



Antitrust and IP in China

USPTO West Coast China IP Road Shows

Dr. Alan Cox, Managing Director / Chair of Intellectual Property Practice,
NERA Economic Consulting

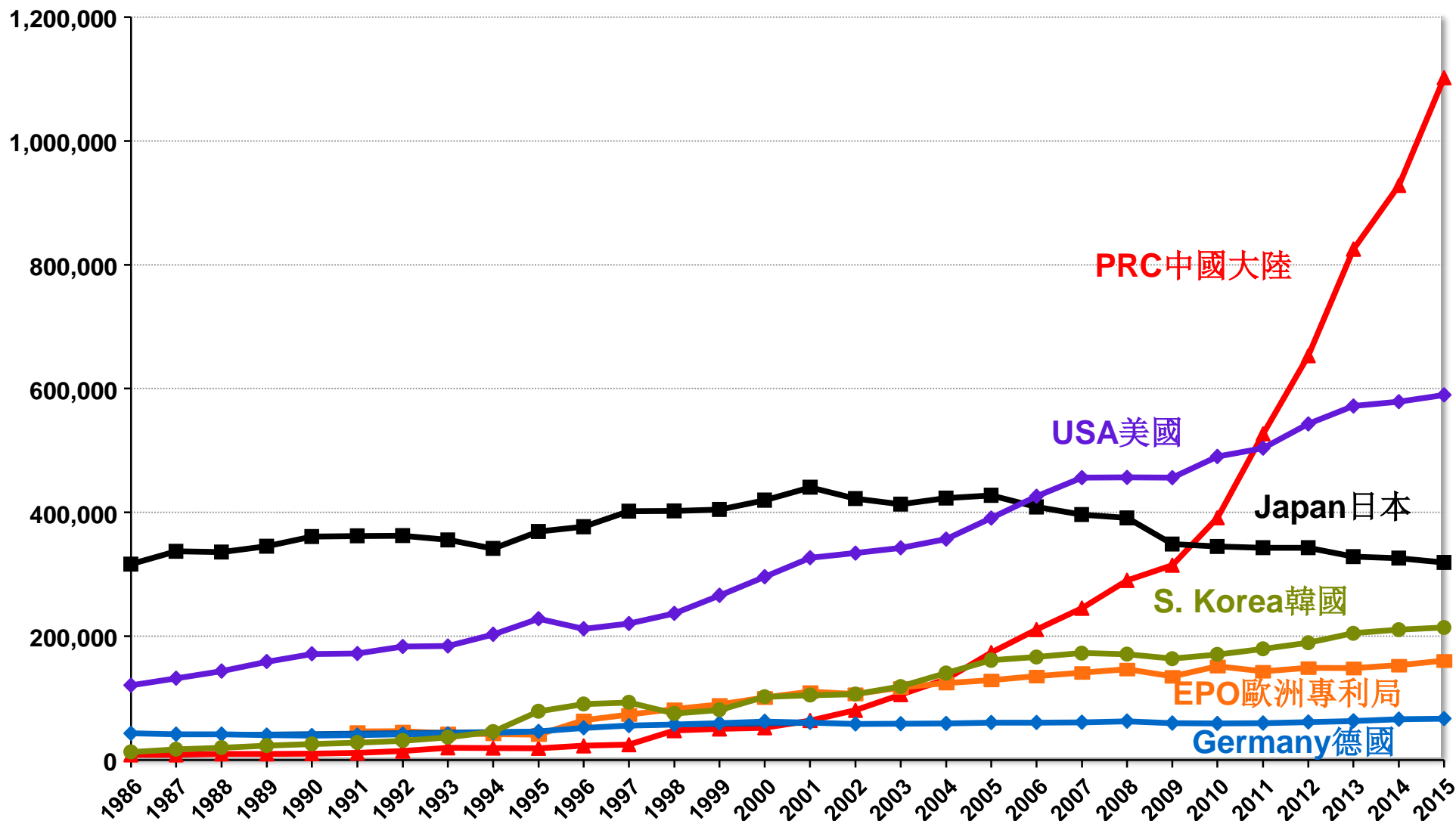
諾恆經濟諮詢公司執行董事及智慧財產權業務部主席 Alan Cox 博士

- **Patenting Patterns in Asia**
- **Pattern of Chinese Patenting in the United States**
- **Patents and Antitrust in China and Asia**
- **Other antitrust issues**

Growth of Patent Filings Selected Countries

部分國家地區專利申請數的增長

Patent Filings 專利申請數: 1986–2015



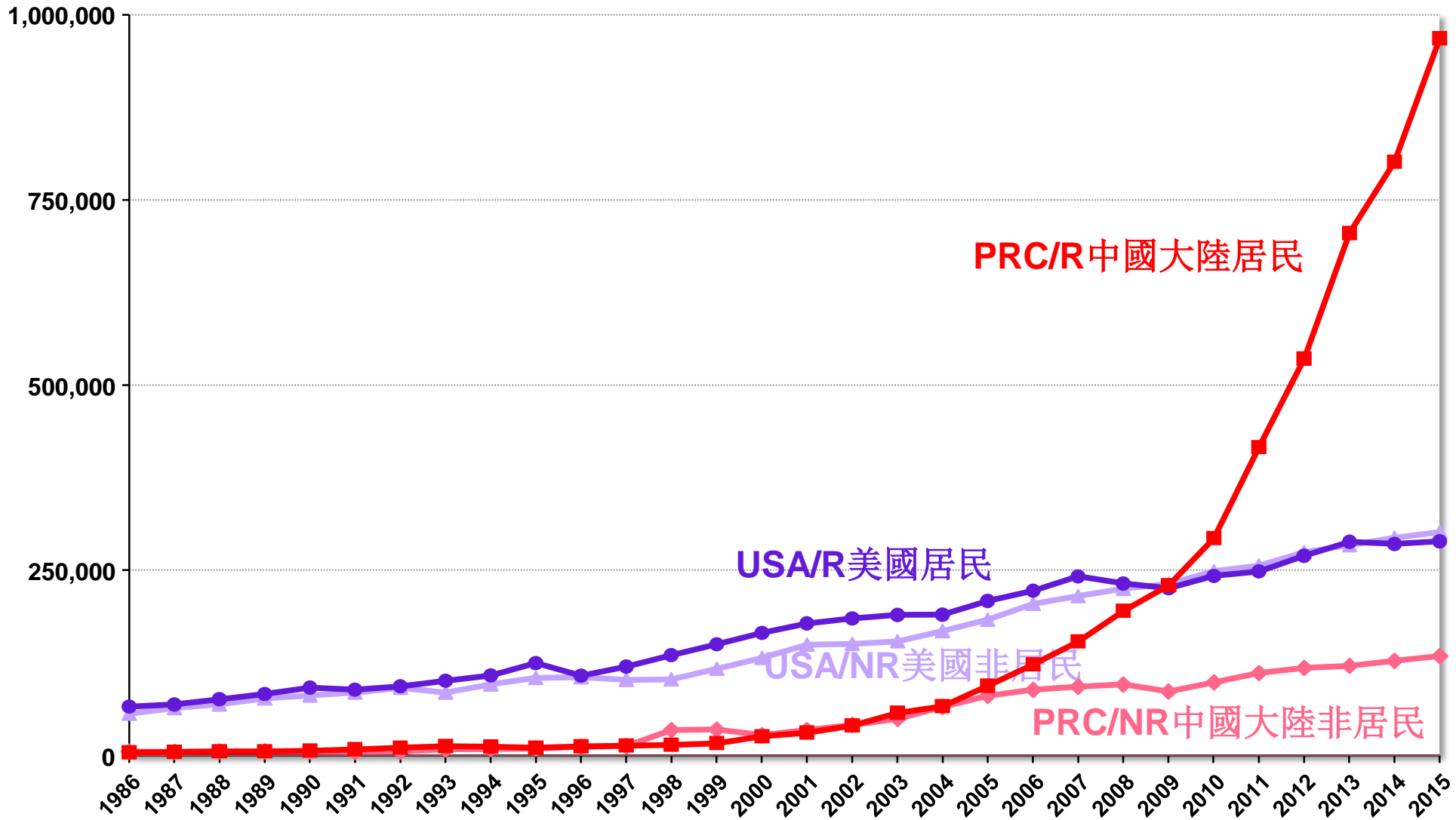
Notes: Data for the European Patent Office is not available prior to 1991. 歐洲專利局數據始於1991年。
 WIPO statistics database was last updated in February 2017. 世界智慧財產權組織數據庫最近一次更新于2017年二月。

Source: WIPO. 世界智慧財產權組織。

Patent Filings by Residents and Non-Residents: PRC and USA

居民與非居民專利申請對比：中國大陸和美國

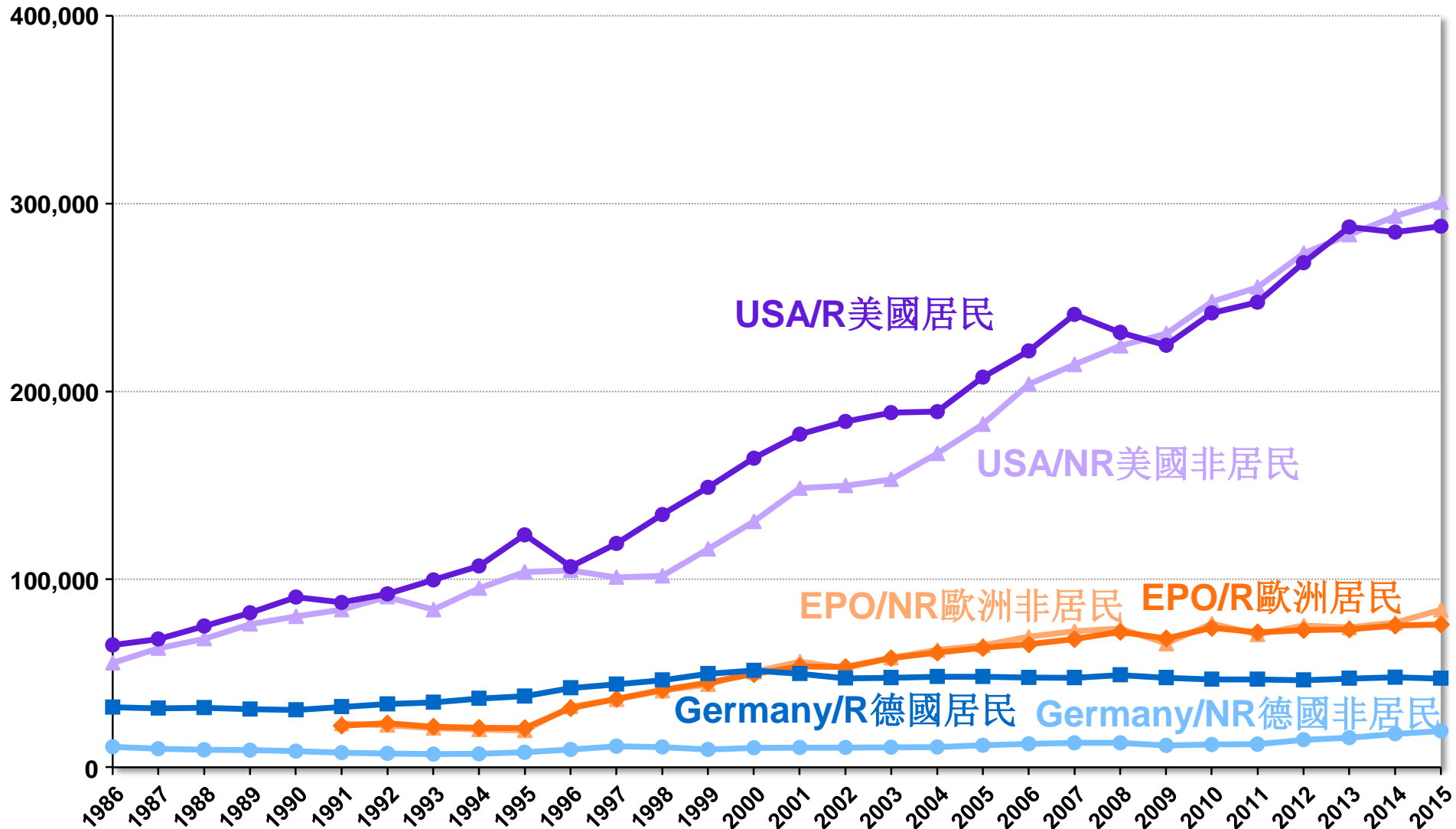
Patent Filings 專利申請數：1986–2015



Patent Filings by Residents and Non-Residents: USA, EPO, and Germany

居民和非居民專利申請對比：美國、歐洲專利局和德國

Patent Filings 專利申請數：1986–2015

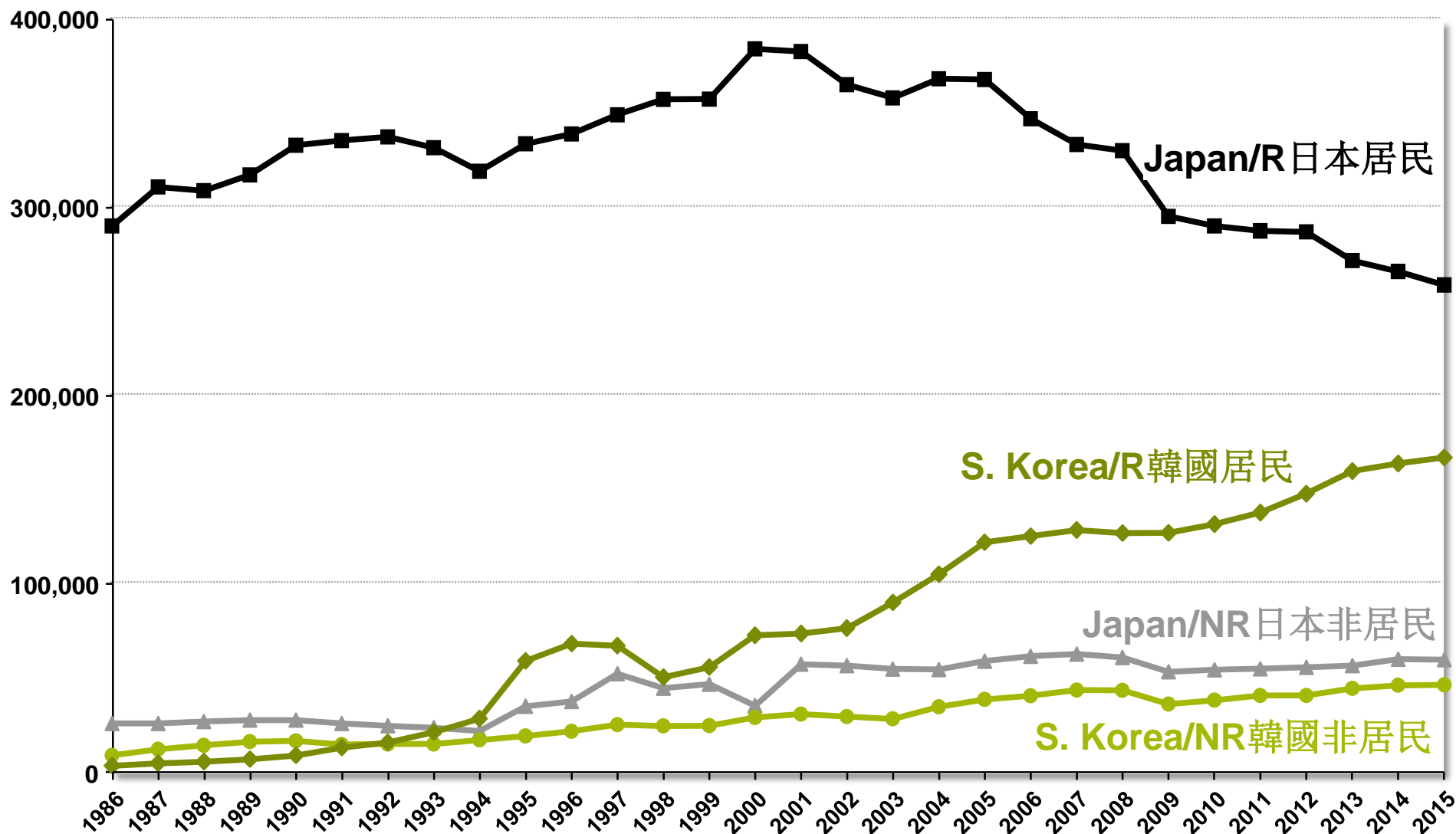


Notes: Data for the European Patent Office is not available prior to 1991. 歐洲專利局數據始於1991年。
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Source: WIPO. 世界智慧財產權組織。

Patent Filings by Residents and Non-Residents: Japan and S. Korea

居民和非居民專利申請對比：日本和韓國

Patent Filings 專利申請數：1986–2015

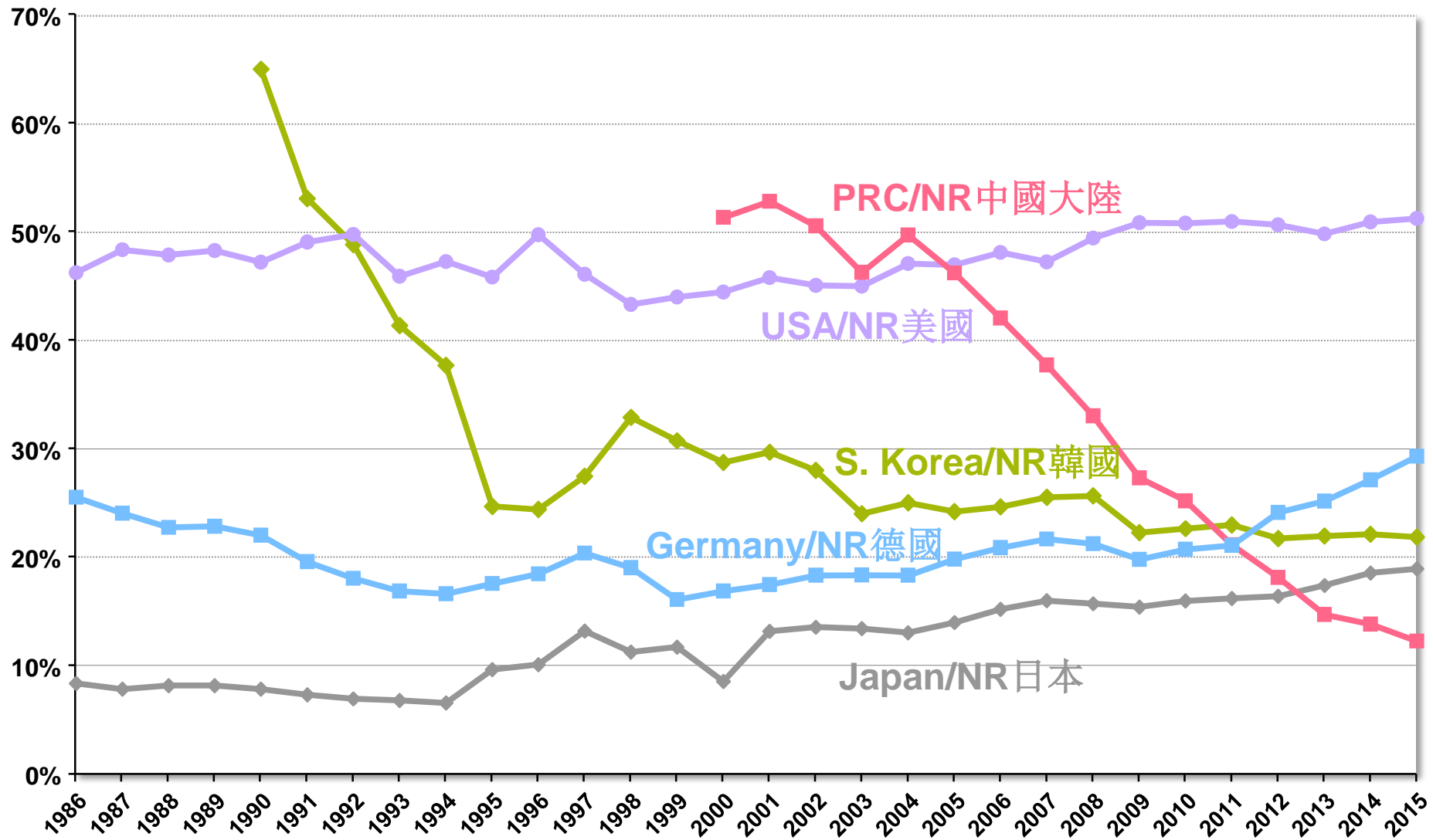


Note: WIPO statistics database was last updated in February 2017. 世界智慧財產權組織數據庫最近一次更新于2017年二月。

Source: WIPO. 世界智慧財產權組織。

Percentage of Patent Filings by Non-Residents 非居民專利申請所佔比例

Percentage of Patent Filings 專利申請佔比：1986–2015

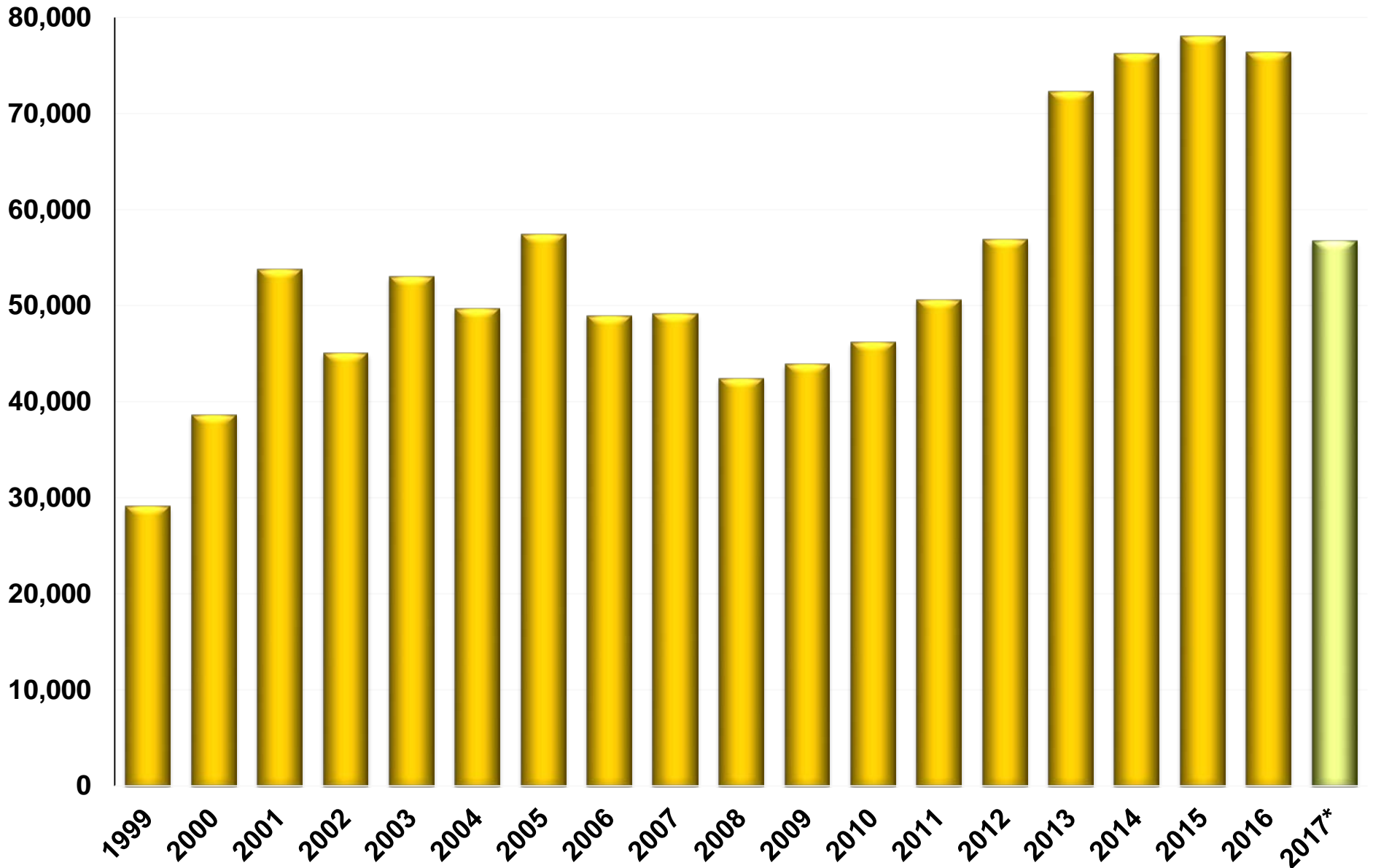


Note: WIPO statistics database was last updated in February 2017. 世界智慧財產權組織數據庫最近一次更新于2017年二月。

Source: WIPO. 世界智慧財產權組織。

Number of Patents Granted by Taiwanese Intellectual Property Office (TIPO)

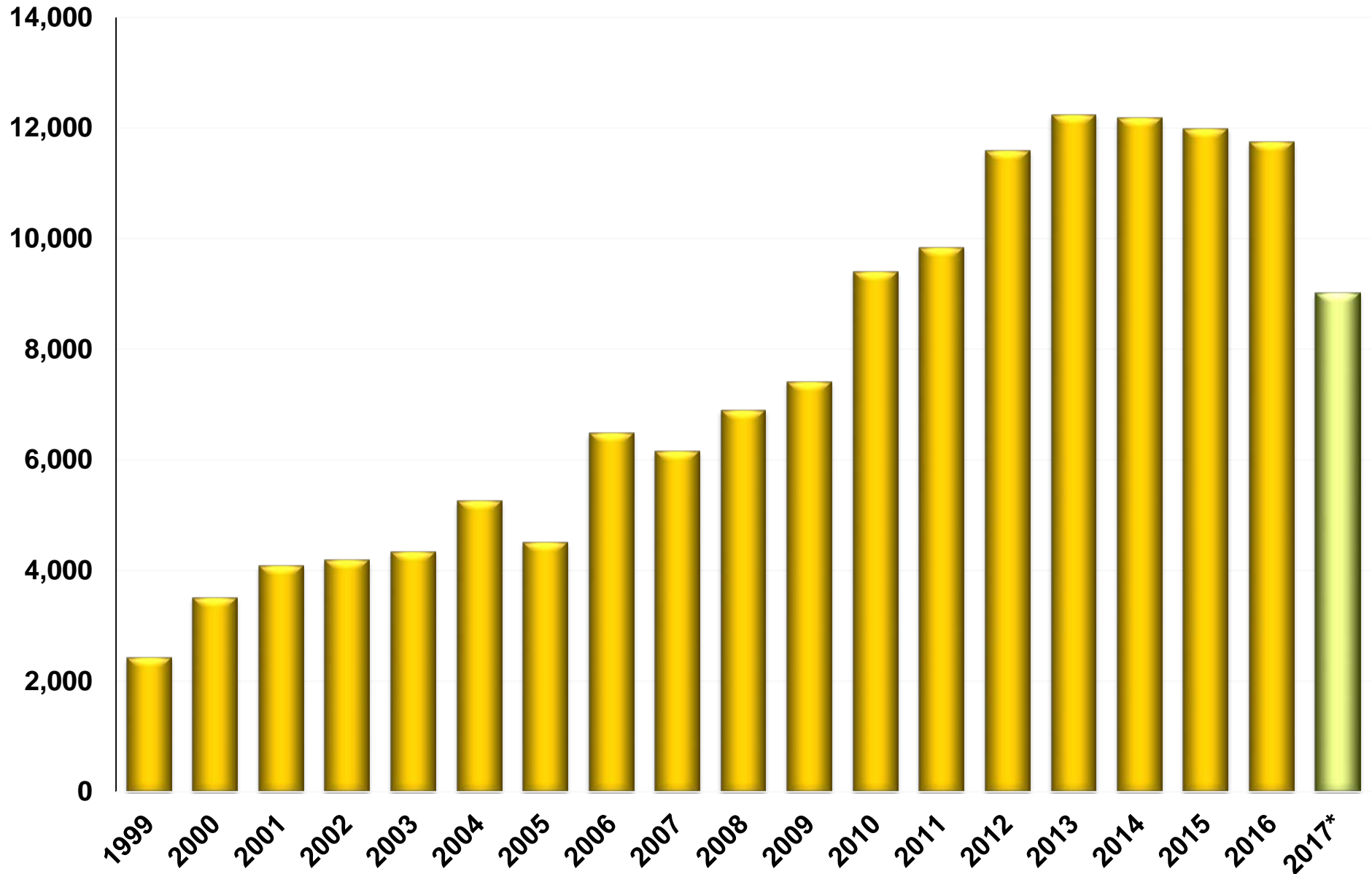
台灣智慧財產局核准的專利數量



* Note: Data was collected on October 9, 2017; therefore the 2017 number is not for the entire year. 數據收集于2017年10月9日, 因此2017年的數據並不是一整年的數據。

Number of Patents Granted to Taiwanese Individuals or Entities by USPTO

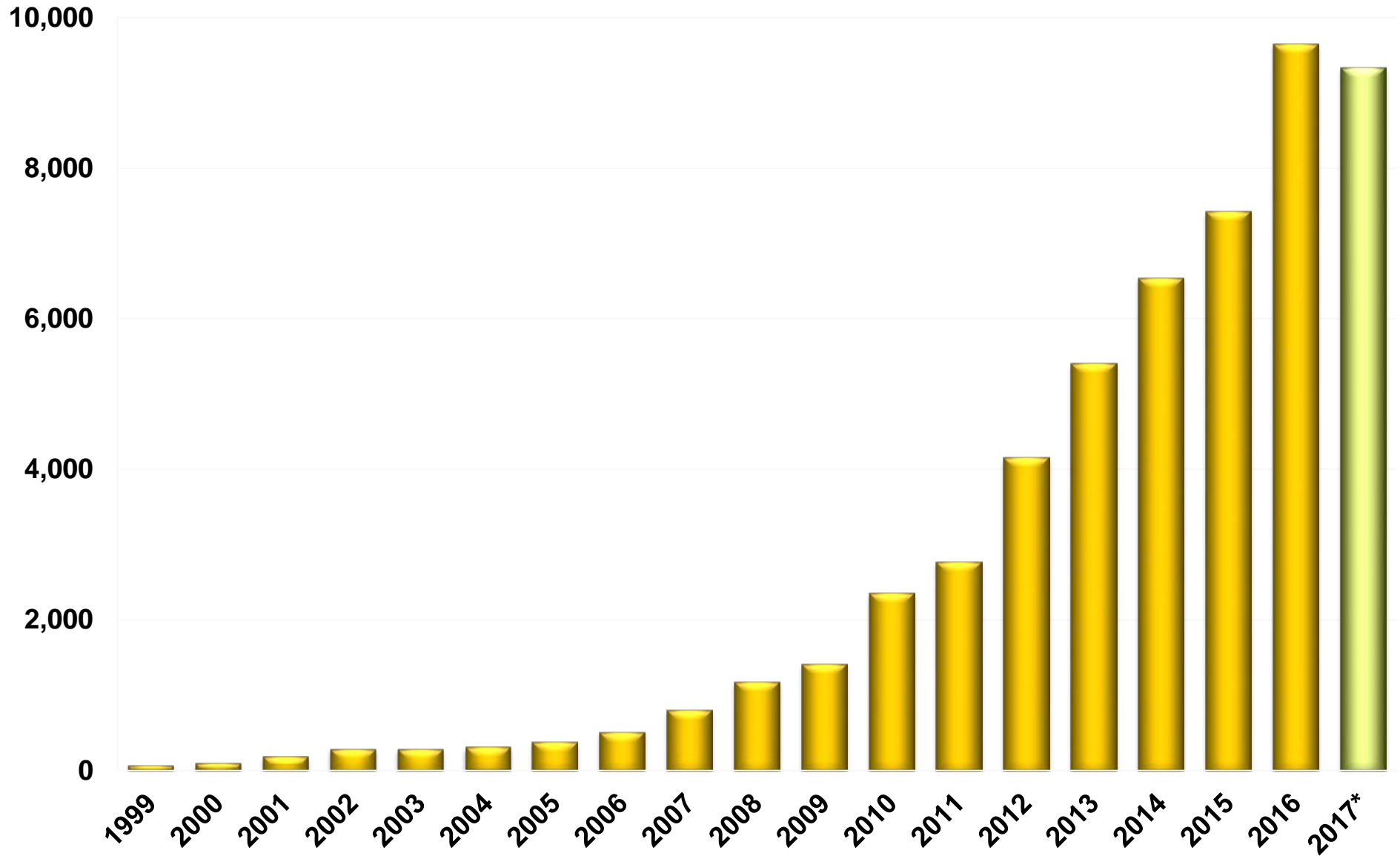
美國專利商標局授權予台灣個人或企業體的專利數量



* Note: Data was collected on October 9, 2017; therefore the 2017 number is not for the entire year. 數據收集于2017年10月9日, 因此2017年的數據並不是一整年的數據。

Number of Patents Granted to Mainland Chinese Individuals or Entities by USPTO

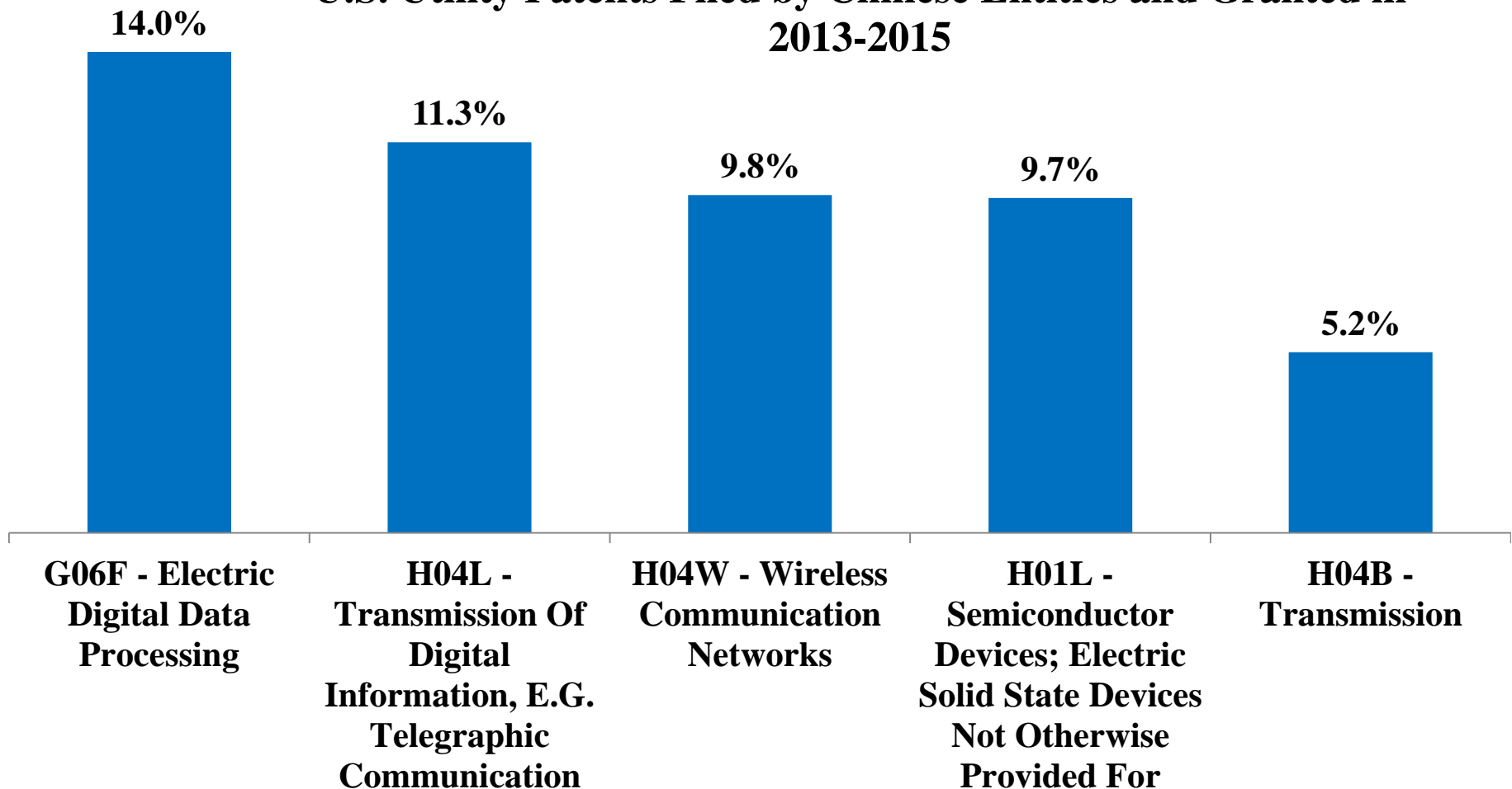
美國專利商標局授權予中國大陸個人或企業體的專利數量



* Note: Data was collected on October 9, 2017; therefore the 2017 number is not for the entire year. 數據收集于2017年10月9日, 因此2017年的數據並不是一整年的數據。

Major Patent Classifications of Patents Granted to Chinese Entities by the USPTO

**Percentage of Patents Classified Into Top 5 Technology Groups
Based on 4-Digit IPC Classification
U.S. Utility Patents Filed by Chinese Entities and Granted in
2013-2015**



Note: Percentages may add up to over 100 percent because U.S. patents may be classified into more than one technology group.
Source: Derwent Innovation, accessed November 1, 2017.

Descriptions of Major Patent Classifications of Patents Granted to Chinese Entities by the USPTO

G06F Electric Digital Data Processing

H04L Transmission Of Digital Information, e.g. Telegraphic Communication

H04W Wireless Communication Networks

H01L Semiconductor Devices; Electric Solid State Devices Not Otherwise Provided For

H04B Transmission

Characteristics of Chinese Patents Granted by the USPTO: 2013 to 2015

Percentage of Categorically Similar Patents with Strictly Greater Number of Forward Citations	32.1%
Percentage of Patents that are in the Top 10 Percent of Categorically Similar Patents	6.5%
Percentage of Categorically Similar Patents with Strictly Greater Number of Backward Citations	62%
Percentage of Categorically Similar Patents with Strictly Greater Number of Claims	62%
Percentage of Categorically Similar Patents with Strictly Greater Processing Time	53%

Patents and Antitrust in China and Asia

- Qualcomm investigation by the National Development and Reform Commission (2015)
中國國家發改委對高通公司的調查（2015年）
- IWNComm v. Sony (Beijing, 2017)
西電捷通訴索尼案（北京，2017年）
- Korea Fair Trade Commission Investigation of Qualcomm
韓國公平貿易委員會對高通公司的調查
- *InterDigital v. Huawei* 華為訴InterDigital案

Other antitrust issues 其他反壟斷問題

- Patents as essential facilities
- Limitation of royalty rates for “dominant firms”
- Patent pools
- Basis of fines – actual harm or percentage of total revenue
- Others

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