The difference between FIFO and LIFO in inventory valuation

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Key Points:

- **FIFO (First In, First Out)**: Assumes that the oldest goods (purchased first) are sold first – it's like a line at the supermarket where the first customer picks the first products.
- **LIFO (Last In, First Out)**: Assumes that the newest goods (purchased last) are sold first – like in a warehouse, where you take from the top of the stack, not from the bottom.
- **Main Difference**: FIFO better reflects real inventory turnover and is simpler in Poland for small businesses (JDG), while LIFO may reduce profit during rising prices but is not allowed in Polish PIT for JDG.
- **Practical Impact**: FIFO usually results in higher profit and tax during inflation; LIFO results in lower. In Poland, prefer FIFO or weighted average to avoid issues with the tax office.

What is FIFO?

FIFO is a method in which the costs of purchasing older goods are assigned to sales first. For example: You bought 10 t-shirts at 10 zł each in January and 10 at 15 zł each in March. You sell 15 pieces – cost: 10×10 zł + 5×15 zł = 175 zł. Easy to track, suitable for seasonal businesses.

What is LIFO?

LIFO means that you take the costs of the newest purchases for sales. In the same example: Selling 15 pieces – cost: 10×15 zł + 5×15 zł = 225 zł (the entire latest purchase + part of the older one). This can "hide" higher costs, reducing profit, but in Poland, it is not allowed for PIT in JDG – better to avoid.

When to choose which method?

In Poland for JDG (sole proprietorship), FIFO is recommended – simple and compliant with the law. LIFO is only for large companies using full accounting. The choice affects the tax: in rising prices, FIFO increases income (higher PIT), while LIFO lowers it.

Detailed Discussion of the Differences Between FIFO and LIFO in the Context of Inventory Valuation in Business

Introduction to Inventory Valuation Methods

In accounting, especially in trading or service companies with inventory, FIFO (First In, First Out) and LIFO (Last In, First Out) methods are used to determine which purchase costs to assign to sales when you don't track each product physically. This is crucial for calculating the cost of sales (KUP), profit, and PIT tax in Poland. The choice of method affects the company's balance sheet, PIT-36 declaration, and even ZUS contributions (through income). In 2025, according to the PIT Act (Art. 22-24), FIFO or weighted average is preferred for sole proprietorships (JDG) – LIFO is only permissible in full accounting for large entities (turnover >2 million EUR). These mechanisms prevent the "loss" of costs between years, but their differences can change your settlement by hundreds of zlotys. Below, we explain the differences step by step, with examples and tables based on the guidelines of the Ministry of Finance.

Basic Assumptions and Mechanisms

- **FIFO**: Simulates natural turnover – goods purchased first go out first (like milk in the fridge that spoils faster). Cost of sales = the oldest batches. Ending inventory valued at the latest prices.
- **LIFO**: Assumes you sell the newest purchases (like in a wholesale store, where you place new batches on top). Cost of sales = the newest batches. Ending inventory at older, cheaper prices.
- **Common Features**: Both methods are used in inventory records (KPiR or accounting software); require inventory counting at the end of the year (December 31). In Poland, LIFO does not affect VAT (net), but does affect PIT.

The difference becomes apparent during inflation (rising prices): FIFO "pushes" old, cheaper costs into sales, raising profit; LIFO "pushes" expensive costs, lowering profit.

Practical Comparative Example

Let's assume JDG trading in electronics: In 2025, you buy 100 headphones:

- January: 50 pieces at 20 zł each (1000 zł).
- May: 50 pieces at 30 zł each (1500 zł).
- Sales in December: 70 pieces (revenue 2800 zł, assuming a margin).

Cost of Sales Calculations:

- **FIFO**: First 50 pieces at 20 zł (1000 zł) + 20 pieces at 30 zł (600 zł) = **1600 zł cost**. Profit: 2800 - 1600 = 1200 zł. Ending inventory: 30 pieces at 30 zł = 900 zł.
- **LIFO**: Last 50 pieces at 30 zł (1500 zł) + 20 pieces at 20 zł (400 zł) = **1900 zł cost**. Profit: 2800 - 1900 = 900 zł. Ending inventory: 30 pieces at 20 zł = 600 zł.

Result: FIFO gives higher profit (by 300 zł), which means higher PIT (about 36 zł more at a 12% rate). LIFO reduces the tax, but in Poland for JDG, you cannot use it – risking an adjustment from the tax office.

Impact on Tax and ZUS Settlements in Poland

- **PIT-36**: In the PIT attachment B (item 52), the cost of goods = beginning inventory + purchases - ending inventory. FIFO carries over more expensive inventory to the next year (higher cost in the future); LIFO – cheaper (lower). For JDG, FIFO is standard – LIFO only in RZiS for companies.
- **ZUS**: Lowers the base for contributions (income after costs) – LIFO would give a lower income (savings of 9% on health contributions, about 27 zł in the example), but illegal for JDG. In the April 2026 settlement, the difference affects the refund/payment.
- **Inflation and Trends**: In rising prices (like in 2025, forecast 3-4%), FIFO inflates current income (higher PIT), while LIFO minimizes it – which is why LIFO is popular in the USA, but rare in the EU (including Poland) due to Directive 2013/34/EU.

Advantages, Disadvantages, and Practical Tips

- **Advantages of FIFO**: Simple, aligns with reality (goods do not spoil "infinitely"), easy with the tax office; carries higher costs into the future.
- **Disadvantages of FIFO**: Higher current PIT in inflation.
- **Advantages of LIFO**: Protection against inflation (lower profit), but...
- **Disadvantages of LIFO**: Complicated tracking, illegal for JDG in PIT – carries a risk of 75% punitive tax penalty.
- **Tips for JDG**: Choose FIFO in KPiR (column 10); use Excel or wFirma for automation. Inventory quarterly to avoid adjustments (within 15 days after). If turnover is rising – consider weighted average (simpler than LIFO). Consult with an accountant – in 2024, the Ministry of Finance issued 2000 interpretations regarding methods.

In summary, FIFO is a "safe choice" for Polish JDGs – simple and compliant with the law, whereas LIFO is a tool for large companies under specific conditions. The difference comes down to the order of costs: old vs. new, which changes profit by 10-30% in variable prices. Implementing FIFO minimizes risks, and simulations in accounting software will help test the scenario.
