

Econ 243

11.30 notes

standards vs two standards: metric and English coincide. better for both if only one – though the gains for metric users would be small.

QWERTY: huge base of installed equipment  
huge base experienced users

technical solution to problem that no longer exists

so Dvorak keyboard superior but will never be adopted

I'm not convinced superior, think evidentiary base

if superior, why don't more people buy for themselves? writers, others who don't need to share equipment but churn out a lot of words.

- makes me suspect not really that better

so ... Allen Wrench sizes and nuts are a pain, I need both metric and English for ordinary repairs

auto companies push to their advantage: lots of specialized tools good for only one specific car model, but if it's a good selling car, repair shops have to buy them. (an elasticity story – it's profitable to NOT adopt the standard and differentiate your complementary product)

but orphan technologies, too. quadraphonic stereos were going to storm the world, demonstrably better sound

– but they didn't and those who bought came to regret it

Excess momentum / superior technologies (standards) where new is better, but old stays dominant

2x2 game, but easier [on blackboard] to write as separate than to combine into one

NOTE the numbers below are not those in class ... hoping that two versions will help you see the logic more clearly.

Firms don't know each others type.

Here Type 1 Firms prefer the new tech, but above all want to use the same type technology as everyone else. In contrast, Type 2 firms prefer the old tech and lose profits with the new tech, even if all firms use the new tech. So if Firm 1 expects the other firm to switch, they will too. But that won't happen, unless there are very few Type 2 firms. So even though total industry profits rise with the new tech, the industry is unlikely to switch – our QWERTY story.

|             |          | Type 1 Firm |          |
|-------------|----------|-------------|----------|
|             |          | Old tech    | New tech |
| Type 2 Firm | Old tech | 20, 20      | 20, 20   |
|             | New tech | -10, -20    | 60, 10   |

But if we have **sequential** entry, then if the first firm is an inferior type 2 firm, each subsequent firm will adopt the new technology, even though the old would be more profitable. It doesn't matter whether the next 99 entrants prefer the new technology, there's no way to get from there to a better world.

|             |             |          |          |
|-------------|-------------|----------|----------|
|             | Type 1 Firm |          |          |
|             |             | Old tech | New tech |
| Type 2 Firm | Old tech    | 12, 100  | 10, 4    |
|             | New tech    | -10, -20 | 13, 5    |

### DATA

Hausman, Jerry, Gregory Leonard, and J. Douglas Zona. 1994. "Competitive Analysis with Differentiated Products." *Annales d'Économie et de Statistique*, 34: 159–80.

| Own & Cross-Price Elasticities   |               |             |                     |              |
|----------------------------------|---------------|-------------|---------------------|--------------|
| Hausman et al. (1994), 166, 171. |               |             |                     |              |
|                                  | Premium       | Popular     | Light               |              |
| Premium                          | -2.7          | 2.7         | 0.4                 |              |
| Popular                          | 0.5           | -2.7        | 0.7                 |              |
| Light                            | 0.7           | 0.5         | -2.4                |              |
|                                  | Genesee Light | Coors Light | Old Milwaukee Light | Molson Light |
| Genesee Light                    | -3.8          | 0.5         | 0.4                 | 0.2          |
| Coors Light                      | 0.6           | -4.6        | 0.4                 | 0.5          |
| Old Milwaukee Light              | 1.2           | 1.0         | -6.1                | 0.6          |
| Molson Light                     | 0.7           | 1.2         | 0.6                 | -5.8         |

Toro-Gonzalez, Daniel, Jill J. McCluskey, and Ron C. Mittelhammer. 2014. "Beer Snobs Do Exist: Estimation of Beer Demand by Type." *Journal of Agricultural and Resource Economics* 392: 174–87.

| Own & Cross-Price Elasticities & Income Elasticity |       |        |        |             |
|--|-------|--------|--------|-------------|
| Toro-Gonzalez et al. (2014), 184.                  |       |        |        |             |
|  | Mass  | Craft  | Import | Income      |
| Mass   | -0.12 | 0.0004 | 0.0003 | <b>0.57</b> |
| Craft  | 0.002 | -0.21  | 0.0005 | <b>0.59</b> |
| Import   | 0.002 | 0.0004 | -0.22  | <b>0.58</b> |