

Financial Analysis

Consolidated financial analysis (2016-2020)

		2016	2017	2018	2019	2020
Financial structure	Liabilities to assets ratio (%)	56.28	57.60	53.95	51.81	61.00
	Long-term fund to PP&E ratio (%)	253.36	221.53	256.51	285.33	281.14
Solvency	Current ratio (%)	89.87	57.28	69.40	67.17	54.83
	Quick ratio (%)	77.88	48.71	58.59	53.39	43.86
	Interest coverage ratio (%)	2,949.77	2,883.04	3,039.18	2,984.90	2,598.88
Operations	Accounts receivable turnover (x)	5.55	5.85	14.08	14.81	15.66
	Average collection days	65.76	62.39	25.92	24.64	23.30
	Inventory turnover (x)	11.08	11.58	12.70	12.92	12.70
	Accounts payable turnover (x)	11.45	10.57	11.20	12.44	11.54
	Average days sales	32.94	31.51	28.74	28.25	28.74
	Property, plant and equipment turnover (x)	2.60	2.79	2.95	3.32	3.38
	Total asset turnover (x)	0.76	0.77	0.77	0.80	0.78
Profitability	Return on assets (%)	10.72	10.12	9.77	8.83	7.62
	Return on equity attributable to owners of the parent company (%)	25.54	23.64	21.84	19.21	16.92
	Return on Invested Capital (%)	13.26	12.43	12.11	11.43	9.46
	Pre-tax income as a % of paid-in capital	56.10	51.54	51.66	47.25	44.01
	Net income margin (%)	13.66	12.76	12.20	10.68	9.33
	EPS (NT\$)	5.63	5.21	5.01	4.51	4.01
Cash flow	Cash flow ratio (%) ¹	83.45	53.68	71.09	67.87	54.23
	Cash flow adequacy ratio (%)	99.82	100.84	107.37	112.96	121.06
	Cash reinvestment rate (%)	8.79	7.79	7.45	7.58	8.09
Leverage	Operating leverage	2.74	2.79	2.88	2.93	3.01
	Financial leverage	1.03	1.03	1.03	1.03	1.04

Explanation of significant changes in 2020 compared with the previous year:

1. Cash flow ratio decreased in 2020 compared with 2019 due to an increase in debts.

Note 1: In accordance with IFRS 15 "Revenue from Contracts with Customers" accounts receivables of bundle sales are recognized as contract assets since 2018, causing significant changes of relative ratios in 2018 compared with the previous year.

Stand-alone financial analysis (2016-2020)

		2016	2017	2018	2019	2020
Financial structure	Liabilities to assets ratio (%) ¹	56.42	57.70	54.18	51.10	61.75
	Long-term fund to PP&E ratio (%)	375.18	357.74	423.47	492.60	447.87
Solvency	Current ratio (%) ¹	60.90	39.66	43.43	40.08	27.92
	Quick ratio (%) ¹	50.07	33.15	37.24	31.97	23.17
	Interest coverage ratio (%)	2,887.46	2,716.04	2,700.99	2,603.12	2,145.09
Operations	Accounts receivable turnover (x)	4.56	3.97	9.33	9.32	8.53
	Average collection days	80.04	91.93	39.12	39.16	42.79
	Inventory turnover (x)	6.07	6.19	6.23	6.87	6.09
	Accounts payable turnover (x) ²	14.38	13.32	17.67	27.34	20.79
	Average days sales	60.13	58.96	58.58	53.12	59.93
	Property, plant and equipment turnover (x)	2.69	2.87	2.82	2.98	2.53
	Total asset turnover (x)	0.57	0.53	0.47	0.44	0.37
Profitability	Return on assets (%)	11.26	10.51	10.08	9.14	7.60
	Return on equity (%)	25.54	23.64	21.84	19.21	16.92
	Return on Invested Capital (%)	12.12	11.28	10.83	10.02	8.20
	Pre-tax income as a % of paid-in capital	51.95	46.09	45.38	40.36	35.99
	Net profit margin (%)	19.02	19.28	20.81	19.99	19.84
	EPS (NT\$)	5.63	5.21	5.01	4.51	4.01
Cash flow	Cash flow ratio (%) ¹	60.67	38.65	48.50	48.38	35.97
	Cash flow adequacy ratio (%)	74.13	76.51	83.91	89.37	97.27
	Cash reinvestment rate (%) ³	4.26	3.45	2.68	2.93	3.57
Leverage	Operating leverage	2.93	3.38	3.69	3.92	4.46
	Financial leverage	1.04	1.05	1.06	1.07	1.09

Explanation of significant changes in 2020 compared with the previous year:

1. Liabilities to assets ratio increased, while current ratio, quick ratio and cash flow ratio decreased in 2020 compared with 2019 due to the issuance of bonds and the increase in short-term notes and bills payable.
2. Accounts payable turnover decreased in 2020 compared with 2019 due to higher average inventory in 2020.
3. Cash reinvestment rate increased in 2020 compared with 2019 due to lower dividend payment and the capex growth amid 5G construction in 2020.

Note 1: In accordance with IFRS 15 "Revenue from Contracts with Customers," accounts receivables of bundled sales are recognized as contract assets since 2018, causing significant changes of relative ratios in 2018 compared with the previous year.

Note 1: The financial data for 2016-2020 have been duly audited by independent auditors.

Note 2: Formulas for the above tables:

Financial structure

- (1) Debt to asset ratio = Total liabilities / Total assets
- (2) Long-term fund to PP&E ratio = (Shareholders' equity + Long-term liabilities) / Net PP&E

Solvency

- (1) Current ratio = Current assets / Current liabilities
- (2) Quick ratio = (Current assets – Inventory – Prepaid expenses) / Current liabilities
- (3) Interest coverage ratio = Income before interest and taxes / Interest expense

Operations

- (1) Accounts receivable turnover = Net revenue / Average accounts receivable
- (2) Average collection days = 365 / AR turnover
- (3) Inventory turnover = COGS / Average inventory
- (4) Accounts payable turnover = COGS / Average accounts payable
- (5) Average days sales = 365 / Inventory turnover
- (6) PP&E turnover = Net revenue / Average net PP&E
- (7) Total asset turnover = Net revenue / Average total assets

Profitability

- (1) Return on assets = [Net income + Interest expense x (1 – Tax rate)] / Average assets
- (2) Return on equity = Net income / Average equity
- (3) Return on Invested Capital = [Net income + Interest expense x (1 – Tax rate)] / (Average Shareholders' equity + Average liabilities with interest)
- (4) Net income margin = Net income / Net sales
- (5) EPS = (Net income – Preferred stock dividends) / Weighted average outstanding shares

Cash flow

- (1) Cash flow ratio = Cash flow from operating activities / Current liabilities
- (2) Cash flow adequacy ratio = Net cash flow from operating activities for the past 5 years / (Capital expenditure + Increases in inventory + Cash dividends for the past 5 years)
- (3) Cash reinvestment rate = (Cash flow from operating activities – Cash dividends) / (Gross PP&E + Long-term investments + Other assets + Working capital)
(Note: Use zero if working capital value is negative)

Leverage

- (1) Operating leverage = (Net revenue – Variable operating costs and expenses) / Operating income
- (2) Financial leverage = Operating income / (Operating income – Interest expense)