

★ OBJECTIVES

- In 2019, we identified how rigorous pricing management could increase efficiency in the Portuguese health system by securing better ex-factory prices (EFPs) for pharmaceutical companies and reducing costs for the NHS and patients.
- The current analysis aims to understand the changes in pricing management in Portugal over the period 2022-2023, focusing on pharmaceutical companies.

★ METHODS

- Back in 2019, we identified ranges of PPs (pink boxes - fig. 1), at the beginning of tiers 2 to 6, which generate lower EFPs than those obtained from the highest PP of the previous tier: we called these price ranges "shadow zones" of PPs.

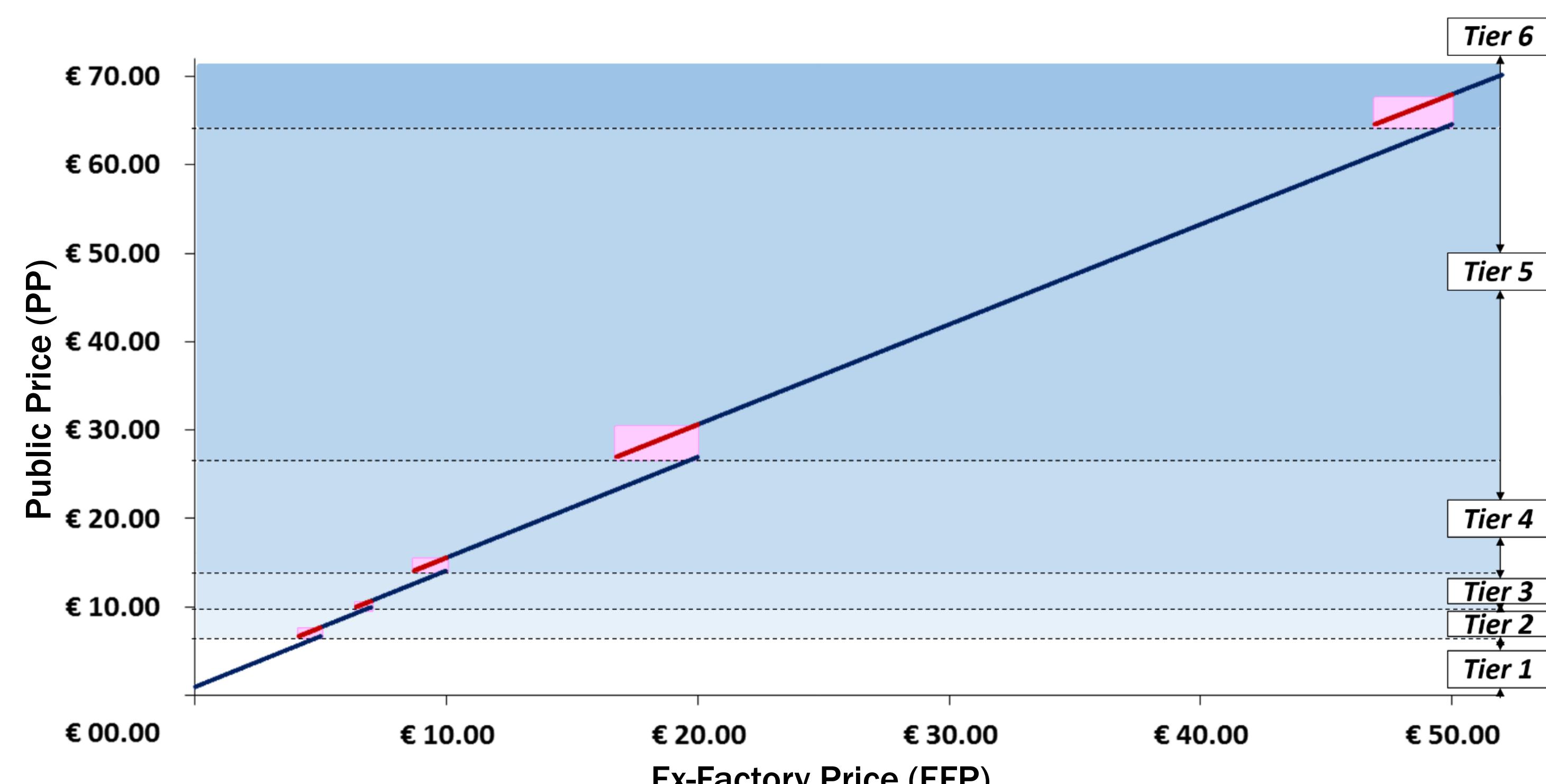


Figure 1. Ex-Factory Price Evolution per Public Price

- This is possible, because the distribution margins are regressive and divided into six different tiers according to the medicine's Ex-Factory Price (EFP).¹ The margins have a fixed fee and a variable part depending on each tier.¹ The PP is obtained with the following formula:

$$PP \text{ w/VAT} = (EFP + MgW + feeW + MgP + feeP + NHS tax) \times 1,06$$

Where:

Mg W - Wholesaler margin (%)
fee W - Wholesaler fixed fee
Mg P - Pharmacy margin (%)
fee P - Pharmacy fixed fee
NHS tax - Commercialization tax (0,4%), calculated over the PP without VAT;
1,06 - VAT (6%).

depending on each tier;

Zooming one tier:

- In the highlighted example in figure 2, a PP of € 10.00 (tier 3) generates an EFP of € 6.42 (orange dotted line), while a PP of € 9.97 (tier 2) generates an EFP of € 7.00 (green dotted line).

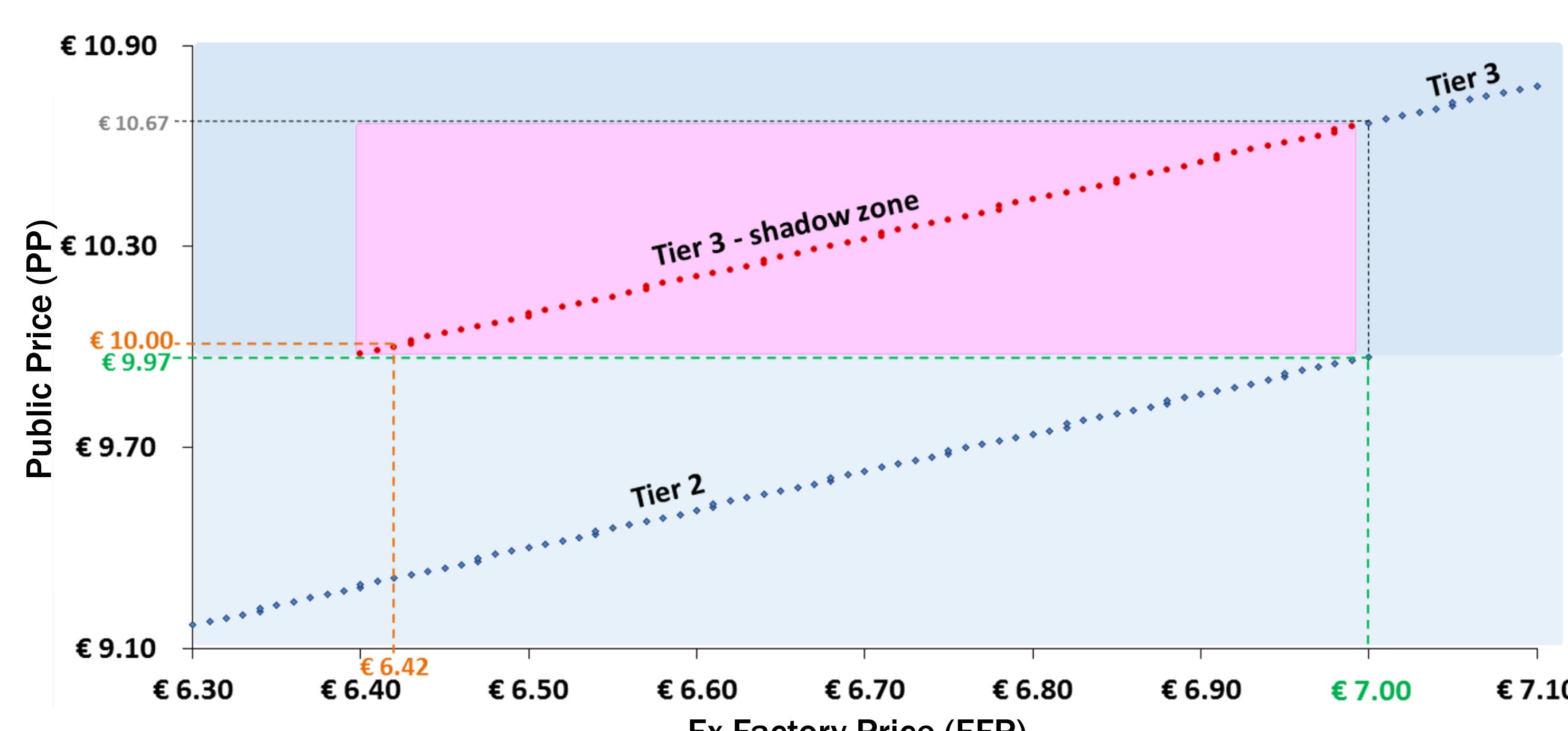


Figure 2. Example of an EFP maximization with a PP reduction (green example vs. orange example)

- This demonstrates that it is possible to maximize the EFP of a medicine by reducing its PP to the highest PP from the previous tier, therefore avoiding these "shadow zones".
- Throughout 2022-2023, we systematically monitored and recorded, on a monthly basis, all prices in effect in the Portuguese pharmaceutical market, covering more than 20,000 medicine presentations.²

★ METHODS (cont.)

- By applying the concept of "shadow zones" (defined as ranges of public prices at the beginning of tiers 2 to 6, generating EFPs lower than those obtained from the highest public prices of the previous tier), and using the monthly official databases available on INFARMED's website, we identified all medicines on a monthly basis for which the EFP was not maximized.
- We then consulted the Portuguese IQVIA database³ to extract the number of boxes sold each month for these medicines with non-optimized prices. We determined the percentage of total boxes sold per month in Portugal with non-optimized prices and calculated the revenue loss of pharmaceutical companies during this period.

★ RESULTS

- Following the previously described method, we identified that between January 2022 and December 2023, an average of 2.4% of all boxes sold per month in Portugal had non-optimized prices. The monthly figures are shown in Figure 3.

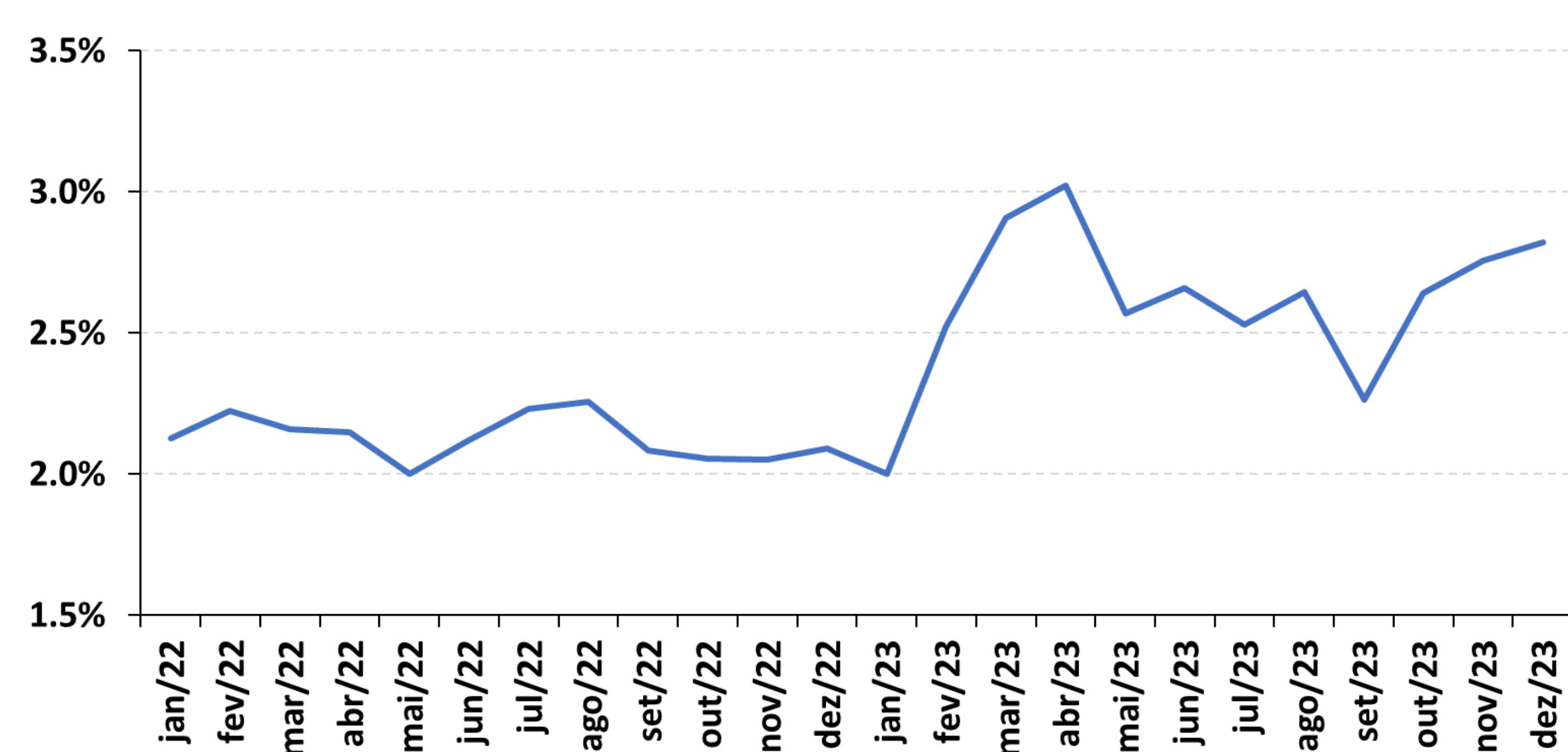


Figure 3. Boxes with non-optimized prices (% per month)

- The graph shows a clear deterioration over time, with the proportion of non-optimized sales increasing from 2.1% in 2022 to 2.6% in 2023, indicating a growing loss-of-value exposure for the pharmaceutical companies.
- Over the 24-month period, more than 11 million boxes were sold at non-optimized prices, preventing pharmaceutical companies from achieving maximum profitability and resulting in an estimated cumulative loss of over €8.7 million. Monthly losses, illustrated in Figure 4, range between €300,000 and €450,000.

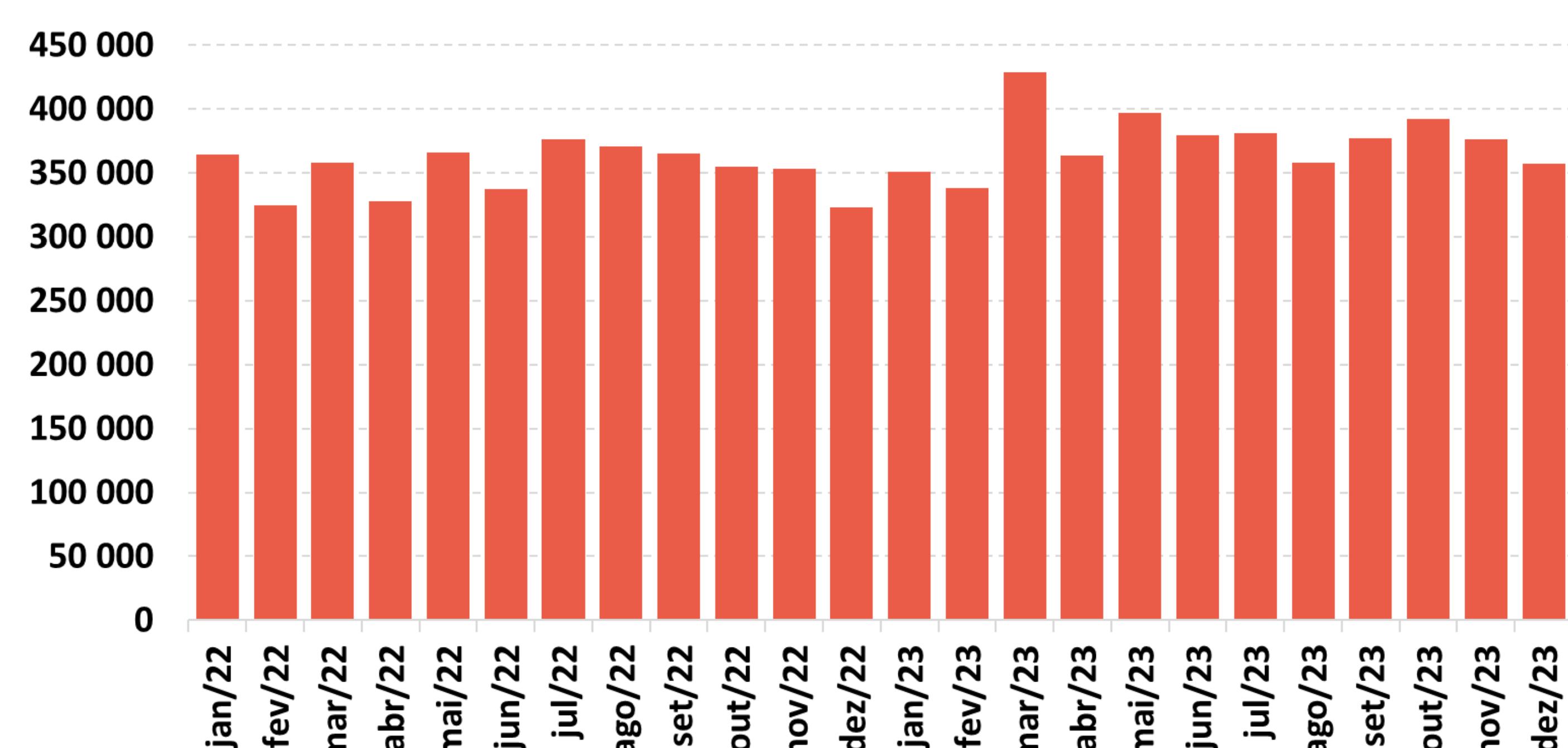


Figure 4. Average monthly financial loss associated with non-optimized prices

- This translates into an average loss of €0.76 per box, with some specific cases reaching up to €3.24 per unit.

★ CONCLUSION

- Our analysis shows that rigorous price management in Portugal has the potential to optimize some medicines' EFPs, thereby increasing profits for pharmaceutical companies and at the same time leading to more affordable drugs. With dedicated specialized personnel working in the pricing area, pharmaceutical companies could have captured an additional €8.7 million in 2022-2023, highlighting the value of systematic price monitoring and proactive price governance.

REFERENCES:

- [1] Decree-law no. 195-C/2015 of June 30th;
- [2] <http://www.infarmed.pt/web/infarmed/servicos-on-line/pesquisa-do-medicamento>;
- [3] IMS Health Inc Database - 2025

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