Tripod Technology Corp 3044 TT

TECHNOLOGY | TAIWAN

Initiating

NEUTRAL

NOMURA

NOMURA INTERNATIONAL (HK) LIMITED
TAIPEI BRANCH

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Our view

Despite its strong cost competitiveness, execution, and market-share gains in HDI and NB PCBs, Tripod is not immune to macro woes, especially when its major segments — DRAM, TFT-LCD and HDD (accounting for a combined 57% of FY08F sales) — are facing severe oversupply/slowdown. Initiating at NEUTRAL.

Anchor themes

- Growth in the mature PCB industry is highly correlated to the macro environment, and in view of deteriorating macro conditions, Prismark expects global PCB revenue to decline 6.5% in FY09F (in line with the SIA's forecast 5.6% decline in global semiconductor revenue), down from an increase of 3.4% in FY08F.
- To outperform the industry, PCB makers would need to have: 1) a cost-competitive business model to gain market share; 2) sufficient capacity expansion quotas in China; and 3) ability to migrate to higher-end PCBs (such as HDI and substrate).

Closing price on 24 Nov	NT$26.90
Price target	**NT$28.40**
Upside/downside	5.6%
Difference from consensus	-45.4%
FY09F net profit (NT$mn)	2,190
Difference from consensus	-17.9%

Source: Nomura

Nomura vs consensus

Our FY09F bonus-adjusted net profit forecast is 18% below consensus, as we are more cautious on the impact of macro conditions — our sales forecast is 10% below consensus.

Hibernation

① Tough year ahead

Following sustained sales growth (39% CAGR) in FY02-08F, we believe Tripod, a leading global PCB maker for DRAM, TFT-LCD and HDD, is likely to experience its first decline in sales revenue (-7% in FY09F), due to macro woes. We believe lower utilisation and pricing pressure will cause Tripod's net margin to narrow 2.5pp and earnings to decline 30% in FY09F. While we see HDI and NB PCBs as growth drivers in the coming years, we expect such growth to be offset by a 13-16% sales decline in DRAM, TFT-LCD and HDD in FY09F amid limited market-share expansion and oversupply of DRAM and TFT in the next six to nine months.

② Well placed for the downturn

Tripod beefed up its financial position ahead of the downturn: 1) securing more cash to mitigate credit-tightening risk; and 2) enhancing its AR insurance and AR factoring programme to reduce customer risk. We believe it has stronger financial fundamentals than most local peers, given its: 1) profitability; 2) relatively low net debt to equity (26% in 3Q08); and 3) adequate cash position and FCF.

③ Wait for better timing

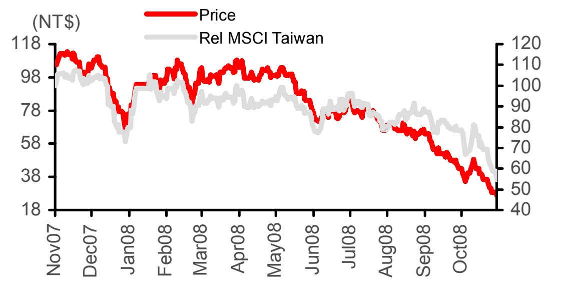
We initiate coverage with a NEUTRAL rating and a 12-month price target of NT$28.4 (at its trough valuation of 6.0x P/E and 0.8x P/BV for FY09F). We believe Tripod deserves a higher valuation than its peers (5.0x P/E and 0.5x P/BV on average), given its high ROE, execution record and transparency. But while Tripod is competitive in terms of market share, cost, and management, we see few positive catalysts in the near term. We recommend revisiting the stock in mid-2Q09F, when industry visibility should be clearer. Select TFT-LCD component names may hold more appeal right now.

Key financials & valuations

31 Dec (NT$mn)	FY07	FY08F	FY09F	FY10F
Revenue	27,342	30,816	28,721	32,400
Reported net profit	4,003	3,121	2,190	2,782
Normalised net profit	4,003	3,121	2,190	2,782
Normalised EPS (NT$)	8.85	6.80	4.73	6.01
Norm. EPS growth (%)	26.9	(23.1)	(30.4)	27.0
Norm. P/E (x)	3.0	4.0	5.6	4.4
EV/EBITDA (x)	2.5	2.6	2.5	1.9
Price/book (x)	0.9	0.8	0.8	0.7
Dividend yield (%)	8.9	8.2	5.7	7.2
ROE (%)	34.4	21.7	13.7	15.8
Net debt/equity (%)	30.6	21.7	10.7	1.2
Earnings revisions				
Previous norm. net profit		na	na	na
Change from previous (%)		na	na	na
Previous norm. EPS (NT$)		na	na	na

Source: Company, Nomura estimates

Share price relative to MSCI Taiwan



	1m	3m	6m
Absolute (NT$)	(37.7)	(59.5)	(72.8)
Absolute (US$)	(37.6)	(62.0)	(75.2)
Relative to Index	(27.2)	(16.8)	(17.3)
Market cap (US$mn)			372.6
Estimated free float (%)			85.4
52-week range (NT$)			113.2/26.90
3-mth avg daily turnover (US$mn)			3.24
Stock borrowability			Hard
Major shareholders (%)			
USA Small World Fund			7.4
An-Huo International Investment			7.2

Source: Company, Nomura estimates

See the important disclosures and analyst certifications on pages 21 to 24. gl

Contents

Company dynamics and industry

Tough year ahead

Initiating at NEUTRAL with a price target of NT$28.4

We initiate coverage of Tripod with a NEUTRAL rating and a 12-month price target of NT$28.4, representing 6x FY09F EPS (fiscal year-end 31 December). We believe 2009 will be a challenging year for Tripod. Amid the global downturn, we expect the company's sales to decline 7% in FY09F — its first-ever full-year sales contraction — almost mirroring the decline in the printed circuit board (PCB) industry (down 6.5% in 2009F). We see growth in HDI PCBs and NB PCBs as likely to be overshadowed by the severe downturn in DRAM, TFT-LCD and HDD in the same period. Lower utilisation rates, pricing pressure and tax hikes are highly likely to eat into Tripod's bottom line. We forecast its net margin will narrow by 2.5pp y-y and earnings by 30% in FY09F. Our 4Q08F and FY09F EPS forecasts are 11% and 18% below market consensus, respectively.

Inexpensive valuation, but catalysts thin on the ground

Following a sharp correction in the stock (off 62%, compared with a 41% decline in the TWSE) over the past three months, we believe prevailing valuations (5.6x P/E and 0.8x P/BV for FY09F) largely discount the potential earnings decline in FY09F. Still, we think the deteriorating macro outlook is likely to deprive the stock of positive catalysts until mid-2Q09F at the earliest.

Select TFT-LCD component names may hold more appeal

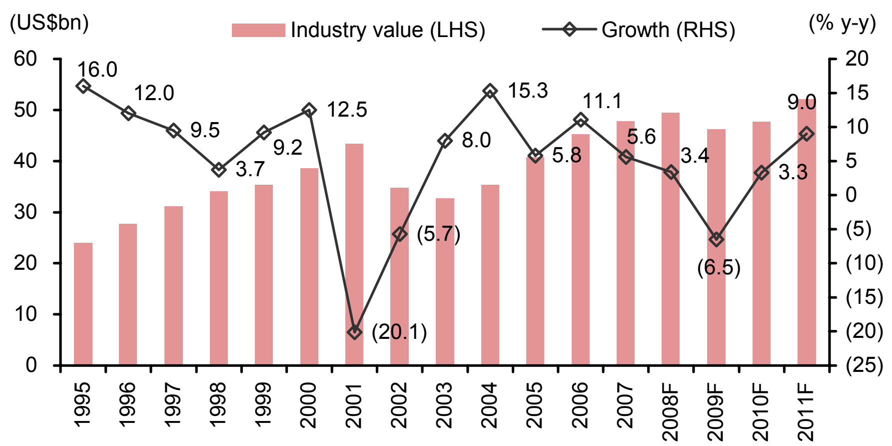
With Unimicron and Nanya PCB also rated NEUTRAL, we think the PCB/substrate sector is not yet ready for bargain hunting. Since Tripod is the global No. 2 TFT-LCD PCB maker (22% of FY08F revenue from TFT-LCD PCBs), we think investors would do better to consider select TFT-LCD component names, such as Novatek Microelectronics (3034 TT; NT$24.75; BUY) and Radiant Opto-Electronics (6176 TT; NT$17.50; BUY).

Global PCB revenue set to decline in 2009F…

Prismark forecasts global PCB revenue will decline by 6.5% in 2009F

The PCB industry's revenue growth is closely correlated with global semiconductor growth and global economic growth, reflecting the maturity of the industry and high usage of electronic products. Amid the global economic slowdown, Prismark, a leading research institute for the PCB industry, forecasts global PCB revenue will decline by 6.5% in 2009F, down from an increase of 3.4% in 2008F. This is in line with SIA, a leading semiconductor research institute, which forecasts a 5.6% revenue decline for the global semiconductor industry in 2009F.

Exhibit 1. PCB industry value and growth



Source: Prismark

…and Tripod's sales likely to do likewise in FY09F

Revenue decline in FY09F is a reflection of the industry downturn rather than market-share loss

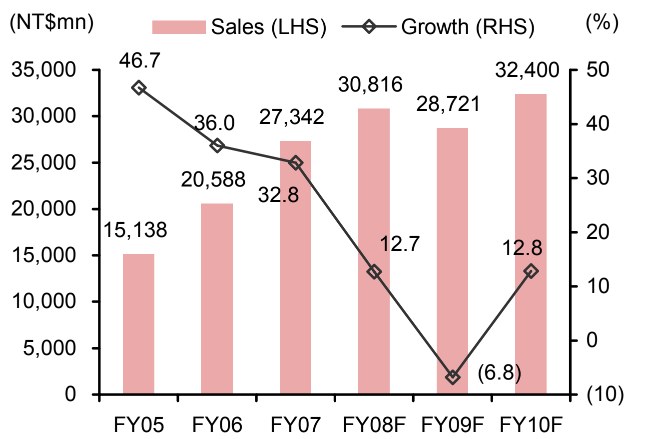
We forecast a marked slowdown in Tripod's sales growth to 13% in FY08F (with 4Q08F sales declining 15% q-q) before a contraction of 7% in FY09F. Sales in FY07 were up a full 33% (Exhibit 2). On our reading, Tripod's major segments — DRAM, TFT-LCD and HDD (accounting for a combined 57% of FY08F sales) — are facing a severe oversupply/slowdown in this downturn. We note that our projection of revenue contraction at Tripod rests on the broader industry downturn rather than on market-share loss.

FY09F revenue growth in HDI and NB PCBs likely to be offset by declines in DRAM, TFT-LCD and HDD PCBs

Indeed, we expect the company to retain its leading market position in DRAM, TFT-LCD and HDD, given its cost competitiveness and strong execution. Moreover, we expect the company's HDI PCBs and NB PCBs to deliver steady revenue growth in the next two years (Exhibit 5), primarily owing to a relatively low sales base and also Tripod's smaller market share in these segments.

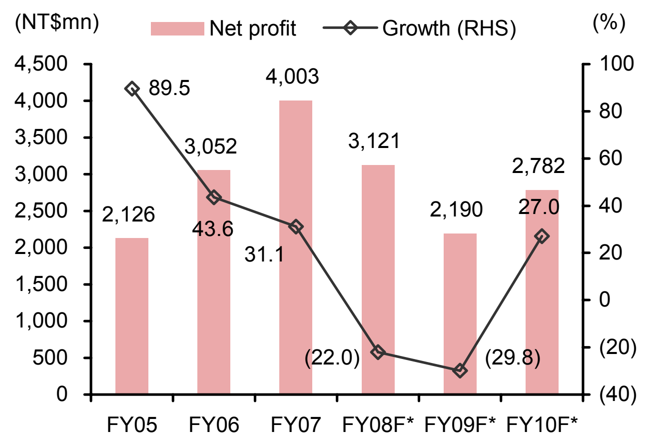
In terms of product application, Tripod has a diverse product mix (Exhibit 4) in DRAM modules, TFT-LCD, HDD, HDI, NB, among others. In terms of PCB product type, conventional PCBs account for about 81% of FY08F revenue (for applications such as DRAM, TFT-LCD, HDD, NB, mother board), while HDI PCBs account for 15% of FY08F sales (for handsets, GPS, MP3 and higher-end NBs). Some 4% sales are from substrates. See below for Tripod's major product applications.

Exhibit 2. Tripod: consolidated sales and growth



Source: Company data, Nomura research

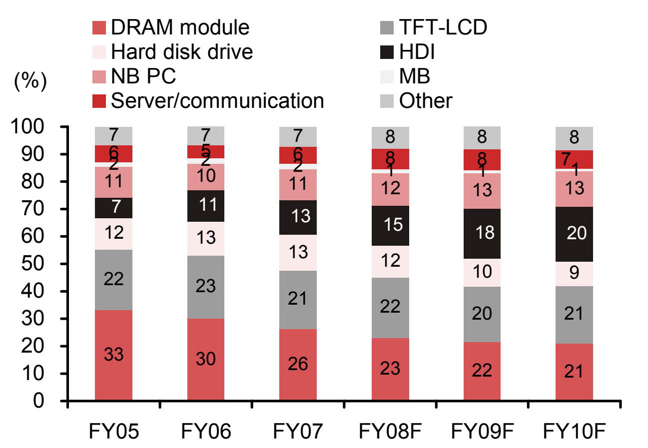
Exhibit 3. Tripod: net profit and growth



* Including employee bonus expenses

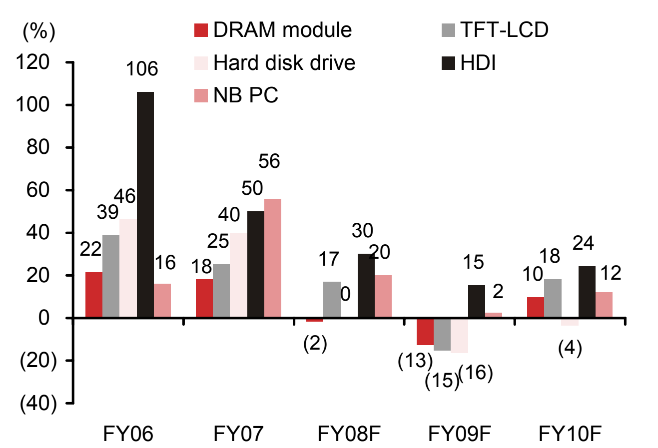
Source: Company data, Nomura research

Exhibit 4. Tripod: sales revenue by application



Source: Company data, Nomura research

Exhibit 5. Tripod: revenue growth, major applications



Source: Company data, Nomura research

HDI (15% of FY08F sales) — key growth driver

Of Tripod's product lines, HDI is growing most rapidly. We expect Tripod's HDI PCB sales to expand 15% in FY09F, due to: 1) shipment growth at China handset makers; 2) penetration into top handset EMS or ODM makers for tier-one handset OEMs; 3) continued revenue growth in GPS and NB-used PCBs; and 4) a relatively low base. Since margins on HDI PCBs are comparatively high, a shift in product mix should help to ease some margin pressure on conventional PCBs.

Broadening handset PCB customer base from Chinese vendors to tier-one brands

Handsets. We estimate handset-use PCBs will account for about 70% of Tripod's HDI PCB sales in FY08F. Tripod, a newcomer in handset HDI PCBs, has penetrated handset applications through Chinese handset makers such as ZTE, Lenovo, Haier, and Konka, as well as some white-box handset makers. In 3Q08, Tripod had a good start in supplying tier-one handset OEMs and Apple through Foxconn International Holdings (FIH), and expects to further expand its penetration through a Korean handset OEM in 4Q08F. Given Tripod's broad customer base and healthy growth in the Chinese handset market, we expect its handset market share to rise to 4.6% in FY09F, from 3.6% in FY08F.

GPS, MP3 players and higher-end NBs. The remaining 30% of HDI sales come from GPS, MP3 players and NBs. Tripod has co-operated with Apple in MP3 players and NBs for several years. It also supplies GPS-use PCBs to Garmin, TomTom and Mio.

NB PCs (12%) — steady growth

Scope for further market-share gains in NB PCBs

We put growth in Tripod's conventional NB PCB revenue at a 53% CAGR in FY05-08F, outpacing revenue growth in the broader industry. However, since global NB shipment growth is likely to drop substantially in FY09F, we conservatively forecast 3% revenue growth for Tripod's NB PCB business in FY09F, down from 20% in FY08F. Tripod supplies PCBs to NB ODMs, chiefly through Quanta, and some through Wistron and Compal, for NB OEMs such as Apple and Dell. Given its small market share (7-8%) in NB PCBs, we believe Tripod's growth could exceed that of the industry, upon increased penetration in Wistron, Compal and Inventec.

TFT-LCD (22%) — a challenging FY09F

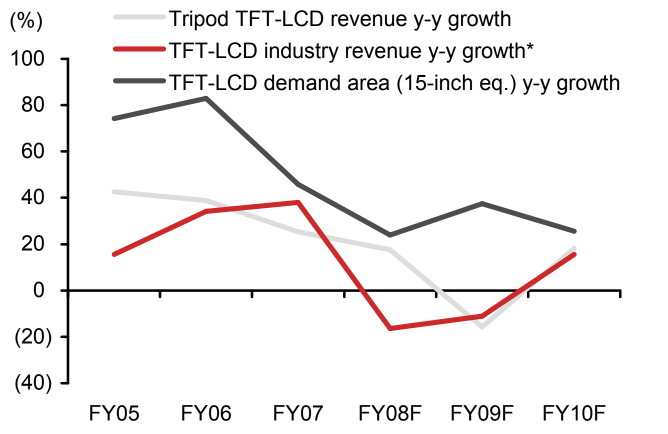
Global No. 2 TFT-LCD PCB maker, with a strong customer base

Tripod is the No. 2 player in the global market for TFT-LCD PCBs, claiming an estimated 20-25% of the market for TFT-LCD PCBs, backed by the TFT-LCD supply chain in Taiwan and the company's cost competitiveness. We believe the Chi Mei Optoelectronics (CMO) and LG Display (LGD) supply chains offer further market-share gain potential. Tripod's key TFT-LCD customers include AU Optronics (AUO) , Samsung and Chunghwa Picture Tube (CPT). The company entered CMO's supply chain in 2H07 and has gradually increased its market share. It started supplying LGD in 2H08F.

We think Tripod will inevitably be hurt by panel oversupply in 1H09F

Our TFT-LCD analyst, Sean Wu, expects panel oversupply to persist in 1H09F, due to OEMs' tight inventory control in the weak demand environment. Tripod faces more severe competition in TFT-LCD than in other product lines. TPT, Tripod's major competitor in this segment, allied with smaller player Yang An in mid-2008 to become the largest PCB supplier (30-35% market share) for panel makers. TPT has aggressively cut prices in a bid to win market share, and this spells continued ASP/margin pressure for Tripod. We are therefore cautious on Tripod's TFT-LCD PCB business, despite the company's broad customer base. Given our expectation of ongoing pricing pressure, we forecast Tripod's TFT-LCD PCB revenue to decline by 15% in FY09F, compared with an 11% combined revenue decline at major panel makers (Exhibit 6). We see an upside risk to our forecasts if Tripod's market-share gains or ASPs exceed our expectations.

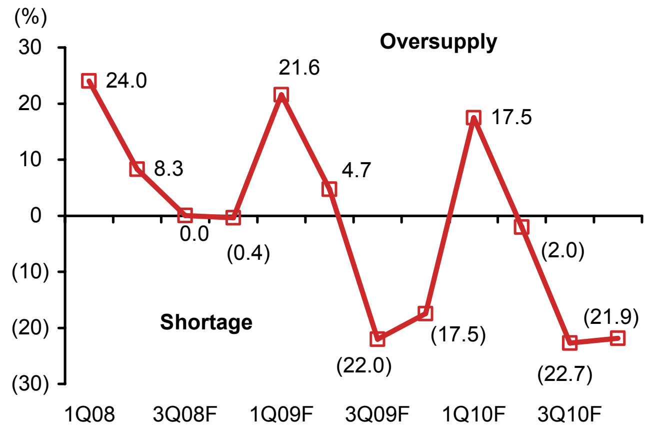
Exhibit 6. Tripod TFT-LCD sales growth versus industry growth



* Combined revenue growth of Samsung (TFT only), LGD, AUO, CMO, CPT, and Hannstar

Source: Company data, Nomura research

Exhibit 7. FY08-10F quarterly panel supply-demand forecast



Source: Company data, Nomura research

Memory (23%) and HDD (12%) likely to decline by 13-16%

Global No. 1 PCB maker for DRAM and HDD, but saturated market share and industry downturn will likely see Tripod's sales in these product lines decline by 13-16% in FY09F

Owing to product maturity and Tripod's large market share (memory 30-35% and HDD 25-30%), we do not expect the company to expand its share in these two segments in FY09-10F. We forecast that its revenue in these two products will decline 13-16% y-y in FY09F because of the deteriorating macro outlook.

Competition in DRAM module PCB seems moderate, since Tripod's major competitor, Simmtech, is shifting focus to BOC substrates. Tripod's key memory customers are Samsung, Kingston and Qimonda. We see limited default risks relating to these three clients in the near term, since Samsung and Kingston are industry leaders with strong financials and Qimonda reached an agreement with Micron in October 2008 to sell its Inotera stake to Micron for US$400mn.

For the HDD PCB product line, Tripod's major customers are Seagate, Western Digital and Samsung, which were the global number one, two and four HDD vendors, respectively, in 2Q08, according to IDC. Tripod mainly competes with Elec & Eltek and Topsearch in Hong Kong for these non-Japanese HDD vendors, and we believe Tripod will start to penetrate Hitachi, a global number-three HDD vendor, in 2009F at the expense of Japanese PCB makers.

Exhibit 8. Tripod: summary of product applications

	% of FY08F sales	Market share (%) (FY08F)	Global ranking	Key customers	Key competitors
DRAM module	23	30-35	No.1	Samsung, Kingston, and Qimonda	Simmtech in Korea
TFT-LCD	22	20-25	No. 2	Samsung, AUO, CPT, CMO, LGD	Korean Circuit and Daeduck in Korea and TPT (including Yang An) and Dynamic in Taiwan
HDD	12	25-30	No.1	Seagate, Western Digital, and Samsung	Elec & Eltek and Topsearch in Hong Kong for non-Japanese HDD makers
HDI (for handset, GPS, MP3)	15	Handset 3.6	n.a.	China handset makers (eg. ZTE, Haier, Konka) and white-box handset makers, Apple, FIH, Garmin, TomTom, Mitac	Unimicron, Unitech, Compeq, and Wus
NB PC	12	7-8	No.3	Quanta, Compal, Wistron	HannStar Board and Gold Circuit
Others (substrate, mother board, server and others)	17				

Source: Company data, Nomura research

Margin challenges — low utilisation rates and competition

We forecast Tripod's gross margin will narrow by 1.2pp in FY09F

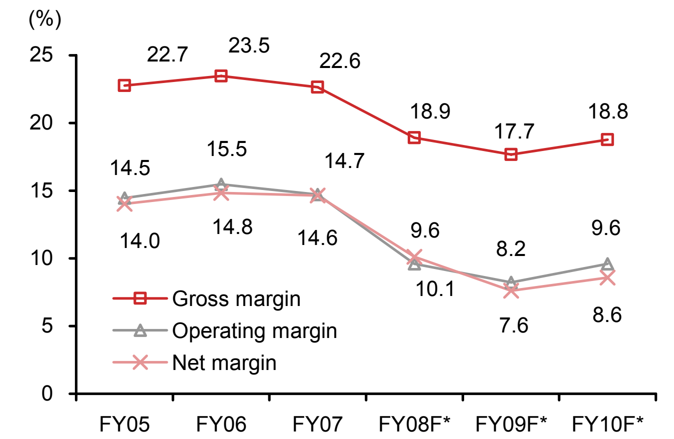
Despite recent positive catalysts for margins, such as lower raw material costs, a depreciating Taiwan dollar, and a favourable product mix (more HDI, on which margins are relatively high), we expect Tripod's gross margin to narrow to 17.7% in FY09F from 18.9% in FY08F, due to lower utilisation rates and intensifying competition (mainly in TFT-LCD).

FY09F utilisation likely to be lowest in the company's history

We expect Tripod record a decline of 15-16% q-q in sales in 4Q08F and 1Q09F. We estimate its utilisation rate will drop from 85% in 3Q08 to around 68% in 4Q08F, 57% in 1Q09F and 68% on average in FY09F (against 80% in FY08F). This would mark the first time in the company's history that utilisation had fallen below 80% for the full year. We estimate the low utilisation rate alone would result in a gross margin contraction of 2-3pp in FY09F.

However, since copper, copper-clad laminate (major cost of CCL also comes from copper) and gold account for a combined 30-35% of Tripod's costs, recent declines in raw material prices (copper and gold prices are down by 56% and 21% since July) should ease margin pressure resulting from a low utilisation rate.

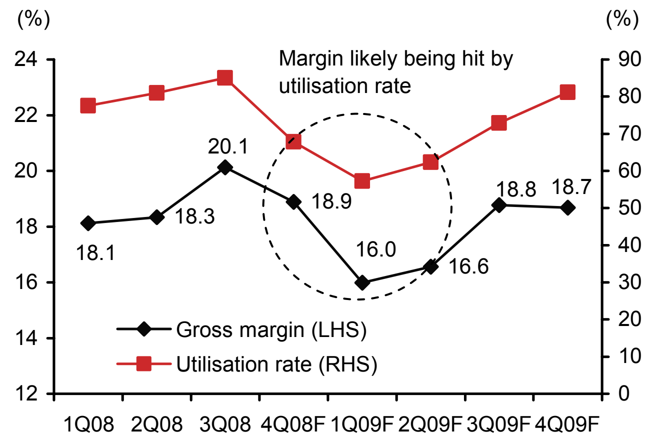
Exhibit 9. Tripod: annual margin trends



* Starting to factor in employee bonus expenses in FY08F

Source: Company data, Nomura research

Exhibit 10. Tripod: quarterly margin trends vs utilisation rate



Source: Company data, Nomura research

Company dynamics

Well-prepared for the downturn

Responsive to mounting macro risks

During a macro downturn, it is a game of survival. In our view, management and execution are Tripod's competitive edge, and we believe these factors will prove especially important amid the weak macro environment. The company has enhanced its financial strength ahead of the downturn by adopting several measures, including:

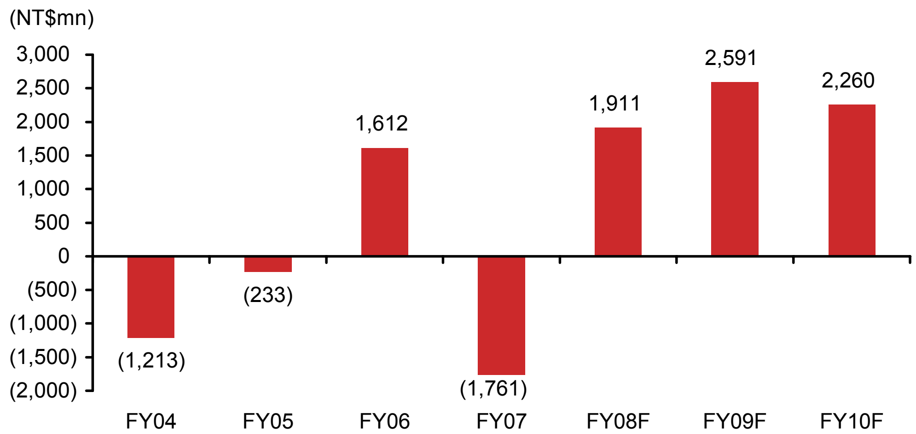
Cash secured ahead of credit tightening

Securing cash. In order to avoid credit-tightening risk, Tripod increased its long-term borrowing by NT$4.3bn in 1Q-3Q08, swelling its cash position to NT$5.2bn by 3Q08. With reduced capex (we expect it to fall 50% in FY08F and likely another 50% in FY09F), we estimate free cashflow will increase from NT$1,911mn in FY08F to NT$2,591mn in FY09F (Exhibit 11). Excess cash on hand should provide a buffer for Tripod's future operations.

AR insurance or AR factoring programme to reduce customer default risk

Reducing default risks of accounts receivable. Tripod has relatively high accounts receivable (AR) days (98 in FY08F), since it is highly exposed to local customers, which typically require long payment terms (about 120-150 days) compared with overseas customers (circa 90 days). Tripod uses AR insurance or an AR factoring programme to reduce credit risks relating to its clients and shorten its cash cycle with banks. Currently, about 40% of Tripod's accounts receivable are covered by these two methods. For Chinese white brand handset makers (1-2% of its FY08F sales), Tripod asks for 60-70% of the amount to be pre-paid in cash upon transaction.

Exhibit 11. Tripod: free cashflow improving



Source: Company data, Nomura Research

Financial check: strong relative to PCB peers

In analysing the financials of major PCB makers in Taiwan and Tripod's major overseas competitors, we find that Tripod is stronger on fundamentals, given its: 1) profitability; 2) lower net debt to equity; and 3) adequate cash position and FCF.

Tripod fares well in operating margin comparison

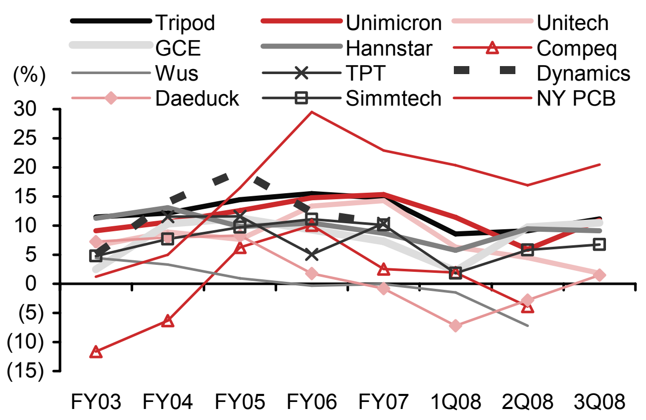
- **Profitability.** Tripod's operating margin has consistently outperformed most other Taiwan PCB makers and its major foreign competitors (only behind NY PCB), even though Tripod's products are mainly lower-margin conventional PCBs (Exhibit 12). We think Tripod's healthy profitability results from its cost competitiveness, quality management, and execution (for example, the company has a proprietary Enterprise Resource Planning (ERP) system to improve efficiency).

Lower net-debt-to-equity ratio

- **Net debt to equity.** Most Taiwan PCB makers, except NY PCB, have some gearing, since the PCB sector is capital intensive and requires consistent investment for new capacity or equipment upgrades. Tripod's net debt-to-equity ratio was 26% as of 3Q08, behind NY PCB (Exhibit 13).

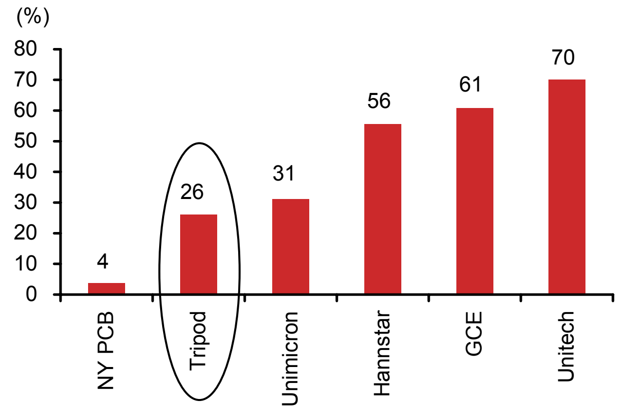
- **Cash and FCF.** Tripod's cash position is sufficient to cover its interest expenses and short-term debt payments (Exhibits 14 and 15), on our reading. Compared with local peers, Tripod has strong free cashflow in 1Q-3Q08 (again, behind only NY PCB), and we estimate free cashflow will increase in FY09-10F on reduced capex (Exhibit 11).

Exhibit 12. Operating margin comparison



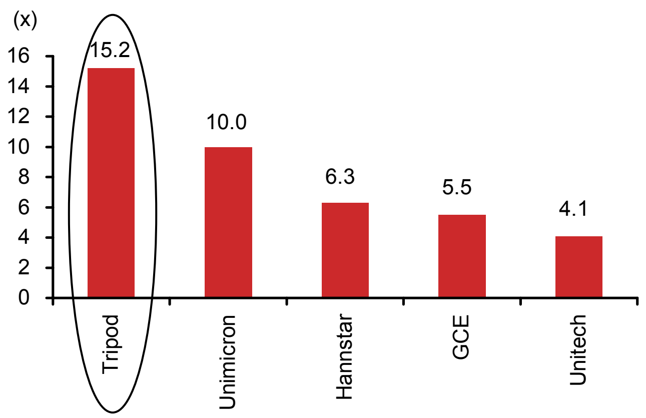
Source: Company data

Exhibit 13. 3Q08 net debt to equity comparison



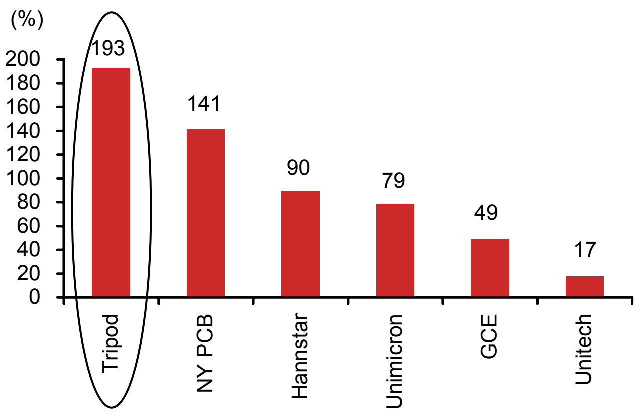
Source: Company data

Exhibit 14. 3Q08 interest coverage comparison



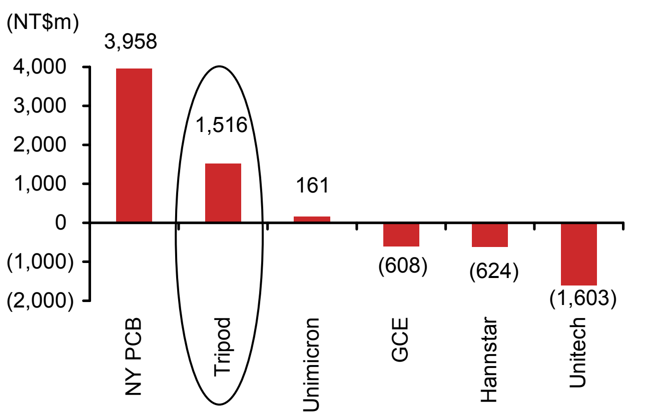
Source: Company data

Exhibit 15. 3Q08 cash/(S-T debt and current portion of L-T debt) ratio comparison



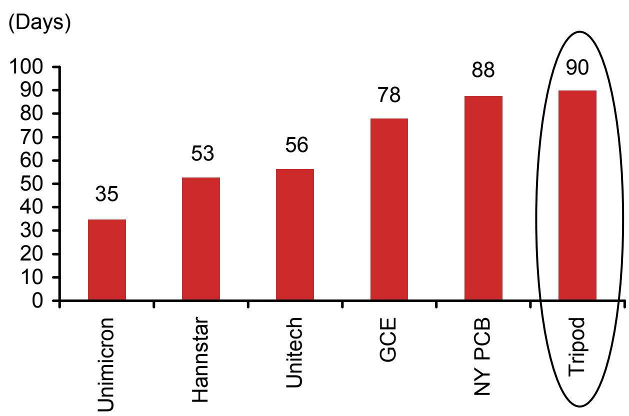
Source: Company data

Exhibit 16. 1Q-3Q08 free cashflow comparison



Source: Company data

Exhibit 17. 3Q08 cash cycle days comparison



Source: Company data

Valuation

Wait for a better time

NEUTRAL. Price target: NT$28.4, representing 6x FY09F EPS

We initiate coverage of Tripod with a NEUTRAL rating and set a 12-month price target of NT$28.4 at its trough valuation of 6x FY09F P/E. Compared with major PCB makers' average FY08F P/E of 4.3x and FY09F P/E of 5.0x, we assign Tripod a valuation premium for its stronger balance sheet, high ROE (Exhibit 21) and solid execution.

Re-rated in 2006-1H08, now back at trough level

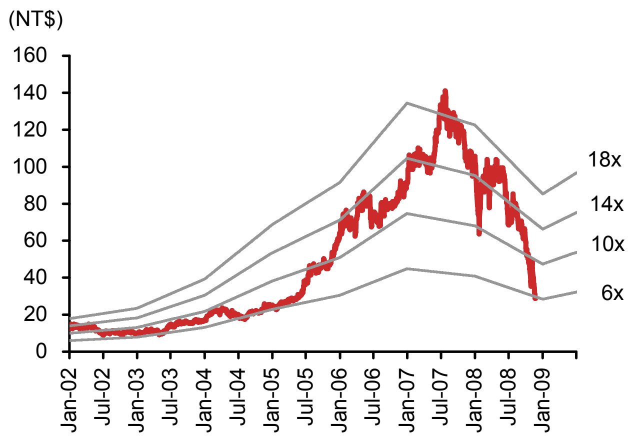
Tripod's P/E was re-rated to 10-20x in 2006-1H08, likely owing to the company's earnings growth, quality management, and high transparency. Its higher-than-peer ROE also supported its high P/BV during this period. However, the stock has been significantly de-rated since late-3Q08, coinciding with slowing revenue growth and deteriorating macro conditions. Tripod's current valuation (5.6x FY09F P/E, 0.8x FY08F P/BV) has returned to the trough level set prior to the re-rating in 2006.

But catalysts are thin on the ground. Worth revisiting in mid-2Q09F

Despite the inexpensive-looking valuation, we see few catalysts for the share price in the near term. We would suggest revisiting the stock in mid-2Q09F, when the visibility of recovery for the major sectors — TFT, DRAM, NB, and handsets, all of which Tripod is exposed to — should be clearer.

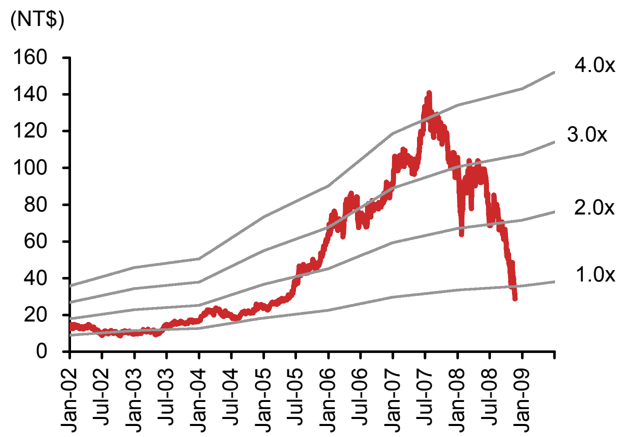
Key risks to our price target include: 1) better/worse-than-expected global demand; 2) worse/better-than-expected ASP; 3) market-share losses/gains in TFT-LCD and DRAM; 4) better-than-expected market-share expansion in HDI and NB PCB; and 5) better/worse-than-expected raw material cost changes.

Exhibit 18. Tripod: P/E band (bonus-adjusted)



Source: Company data, Nomura research

Exhibit 19. Tripod: P/BV band



Source: Company data, Nomura research

Exhibit 20. Valuation comparison

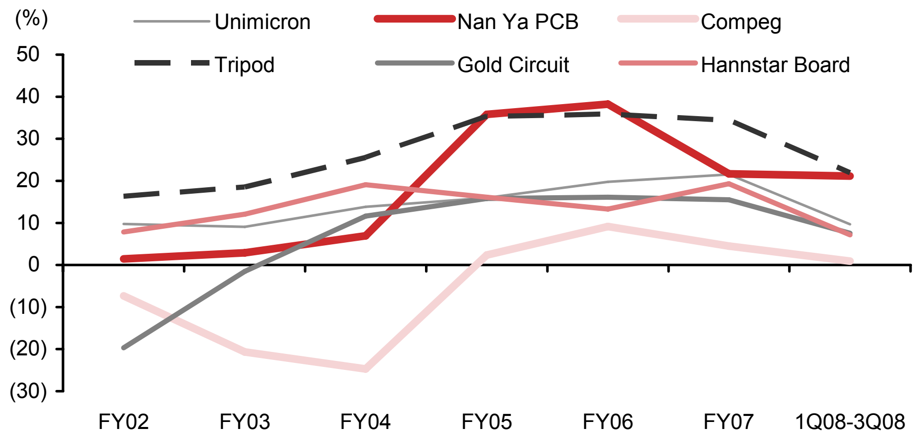
		Local price	Nomura	Fair	P/E		P/BV		ROE	
Company	**Ticker**	**(24 Nov)**	**rating**	**value**	**FY08F**	**FY09F**	**FY08F**	**FY09F**	**FY08F**	**FY09F**
Tripod	3044 TT	26.90	NEUTRAL	28.4	4.0	5.6	0.8	0.8	21.7	13.7
Unimicron	3037 TT	11.70	NEUTRAL	19.9	4.0	4.1	0.4	0.4	9.5	9.0
Gold Circuit	2368 TT	5.70	Not rated	na	4.0	4.2	0.3	0.3	10.6	10.2
Hannstar Board	5469 TT	10.20	Not rated	na	4.2	4.4	0.4	0.4	7.9	8.3
Nan Ya PCB	8046 TT	62.50	NEUTRAL	69.9	5.4	6.7	1.0	1.0	18.2	15.1
Daeduck	008060 KS	2,850	Not rated	na	na	6.6	0.4	0.4	(5.6)	6.3
Simmtech	036710 KS	2,290	Not rated	na	na	3.6	0.6	0.5	(16.9)	17.6
Average					**4.3**	**5.0**	**0.6**	**0.5**	**6.5**	**11.5**

Note: FY08F and FY09F forecasts for "not rated" companies are based on Bloomberg consensus.

Source: Company data, Bloomberg, Nomura research

Exhibit 21. Taiwan PCB makers consolidated ROE comparison

Highest ROE among peers



Source: TEJ, Company data

Appendix: Company profile

Diversified PCB maker

Company background

Founded in 1991, Tripod became one of the leading PCB makers within 10 years

Tripod is a diversified PCB maker, manufacturing PCBs used for DRAM, TFT-LCD, HDD, handset, NB, server and motherboards, among others. Founded in 1991, Tripod started out by focusing on point-of-sales equipment. The company set up a PCB division in 1996 and its Taiwan (Taoyuan) PCB factory started mass production in 1998. Since 2001, Tripod has been building production sites in China (Wuxi) with a view to enhancing cost competitiveness. Within ten years, Tripod has become one of the leading PCB makers in DRAM, TFT-LCD and HDD PCBs, and continues to deliver high growth in HDI PCBs (used in handset, GPS and NB) and conventional NB PCBs.

Listed on TSE in 2002

The company was listed on the OTC Bulletin Board in 2000 and on the Taiwan Stock Exchange in 2002. In FY02-07, Tripod's sales and earnings recorded a CAGR of 45% and 57%, respectively.

Management and shareholding structure

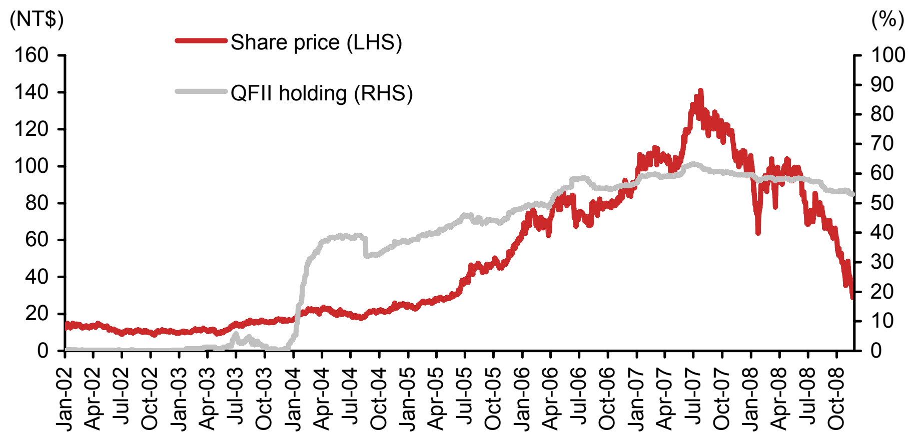
Jimmy Wang is the main man at Tripod

Jimmy Wang, the founder of Tripod, is also the company's CEO and chairman. He has introduced various efficiency-improvement concepts, which led to the development of the internal ERP system. This has become the key tool for Tripod to realise cost competitiveness across its various product lines.

Well-held (52%) by foreign investors

Around 52% of Tripod's shares are held by foreign investors (as of 21 November) and about 25% by directors, supervisors and managers. Foreign investors' holdings increased substantially in 2004–05 as investors started to recognise the company's robust earnings growth and solid execution. Foreign investors' holdings peaked at 63% in 3Q07 and decreased gradually thereafter, in the face of slower sales growth and declining margins (because of higher labour costs in China, rising raw material prices, and NT dollar appreciation in 1H08).

Exhibit 22. Tripod: foreign investor holdings



Source: *Taiwan Economic Journal (TEJ)*

Key strengths — cost competitiveness and diversification

Pursuing cost leadership

Cost. Tripod's strategy is to gain market share in mature applications through cost competitiveness and quality execution. The company uses its proprietary ERP system to control production efficiency, analyse cost structure and optimise profitability. Since Tripod does not seek to be a technology leader in the PCB industry, the company focuses on products where entry barriers are low and it can gain market share via cost. Tripod usually takes over market share when other major players exit in search of higher-margin products.

Diversification. Arguably the other key strength of Tripod is its diversified product mix. In Taiwan, most major PCB makers tend to focus on one or two applications, in contrast to Tripod's diversified approach. For example, NY PCB mainly focuses on IC substrate (FC and PBGA, 70%-plus of sales). Unimicron leads in handset/HDI PCB (some 50% of sales), and in recent years it has emphasised higher-value-added products, such as IC substrates (CSP and FC) and rigid-flex PCBs. Hannstar Board and GCE are the global No.1 and No. 2 NB PCB makers, respectively, and have a combined market share of 75% globally. Although Hannstar Board and GCE have other product applications, such as networking, TFT-LCD, handset and consumer products, NBs still accounts for about 65% and 40% of respective sales this year.

Most diversified PCB maker in Taiwan

As we see it, Tripod's diversification should help lessen the volatility of a single-product segment. We believe Tripod has the ability to control production efficiency and manage client relationships across various product segments.

Diversification should reduce sales volatility

Key customers

Tripod has a diversified and strong customer base, in our opinion. Samsung ranks top, accounting for 10-15% of the company's FY08F sales. Kingston, Seagate, AUO, Apple, and Dell are also major customers, each accounting for 5-10% of sales.

Samsung, Kingston, Seagate, AUO and Apple are key customers

Slower capacity expansion

In the face of demand weakness, Tripod has cut its capex substantially from 2H08F. We believe it is unlikely to expand capacity in FY09F and is maintaining capex for equipment upgrades. The reduced capex enhances free cashflow (Exhibit 23).

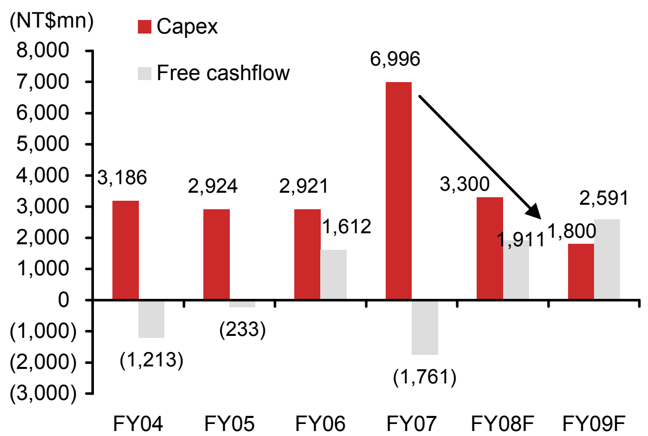
Capex likely cut to NT$1.8bn in FY09F

Tighter regulations in China on wastewater emissions have made it difficult for PCB makers to obtain licences for new capacity. We believe Tripod has secured enough wastewater emission quotas in China for future expansion, since Wuxi, where Tripod's production sites are located, has few large electronic companies and water-intensive companies, unlike Suzhou, Kunshan and southern China.

Tripod appears to have secured enough wastewater emission quotas in China for future expansion

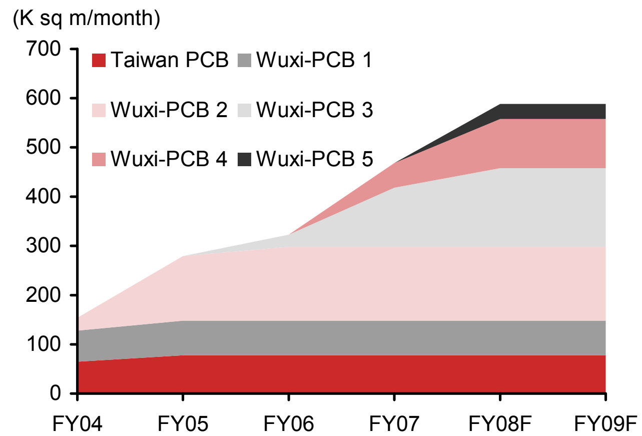
The combination of stricter environmental controls in China and slowing macro demand is likely to squeeze out some smaller conventional PCB makers in 2008-09F, in our view. We believe this is positive for the PCB industry's supply-demand scenario and for Tripod's growth after this downturn.

Exhibit 23. Tripod: reduced capex in FY08-09F



Source: Company data, Nomura research

Exhibit 24. Tripod: capacity expansion



Source: Company data, Nomura research

Sensitivity to global recession; trough valuation

Earnings and price target sensitivity

With financial turmoil in the US and EU worsening in 3Q08, it is clear that problems in the financial system are likely to affect the real economy in more advanced economies throughout most of 2009F.

Increasing risk of economic contraction in the West

We now expect sub-zero growth rates at least until 2Q09F in advanced economies including the US, the EU and Japan. In the US, we believe the credit crunch will be prolonged, even though systemic risk in the financial system is likely to be averted via various measures, including injections of public funds into banking institutions and coordinated reductions in policy interest rates. In the Eurozone, the knock-on effect of the situation in the US is likely to keep the real economy stagnant, with real growth in 2009F projected at *negative* 0.8%. Japan will suffer as a result of lower demand for its exports and yen appreciation, as well as lower stock prices. The cumulative impact on Asia ex-Japan is a tough 2009F all round.

Sub-zero US growth is assigned 60% probability

- Our **Base Case**, to which we assign 60% probability, assumes that US real GDP is set to shrink by 1% in 2009F. We think US economic growth will remain negative sequentially until 2Q09F, and we have slashed our Asian growth forecasts across the board. China and India remain relatively resilient.

Exhibit 25. Asia: 2009F real GDP growth forecasts

(%)	Base Case	Upside Scenario	Downside Scenario
China	8.0	9.0	7.7
Hong Kong	0.5	1.9	(2.0)
Taiwan	0.6	2.1	(1.5)
Korea	2.7	3.8	1.0
Singapore	0.3	2.4	(2.7)
Malaysia	2.0	3.3	0.3
Thailand	3.2	4.5	1.5
Indonesia	4.5	5.5	3.5
Philippines	3.0	3.9	1.6
Vietnam	5.5	6.9	4.7
India	6.9	7.5	5.7
Australia	2.0	3.0	1.2

Source: Nomura estimates

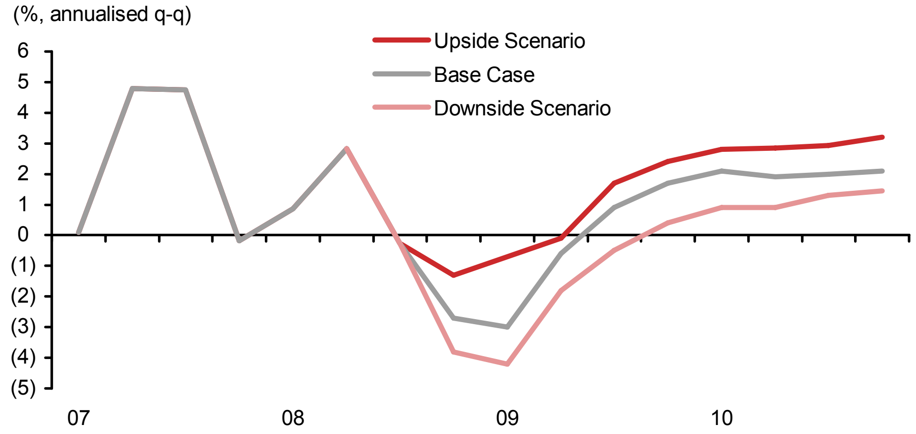
A steeper US decline (30% chance) would hurt Singapore, Taiwan and Hong Kong most

- We assign 30% probability to our latest **Downside Scenario**, a 2% contraction in US real GDP in 2009F. This implies a rather bleak outlook for Asia's large export-driven economies, three of which register a 2%-plus growth decrements from the base case and slip into contraction. Our projections are 1.5% real GDP shrinkage for Taiwan, 2.0% shrinkage for Hong Kong, and a crushing 2.7% contraction for Singapore. China and India stay relatively strong with growth of 7.7% and 5.7%, respectively.

US growth (10% chance) would benefit Taiwan and Singapore the most

- Our **Upside Scenario**, with 10% probability, looks for the US to eke out 0.1% real GDP growth in 2009F. The swing factor benefits those most vulnerable on the downside: 2.1% growth in Taiwan, 1.9% in Hong Kong, and 2.4% in Singapore.

Exhibit 26. US real GDP growth assumptions under different scenarios



Source: Nomura estimates

Specifically for Tripod Technology, our assumptions in the **Base Case** are top-line growth of 12.7% and -6.8% y-y to NT$30,816mn in FY08F and NT$28,721mn in FY09F, respectively. These result in FY08F earnings of NT$3,121mn (FY09F: NT$2,190mn), FY08F EPS of NT$6.80 (FY09F: NT$4.73), and the price target, set at 6x FY09F P/E, comes in at NT$28.4.

In our **Downside Scenario**, our assumptions would change to top-line growth of 11.0% and -12.9% y-y in FY08F and FY09F. These result in FY08F earnings of NT$3,046mn and FY09F earnings of NT$1,849mn, FY08F EPS of NT$6.64 and FY09F EPS of NT$4.00. The price target (valuation methodology unchanged) would come to NT$24.0.

In our **Upside Scenario**, our assumptions would change to top-line growth of 14.5% and -1.0% y-y in FY08F and FY09F. These result in FY08F earnings of NT$3,202mn and FY09F earnings of NT$2,527mn, FY08F EPS of NT$6.98 and FY09F EPS of NT$5.46. The price target (valuation methodology unchanged) comes to NT$32.8.

The table below summaries our price target estimate and FY08F and FY09F earnings forecasts under each scenario. Note: these upside/downside estimates are approximate and are based on the economic scenarios outlined above, other things being equal.

Exhibit 27. Tripod: earnings and price target sensitivity

(NT$mn)	Base Case: 60% probability		Downside Scenario: 30% probability		Upside Scenario: 10% probability	
	FY08F	FY09F	FY08F	FY09F	FY08F	FY09F
Sales	30,816	28,721	30,354	26,423	31,309	30,990
Net income	3,121	2,190	3,046	1,849	3,202	2,527
EPS (NT$)	6.80	4.73	6.64	4.00	6.98	5.46
Downside (%)			(2.41)	(15.56)	2.57	15.37
Price target (NT$)	**28.4**		24.0		32.8	

Source: Nomura estimates

Trough valuation

How far above the historical trough valuation? N/A

Tripod's trading range since 2005 has been 6-20x 12-month forward P/E (bonus-adjusted EPS). Based on end-FY09F EPS of NT$4.73, we estimate its trough value at NT$28.38. The stock is now trading at 4.0x FY08F and 5.6x FY09F EPS, essentially in line with the historical trough.

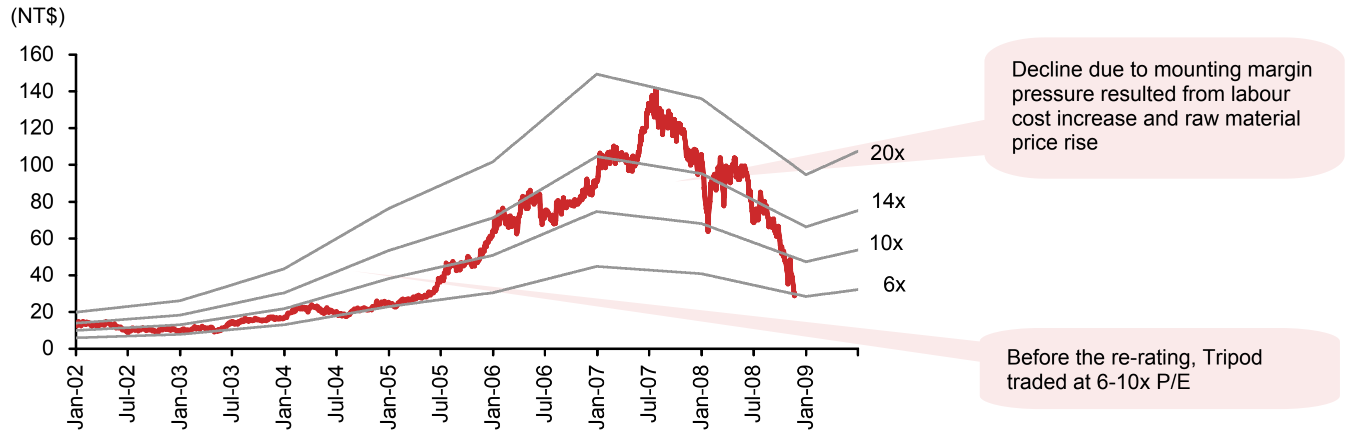
Support or breakdown?

We think there may be some downside risk to the share price in the near term, due to selling pressure from foreign investors. However, we believe 6x P/E will ultimately serve as a long-term fundamental support.

Last downcycle

Tripod largely traded between 6x and 10x P/E before 2006, when its market-share expansion story and strong earnings growth were not fully recognised by investors.

Exhibit 28. Tripod: P/E bands (bonus-adjusted)



Source: TEJ, Nomura International (Hong Kong) Limited, Taipei Branch

Financial statements

Income statement (NT$mn)					
Year-end 31 Dec	FY06	FY07	FY08F	FY09F	FY10F
Revenue	20,588	27,342	30,816	28,721	32,400
Cost of goods sold	(15,758)	(21,153)	(24,990)	(23,650)	(26,318)
Gross profit	**4,829**	**6,189**	**5,827**	**5,072**	**6,082**
SG&A	(1,645)	(2,162)	(2,871)	(2,705)	(2,971)
Employee share expense			-	-	-
Operating profit	**3,184**	**4,027**	**2,955**	**2,366**	**3,111**
EBITDA	**4,812**	**6,498**	**6,083**	**5,614**	**6,559**
Depreciation	(1,628)	(2,471)	(3,128)	(3,248)	(3,448)
Amortisation	-	-	-	-	-
EBIT	**3,184**	**4,027**	**2,955**	**2,366**	**3,111**
Net interest expense	(101)	(116)	(176)	(119)	(119)
Associates & JCEs	-	-	-	-	-
Other income	371	682	837	360	360
Earnings before tax	**3,455**	**4,593**	**3,617**	**2,607**	**3,352**
Income tax	(401)	(587)	(502)	(417)	(570)
Net profit after tax	**3,054**	**4,006**	**3,115**	**2,190**	**2,782**
Minority interests	(2)	(3)	6	-	-
Other items	-	-	-	-	-
Preferred dividends	-	-	-	-	-
Normalised NPAT	**3,052**	**4,003**	**3,121**	**2,190**	**2,782**
Extraordinary items	-	-	-	-	-
Reported NPAT	**3,052**	**4,003**	**3,121**	**2,190**	**2,782**
Dividends	(595)	(1,031)	(1,020)	(710)	(902)
Transfer to reserves	**2,457**	**2,971**	**2,101**	**1,481**	**1,881**
Valuation and ratio analysis					
FD normalised P/E (x)	3.9	3.0	4.0	5.6	4.4
FD normalised P/E at fair value (x)	4.1	3.2	4.2	5.9	4.7
Reported P/E (x)	3.9	3.0	4.0	5.7	4.5
Dividend yield (%)	5.9	8.9	8.2	5.7	7.2
Price/cashflow (x)	2.6	2.3	2.4	2.8	2.4
Price/book (x)	1.0	0.9	0.8	0.8	0.7
EV/EBITDA (x)	2.8	2.5	2.6	2.5	1.9
EV/EBIT (x)	4.2	4.1	5.3	6.0	4.1
Gross margin (%)	23.5	22.6	18.9	17.7	18.8
EBITDA margin (%)	23.4	23.8	19.7	19.5	20.2
EBIT margin (%)	15.5	14.7	9.6	8.2	9.6
Net margin (%)	14.8	14.6	10.1	7.6	8.6
Effective tax rate (%)	11.6	12.8	13.9	16.0	17.0
Dividend payout (%)	19.5	25.8	32.7	32.4	32.4
Capex to sales (%)	14.2	25.6	10.7	6.3	9.3
Capex to depreciation (x)	1.8	2.8	1.1	0.6	0.9
ROE (%)	35.8	34.4	21.7	13.7	15.8
ROA (pretax %)	17.6	16.4	9.9	7.8	10.3
Growth (%)					
Revenue	36.0	32.8	12.7	(6.8)	12.8
EBITDA	42.7	35.0	(6.4)	(7.7)	16.8
EBIT	45.5	26.5	(26.6)	(19.9)	31.5
Normalised EPS	28.5	26.9	(23.1)	(30.4)	27.0
Normalised FDEPS	28.5	26.9	(23.1)	(29.8)	27.0
Per share					
Reported EPS (NT$)	6.97	8.85	6.80	4.73	6.01
Norm EPS (NT$)	6.97	8.85	6.80	4.73	6.01
Fully diluted norm EPS (NT$)	6.97	8.85	6.80	4.77	6.07
Book value per share (NT$)	26.51	31.21	33.24	35.77	40.25
DPS (NT$)	1.60	2.40	2.20	1.53	1.95

Source: Nomura estimates

Sharp ROE contraction

Likely the first revenue decline in the company's history

Cashflow (NT$mn)					
Year-end 31 Dec	**FY06**	**FY07**	**FY08F**	**FY09F**	**FY10F**
EBITDA	4,812	6,498	6,083	5,614	6,559
Change in working capital	124	(487)	(1,032)	(1,047)	(971)
Other operating cashflow	(402)	(776)	160	(176)	(329)
Cashflow from operations	**4,533**	**5,235**	**5,211**	**4,391**	**5,260**
Capital expenditure	(2,921)	(6,996)	(3,300)	(1,800)	(3,000)
Free cashflow	**1,612**	**(1,761)**	**1,911**	**2,591**	**2,260**
Reduction in investments	(0)	0	-	-	-
Net acquisitions	-	-	-	-	-
Reduction in other LT assets	4	(15)	0	-	-
Addition in other LT liabilities	189	222	-	-	-
Adjustments	(227)	(358)	(0)	-	-
Cashflow after investing acts	**1,578**	**(1,912)**	**1,911**	**2,591**	**2,260**
Cash dividends	(453)	(595)	(1,031)	(1,020)	(710)
Equity issue	-	-	-	-	-
Debt issue	(861)	2,530	3,811	(522)	-
Convertible debt issue	-	-	-	-	-
Others	(191)	(662)	(114)	(0)	-
Cashflow from financial acts	**(1,505)**	**1,272**	**2,666**	**(1,542)**	**(710)**
Net cashflow	**73**	**(640)**	**4,577**	**1,049**	**1,550**
Beginning cash	1,191	1,264	624	5,201	6,250
Ending cash	1,264	624	5,201	6,250	7,800
Ending net debt	1,059	4,102	3,336	1,765	215

Source: Nomura estimates

Reduced capex

Balance sheet (NT$mn)					
As at 31 Dec	**FY06**	**FY07**	**FY08F**	**FY09F**	**FY10F**
Cash & equivalents	1,264	624	5,201	6,250	7,800
Marketable securities	0	-	-	-	-
Accounts receivable	6,486	7,634	8,629	9,191	9,720
Inventories	2,307	3,519	3,979	4,004	4,454
Other current assets	506	891	891	891	891
Total current assets	**10,563**	**12,667**	**18,699**	**20,335**	**22,865**
LT investments	-	-	-	-	-
Fixed assets	10,676	16,985	17,157	15,709	15,261
Goodwill	-	-	-	-	-
Other intangible assets	-	-	-	-	-
Other LT assets	84	99	99	99	99
Total assets	**21,323**	**29,751**	**35,955**	**36,144**	**38,225**
Short-term debt	9	1,526	2,117	2,117	2,117
Accounts payable	7,267	8,530	8,704	8,244	8,253
Other current liabilities	1,503	2,497	2,747	2,747	2,747
Total current liabilities	**8,779**	**12,554**	**13,568**	**13,109**	**13,117**
Long-term debt	2,314	3,200	6,420	5,898	5,898
Convertible debt	-	-	-	-	-
Other LT liabilities	365	587	587	587	587
Total liabilities	**11,458**	**16,340**	**20,574**	**19,593**	**19,601**
Minority interest	-	-	-	-	-
Preferred stock	-	-	-	-	-
Common stock	3,721	4,297	4,627	4,627	4,627
Retained earnings	5,997	8,689	10,359	11,529	13,602
Proposed dividends	-	-	-	-	-
Other equity and reserves	147	425	395	395	395
Total shareholders' equity	**9,865**	**13,411**	**15,380**	**16,550**	**18,623**
Total equity & liabilities	**21,323**	**29,751**	**35,955**	**36,144**	**38,225**
Liquidity (x)					
Current ratio	1.20	1.01	1.38	1.55	1.74
Interest cover	31.5	34.8	16.8	19.9	26.1
Leverage					
Net debt/EBITDA (x)	0.22	0.63	0.55	0.31	0.03
Net debt/equity (%)	10.7	30.6	21.7	10.7	1.2
Activity (days)					
Days receivable	103.5	94.2	96.6	113.2	106.5
Days inventory	45.1	50.3	54.9	61.6	58.7
Days payable	146.3	136.3	126.2	130.8	114.4
Cash cycle	2.3	8.2	25.3	44.0	50.8

Source: Nomura estimates

Sufficient cash

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Issuer	Ticker	Price (as at last close)	Closing price date	Rating	Disclosures
Tripod Technology Corp	3044 TT	26.90 TWD	24 Nov 2008	Neutral	

Previous ratings

Issuer	Previous rating	Date of change
Tripod Technology Corp	No Rating	24 Nov 2008

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Stocks:

• A rating of "1", or **"Buy"**, indicates that the analyst expects the stock to outperform the Benchmark over the next 12 months.
• A rating of "2", or **"Neutral"**, indicates that the analyst expects the stock to perform in line with the Benchmark over the next 12 months.
• A rating of "3", or **"Reduce"**, indicates that the analyst expects the stock to underperform the Benchmark over the next 12 months.
• A rating of **"RS-Rating Suspended"**, " indicates that the rating and target price have been suspended temporarily to comply with applicable regulations and/or firm policies in certain circumstances including when Nomura is acting in an advisory capacity in a merger or strategic transaction involving the company.

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Sectors:

A "**Bullish**" stance, indicates that the analyst expects the sector to outperform the Benchmark during the next 12 months.
A "**Neutral**" stance, indicates that the analyst expects the sector to perform in line with the Benchmark during the next 12 months.
A "**Bearish**" stance, indicates that the analyst expects the sector to underperform the Benchmark during the next 12 months.

Benchmarks are as follows: **United States:** S&P 500; **Europe:** Dow Jones STOXX® 600; **Global Emerging Markets (ex-Asia):** MSCI Emerging Markets ex-Asia.

Explanation of Nomura's equity research rating system in Japan (and ratings in Europe, Middle East and Africa, US and Latin America published prior to 27 October 2008):

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• A rating of "2", or **"Buy"**, indicates that the analyst expects the stock to outperform the Benchmark by 5% or more but less than 15% over the next six months.
• A rating of "3", or **"Neutral"**, indicates that the analyst expects the stock to either outperform or underperform the Benchmark by less than 5% over the next six months.
• A rating of "4", or **"Reduce"**, indicates that the analyst expects the stock to underperform the Benchmark by 5% or more but less than 15% over the next six months.
• A rating of "5", or **"Sell"**, indicates that the analyst expects the stock to underperform the Benchmark by 15% or more over the next six months.
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A **"Neutral"** stance, indicates that the analyst expects the sector to perform in line with the Benchmark during the next six months.
A **"Bearish"** stance, indicates that the analyst expects the sector to underperform the Benchmark during the next six months.

Benchmarks are as follows: **Japan**: TOPIX; **United States**: S&P 500, MSCI World Technology Hardware & Equipment; **Europe**, by sector — *Hardware/Semiconductors*: FTSE W Europe IT Hardware; *Telecoms*: FTSE W Europe Business Services; *Business Services*: FTSE W Europe; *Auto & Components*: FTSE W Europe Auto & Parts; *Communications equipment*: FTSE W Europe IT Hardware; **Ecology Focus:** Bloomberg World Energy Alternate Sources; **Global Emerging Markets:** MSCI Emerging Markets ex-Asia.

Explanation of Nomura's equity research rating system for Asian companies under coverage ex Japan published after 30 October 2008:

Stocks:

Stock recommendations are based on absolute valuation upside (downside), which is defined as (Price Target – Current Price) / Current Price, subject to limited management discretion. In most cases, the Price Target will equal the analyst's 12-month intrinsic valuation of the stock, based on an appropriate valuation methodology such as discounted cash flow, multiple analysis, etc.
• A "**Buy**" recommendation indicates that potential upside is 15% or more.
• A "**Neutral**" recommendation indicates that potential upside is less than 15% or downside is less than 5%.
• A "**Reduce**" recommendation indicates that potential downside is 5% or more.
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Explanation of Nomura's equity research rating system for Asian companies under coverage ex Japan published prior to 30 October 2008:

Stocks:

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• A "**Strong buy**" recommendation indicates that upside is more than 20%.
• A "**Buy**" recommendation indicates that upside is between 10% and 20%.
• A "**Neutral**" recommendation indicates that upside or downside is less than 10%.
• A "**Reduce**" recommendation indicates that downside is between 10% and 20%.
• A "**Sell**" recommendation indicates that downside is more than 20%.
Sectors:

A "**Bullish**" rating means most stocks in the sector have (or the weighted average recommendation of the stocks under coverage is) a positive absolute recommendation.
A "**Neutral**" rating means most stocks in the sector have (or the weighted average recommendation of the stocks under coverage is) a neutral absolute recommendation.
A "**Bearish**" rating means most stocks in the sector have (or the weighted average recommendation of the stocks under coverage is) a negative absolute recommendation.

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