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2010-05-13

# Managing the Risks of Contracting for Complex Contracts

Brown, Trevor L.; Potoski, Matthew; Slyke, and David M. Van

Monterey, California. Naval Postgraduate School

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Acquisition Research Program:  
Creating Synergy for Informed Change

## Managing the Risks of Contracting for Complex Contracts

Trevor L. Brown, Matthew Potoski, and David M. Van Slyke  
Ohio State University, Iowa State University, and Syracuse University  
May 13, 2010



**The Challenge of Contracting  
for Large Complex Projects:**  
A Case Study of the Coast Guard's  
Deepwater Program



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Contracting Series

**Contracted Versus Internal  
Assembly for Complex Products:**  
From Deepwater to the Acquisition  
Directorate in the U.S. Coast Guard



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John Glenn School of Public  
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Iowa State University

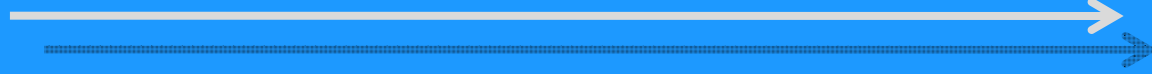
David M. Van Slyke  
Maxwell School of Citizenship  
and Public Affairs  
Syracuse University



Contracting and Acquisition Series

# Simple versus Complex Products

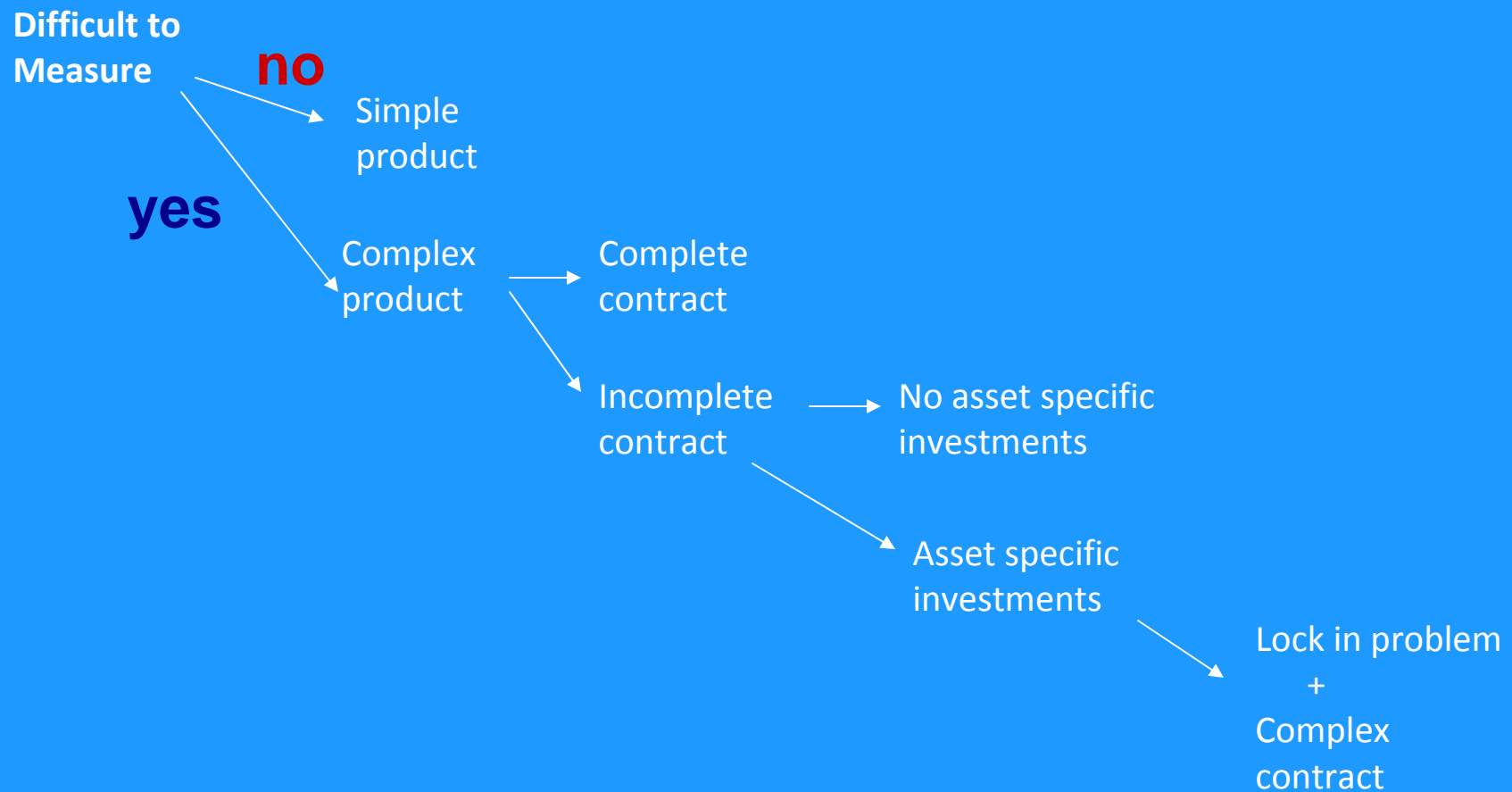
Buyer Uncertainty



Seller  
Uncertainty



# Theory of complex products





# Deepwater Program Overview

Providing New Assets, Systems and Capabilities



## Coast Guard Roles

*Guardians of the Sea*

## Maritime Security

*Upholds the Law*



## Maritime Safety

*Rescues the Distressed*



## Protection of Natural Resources

*Protects the Environment*



## Maritime Mobility

*Ensures Safe Marine Transportation*



## National Defense

*Operates with the U.S. Navy*



# Simple vs. Complex Products





# What's Complex?



USN DDG 51 Arleigh Burke



CG NSC Bertholf

USN Littoral  
Combat Ship  
Freedom



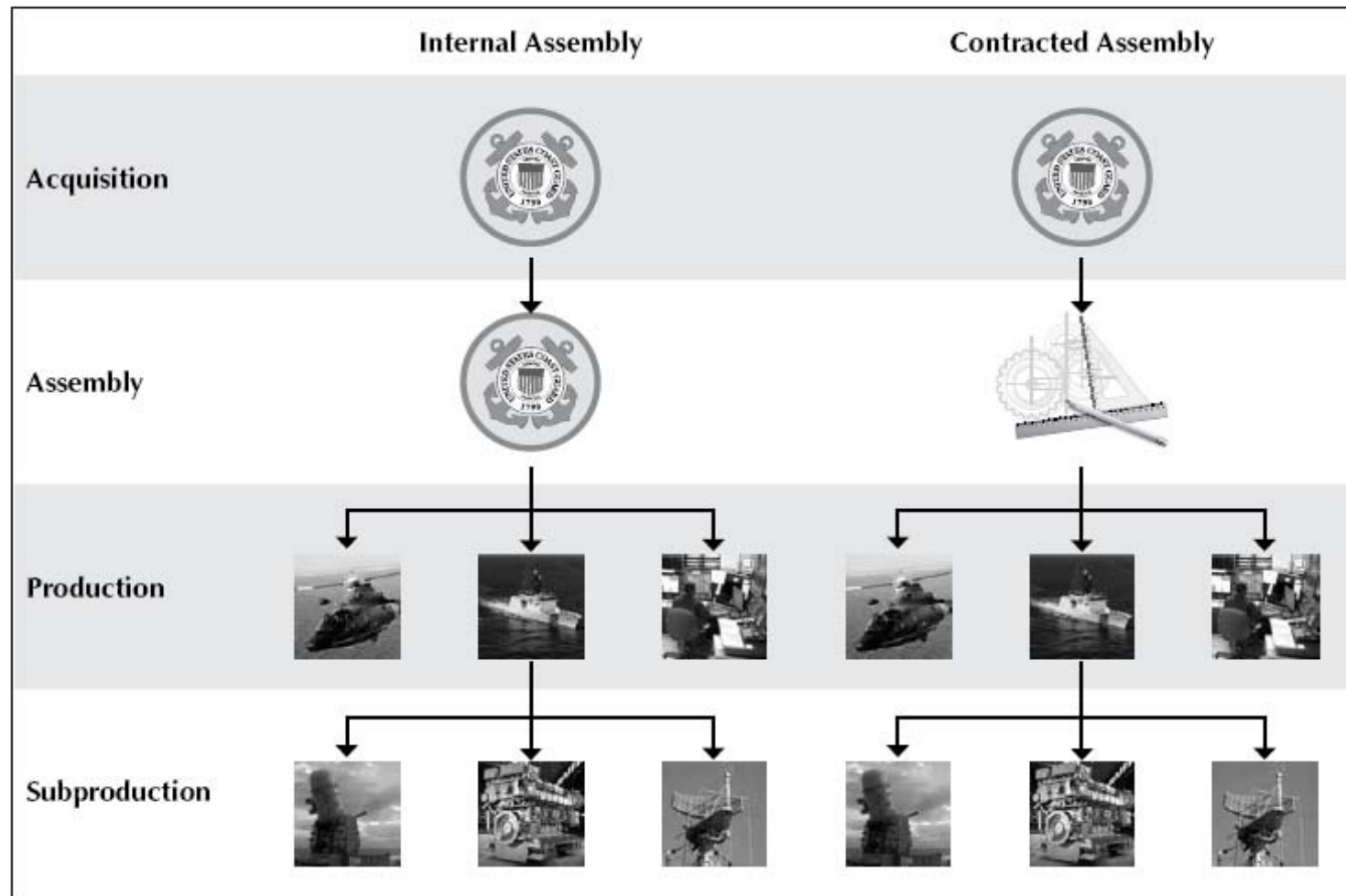
USN Littoral  
Combat Ship  
Independence





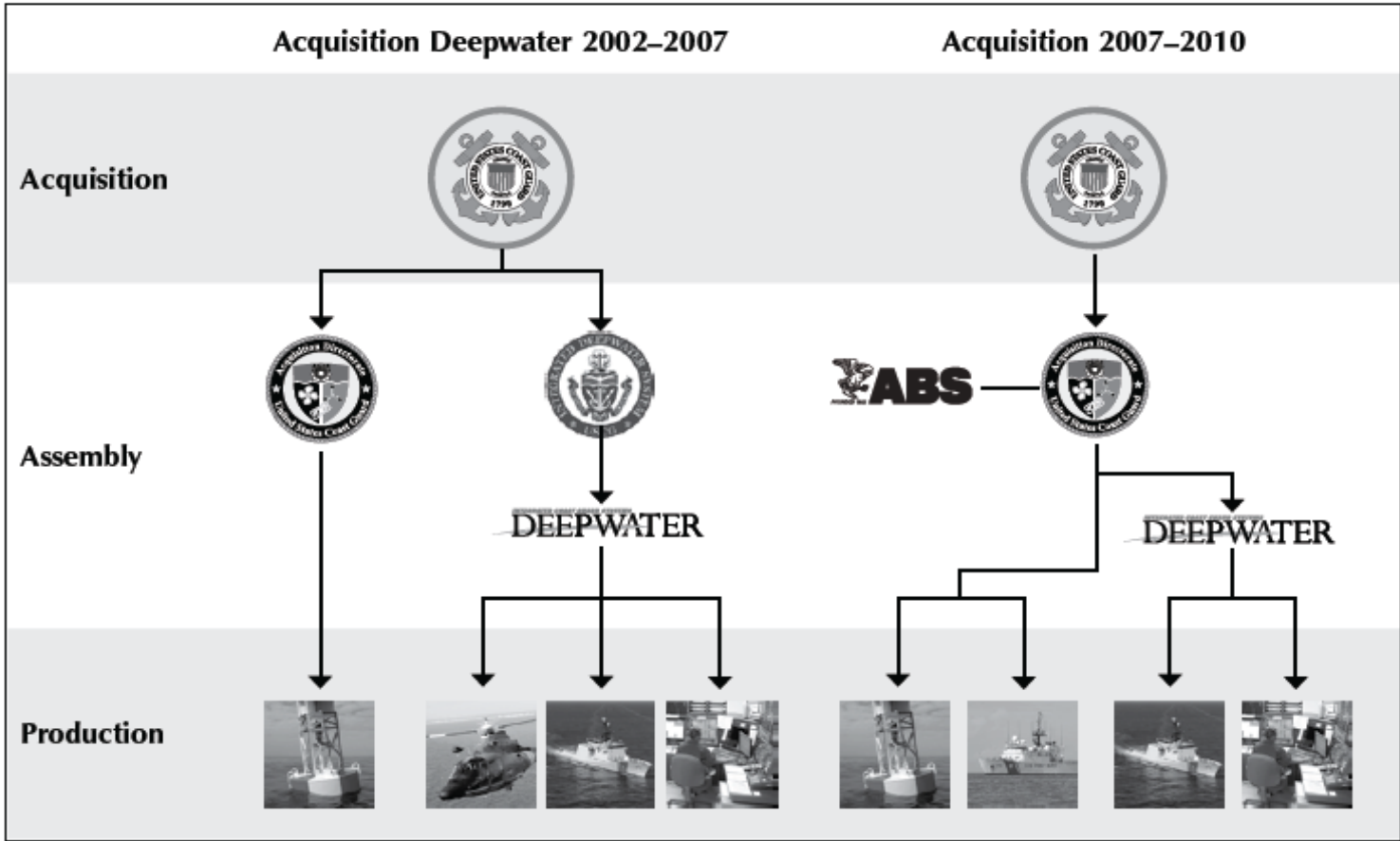
# Internal vs Contracted Assembly

Figure 8: Internal versus Contracted Assembly



# Pre & Post Deepwater Acquisition Structures

Figure 14: The Coast Guard's Acquisition Approach Through the Deepwater Program



## Key Lessons

- ▣ **The product's characteristics are the initial source of costs and risks**
- ▣ **Contracting for assembly may be cheaper, but it also increases risk**
- ▣ **Performing assembly internally may lower risk, but It also raises costs**