



UNIVERSITY OF
SOUTHERN CALIFORNIA

Perspectives on Impact of Using COTS Software on Long-term System Costs

Chris Abts

cabts@sunset.usc.edu

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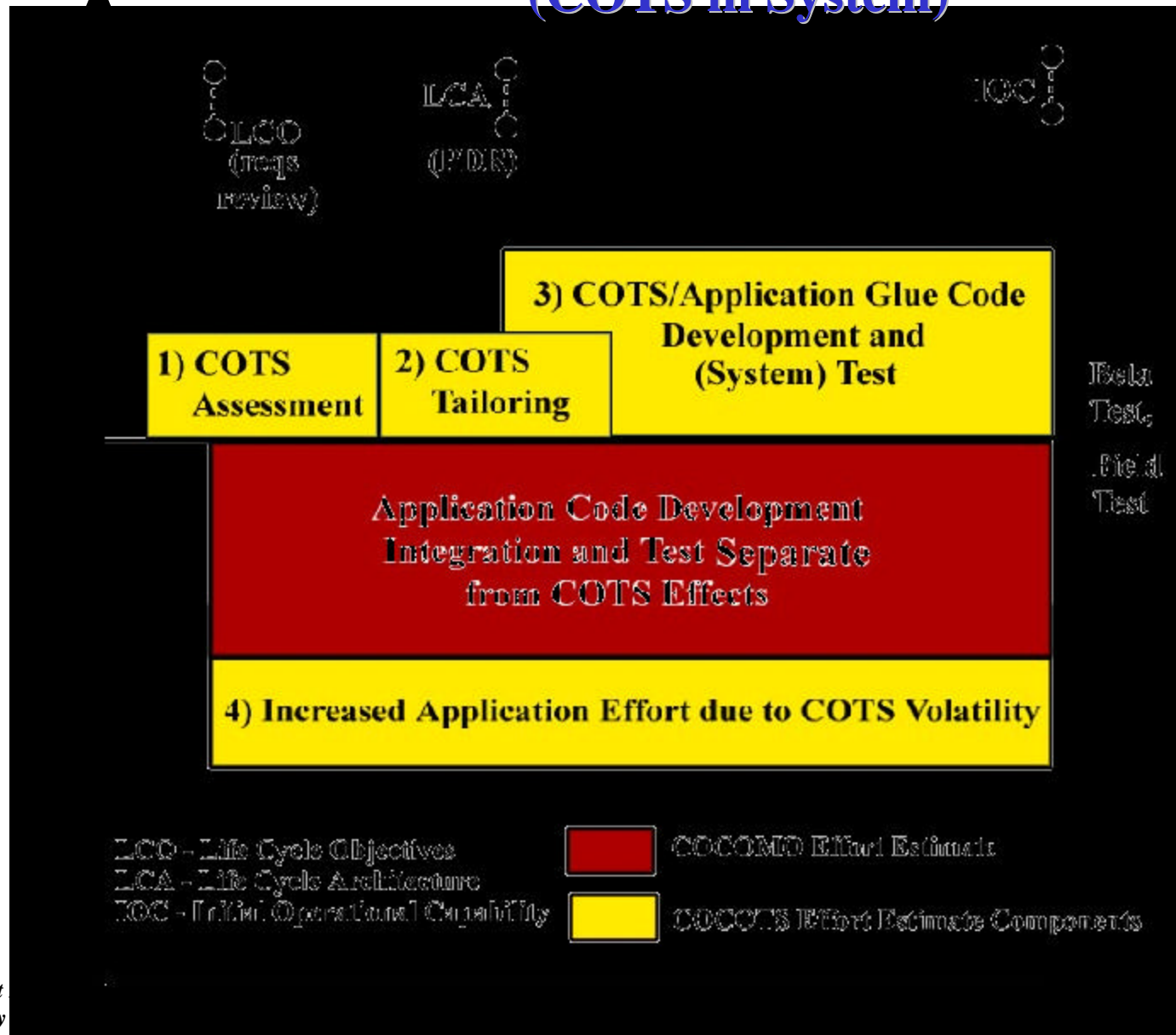
Outline

- Definition of COTS Software
- COTS Development Costs (COCOTS model)
- COTS Operations & Maintenance Costs (COCOTS Extension)
- COTS Volatility Effects (COTS-LIMO meta-model)
- Conclusion

COTS Software Definition

- “Commercial Off the Shelf” Software
- Commercial Software Products
 - sold, leased, licensed at advertised prices
- Source Code Unavailable
 - generally an application program interface (API)
 - frequently tailoring options
- Usually periodic releases with feature growth, obsolescence

COCOMO vs. COCOTS Cost Sources (COTS in System)



Total Lifecycle COCOTS

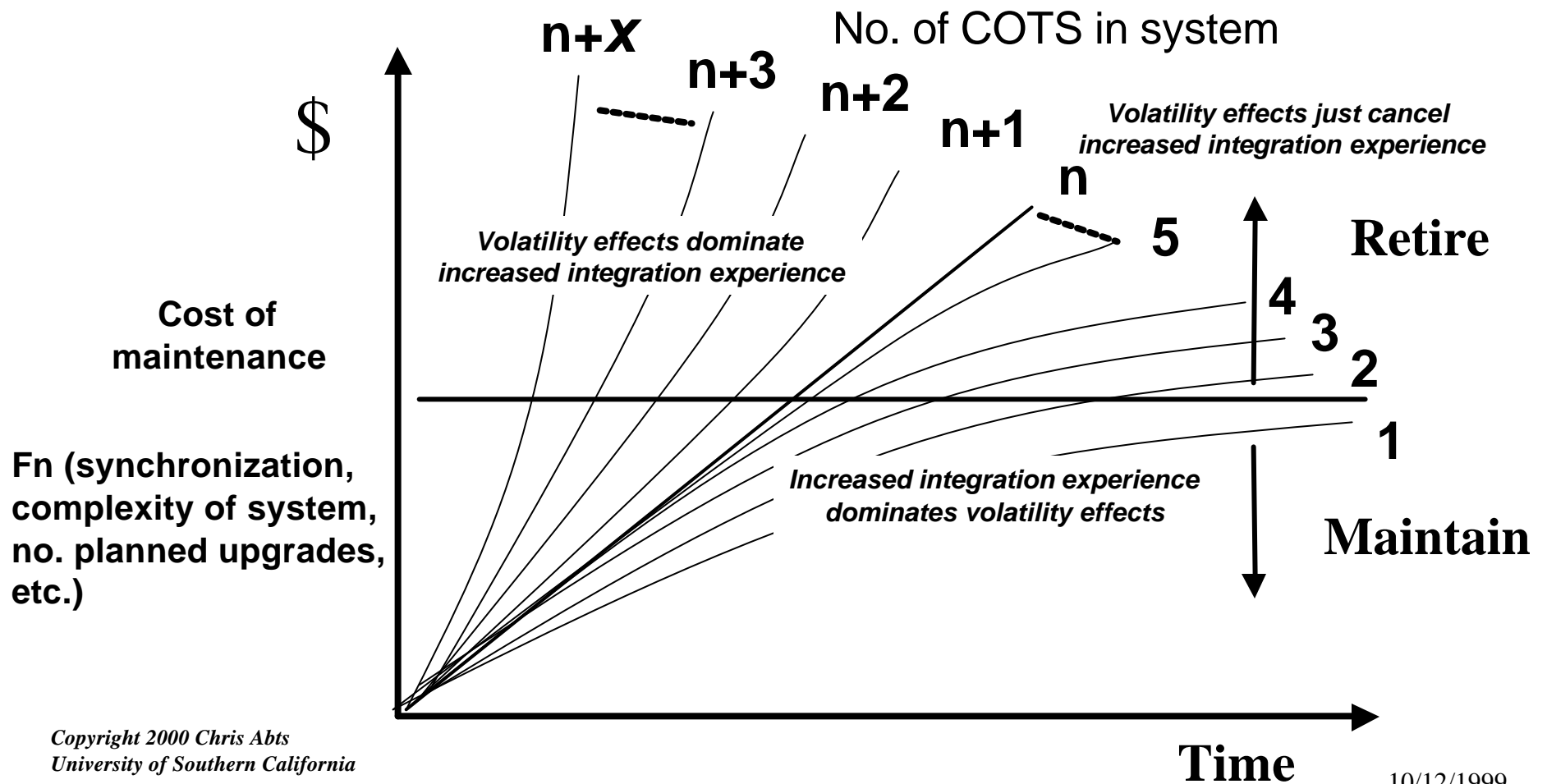
Some suggested sources of COTS maintenance costs:

- Sources already in the development model

Plus

- Infrastructure
- Training
- Technical support
- Market watch/research
- Vendor investigation/vetting
- Licensing
- Others?

A COTS Lifecycle Modeling Approach using Systems Dynamics Modeling Techniques: COTS-LIMO Meta-Model



Conclusion

- Planning for COTS maintenance must be much more proactive than approach taken for maintenance of traditional s/w systems
- Testing for “unknown” (i.e. unanticipated interactions) bigger issue with COTS
- Maintenance can be mitigated by actions taken in development
 - e.g., decoupling COTS products as much as possible during development
 - e.g., establishing strong partnerships with COTS vendors during selection