



Multiple valuation methodologies are used to meet the needs of our wafer fab clients

“The use of semiconductor solutions has shown a huge increase over the last years, a fast-expanding market that sees serious demand and growth.”

The semiconductor industry serves as the driver, enabler and indicator of technological progress in the electronics and wireless communications value chain.

In 2019, sales are expected to reach over 420 billion U.S. dollars worldwide. The highly competitive industry has seen a 15 percent growth in 2018 on a year on year growth rate. The rate of constant price-performance improvement in the semiconductor industry is spectacular.

Driving forces behind this market development includes the increased productivity yields of new equipment, increased competition, and reduced cost of support infrastructure as the industry expands.

With its unique characteristics, the semiconductor industry presents some specialist valuation challenges.

The wafer fab development has transitioned from 100mm fabs in the 1970's to the current 300mm fabs. Even with the move to 300mm fabs, manufacturers still see enormous demand for 200mm fabs as a key equipment market.

So how do you insure a facility making 200mm fabs when the current equipment is being made and sold for 300mm fabs?

John Foord solve insurance issues for the matured 100mm and 200mm fab plants by considering a combination of refurbished original equipment and new equipment (where available). Our experience is that the insured can take advantage of declaring values for refurbished equipment without being penalised by the insurers in a post loss situation.

“Clients require independent valuers they can trust to deliver reliable and accurate figures.”



Helping you with accurate values

As part of the valuation, we undertake a methodical quality assurance process:

1

We carefully select items and suppliers for our research which are representative of the overall equipment base.

2

Valuations of similar assignments we have completed are used to check that the assumptions and methodologies used are correct.

3

Industry and equipment specific benchmarks are used to cross reference as an external validation of our results.

Challenge #1

An industry leading company specializing in HV CMOS technology needed reliable and accurate insurance values to insure both old and new wafer fab tools.

One challenge was that many of the older equipment was no longer manufactured since it was prior generation technology.

John Foord Approach

We carried out an insurance valuation using research on replacement costs for both new and refurbished equipment for the tools to present consistent and defensible replacement costs.

The approach and the reported costs of the refurbished tools, brought up to the latest specifications by the original manufacturers with appropriate warranties, were accepted by the lead underwriter as appropriate to estimate the overall insurable value.

Challenge #2

A client's tooling was being transported to the original manufacturer for refurbishment but was damaged in transit. The company and insurer required a reliable and accurate indemnity value for the tool as it was prior to the loss.

John Foord Approach

John Foord arrived at an indemnity value of the tool, taking into consideration the replacement cost, age and condition of the asset, as well as looking at market factors such as second-hand market activity, price movements and global trends.

We reported an indemnity value that put the insured back to the same fiducial position as they were prior to the loss – no better or worse off.

Challenge #3

After three years of operations, a company dealing with legacy systems in Taiwan found that due to technological advancement the new machines in the market had a capacity far greater than its existing assets. The client was therefore struggling to derive accurate replacement values which they could justify to their insurers.

John Foord Approach

Multiple valuation methodologies were adopted to meet the needs of the company. We considered the degree of betterment that would arise from the newer technologies, the ability to source existing equipment on the second-hand market and the current cost of refurbished identical assets.

Using these techniques, we were able to present accurate and justifiable replacement values based on a combination of refurbished and new equipment costs.

About John Foord

Founded in London in 1828, John Foord specialises in the valuation of plant, equipment and property. As an independent advisory firm, we support clients across 45 countries and value assets exceeding \$100 billion US dollars per annum.

- Our services are used by leading insurers, reinsurers, brokers, asset owners and financiers across sectors internationally
- Our team consists of highly qualified industry specialists with valuation, surveying and engineering backgrounds

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