

13TH ANNUAL NABE

TRANSFER PRICING SYMPOSIUM

JULY 18-20, 2023

FOUR SEASONS HOTEL | WASHINGTON, DC

NABE
National Association for Business Economics

Potential Tools for TP from FRAND Rate Determination

Su Sun

 **Secretariat**
Economists

Standard Essential Patents (SEPs)

- Standards are developed to achieve economies of scale and support interoperability
- Example: smartphones
 - Wi-Fi, 5G, Bluetooth, audio and video codec, etc.
 - Benefits to device makers, network operators and consumers
- Standards are developed by industry participants in Standard Development Organizations (SDOs)
 - Example: European Telecommunications Standards Institute (ETSI)
- SEPs are patents that are necessarily infringed when practicing the standard.
- What rates should implementers pay to SEP holders?

Fair, Reasonable and Nondiscriminatory (FRAND)

- SDOs often require that members with patents that are essential to a standard or technical specification commit to licensing on FRAND terms
- Most important component of FRAND terms is FRAND rates
 - FRAND rates should adequately reward SEP holders for their investment in innovation
 - FRAND rates should not include the value of standardization
- Methods to determine FRAND rates
 - Comparable licenses approach
 - Top-down approach
 - Bottom-up approach
- Potential applications to TP?

Method 1: Comparable Licenses

- **Royalties received in comparable licensing circumstances**
 - SEP holder signed a licensing agreement with another implementer for the same SEP portfolio
 - Implementer signed a licensing agreement with another SEP holder for a similar SEP portfolio
- *Unwired Planet v. Huawei (2017); InterDigital v. Lenovo (2023)*
- **Similar to the CUT method in TP**
- **There are often disputes on what other licenses are comparable**

Method 1: Comparable Licenses

- **FastTop Case Study**

- **Example 1: Company H makes and sells a laptop hardware comparable to FastTop made by Affiliate A without special software but at a cheaper price**

Hardware	Price
Affiliate A	\$500
Company H	\$400
Difference	\$100

Method 1: Comparable Licenses

- **FastTop Case Study**
 - **Example 2: Company S develops and sells software that doubles processing speed, comparable to what Affiliate B has developed**

Software	Price
Affiliate B	\$1,000
Company S	\$1,100
Difference	-\$100

Method 1: Comparable Licenses

- **FastTop Case Study**
 - **Example 3: Combine hardware and software differences**

Hardware	Price
Affiliate A	\$500
Company H	\$400
Difference	\$100

Software	Price
Affiliate B	\$1,000
Company S	\$1,050
Difference	-\$50

Method 2: Top-down

- Estimate aggregate royalty burden (ARB) for all SEPs relevant to the standard and then apportion ARB to specific SEP portfolio
- *TCL v. Ericsson (2017)*; *Huawei v. Conversant (2018)*
- There are often disputes on the value of ARB
 - Example: announced ARB for 4G SEPs not exceeding 10% of product price
- Hedonic regression to estimate value from standardized cellular technology
 - Holding the screen size, processing power, and other features constant, how much value does a new cellular generation add to a phone's worth?
- Courts have reacted differently to hedonic regression
 - Accepted: *Huawei v. Conversant (2018)* for 3G and 4G SEPs
 - Rejected: *InterDigital v. Lenovo (2023)* for 3G, 4G and 5G SEPs

Method 2: Top-down

- **FastTop Case Study**



- **Core features of laptops**

- Processing speed, size, memory, storage, screen resolution, battery life, accessories, etc.

- **Data**

- Many models sold at different times with varying features and prices
- Hedonic regression: what's the market value of improved processing speed, holding all other features the same?

Method 2: Top-down

- **FastTop Case Study**
- **Estimate of the value of doubling processing speed: \$1,100**

Software	Price
Affiliate B	\$1,000
Hedonic value	\$1,100
Difference	\$100

Method 3: Bottom-up

- **FRAND rate is incremental value of the SEP relative to next best alternative**
- **Often difficult to find next best alternative**
- **FastTop Case Study: what's the incremental value of improved processing speed?**

Summary

- **Determination of FRAND rate is based on value, not cost**
- **Each method has limitations**
- **Courts tend to use multiple methods for cross check**
- **Some potential to apply to TP**
- **Need to fit the facts of the case**