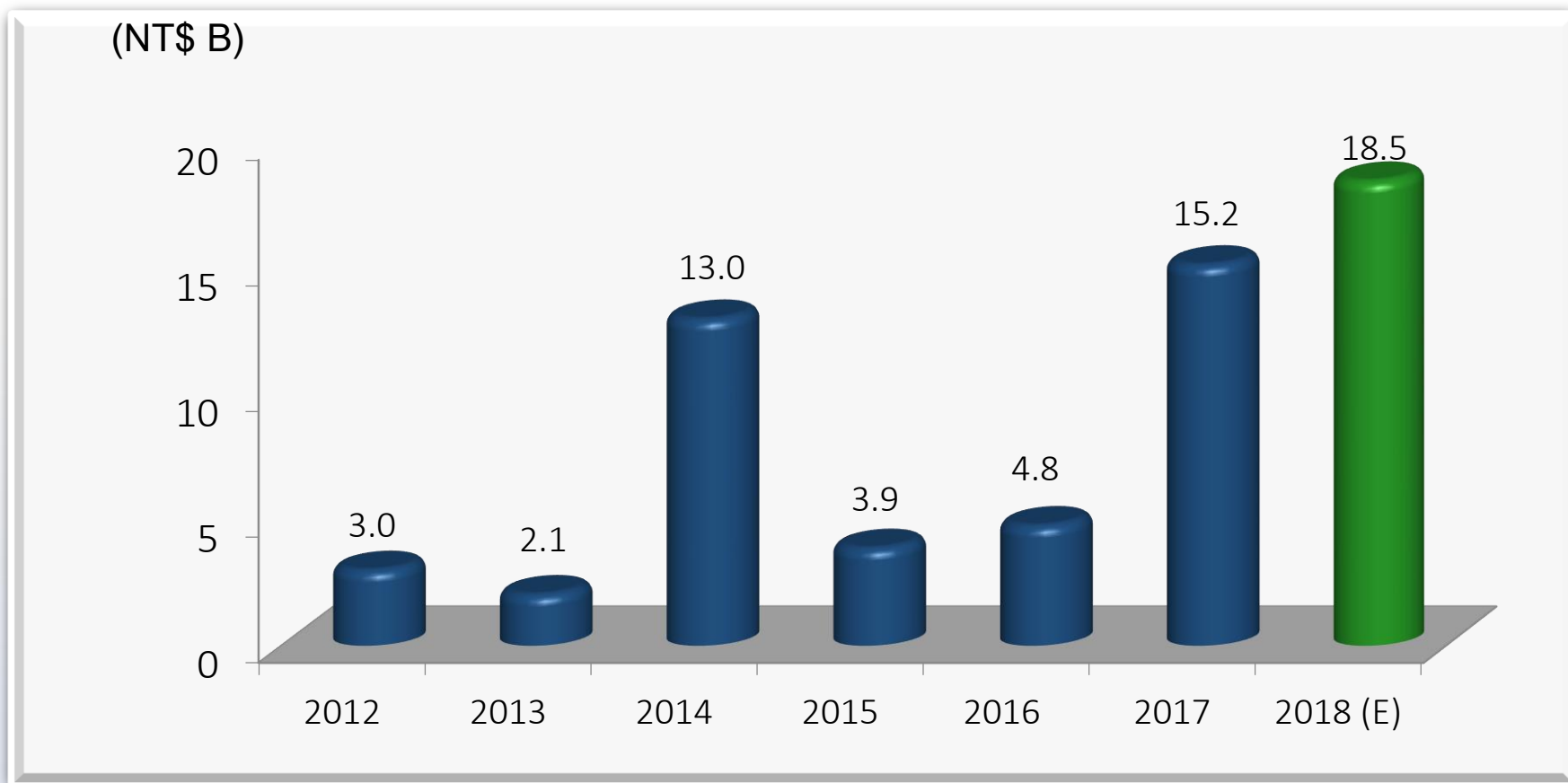


# Revenue and GM Trend- Memory





# Y2017 Memory CAPEX



CAPEX(Cash Basis) as of 02/02/2018

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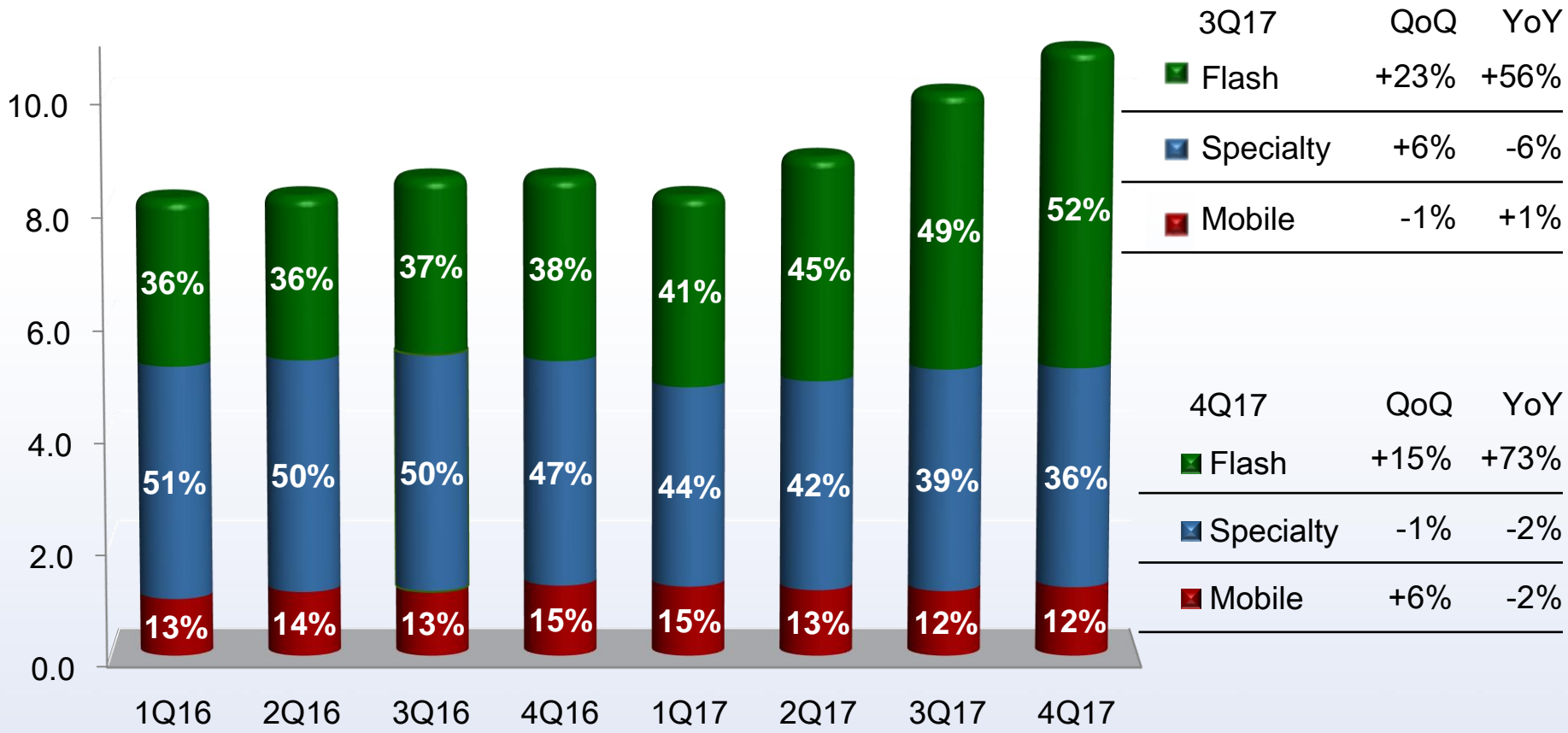
# **Winbond Business Update & Outlook**



# Revenue Breakdown by Product

**Two Equal-Size Business Drivers**

Revenue (NT\$B)





# Specialty DRAM Business

Revenue	QoQ	YoY
4Q17	-1%	-2%
3Q17	6%	-6%

- Revenue was constrained by limited capacity
- Better product mix resulted in higher gross margin YoY





# Mobile DRAM Business

Revenue	QoQ	YoY
4Q17	6%	-2%
3Q17	-1%	1%

- Demand for low density Mobile DRAM increased
- Expanding business in handheld applications



# Flash Memory Business

Revenue	QoQ	YoY
4Q17	15%	73%
3Q17	23%	56%

- Strong demand along with favorable ASP and capacity increase
- Increasing demand in NOR Flash and SLC NAND Flash by various applications and content per box



## Y2017 vs Y2016

NT\$B	Y2017	Y2016	YoY
Specialty	15.3	16.6	(8%)
Mobile	4.9	4.6	5%
Flash	17.9	12.3	46%
<b>Total Revenue</b>	<b>38.1</b>	<b>33.5</b>	<b>14%</b>
<b>Total Net Income</b>	<b>5.6</b>	<b>2.9</b>	<b>92%</b>

- Specialty DRAM revenue slightly declined due to limited capacity
- Stable business in Mobile DRAM
- Strong business growth in Flash with favorable market conditions and increased capacity

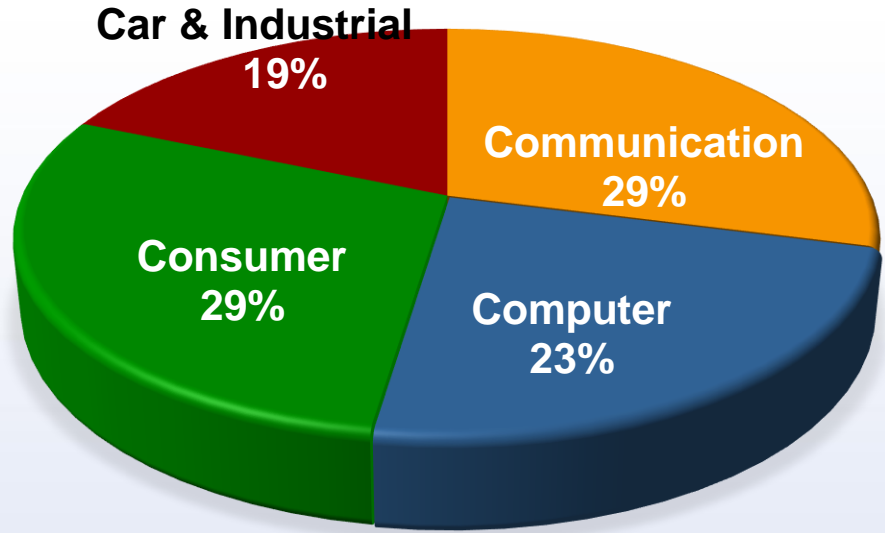
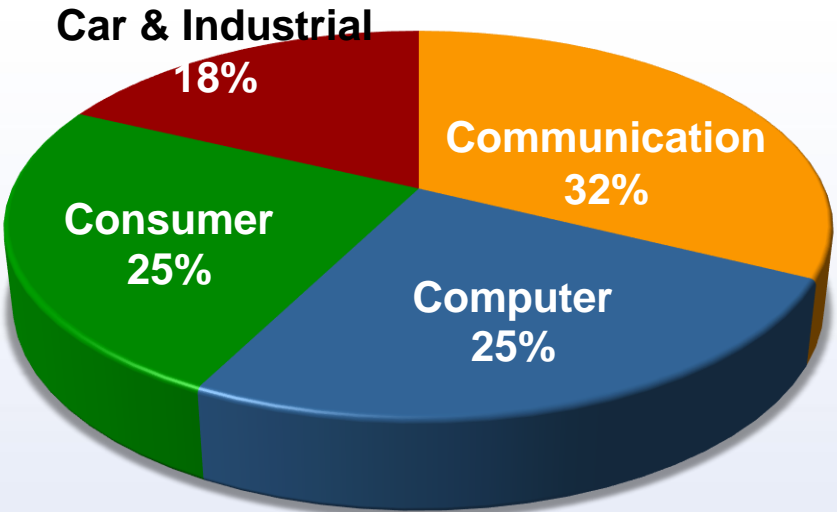


# Revenue Breakdown by Application

*Balanced 4C application portfolio*

2016

2017



Note: Revenue excluded foundry and others



## 2017 Winbond Business Recap

- ❑ Revenue and EPS reached 17-year high, despite NTD appreciation.
- ❑ Continued CAPEX investment to increase Fab capacity & technology migration
- ❑ Completed SPO fund-raising of NTD 8.8 billion in December



# Demand & Supply in Specialty DRAM

Demand & Supply		Trend in 1H18	Note
Demand	Content per Box	↑	<ul style="list-style-type: none"><li>▪ PON : from 512Mb to 2Gb, for higher speed and density</li><li>▪ HDD: from 256~512Mb to 1Gb~2Gb for higher density</li></ul>
	New Applications	↑	<ul style="list-style-type: none"><li>▪ Smart Speaker</li><li>▪ AI ASIC</li><li>▪ Mining Machine</li><li>▪ Industry 4.0 (IoT, automation etc.)</li></ul>
Supply	Total DRAM	→	<ul style="list-style-type: none"><li>▪ IHS Dec. 2017: WW DRAM wafer output growth is expected to be 2.8% YoY in 2018</li><li>▪ Slow technology migration</li></ul>
	Mid-low Density DRAM	→	<ul style="list-style-type: none"><li>▪ New capacity is planned for high-density (&gt;4G) DRAM</li><li>▪ Slower smartphone demand may shift some capacity to specialty DRAM</li></ul>



# Demand & Supply in Code Storage Flash

Demand & Supply		Trend in 1H18	Note
Demand	Content per Box	↑	<ul style="list-style-type: none"><li>Surveillance : from 1Gb SLC NAND to 2Gb</li><li>XPON : from 128Mb SPI NOR to 256Mb</li><li>PC BIOS : from 64/128Mb to 128/256Mb, even 256Mb</li></ul>
	New Applications	↑	<ul style="list-style-type: none"><li>Smart Speaker</li><li>Face Recognition</li><li>Ear Phone</li><li>AMOLED</li><li>Automotive</li></ul>
Supply	SPI NOR	↑	<ul style="list-style-type: none"><li>Wafer capacity increases by 13%, mainly in China</li><li>Major players either gradually defocus or expand capacity limited</li><li>Slow migration to 5x nm and 4x nm</li></ul>
	SLC NAND	→	<ul style="list-style-type: none"><li>Wafer capacity flat</li><li>Big players focus on 3D NAND</li></ul>





## 2018 Winbond Business Outlook

- ☐ Markets in Specialty DRAM, NOR Flash and SLC NAND remain healthy
- ☐ Total capacity will increase from 46K to 52K WPM (26K DRAM + 26K Flash)
- ☐ Continue to enhance profitability by improving product mix
- ☐ Shipment in 3x nm DRAM increases