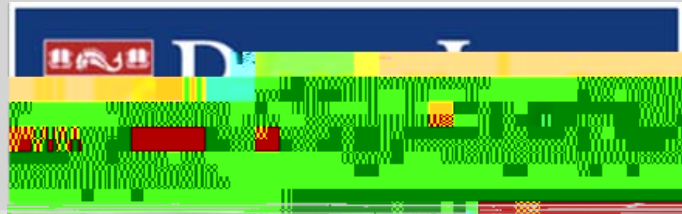


# PATENT PORTFOLIOS

---

**GIDEON PARCHOMOVSKY**  
**R. POLK WAGNER**



# **What is the value of patents?**

**(Or, if patents have value, what is it?)**

## **The traditional view:**

**Patents have a positive net expected value to their holders, via the “right to exclude” others from the marketplace.**

**Useful for:**

**actual exclusion  
licensing  
leverage**

# And yet ...

## Growing Doubts About Patent Value

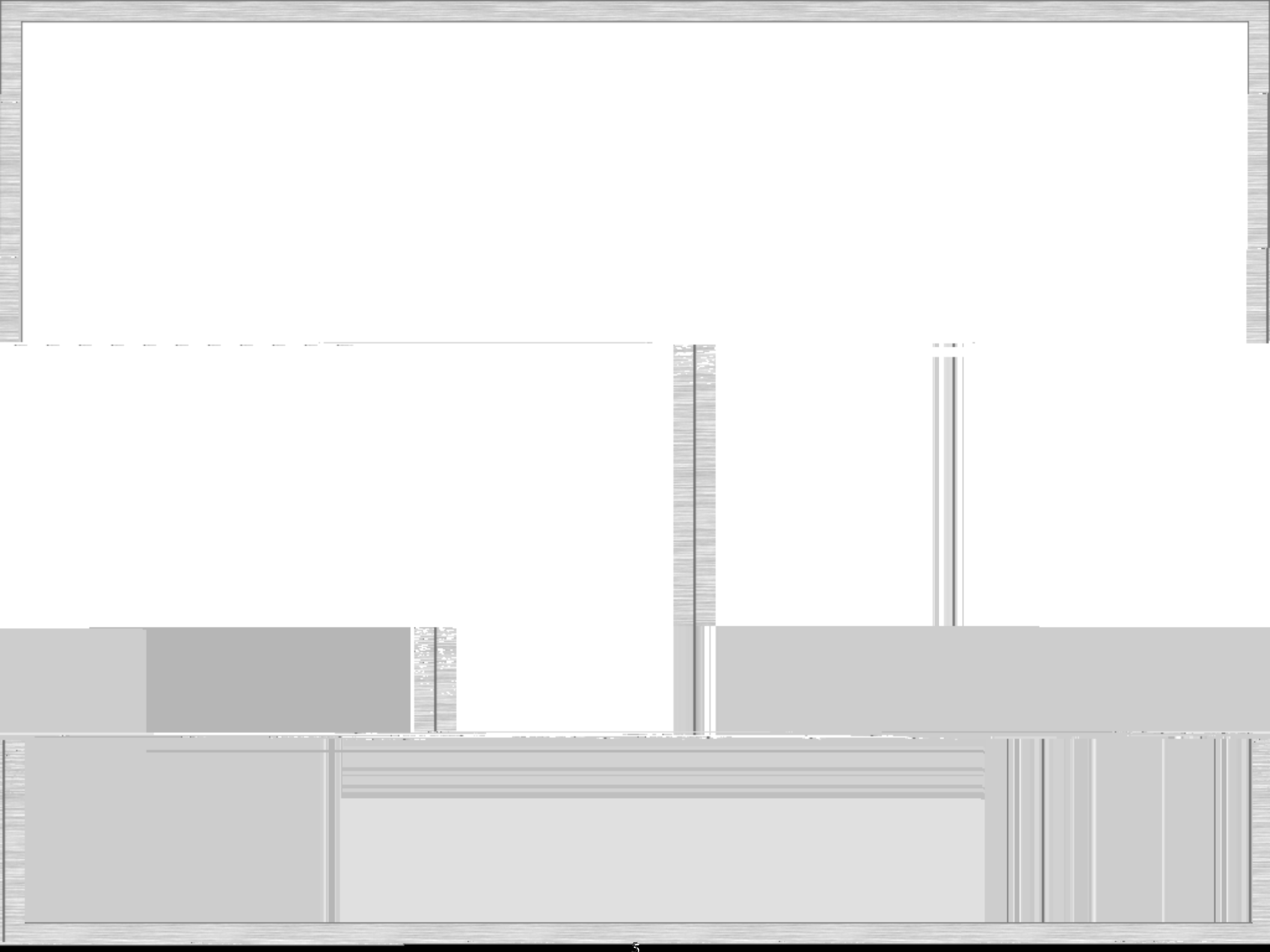
**Estimates reveal average value is likely to be insignificant; probably less than acquisition cost.**

**Extreme skew in distribution of value:  
Vast majority of patents have no apparent value.**

**Little or no ex ante visibility to distinguish the valuable patents.**

**Thus, the net value proposition for individual patents is (increasingly) uncertain at best, and likely to be negative.**





# The Patent Portfolio Theory



1. The modern value of patents lies not in their individual significance, but in their aggregation into a patent portfolio.

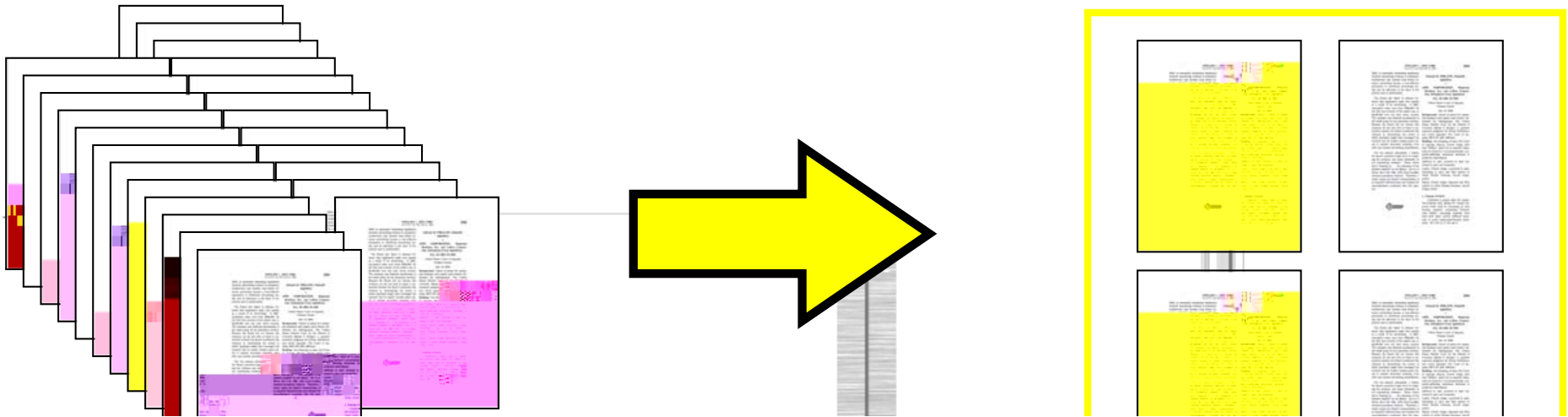
**The whole is greater than the sum of the parts.**

# The Patent Portfolio Theory



- 2. Patents are thus best understood as necessary inputs to portfolio construction, rather than as the goals themselves.**

# The Patent Portfolio Theory



- 3. Patenting will occur when the marginal benefit of building the portfolio exceeds the marginal cost of acquisition.**
- **This implies a much higher rate of patenting than under the traditional calculus—given the substantial benefits of patent portfolios, and their direct relationship to the quantity of component patents.**
  - **And reveals that patenting decisions are essentially unrelated to the value of individual patents.**



# Portfolios Solve Problems

**Scale (“super patents”)**

**Diversity (“hedging”)**

**Eases subsequent innovation**

**Addresses uncertainty –  
technology**

**Attracts related inventions**

**Expands freedom to research**

**Avoids litigation / improves  
bargaining / defensive**

**Addresses uncertainty – future  
market conditions**

**Increases voice in political  
economy of patent system**

**Addresses uncertainty – future  
competitors**

**Enhances efforts to attract  
capital**

**Addresses uncertainty – patent  
law**

# The Patent Portfolio Theory

## Explanatory Power

- The current high patent intensity is the expected consequence of the rise of patent portfolios, not a paradox.
- Individual patent value is largely unrelated to patenting decisions
  - if anything, an **inverse** relationship
- Feedback effects, information costs, drive portfolio strategies
- Explains Patenting Patterns
  - large firms patent more, small firms patent more carefully (thus, different firm sizes experience portfolio effects differently).
  - Increasing share of patents for small firms.
  - Patent litigation patterns.
    - less patents = more litigation (lesser portfolio effects)

# The Patent Portfolio Theory

## Normative Implications

- **Given the predictions suggested by the patent portfolio theory, we think the net effects are mostly negative.**
  - **A more complex, costly patent system.**
  - **Distributional effects.**
  - **Long-term clash with pro-competition laws.**
- **Note a few advantages, though:**
  - **Additional disclosure will be generated**
  - **A portfolio-focused innovation strategy might be beneficial**
  - **Firms are staying in the patent system, so reforms are possible**

# The Patent Portfolio Theory

## Normative Implications

- **Note that a high-volume, low-quality strategy complements other incentive-effects of the modern patent system**
  - **Deferring Clarity**
  - **Institutional Incentives**
  - **Cognitive Biases**
- **... this suggests that the incentives supporting modern patenting strategy are durable, fundamental**
  - **solutions will involve costly tradeoffs, multiple approaches**
    - **the PTO will not be able to fix this problem**



# The Patent Portfolio Theory

## Recognizing the true value of patents in the modern environment

**In patents, the whole is greater than the sum of the parts.**

**Patents are the means to a desirable end (a valuable portfolio), not the end itself.**

**Patenting decisions don't account for the value of individual patents.**

**Patent quantity will often be the dominant strategic choice.**

# PATENT PORTFOLIOS

---

GIDEON PARCHOMOVSKY

R POLK WAGNER

polk@aw.lpelit.edu | 111

