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CEDA

Competitiveness in Manufacturing:

Can or Should, Australian Manufacturers Compete Against China and India?

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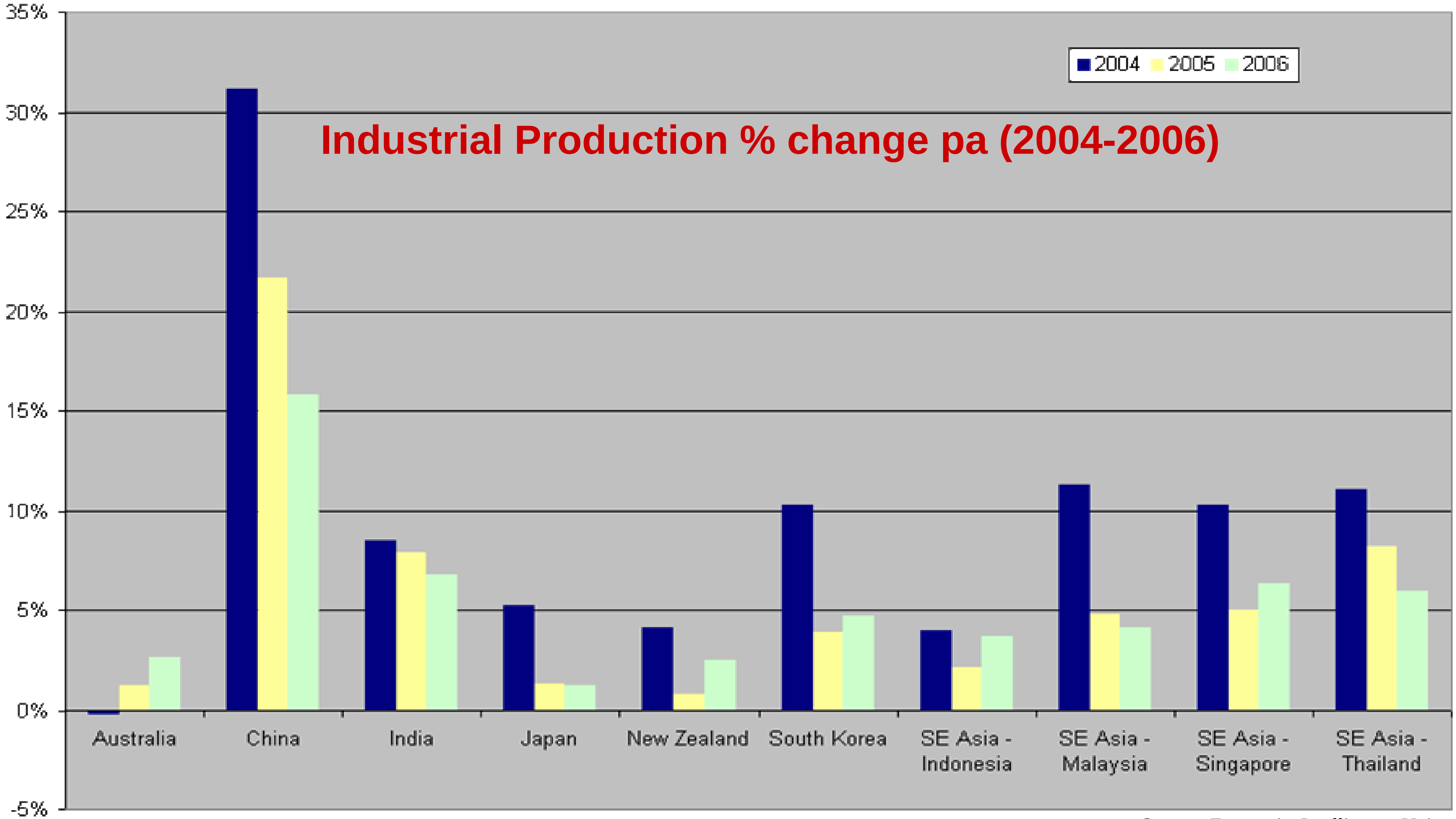
Rockwell Automation

Industrial Production Trend



Source: Economist Intelligence Unit

Industrial Production growth rates declining in high growth markets over last 2 years

Debunking the Myths

Myth

- China is the manufacturing center of the world
- Chinese exports are driving US companies out of business
- China/India manufacturing is labor intensive
- Companies from mature economies are finding it difficult to compete against cheap Asian imports
- China competes just on its low-labor cost
- India is all Services
- China is taking manufacturing jobs away from the developed countries

Reality

- China's entire economy is the size of Italy and less than the US manufacturing economy
- Over 50% of export volume is from MNCs and a lot is the result of manufacturing shifts (Japan to China, etc.)
- Over 80% of Rockwell Automation's customer base in China is local companies; China is the 2nd fastest adopter of our latest control technology
- India has the largest number of US FDA approvals behind the US
- Indian companies achieved 17% of TPM awards in 2003
- Chinese manufacturers' on-time delivery was 3% better than the US and they met spec on the first try in 98% of all cases vs. 97% for the US
- The India manufacturing economy represents 30% of GDP and is outpacing services and agriculture
- China is losing manufacturing jobs at a much greater clip than any other country in the world due to productivity improvements

The Status of US Manufacturing

U.S. manufacturers find different ways to thrive

By Kris Maher

Not all of U.S. manufacturing is going the way of the Detroit auto makers. In fact, a good chunk of the industry is thriving.

Heavy-equipment makers, factory-automation producers and steel companies have thick order books and busy U.S. factories. So do makers of packaging, cement and bricks. Profitability isn't where many would like it to be, but many manufacturers have boosted output through a combination of process improvements such as automation, outsourcing of basic parts and customers' desire for quick deliveries in a time of lean inventories.

Many industries face heavy legacy costs associated with pensions and health care similar to those burdening the U.S. car makers, but sectors such as tires, steel and textiles have been grappling with that for years, making changes that are only now starting to sweep Detroit. Costs for energy and raw materials are rising, but many manufacturers are passing them on to their customers, especially other manufacturers.

One measure of the industry's health is manufacturing output, which has increased steadily for the past several years, surpassing the peak of the last boom, which was reached in June 2000. Overall, manufacturing output is up 12% from 2002, according to the Federal Reserve.

Some sectors are clearly doing better than others. Business equipment is up 26% from 2002, information-processing equipment is up 47% and defense-and-space equipment is up about 31%. "Manufacturing is on the upswing again, despite the woes in the Detroit-based auto industry," says Diane Swonk, chief economist of Mesirow Financial in Chicago.

Ms. Swonk said even within the auto sector, there is strength—it just isn't in the U.S. car giants. Rather, car makers such as **Toyota Motor** Corp. of Japan and **Hyundai Motor** Co. of South Korea are investing in U.S. plants and helping to consolidate and reinforce U.S. auto suppliers.

Production has been on the rise in aerospace, computer and electronic products, as well as transportation equipment and machinery.

Heard in Asia

Live bait?

Analysts say buyout hopes for Livedoor may be misplaced > **Page 17**

What country is this?

- Negative savings rate
- Booming real estate market
- Low trade barriers
- Vibrant investment banking community
- Highest stock ownership (55% of adults)
- Progressive tax system
- People working longer with less security
- Growing materialism
- China is number 3 trading partner

From an article by Ben Arnoldy of the Christian Science Monitor entitled Australia at the Crossroads of Globalization (3/8/06)

Some Basic Principles

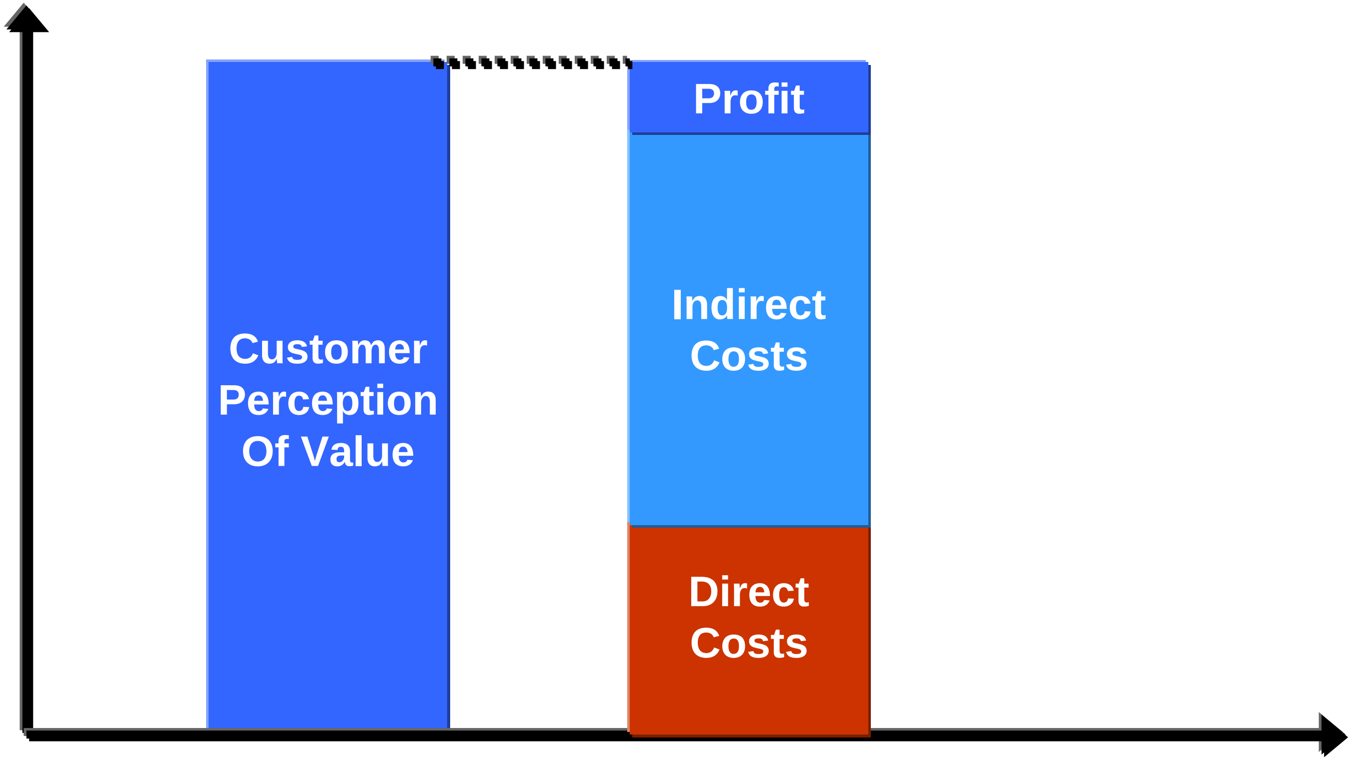
- The difference in price is the difference in perceived value between your machine and your competitor's machine
- The only relative cost that matters is the total cost of ownership between you and your competitors
- Cheap/commodity products need highly reliable, repeatable manufacturing operations more than high priced/branded products

Do We All Agree??

Can Australian Industrial Product Manufacturers Compete?

- Low cost labor is a very visible benefit to the manufacturer
- Lowering cost by using low cost labor is like using cheap material – it lowers the customer's perception of value
- In this age of severe competition, customers will expect a price benefit when their suppliers move to low cost labor markets
- Revenue will go down with no appreciable gain in profit
- This is especially true if you are not the first one in and are trying to simply match your competitors

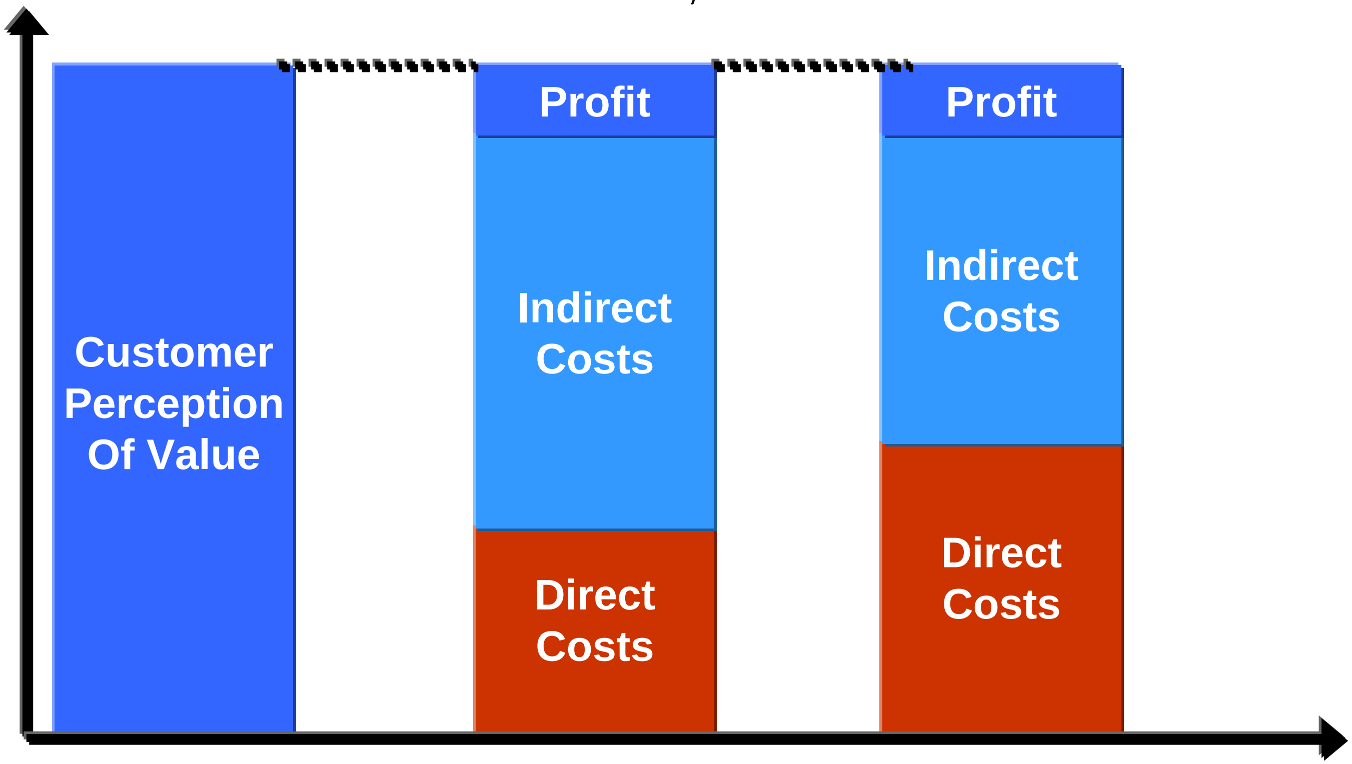
Condition 1



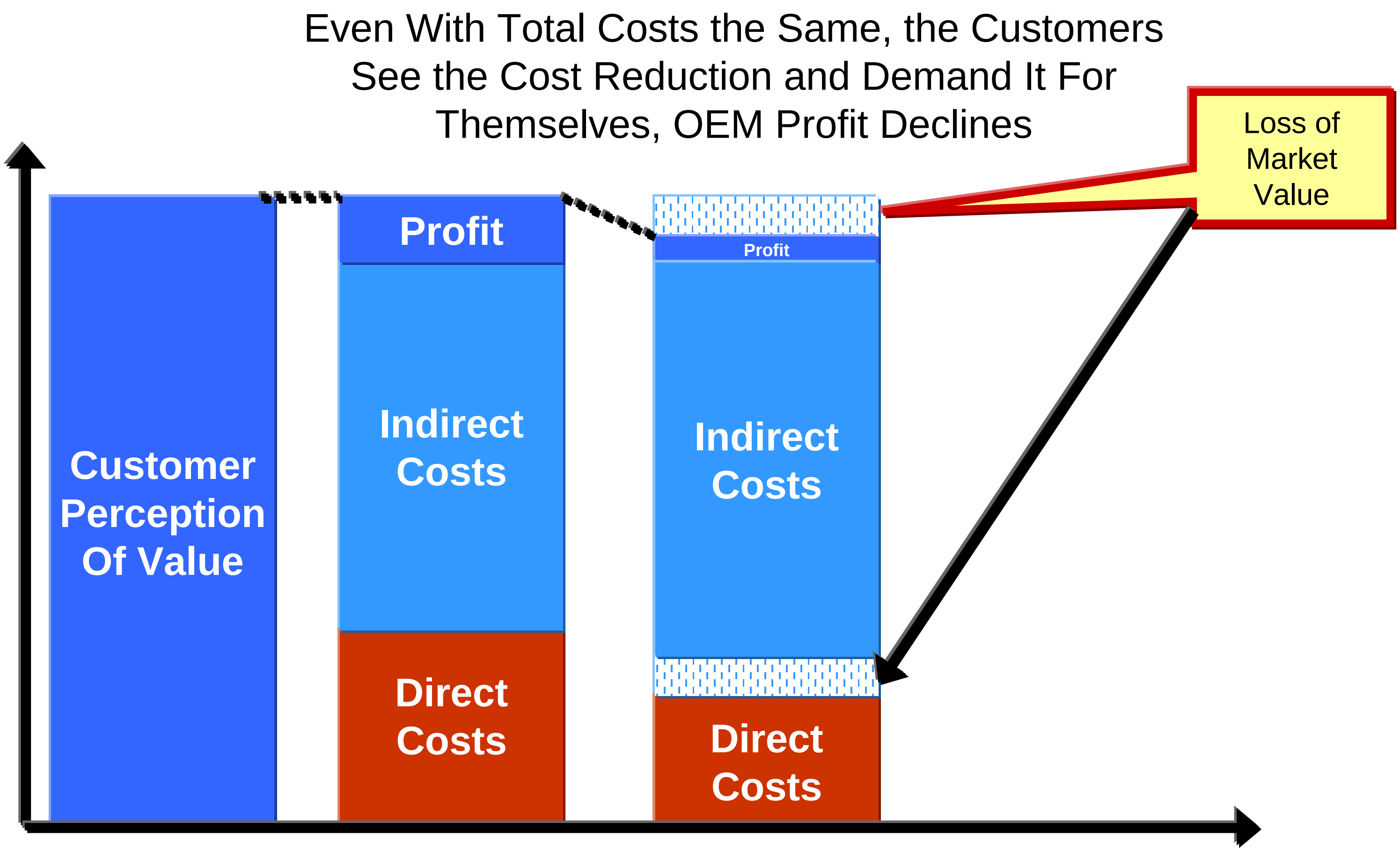
Under severe competition would you cut direct costs or indirect costs?

Condition 2 - Cut Indirect Costs

Even With Condition That Markets Don't Allow a Price Increase, Profit Does Not Decline



Condition 3 – Cut Direct Costs



Can Australian Consumer Product Manufacturers Compete?

- Many manufactured products employ a high-level of automation
- The cost of labor per unit of product is typically very low
- Labor does not provide the quality, repeatability, reliability, etc. that automated manufacturing does
- Using low-cost labor to produce film, soft drinks, packaged food, etc. is not feasible
- Unscheduled downtime, poor product quality, etc. can wipe out the labor cost savings in one instance
- If you have brand equity and a labor intensive product by all means come to China to improve margins…but it isn't just direct labor

A lot of plant closings are due to manufacturers with limited CAPEX budgets choosing to invest in growth end-customer markets

So What is the Solution?

- Raise the perception of value and lower cost in a manner which is not visible to the customer
- The industrial product manufacturer's profit is the customer's Total Cost of Ownership – their own Total Cost of Ownership
- So you want to have the lowest cost of total ownership relative to your competitors and pass along a total cost of ownership to your customers which is below that of your competition
- To do this you need to get in front of those individuals at your customers that care about profitability
- Your customer has to be neutral or positive regarding their perceived value of your product

In other words, compete on high-value added products or equipment, niche products, or products with significant brand equity

Opportunities in Vertical Sectors

- Metals & Mining – value add, operating excellence, supply chain
  - BHP Billiton
  - BlueScope Steel
  - Alcoa
- Automotive – value add, supply chain
  - GM Holden
  - Toyota
- Food & Beverage – branding, supply chain
  - Clean & Green image
  - Success of Australia Wine Industry

So What are the Right Reasons to Manufacture in China or India

- Follow your customers – supply chain efficiencies
- Pursue the China or Asian market – supply chain efficiencies and branding
- Customers will not demand a lower price based on lower manufacturing cost

India vs. China

India	China
• Export oriented	• Trying to keep up with domestic demand
• Higher grade products	• Trying to develop higher grade products
• Accounting rules favor RONA and ROIC	• Accounting rules do NOT favor RONA and ROIC
• Decisions typically based on value delivered	• Decisions often based on relationships and acquisition price
• Scarcity of capital means greater efficiency in deployment	• Abundance of capital for those chosen firms which sometimes means inefficient deployment
• Bureaucratic decision making	• Decisions sometimes made very quickly
• FDI inflow relatively low. However, natural resources, drive for quality, and English speaking population conducive to export growth causing recent FDI shift	• China's FDI inflow dwarfs all other nations
• Narrow wealth distribution due to IT thrust	• Much broader wealth distribution due to manufacturing thrust
• Well established IP protection	• Improving environment for IP protection but significant problems still exist

India has a lot of advantages vs. China in the current environment

Summary

- Manufacturing competitiveness is not just about low-cost labor
- China and India cannot be competitive in manufacturing based on low-cost labor alone and are not
- Australian manufacturers that are capable of identifying and investing in opportunities that customers and the market view as higher value add will be successful
- Competitiveness is about capturing a sustainable long-term advantage through higher value add and/or very stable and predictable manufacturing operations
- Leveraging automation and IT in manufacturing is a way to achieve the above competitiveness (India has done this against China)

So Australia can compete against China and India under the right circumstances, but should view them as customers and partners as well