

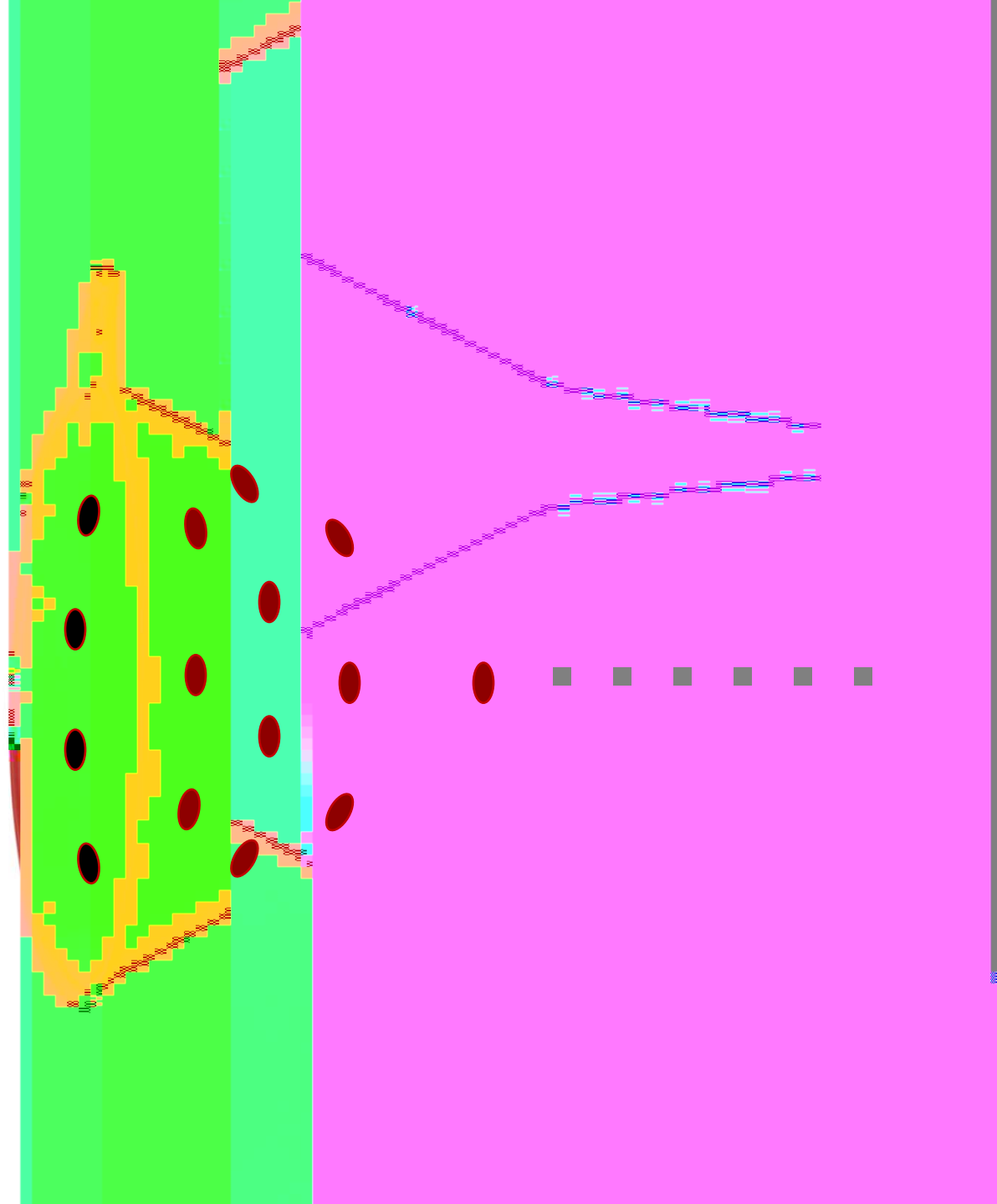
# **Specialisation and Markets for IP**

**Presentation to FTC Hearings  
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# US Industrial R&D by Size of Enterprise

# Evolution of Business Models in Semiconductors

• ~~Systems (1950s, AT&T, IBM)~~

- IDMs (1970s, Intel, TI)
- Fabless/Foundry (1980s, TSMC)
- Today, further specialization

~~Design services~~

~~Foundry services~~

– Packaging services

st0 Td(Packaging services)

# Evolution of Pharmaceutical Models

- In the beginning.....
  - Completely integrated, from lab to patient
- Then..... Specialisation develops
  - Biotechs partner with pharmas
  - CROs partner with both
  - Tool companies supply new capabilities
  -

# Patent Renewal Fees: A Policy Success

- Substantial evidence exists that most patents are neither used nor licensed
- Renewal fees encourage companies to either use their patents or abandon them
- This also stimulates a secondary market for patents
- More could be done by USPTO to publish information when patents are transferred



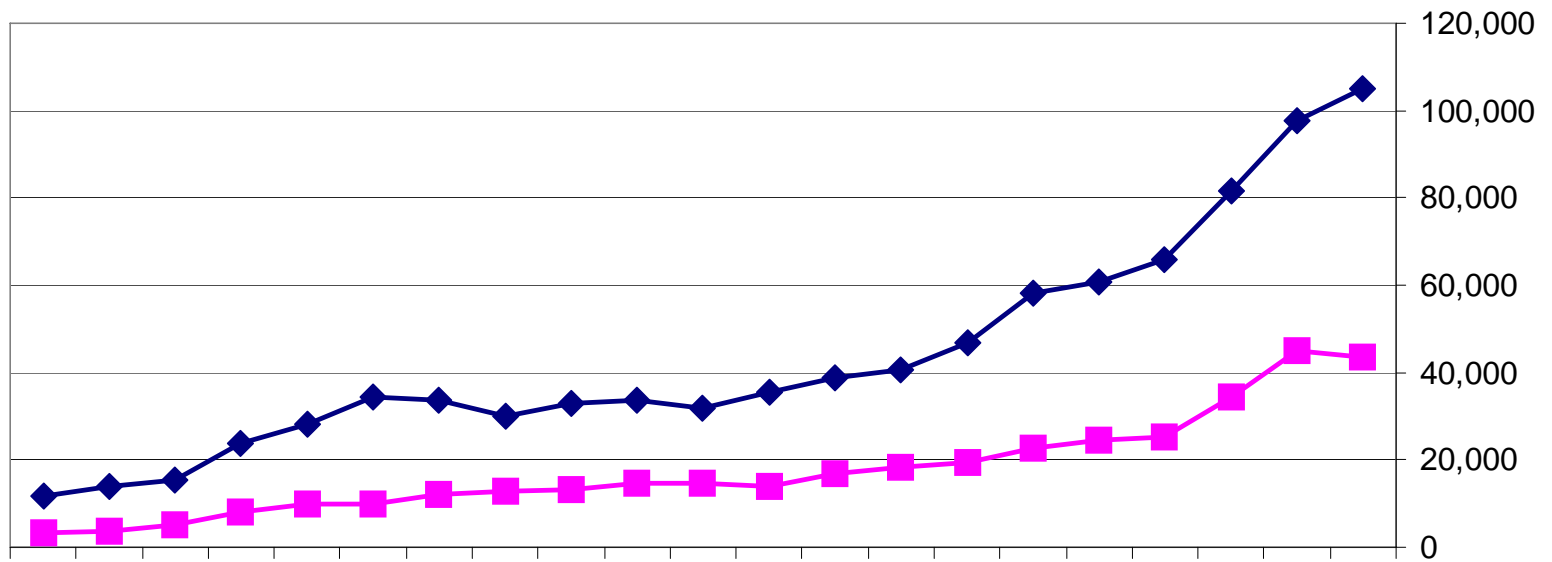


# Implications

- More open innovation processes require markets for IP
- IP Markets are highly inefficient
  - Insiders, and the rest of us
  - Unlikely to be socially optimal, or even allocatively efficient
- Opportunities exist to enhance availability of information on secondary markets
  - Reduce price dispersion, information asymmetries
- Pre-emptive strategies may become more common

# Backup slides

## Reassignment Kind: Security 1983-2003 (Patents reassigned as "Security or Release of Security")





# What does a Reassignment Title grant?

- The certificate of such acknowledgment constitutes **prima facie evidence** of the execution of the assignment, grant, or conveyance.
- This is both the official language of the USPTO and it has been confirmed by IP lawyer.
  - However it is not clear whether patent reassignments have ever been used in court during patent litigations.

# Are Reassignments part of a more complex deal?



- A follow up to John King's interview: “usually companies reassign patent when they are selling/acquiring other assets, or in situations of merging/spinoffs, when the structure of corporate control changes.”
- What is the percentage of transactions that happen between:
  - previously independent corporations
  - Internal transactions between subsidiaries
  - merging corporations
  - spin-off operations
  - results from bankruptcies
  - security agreements
  - alliances/joint ventures and the likes
  - pure technology transfers

# Definitions

Throughout this paper we will use the following definitions:

- **Reassignment event.** It happens when a patents gets reassigned once.
- **Reassigned Patents.** A patent is reassigned when a reassignment occurs. For the way the IFI database is designed, when counting reassignment of patents, and aggregating these reassignment by years, we are counting only one reassignment per patent even if this patent has been reassigned more than once each year. i.e. reassignment events  $\geq$  reassigned patents
- **Vintage.** Is the registration year of a reassigned patent
- **Maturation.** Difference (in years) between the date of the reassignment and the date of the patent's registration
- **Assignee (of reassignment):** is the company/individual that becomes the assignee of the patent after the reassignment event  
 $\frac{\sum_{j=1}^{T} \text{reassignment events}_{Tj}}{T}$

# “Restless...”

| Patent<br>class | Total<br>Patents | Pat_abs_ |
|-----------------|------------------|----------|
|-----------------|------------------|----------|



# Let's do the numbers

- Overall, from 1979 to October 2004
  - at 23,583 patents have been reassigned at least once. 1 6
  - 969,168 times a patent