



# Reshoring Initiative

*Bringing Manufacturing Back Home*

## Total Cost of Ownership: How and When to Use it

MS Afternoon Session

Harry Moser  
President  
Reshoring Initiative



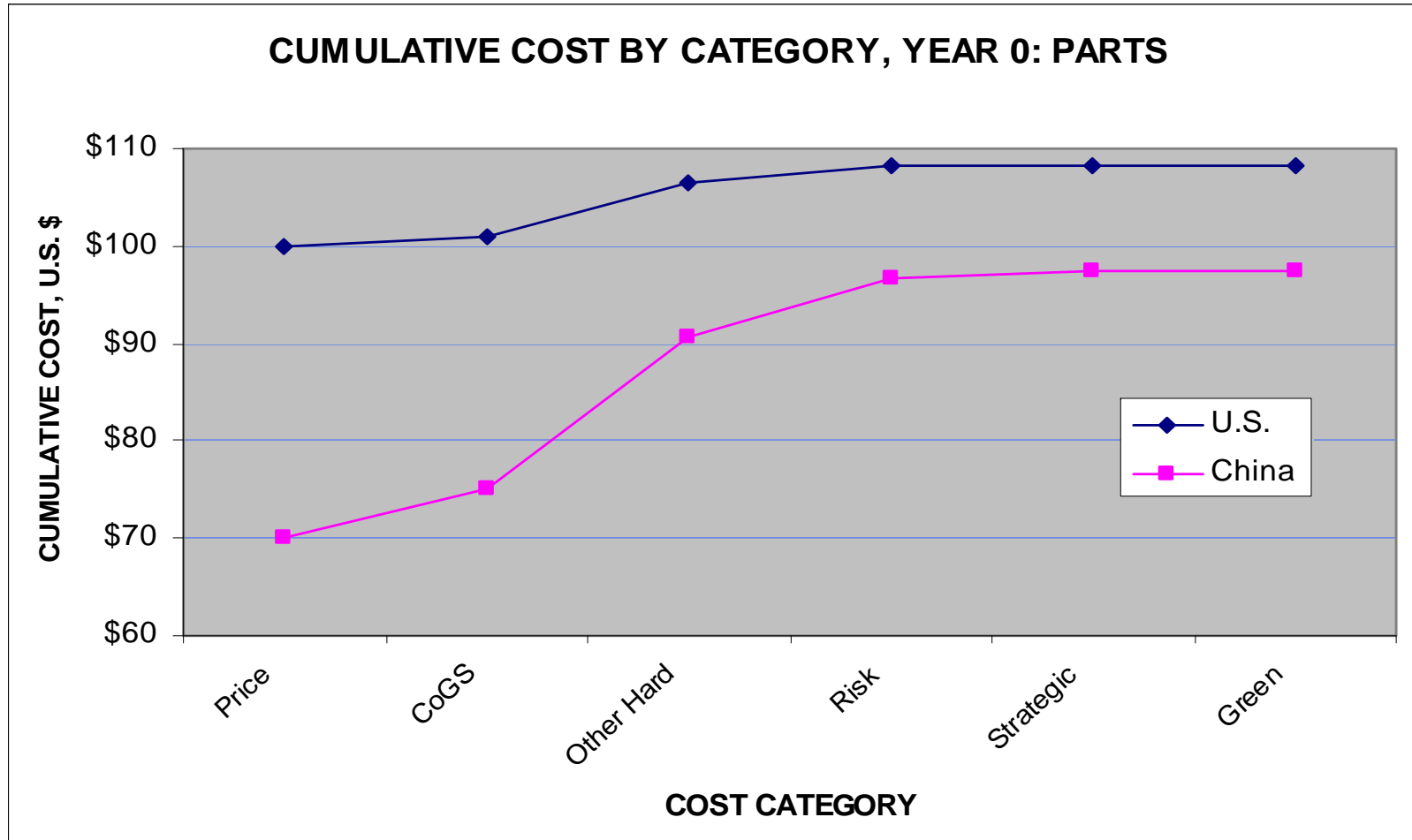
# TCO Comparison Example

Present and Forecast US and China Price and TCO (US\$)





# Cumulative Cost by Category





# TCO Estimator

- [www.reshorennow.org](http://www.reshorennow.org)



# Getting Started on TCO

- See Handout



## Useful Tools

- [ACETool](#)
- [Mismatch Cost tool from Prof. Suzanne De Treville](#)
  
- [TCO Estimator](#)
- [Using the TCO Estimator: A How-To Guide](#)
- [Library](#)
- [Submit a Case Study](#)
- [Economic Development Program](#)

# HUBBARDTON FORGE



## The Solution: TCO Calculator

- Connected with the Reshoring Initiative and Harry Moser.
  - TCO Calculator
- Helps identify all the elements that make up total cost.
- HF has worked through the tool to create a customized version that fits our business.
  - Resulting in an easy to use desktop tool.



## The Solution: TCO Calculator

- How It Is Used:
  - **Mostly, fixed** input variables – only updated once a year.
  - 8 user inputs that need to be filled for each analysis.
  - Results in a calculated total cost for both sources.
- When It is Used
  - New product development & during evaluation of existing components.



## The Solution: TCO Calculator

Part Number	#23576
Part Description	Aluminum Casting
Name	Steve Wiegers
Date	Tuesday, August 21, 2012
Domestic Vendor Name	Syca Industries
Offshore Vendor Name	Caletra - Extra Light
Additional Comments	Syca Industries will be producing a sand casting.

User Inputs	U.S.	Offshore	Common
Country of origin	<input type="checkbox"/>	<input checked="" type="checkbox"/> China	<input type="checkbox"/>
Unit Cost, \$	\$9.51	\$7.72	<input type="checkbox"/>
Minimum Order Quantity	100	250	<input type="checkbox"/>
Annual Forecast Quantity	<input type="checkbox"/>	<input type="checkbox"/>	150
Product category	<input type="checkbox"/>	<input type="checkbox"/>	Non Glass
Unit Weight, pounds	<input type="checkbox"/>	<input type="checkbox"/>	0.50
Quality, rework, warranty, % of cost	0%	0%	<input type="checkbox"/>
Tooling cost	\$ 1,850	\$ 4,690	<input type="checkbox"/>

TCO analysis background information – for file.

8 user inputs filled in each time.

## Key Variables to HF:

- MOQ (Minimum Order Qty)
- Supplier Lead-times
- Landed Cost – Including expedited freight costs
- Annual Forecast Qty. – for the component
- Product Life

## The Results:

- We are making decisions on a component by component basis.
- Have seen components that would have been sourced overseas now sourced domestically.
- Trends
  - Components that have had a unit price difference of 50% or less have been good candidates for keeping domestic. (Is that U.S. 50% above China or China 50% below U.S.?)
  - Size/Weight of component and tooling costs make a big difference.
  - Beginning to see some trends among component types/commodities.