

Development of a Drug Price Index for Approved Cystic Fibrosis Treatments

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Purpose

- Prescription drug prices affect payer spending and patient access, yet little is known regarding contemporaneous trends in drug prices within and across countries.
- Cystic Fibrosis (CF) is a rare genetic disease, common among persons of European descent, and typically diagnosed in childhood.¹
- It is estimated that approximately 162,428 persons are living with CF worldwide.²
- Treatment advances significantly improve the life expectancy of people with CF (PwCF) and many individuals are now living into their 50s and beyond.³
- We examined pricing trends for Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) Protein Modulator Therapies and Pancreatic enzymes, in the United States (US), United Kingdom (UK), France, Germany, Spain, and Italy (EU-5).

Methods

- A drug price index for the selected CF treatments was calculated for the United States (US), United Kingdom (UK), France, Germany, Spain, and Italy
- We used a chained-Laspeyres drug price index (CLDPI) for CF treatments by drug type and by country 2017-2022.

$$CLDPI = \frac{\sum(Price_1 \times Quantity_1)}{\sum(Price_0 \times Quantity_0)}$$

- The base period for comparison purposes was 2017.
- We used list prices and quantity was defined as standard units (SU)
- Annualized prices of selected treatments were extracted from IQVIA MIDAS[®] a comprehensive database of historical drug volumes and sales from various sources including pharmaceutical manufacturers, wholesalers, and retailers.
- All analyses were completed using IQVIA MIDAS[®] annual data from 2017-2022, reflecting estimates of real-world activity. Copyright IQVIA. All rights reserved

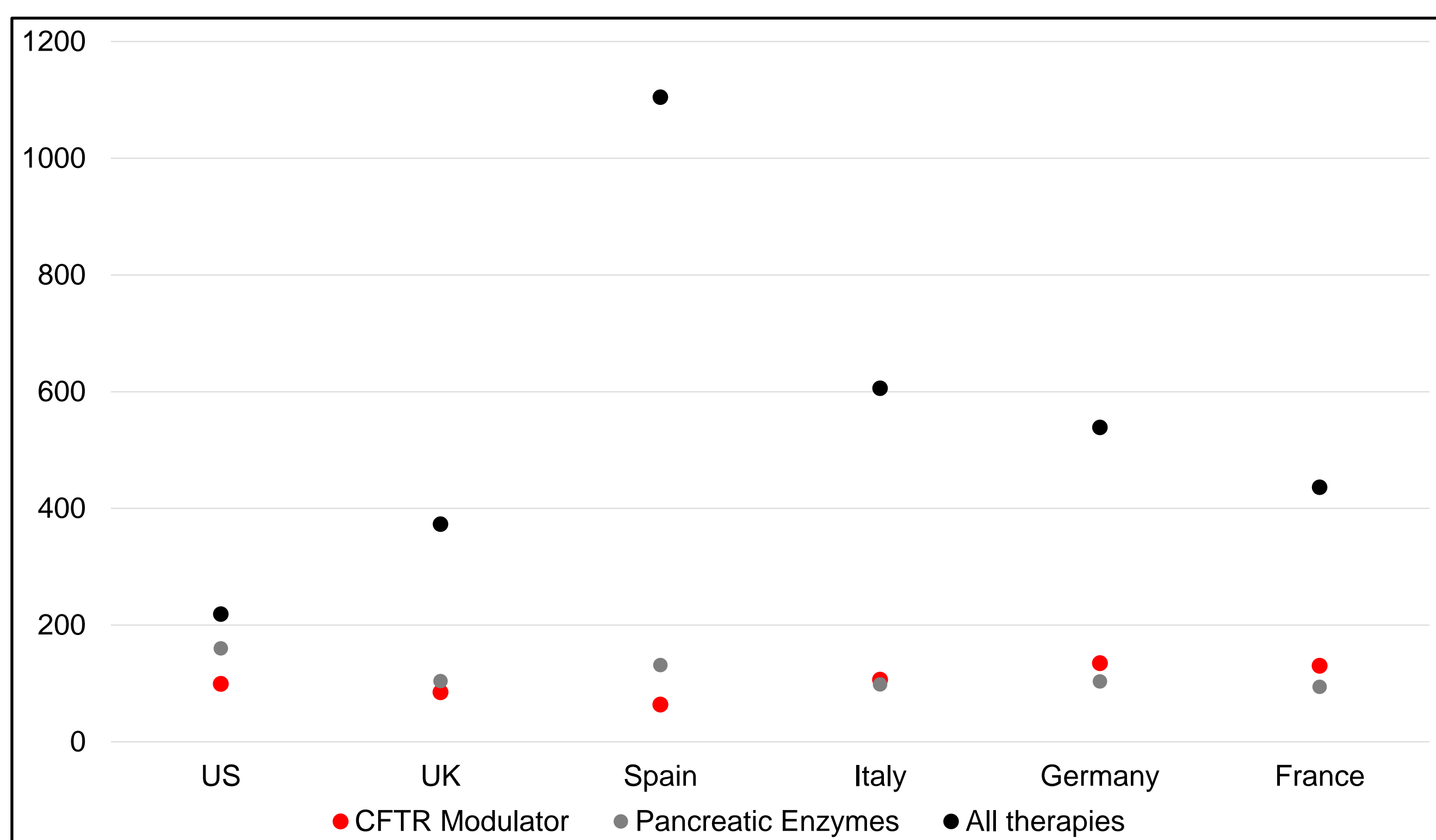
Results

- Four CFTR modulators and six pancreatic enzyme products were included in the sample (Table 1).
- For both CFTR modulators and pancreatic enzymes we found year-to-year price fluctuations within each country (Figure 1)

Table 1: Comparison of Chained Class-based Drug Price Index for Approved CF Therapies

Country	All therapies	CFTR Modulator Therapies	Pancreatic Enzymes
US	218.91	99.17	160.03
United Kingdom	372.92	84.93	103.94
Spain	1,104.58	63.73	131.59
Italy	605.80	106.33	98.33
Germany	538.77	134.83	103.47
France	436.20	130.27	94.16

Figure 1: Comparison of Chained Class-based Drug Price Index for Approved CF Therapies



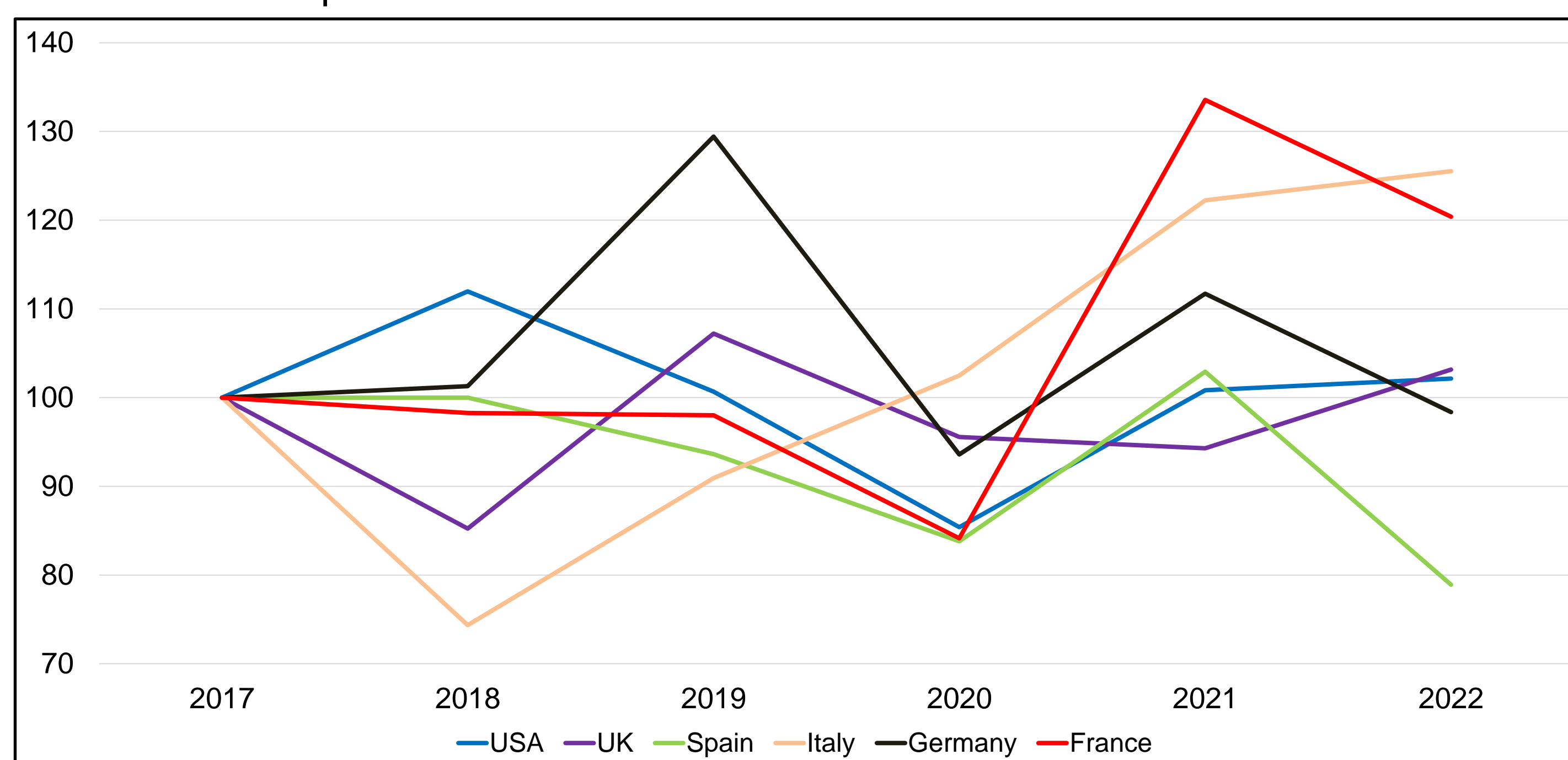
- When disaggregating the market basket for CF therapies we found both price and quantity increases and decreases in the US and EU-5.

Results

CFTR Modulators

- In the US, UK, and Spain, prices decreased for CFTR modulators (1%-36%)
- In Italy, Germany, and France prices increased for CFTR modulators (6%-35%)

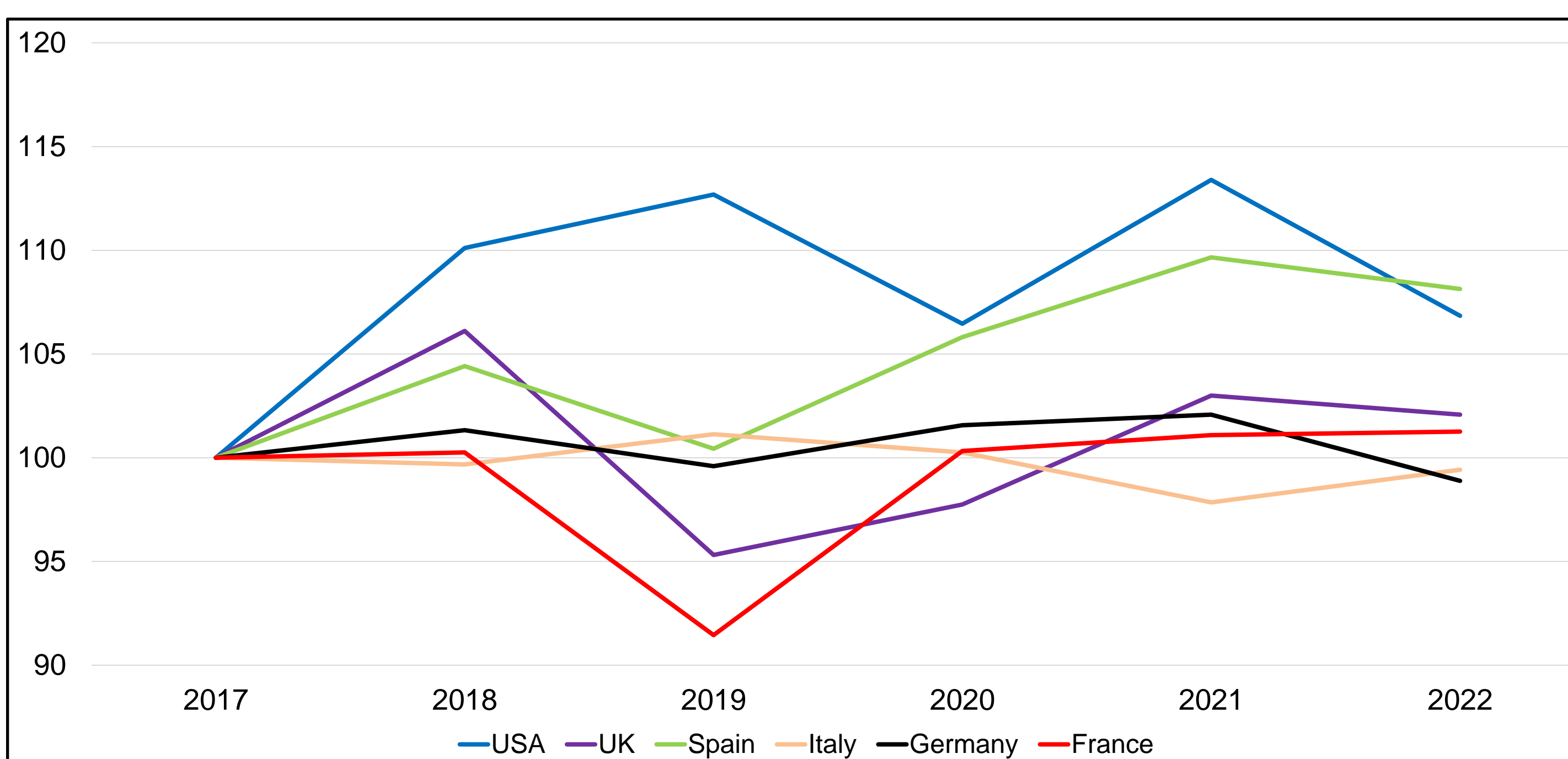
Figure 2: Comparison of yearly Chained Class-based Drug Price Index for CFTR Modulator Therapies



Pancreatic Enzymes

- In the US, UK, Germany, and Spain, prices increased for pancreatic enzymes (3%-60%).
- In Italy and France prices decreased for pancreatic enzymes (2%-6%).

Figure 3: Comparison of yearly Chained Class-based Drug Price Index for Pancreatic Enzymes



Limitations

- Limitations of this study include no direct adjustments for manufacturer rebates or product quality, and does not include adjunctive therapies CF
- This analysis was at the standardized unit level, which can be impacted by unit-level changes within the prescribed regimens
- IQVIA national audits and IQVIA MIDAS reflect local industry standard source of pack prices, which might be list price or average invoice price, depending upon the country and the available information; they do not take into account rebates or clawbacks, details of which are normally confidential, and therefore these estimated prices do not reflect net prices realized by the manufacturers.
- Sales values reflected in these IQVIA audits are calculated by applying such relevant pricing to the product volume data collected for, and reflected in, such audits. In addition, to allow the national audit sales values to be viewed at a common sales level, MIDAS applies a single average industry margin to the locally reported values. The drug price provided is an estimated price and its intended function is to convert volumes to sales – this estimated price is not intended to be used as a metric in its own right.

Conclusion

- Unadjusted drug prices for CF patients have experienced both price increases and decreases from 2017-2022 in the US and EU-5.
- By disaggregating the market basket into distinct drug classes within a single indication (CF), we can assess market dynamics.
- True prices require access to rebates and discounts that are currently handled confidentially.

References

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