Following a Lead: Analysis of in-licensing a follow-on oncology compound

Ajoy Chakrabarti
DAAG Baltimore
March 2006

Some background information

The Drug – THX:

- ❖ Preclinical compound
- ❖ Follow-on to a compound that had launched, called “Lead”
- ❖ Could potentially show a hypersensitivity reaction (HSR) side-effect benefit over Lead; no improved efficacy anticipated

Other relevant facts:

- ❖ Strong initial desire to do the deal from some BMS parties – “I can’t understand why we wouldn’t do this deal”
- ❖ Deal was for EU/ROW development rights (we already controlled US, Japan & some selected countries)
- ❖ BMS had a 45 day window to conduct exclusive negotiations as part of prior deal – time pressure!
- ❖ After 45 days, negotiations with other parties were allowed
- ❖ The other company was very interested in doing a deal

Team & Timeline

Representation from:

- Business Development & Licensing
- Marketing
- Clinical & Regulatory
- Decision Analysis

Timeline details:

- Start-to-finish: 6 weeks (42 days out of the 45 we had!)
- 4 weeks of meetings to discuss scenarios, develop decision tree & assumptions
- Model building & analysis occupied the last 2 weeks
- Presentation to senior management in 6th week
  – Brand Dev't Operating Committee (BDOC)

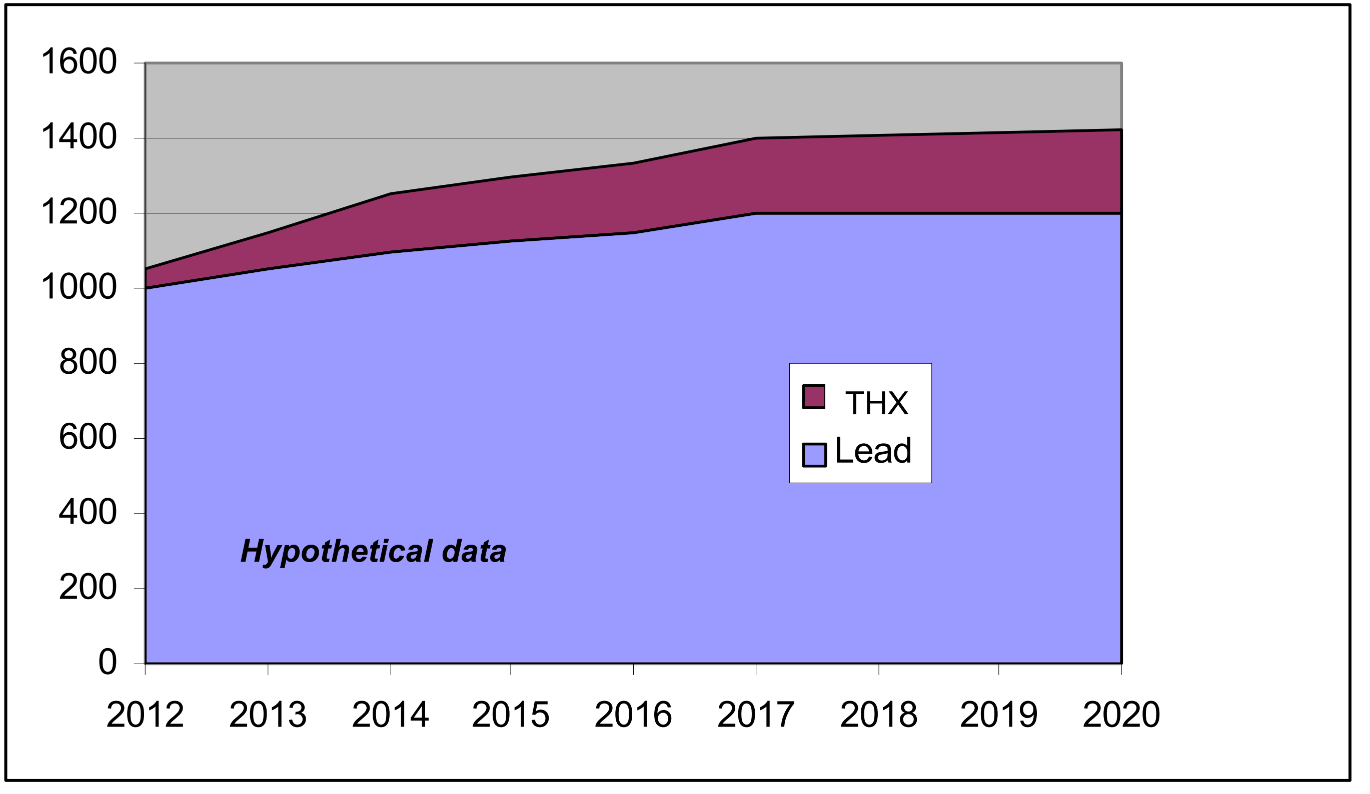
THX Financial Assumptions

The value of Lead/THX (US, JPN & selected countries), assuming that BMS did not do the THX deal (for EU/ROW), served as the baseline for the financial analysis around THX.

All financial analyses were therefore be based on:

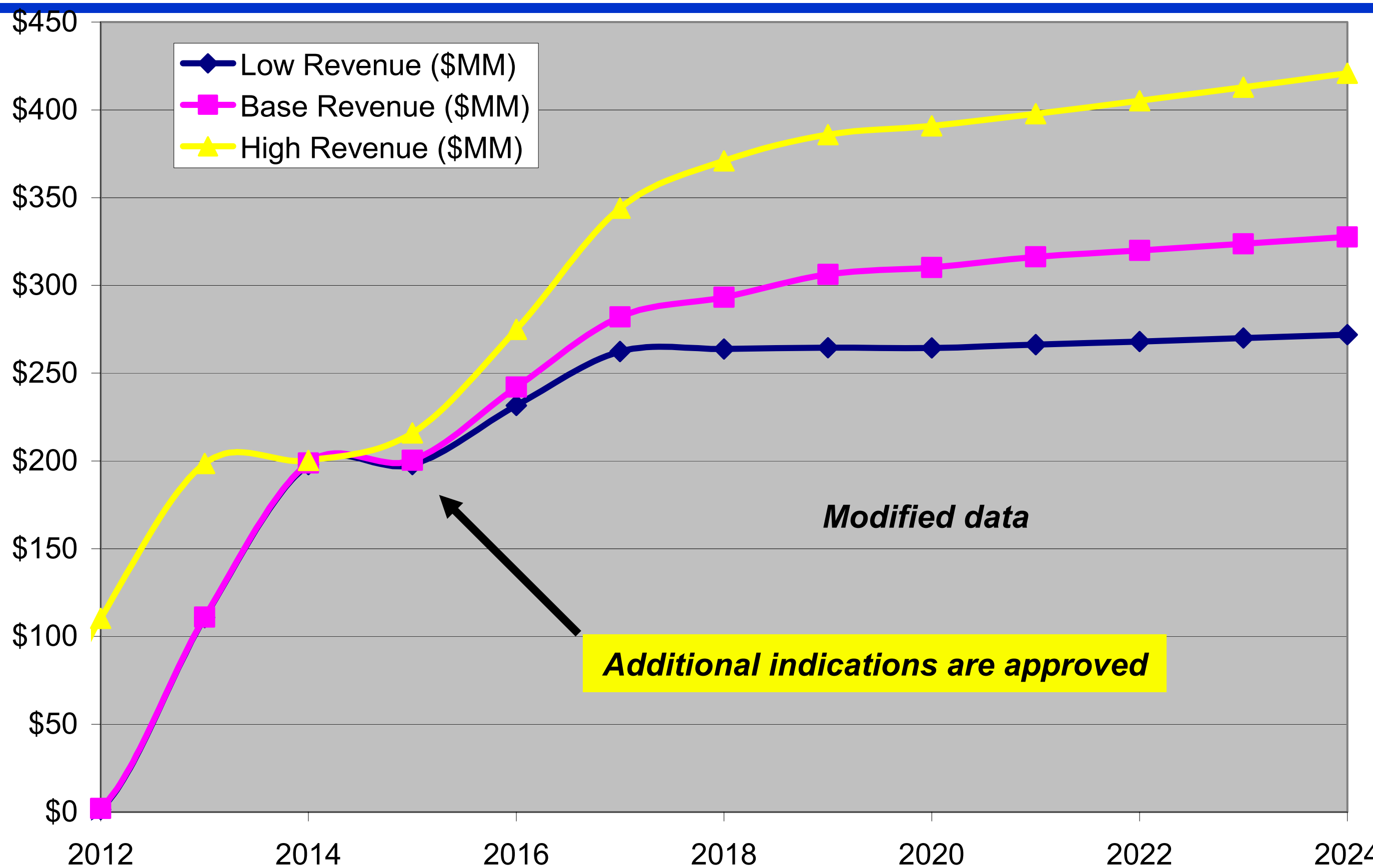
- **Incremental value that THX brings from EU/ROW sales**
- **Incremental spend over that for US THX development; assumed to be zero for this analysis**
    - **This assumption was very generous as we expected that the EU could require trial data from their geography**

Forecast – Incremental Sales



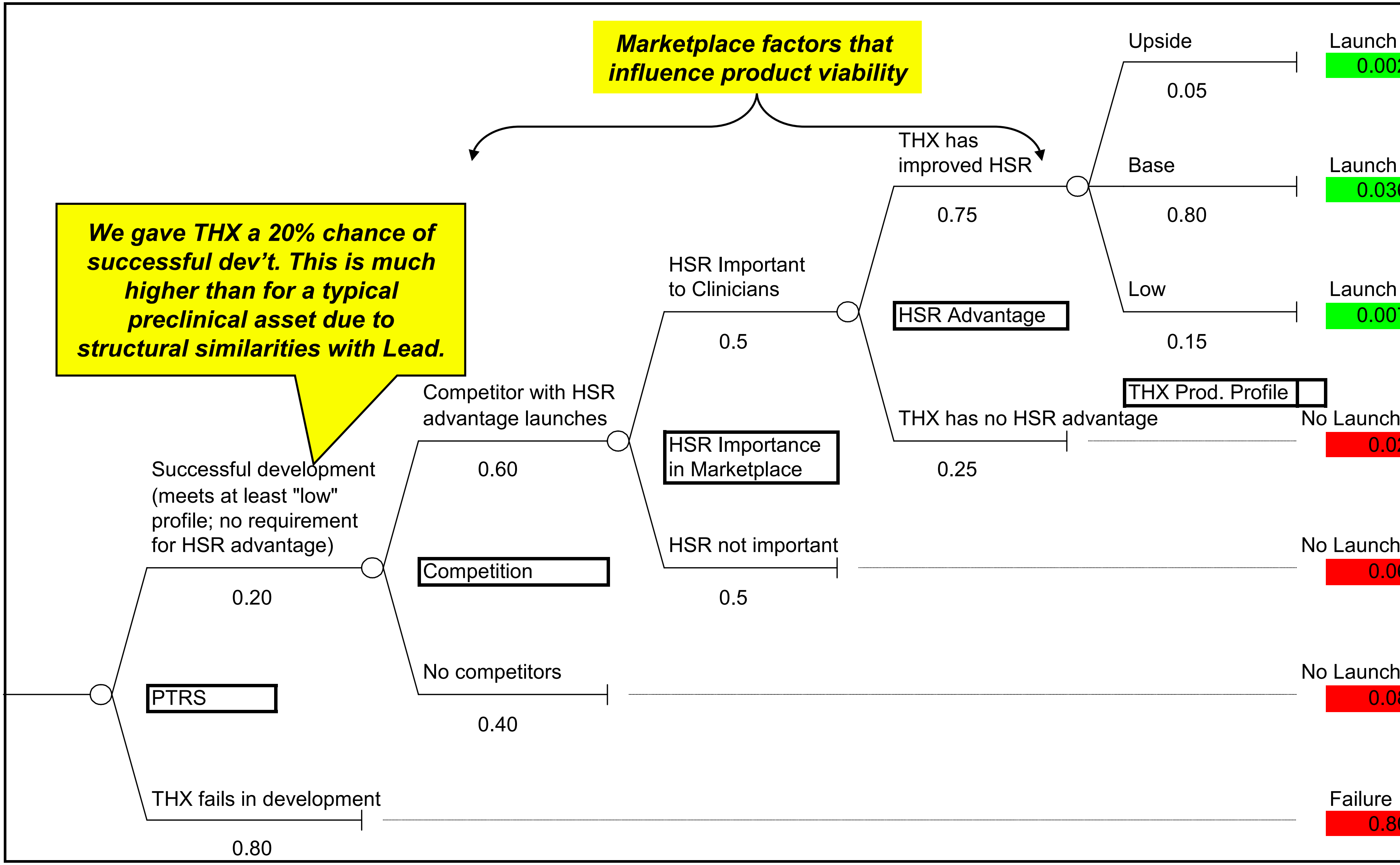
- ❖ Incremental sales for THX cannot include:
  - ❖Sales cannibalized from Lead
  - ❖Sales from regions outside EU/ROW
- ❖ Sales start late (2012) as compound will require 7-8 years for development

Forecast Scenarios – Low, Base, High



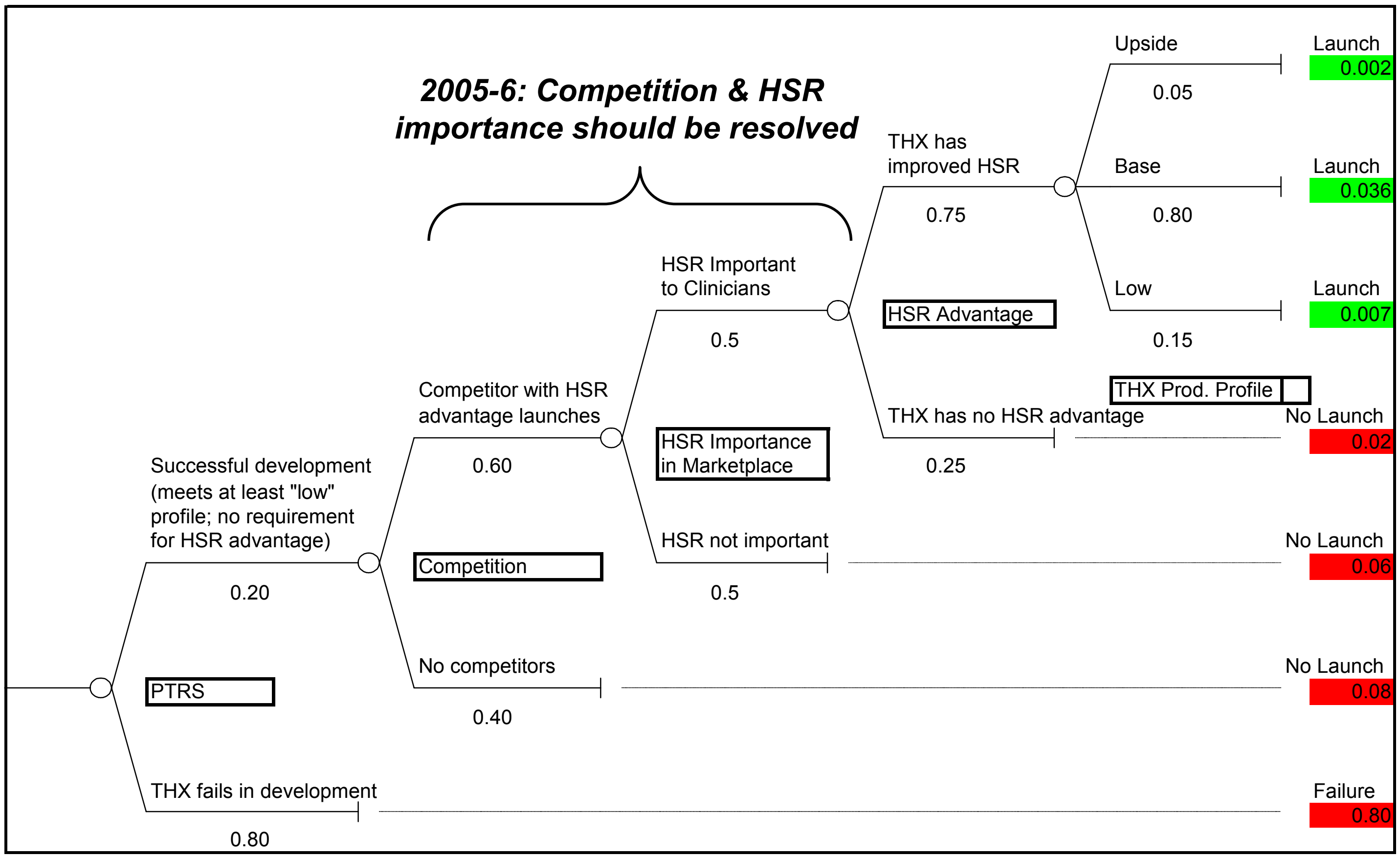
- 3 scenarios for THX sales:
  - All assume hypersensitivity advantage
  - Low: weaker clinical profile (relative to base)
  - Base: standard clinical profile
  - High: Better clinical profile (efficacy) & accelerated approval (sales start in ’11)
- Overall incremental sales are low based on limited geography

THX Decision Tree for EU/ROW deal (based on market situation & THX profile)



Strategic Planning & Decision Analysis

Decision Tree slide for senior management



Total Launch Probability = 4.5%

P&Ls for each key launch scenario

Weight the After-Tax Cash Flows for each scenario

<u>Overall value of THX Deal:</u>

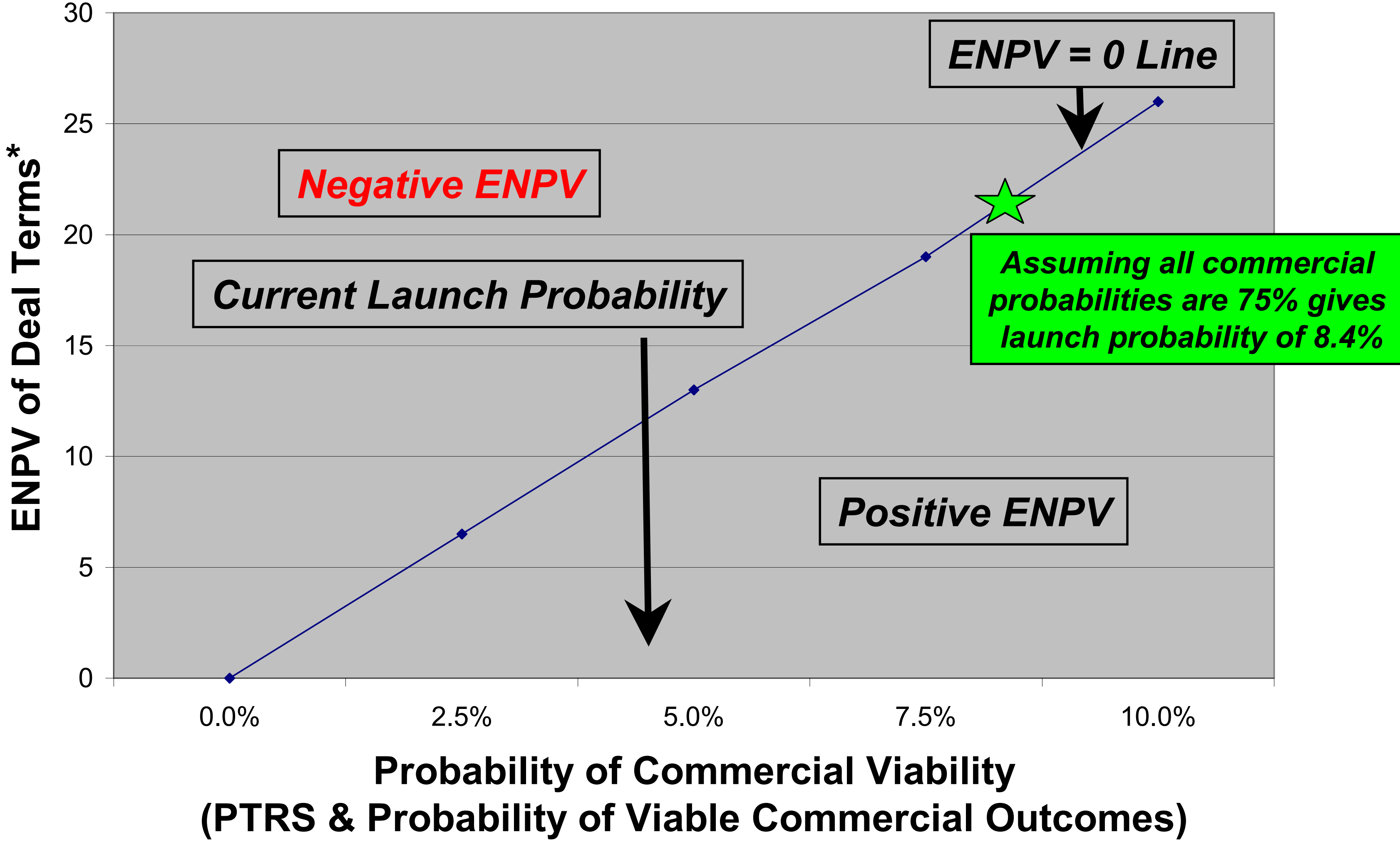
EIRR = 13%

ENPV = $2M

Assuming no incremental EU development costs and only deal term is $15M upfront payment

Strategic Planning & Decision Analysis

Modest upfront payments (e.g. $15-40M with no other terms) result in negative ENPV for all reasonable Launch Probabilities



More realistically, adding in other deal terms will only further reduce the value to BMS

* After tax; Deal terms could include upfront payments, royalties & milestones.

Conclusions

- **We decided not to pursue negotiations based on such marginal value to us**
  - **Already owned rights to most important markets (US, Japan)**
  - **Lead compound was doing well in the marketplace, HSR not an issue**
  - **Presented our analysis to the partner – full transparency**
  - **Did not want to damage the relationship with our partner by offering the paltry deal terms that my analysis suggested**
- **Indicated to our partner that they might be able to find a better deal elsewhere**
- **Left the door open to future negotiations after they had "tested the waters" with other companies**
  - **Any potential partner would have to bear the full costs of EU dev't with only EU sales to offset their costs**
  - **Suspected that most companies would be leery of in-licensing a compound where BMS held the rights to key regions**