

HOW TO PICK A GREAT FACTORY

**STEP 1: DECIDE
WHERE TO BUILD**

Examples to Talk Through



A world map rendered as a grid of small black squares on a white background. The word "China?" is written in a bold, red, sans-serif font, centered over the map. The map shows the outlines of continents, with the highest density of squares in the landmasses.

China?

Yes! Manufacture in China If Your Product...
Is COGS (Cost of Goods Sold) sensitive



Yes! Manufacture in China If Your Product...

Requires higher production volumes (>10k units)



Yes! Manufacture in China If Your Product...

Requires significant manual labor to manufacture and assemble



AFP/GETTY IMAGES

Yes! Manufacture in China If Your Product...

Uses existing manufacturing technology (i.e. injection molding, etc)



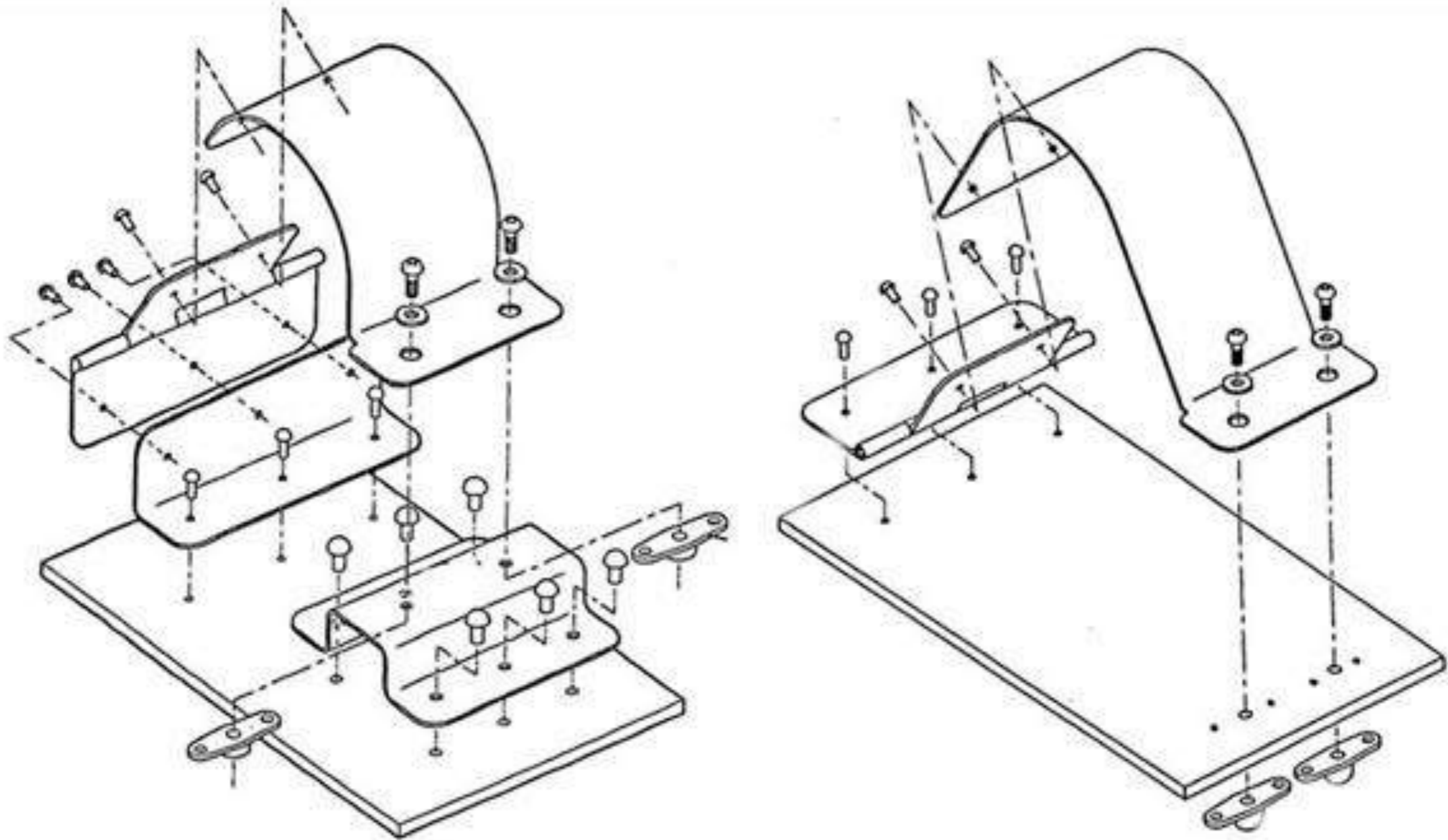
Yes! Manufacture in China If Your Product...

Is tolerant of variations in supply chain and logistics



Yes! Manufacture in China If Your Product...

Can benefit from low cost Design for Manufacturing (DFM) Non-recurring Engineering (NRE)



Yes! Manufacture in China If Your Product...
Has “physically” protectable IP





China Drawbacks for Manufacturing

China Drawback

Significant Distance from USA



China Drawback

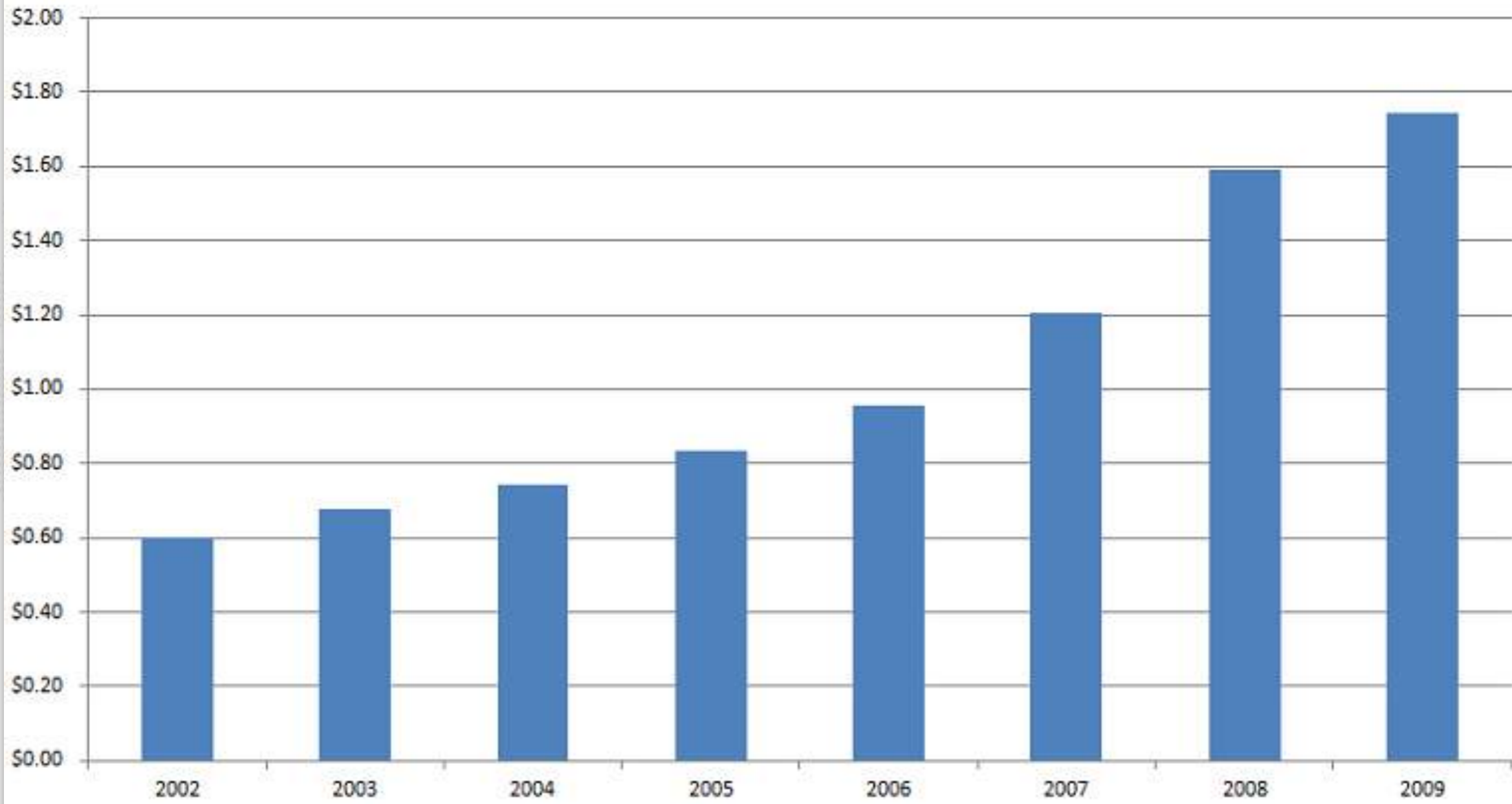
Significant Language Barrier



China Wages

Rising Wages

Average hourly compensation costs of manufacturing employees in China, U.S. Dollars, 2002-2009



Source: U.S. Bureau of Labor Statistics, International Labor Comparisons.

China Concern

Rising Exchange Rate





USA?

**Yes! Manufacture in the US If Your Product...
Requires low volumes**



Yes! Manufacture in the US If Your Product...

Can be manufactured and assembled through automation



Yes! Manufacture in the US If Your Product...
Is sensitive to shipping time and expense



Yes! Manufacture in the US If Your Product...

Has difficult-to-protect IP



Yes! Manufacture in the US If Your Product...

Requires non-standard capital equipment



<http://scientificmachining.com>

Yes! Manufacture in the US If Your Product...
Is part of a government contract



<http://en.wikipedia.org>

STEP 2: REQUEST FOR QUOTE / CM SELECTION*

*THE MOST IMPORTANT MANUFACTURING DECISION YOU'LL MAKE

Overview of the CM Selection Process

1. Talk with trusted network connections who have manufacturing experience.
2. Create a differentiated list of 5 - 10 CMs.
3. Down select to 3 - 5 factories based on your product category (why?)
4. Create a Request for Quote (RFQ) Package.
5. Visit!
6. Analyze Results.
7. Negotiate Big Items.
8. Talk with the CM's customers.
9. Select the winner, and leave the others on good terms.

RFQ Package

- Company Overview
 - Team overview
 - Funding
 - Product
 - What's done
 - What needs to be done
 - Factory Criteria
- BOM
 - Canonical format (A2A) in Excel
 - Transparent and Formula Driven
 - Separate Std, Special and Consigned Margins/Markups
 - Include all costs to Ex-Factory
 - Fill in the blanks
- Schedule
 - Gantt chart (Cloud)
 - Fill in the blanks

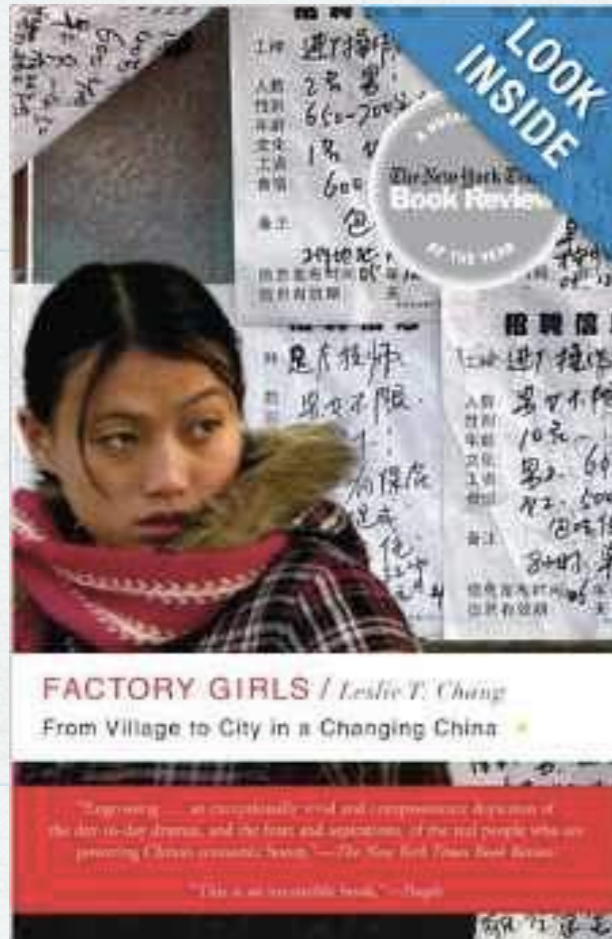
Factory Visit Checklist

- Do you like the team? Are they experienced and friendly?
- Do they have the right manufacturing capabilities?
- Does your intended volume match their volume capabilities?
- Are they financially stable?
- Do they have enough working capital to get going?
- Do they have favorable payment terms?
- Are they transparent in their costing?
- Do they take IP seriously? Did they show you something they shouldn't have?
- Are they ethical in their treatment of their workers and otherwise?
- Do you have access to upper management?
- Are they excited about working on your product?

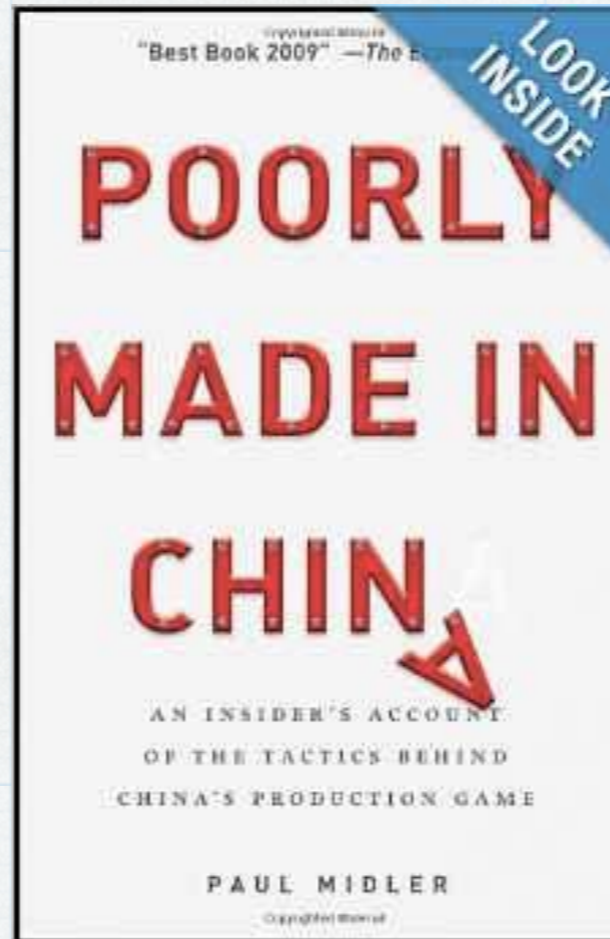
CM Comparison (A2A Decision Matrix)

- Total Material Costs
- Labor
- Margins/Markup (Std, Special, Consigned)
- Pareto of Top 5 Most Expensive Components
- Fixed Costs (tooling, fixtures, NRE)
- Schedule
- Fit Criteria

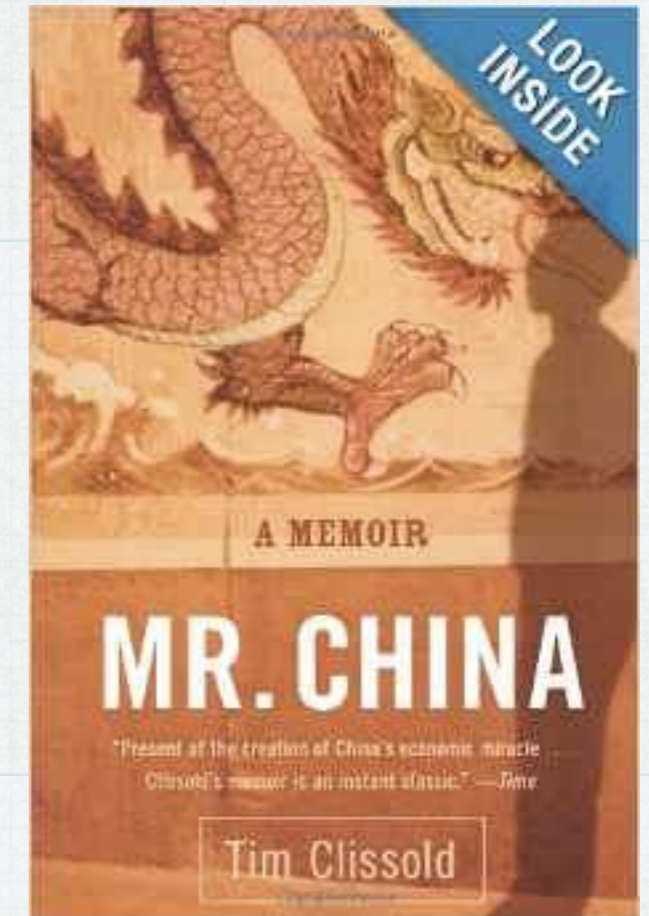
Recommended Reading



"Factory Girls",
Leslie Chang:
W.S.J. Reporter
Who Lived In
China Interviewing
Migrant Factory
Workers In The
Pearl River Delta.
Great Insight Into
The Workforce.



"Poorly Made
In China",
Paul Midler:
Light,
Humorous,



"Mr. China",
Tim Clissold:
Older
Humorous
Memoir Of
One Of The
First
Westerners To

Questions?

Feel free to reach out!

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