

# Taiwan's LCD monitors

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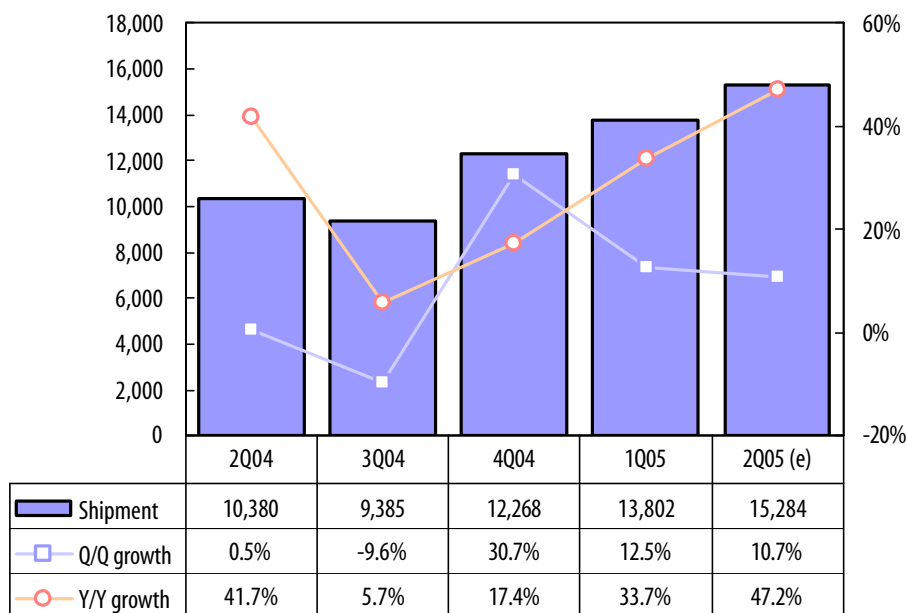
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# Introduction

For Taiwan's LCD monitor sector, the usual low season following Christmas did not occur this year. Instead it registered on-quarter and on-year shipment growths of 12.5% and 34%, respectively, and reached a record high of 13.8 million units in the first quarter of 2005, boosted by a continued decline in panel prices that contributed to lower retail prices for LCD monitors.

LCD monitor shipments from Taiwan are expected to reach 15.28 million units for the second quarter, up 10.7% from the first quarter, as the price gap with CRT monitors continues to close. As prices for 17-inch panels – which have the biggest share of the LCD monitor market – are expected to rebound in the second quarter, OEM clients are placing advance orders for LCD monitors before prices go up, giving extra strength to the sector for the second quarter.

**Chart 1: Taiwan LCD monitor shipment, 2Q04-2Q05 (k units)**



Source: DigiTimes Research, April 2004

# The first quarter

## Shipments grow; production value drops

In the first quarter of 2005, LCD panel prices continued downward, resulting in lower shipment prices for LCD monitors. However, the double-digit shipment growth and the increased proportion of larger-screen models kept the production value at more than US\$2.8 billion, down only 4.2% from US\$2.95 billion in the fourth quarter of 2004. The first-quarter sum, however, represented a 16.7% on-year decline from US\$3.4 billion for the first quarter of 2004.

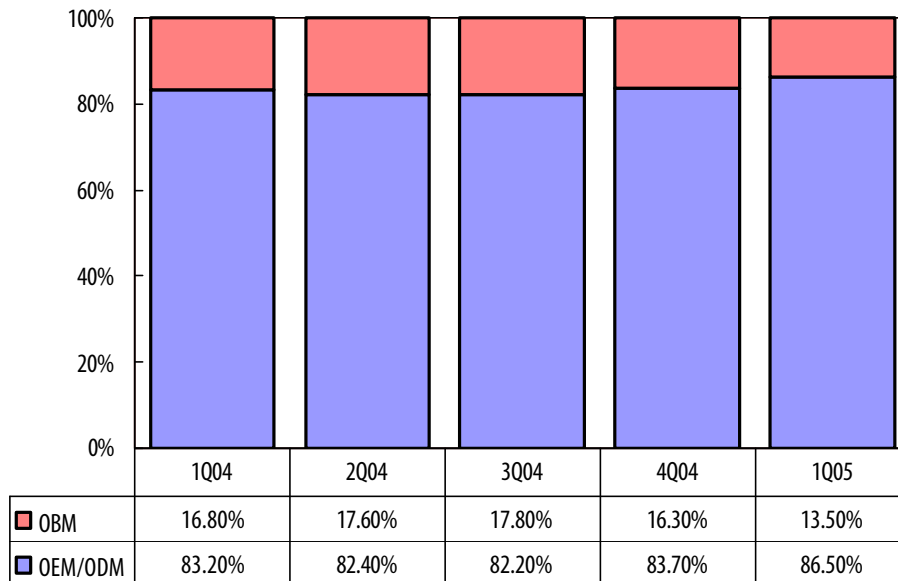
**Chart 2: Taiwan LCD monitor production value, 1Q04-1Q05 (m US\$)**



Source: DigiTimes Research, April 2005

## Production modes: OBM, OEM and ODM

Taiwan's own-brand LCD monitor shipment reached its peak in the third quarter of 2004, but its proportion began to drop in the fourth quarter as a result of increasing OEM/ODM orders. Shipments from contract makers amounted to 86.5% in the first quarter. However, OBM shipments from the Taiwan sector may still be able to see their proportion increase in the future as makers try to develop new markets. Apart from the North American and European markets, some OBM players are also marketing their own-brand LCD monitors in China and Brazil.

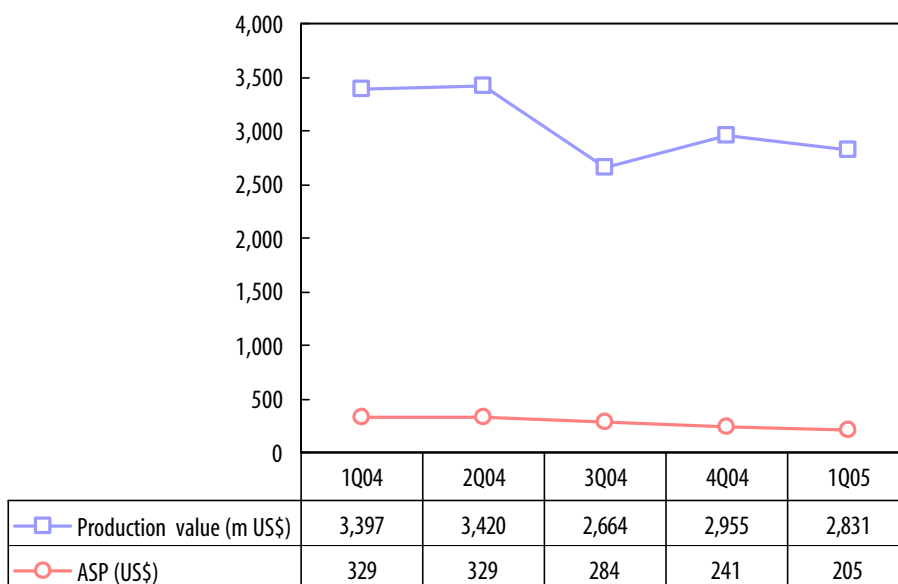
**Chart 3: Taiwan LCD monitor shipment breakdown by production mode, 1Q04-1Q05**

Source: DigiTimes Research, April 2005

## Average selling prices

Accounting for 70% of production costs, LCD panels are the biggest factor determining monitor prices. Clients of LCD monitor contract makers are very sensitive to panel prices, and major clients often determine the panel suppliers for their monitors (even handling the procurement negotiation in some cases).

The average panel cost in the first quarter was lower than that of the previous quarter, resulting in a lower average selling price (ASP) for LCD monitors at US\$205 for the first quarter, down US\$36 from US\$241 for the fourth quarter.

**Chart 4: ASP for Taiwan LCD monitor shipments, 1Q04-1Q05**

Source: DigiTimes Research, April 2005

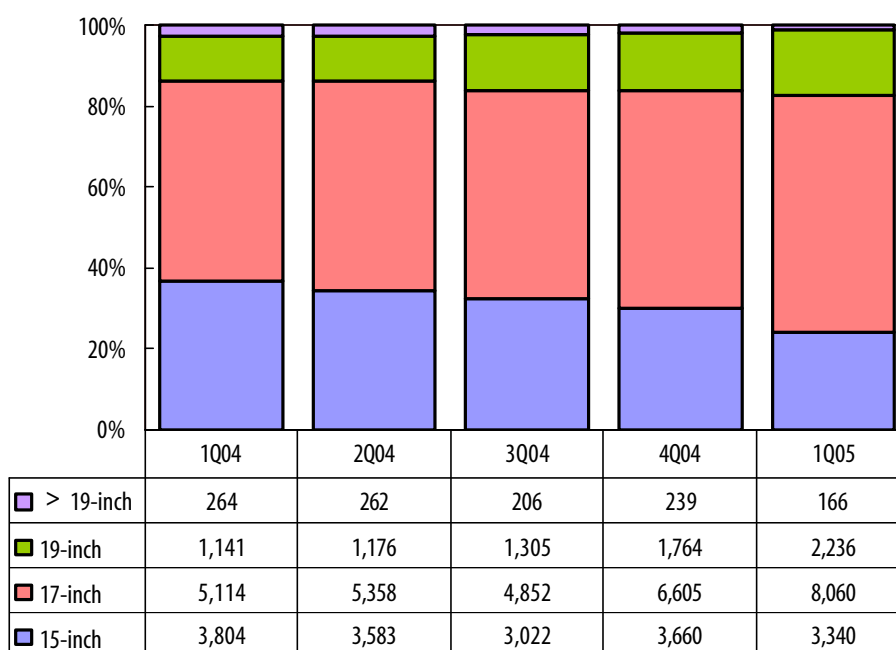
## Screen size

LCD monitors with larger screens were getting more popular in the first quarter. The share of 15-inch models in first-quarter LCD monitor shipments was 24% at 3.34 million units, down from 3.66 million units for the fourth quarter. Many LCD monitor makers say they have stopped developing new 15-inch models, and shipments of 15-inch units are now mostly old models.

The biggest share went to 17-inch monitors, at more than 8 million units, or 58% of the total first-quarter LCD monitor shipment. The figure represented an increase of 22%, or 1.46 million units, from the fourth quarter.

The strongest growth belonged to 19-inch monitors. They grew 27% to 2.24 million units in the first quarter, although their overall share of the LCD monitor shipments was less than 20%. Most makers expect fast growth for 19-inch monitors as the price differences between 19-inch and 17-inch panels narrow. The growth in 19-inch monitor shipments is also being boosted by the growing popularity of desktop PC multimedia applications. Shipments of 19-inch monitors can be expected to replace 15-inch shipments as the second largest segment after 17-inch class in the near future.

**Chart 5: Taiwan LCD monitor shipment breakdown by screen size, 1Q04-1Q05 (k units)**



Source: DigiTimes Research, April 2005

## Markets: North America, Western Europe, Japan, and Asia-Pacific

North America and Western Europe remained the major markets, accounting for 33% and 34.5% respectively of Taiwan's first-quarter LCD monitor shipments.

The Asia-Pacific region accounted for 20.2% of Taiwan's first-quarter LCD monitor shipments. China offers the biggest market potential in the region. With LCD monitor prices almost level with those for CRT monitors, LCD monitor shipments in the Asia-Pacific region are expected to grow steadily.

Taiwan's LCD monitor shipments to Japan registered a slight rise to about 8% of the total in the first quarter.

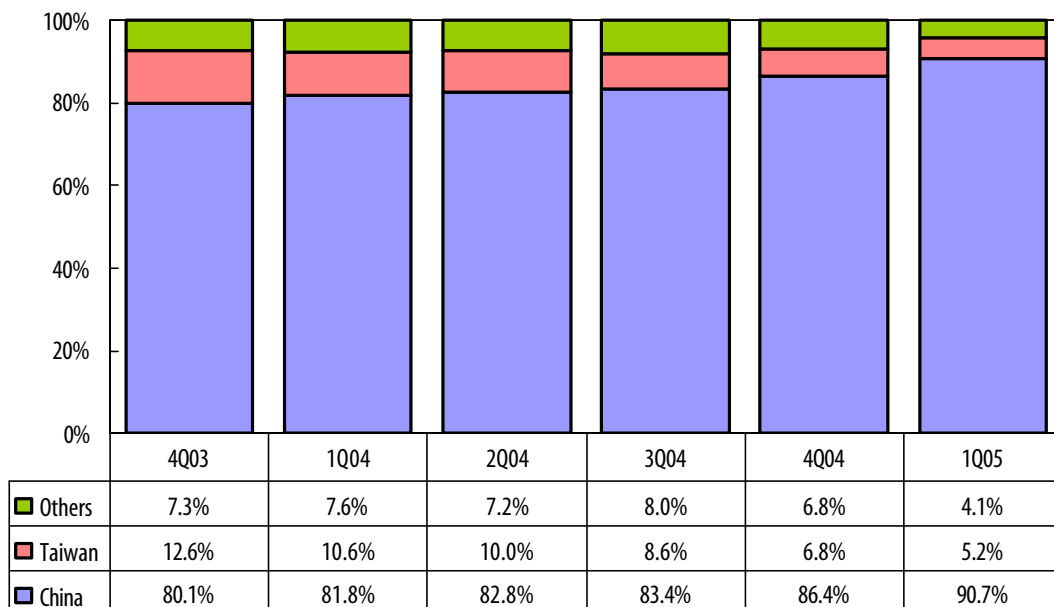
**Chart 6: Taiwan LCD monitor shipment breakdown by region, 1Q04-1Q05**

Source: DigiTimes Research, April 2005

## Production bases: Taiwan, China, and others

More than 90% of LCD monitors shipped by Taiwan makers in the first quarter were manufactured by their China plants, as makers increased their production in China to cut costs for the low-margin products.

Some makers operate production plants in other countries than Taiwan and China due to tariff concerns. However, few makers do this because many countries list LCD monitors as tariff-free information products.

**Chart 7: Taiwan LCD monitor shipment breakdown by production base, 4Q03-1Q05**

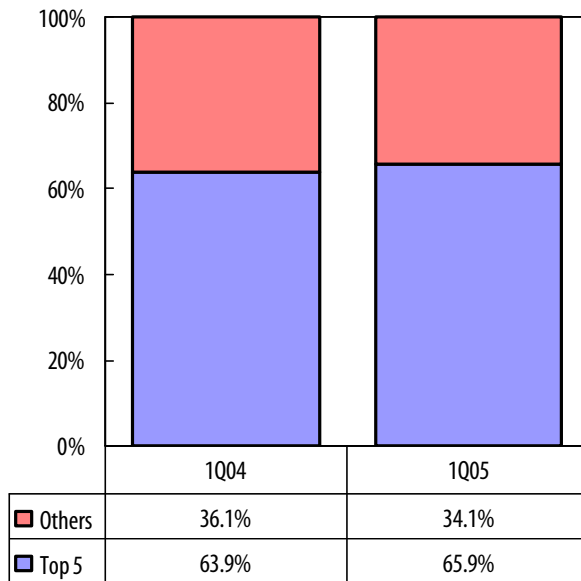
Source: DigiTimes Research, April 2005

The LCD monitor makers continue operating assembly lines in Taiwan for some high-end, larger-screen models in order to keep some production close to their research and development departments.

## Concentration of shipments

The top-five makers in Taiwan accounted for 65.9% of first-quarter shipments, up two percentage points over the fourth quarter.

**Chart 8: Taiwan LCD monitor shipment concentration, 1Q04-1Q05**



Source: DigiTimes Research, April 2005

As LCD monitors are a highly standardized product, it is not easy for any brand to stand out from competitors. To fight for market share, makers have had to resort to pricing campaigns, resulting in low margins.

Cost pressure has pushed some major LCD monitor makers to expand their production scale as much as possible. Vertical integration is another option for makers who have panel supplies from sources within their own business groups. Some other makers have chosen to diversify their business.

Minor makers are having difficulties keeping up the pace with the top makers, who can be expected to take an even greater control of Taiwan's LCD monitor sector.

# The second quarter

## Production value to rise

Second-quarter shipments are expected to be driven up by the growing popularity of LCD monitors and the increasing demand from OEM clients who are placing orders well in advance for fear of rising panel prices. Increasing shipments, coupled with stabilized panel prices, are expected to boost the sector's production value to US\$3 billion, up 6% on the first quarter and a little higher than the fourth quarter of 2004.

**Chart 9: Taiwan LCD monitor production value, 2Q04-2Q05 (m US\$)**



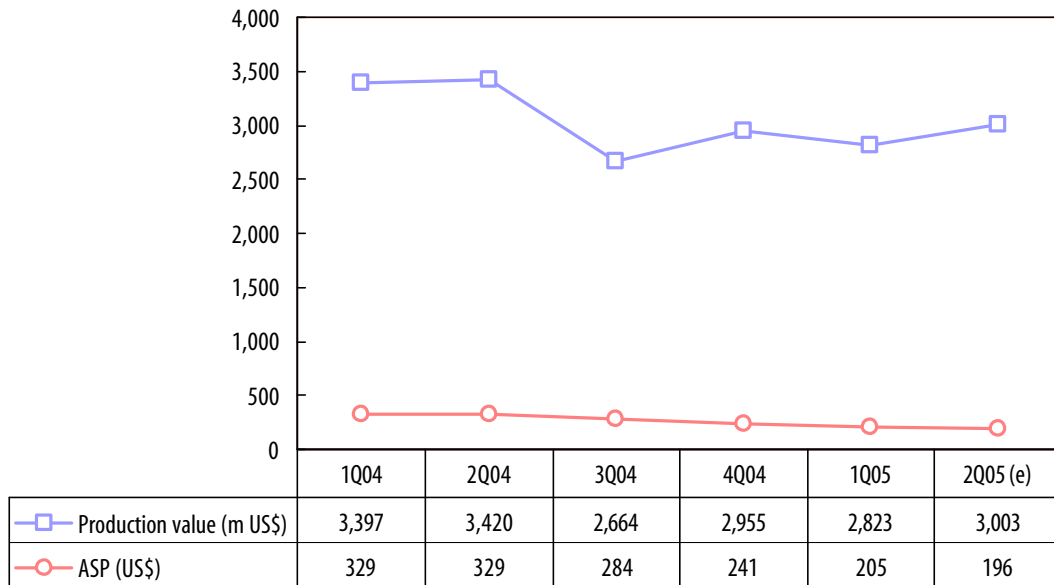
Source: DigiTimes Research, April 2005



## ASPs to drop

The second-quarter prices for 17-inch-monitor-use panels are expected to stay level with the first quarter. However, panel prices for 19-inch LCD monitors will continue falling in the second quarter, with shipments in the segment growing. Cheaper panels and growing shipments for the 19-inch segment will result in a 4.4% drop in the ASP to US\$196 for LCD monitors in general.

**Chart 10: ASP for Taiwan LCD monitor shipments, 1Q04-2Q05**

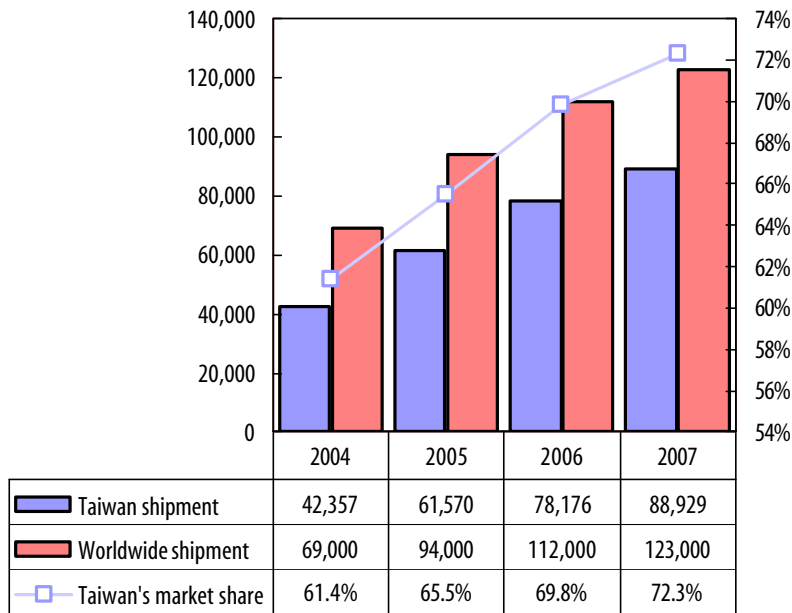


Source: DigiTimes Research, April 2005

## The second half of 2005 and beyond

Global shipments of LCD monitors outnumbered those of CRT monitors for the first time in the third quarter of 2004, and since then, the shipment gap between the two types of monitor has been widening, and the price difference has been narrowing. The shipment gap between the two types will continue to widen.

**Chart 11: Global monitor shipment forecast**



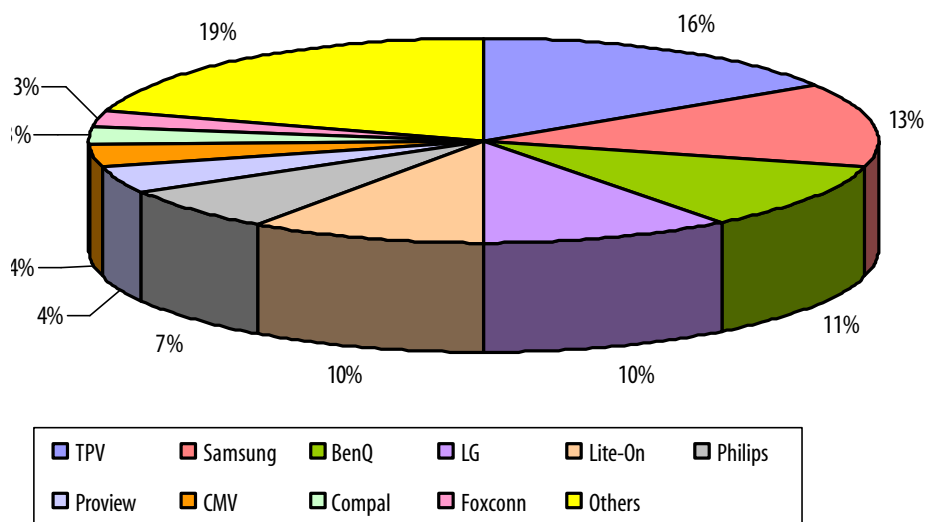
Source: DigiTimes Research, April 2005

## TPV Technology and Philips combine forces

In late 2004, TPV Technology reached an agreement with Philips to buy the Europe-based company's LCD monitor production lines. After the deal is completed in July, the Taiwan-based TPV will make LCD monitors for Philips and its original OEM clients. Last year, TPV already surpassed Samsung Electronics to become the world's largest LCD monitor maker. The takeover of Philips' orders and facilities will not only increase TPV's economy of scale, but also its production efficiency and its bargaining chips for prices and components procurement. The gap between TPV and Samsung in LCD monitor shipment is expected to widen.

In 2004, the world's top six LCD monitor makers shared 66.8% of the global market, with TPV and Philips being number one and six respectively.

**Chart 12: LCD monitor market share, 2004**



*Note: TPV includes its 41.7%-owned affiliate in China, OPTV. Source: TPV, February 2005*

## Foxconn and Chi Mei grow fast

Foxconn, the registered trade name of Hon Hai Precision Industry, and Chi Mei (which markets its monitors under the brand names of CMV and Polyview), were both growing fast last year in the LCD monitor business, despite being relative new comers to the sector. With the resources of their respective groups, Foxconn and Chi Mei will heap considerable pressure on the frontrunners in the fight for market share.