The Real Effect of Accounting for Software Development Cost on Corporate Innovation

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Stylized facts and economic intuition

Capitalization decision provides useful information for users

- Identifying technically feasible projects -> lower information uncertainty
- Lower uncertainty -> lower cost of capital
- Lower hurdle rates -> more viable projects

Supporting Facts

- Stronger in financially constrained companies
- Weaker in “earnings” constrained companies

What can we learn as standard setters from these facts?

Analogies

1. Differentiation of technically feasible development spend vs other R&D spend provides information
   - Incremental information over just expensing

Goodwill impairment tests give better information than just amortizing

2. Aligning costs with future revenues provides economic profitability
   - More valuable information for investors

Capital expenditures are capitalized

Purchase price allocation allows capitalization wasting asset during an acquisition

But how do standard setters judge the success of standards?

Conceptual Framework 1.2

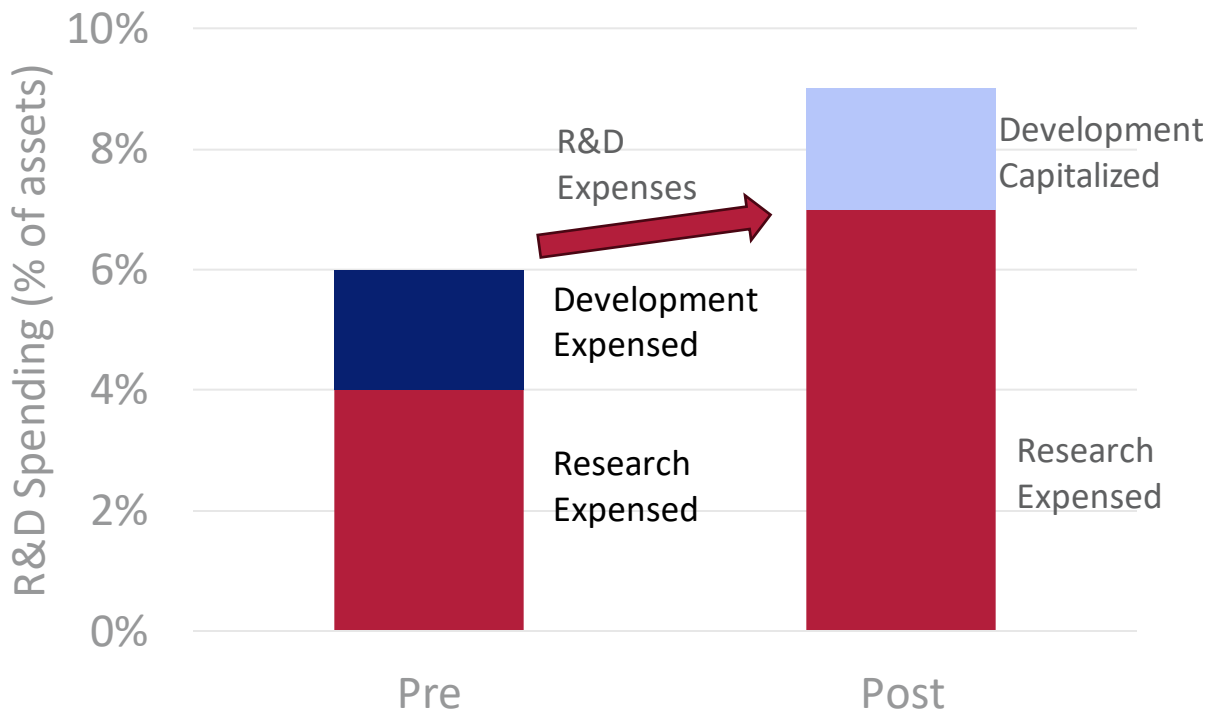
The objective of general purpose financial reporting is to provide financial information about the reporting entity that is useful to existing and potential investors, lenders and other creditors in making decisions relating to providing resources to the entity.

Some ackward facts

Users assign negative value to patents

	PSM Matched Sample			
Variables	(5) AVGCITE$_{it}$	(6) GENERAL$_{it}$	(7) ORIGINAL$_{it}$	(8) VALUE$_{it}$
TREAT$_i$ × POST$_t$	0.298***	0.094***	0.103***	-0.307**
	(3.04)	(2.72)	(3.13)	(-2.03)
SIZE$_{it}$	0.238***	0.078***	0.069***	[illegible]***
	(3.46)	(3.22)	(2.80)	(4.69)
ROA$_{it}$	0.657*	0.111	0.163	-0.145
	(1.92)	(1.00)	(1.37)	(-0.30)
CAPEX$_{it}$	-0.278	-0.084	0.055	-0.931
	(-0.34)	(-0.29)	(0.21)	(-1.14)
TANGIBLES$_{it}$	0.968**	0.443**	0.309*	-0.013
	(2.03)	(2.34)	(1.82)	(-0.02)
R&D$_{it}$	0.392	0.083	0.073	-0.708
	(0.93)	(0.62)	(0.56)	(-0.39)
CASH$_{it}$	0.104	0.061	0.073	-0.991**
	(0.25)	(0.44)	(0.56)	(-2.10)
LEVERAGE$_{it}$	-0.535	-0.102	-0.105	-0.165
	(-1.60)	(-1.01)	(-0.94)	(-0.43)
TOBINQ$_{it}$	-0.026	-0.007	0.001	0.243***
	(-0.53)	(-0.47)	(0.09)	(3.76)
FOLLOW$_{it}$	-0.016	0.001	-0.011	-0.030
	(-0.29)	(0.08)	(-0.61)	(-0.52)

R&D spending increases



Alternative Hypothesis

Companies keep margins stable

- Increase research spending as development spending is capitalized
- Higher research spending leads to significantly higher patents (pre-technical feasibility)

Users understand dynamic

- Higher spending will eventually be expensed through amortization
- Assign relatively lower value to patents

“Earnings” constrained firms (=slower growth firms) are more impacted

- Fixed costs of development cannot be spread over larger future base

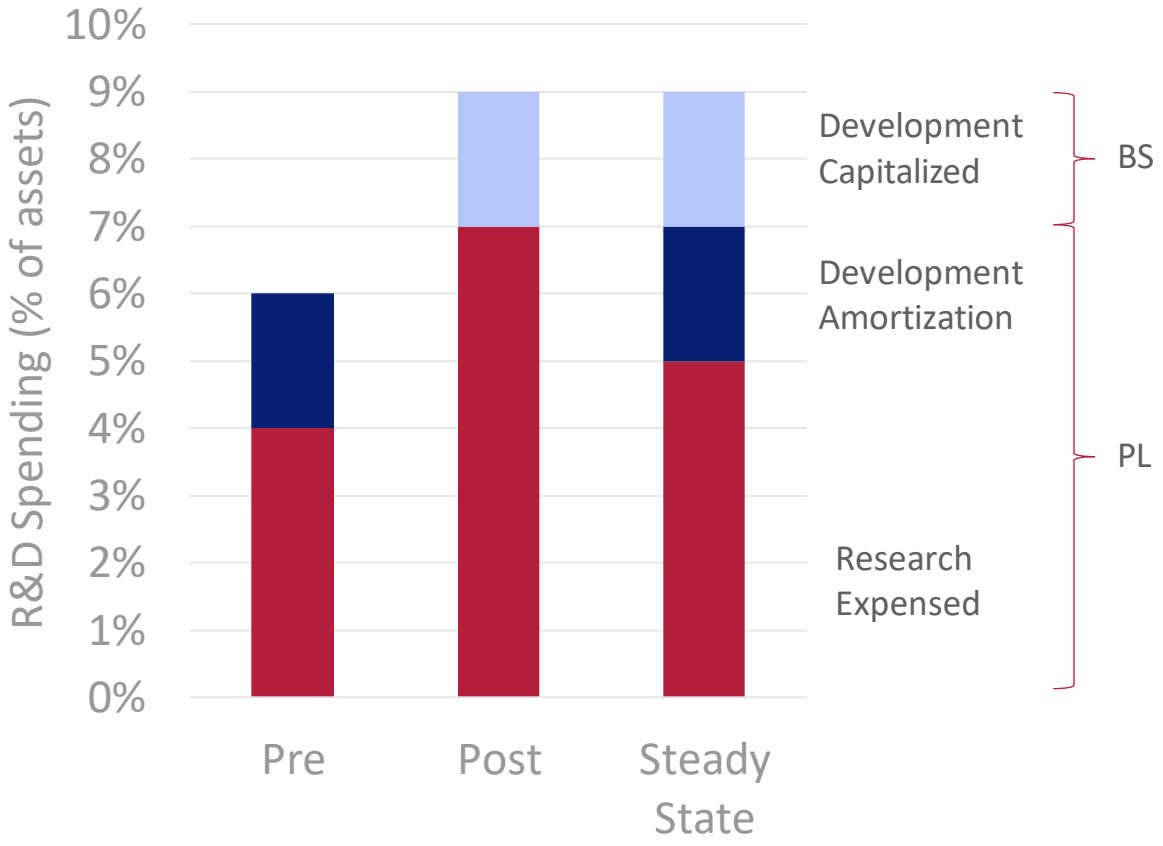
How to differentiate the hypothesis

Analyse situation in steady state

- Average useful life 5 years

Research Questions

- Do research expenses revert back?
- Does amortization increase?



Three Tools of Standard Setting

1. Recognition
2. Measurement
3. Disclosure

Authors only look at binary option in recognition

- Have companies' option to capitalize development costs?

Does the proportion contain informational value?

Hypothesis: inverse U-shaped value

- Analogue to diversified patents

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