

Differences in inventory write-down provisions of new energy vehicle enterprises: a multiple-case analysis of Changan Automobile, SAIC Motor and BAIC BluePark

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Abstract. Price reductions and model renewal in the new energy vehicle market lower vehicle transaction prices and increase the risk of obsolescence for model-specific materials. Using the 2021–2025 annual reports of Changan Automobile, SAIC Motor and BAIC BluePark, this study compares gross margins, inventory composition, turnover days and changes in write-down provisions. Changan's inventory increased while its provision ratio declined; SAIC's provisions broadly tracked changes in operating risk; and BAIC BluePark maintained a relatively high provision intensity. The article recommends testing inventory by age and technology generation and validating impairment assumptions against net transaction prices, dealer inventory and post-balance-sheet sales to improve comparability and verifiability.

Keywords: new energy vehicles, price competition, inventory write-down provision, net realizable value, multiple-case analysis

1. Introduction

From 2021 to 2025, China's New Energy Vehicle (NEV) sales rose from 3.521 million units to 16.490 million units, with market penetration climbing from 13.4% to 47.9% [1-3]. Alongside this sales expansion, cash incentives, insurance subsidies, trade-in benefits, and feature upgrades without price hikes have become frequent since 2023. Regulators and industry associations have issued warnings against irrational price competition [4, 5]. These measures do not always take the form of official price cuts, but they reduce the final transaction prices of vehicles and narrow the sales window for older model years.

Such changes are directly related to inventory valuation. Whether complete vehicles, dedicated batteries and electronic components can be recovered at their original cost depends on period-end selling prices, subsequent promotion expenses, and inventory liquidation capacity after model iterations. Research on asset impairment has shown that impairment recognition reflects both asset value and estimation flexibility [6-10]; studies on audit constraints and the consequences of accounting choices have further revealed the room for judgment involved [11-15]. Inventory research has found that scale, turnover and operating performance do not follow a simple linear relationship [16-18]. Judging solely by the level of the inventory write-down

provision ratio can easily lead to the misinterpretation of "inherently higher risk" as "greater corporate prudence".

Existing research has extensively discussed impairment motives and regulatory constraints, but has paid insufficient attention to the internal differences in automobile inventories. Finished goods, work in progress and dedicated raw materials are exposed to different risks; dealer inventories, meanwhile, are not necessarily reflected in the financial statements of automobile manufacturers. During periods of price competition, three questions remain worthy of further comparison: what operating signals emerge first, whether provision accruals adjust accordingly, and whether annual report disclosures allow external users to verify the figures.

This paper selects Changan Automobile, SAIC Motor and BAIC BluePark as research subjects, based on their official annual reports from 2021 to 2025. The analysis proceeds in the following order: first examining gross margins, inventory composition, turnover and cash flow, then comparing provision balances, current-period accruals, and reversals or write-offs. Cross-case differences are used to explain possible correlations, not to prove causal relationships across the industry, nor to conclude that the enterprises have committed irregularities based solely on public information.

2. Theoretical logic and research design

2.1. Theoretical logic

Accounting Standard for Business Enterprises No. 1—Inventories stipulates that ending inventories shall be measured at the lower of cost and net realizable value. Net realizable value is generally determined by deducting costs to completion, selling expenses and related taxes and surcharges from the estimated selling price. When impairment factors disappear, provisions may be reversed within the amount originally accrued; when inventories are sold, the corresponding provisions are written off against cost [19]. The *Basic Standard for Enterprise Accounting* also requires enterprises not to overstate assets and income [20]. Therefore, write-down provisions are not merely a matter of inventory quantity; they also involve judgments on net selling prices and disposal costs.

Price competition may affect impairment tests in three dimensions: falling actual transaction prices drag down the estimated selling prices of finished goods; model facelifts and generational upgrades reduce the versatility of older complete vehicles and dedicated materials; and slowing sales extend inventory holding periods and increase promotion expenses. That said, promotions can also accelerate inventory liquidation, so rising sales are not incompatible with value risk. Gross margins, inventory growth rates, the share of finished goods or dedicated raw materials, and turnover days must be examined together.

Whether short-term year-end promotions represent long-term selling prices must be judged in conjunction with post-balance-sheet sales; inventory backlogs at the dealer level may also be transmitted back to manufacturers through rebates, returns or reduced orders. Management therefore has a certain degree of estimation discretion. The prudence principle can be used to evaluate the timeliness of recognition, information asymmetry theory explains insufficient disclosure, and product life cycle theory clarifies why older model years are more sensitive. Principal-agent theory and earnings management theory remind users to pay attention to the room for judgment, but changes in provisions alone do not prove discretionary manipulation. The annual report regulatory reports issued by the China Securities Regulatory Commission (CSRC) have also continuously focused on the timeliness of asset impairment and the adequacy of inventory write-down provisions [21].

2.2. Case selection, data and indicators

Changan Automobile represents a sample of traditional complete vehicle manufacturers undergoing NEV transformation; SAIC Motor has a more diversified portfolio of businesses and brands; and BAIC BluePark has concentrated NEV operations and sustained losses throughout the research period. The three companies differ significantly in scale, so this paper mainly compares the direction of change and relative ratios. Data are sourced from annual reports and audit reports for 2021–2025 [22–24]. For each indicator, audited note disclosures are prioritized, and cross-checked against comparative figures for the following year and provision movement schedules. The figures also take the median of three indicators from the 2025 annual reports of BYD, Great Wall Motors, Seres Group and JAC Motors [25–28] as industry peer benchmarks; this non-probability sample does not represent the industry average.

The core indicators are defined as follows: Gross margin = (Operating revenue – Operating cost) / Operating revenue; Inventory turnover days = Average carrying amount of inventories / Operating cost × 365; Provision ratio = Ending write-down provisions / Ending gross inventory balance; Provision accrual intensity = Current-year new write-down provisions / Operating revenue. All inventory balances are stated before provision accrual. Where annual reports only disclose the total of "reversals or write-offs", no artificial separation is made in this paper. Changan Automobile consolidated Deepal Automobile in 2023, so the related growth cannot be fully attributed to organic growth. Detailed definitions are presented in Table 1.

Table 1. Research analytical framework and indicator definitions

Analysis Stage	Observational Content	Core Indicators or Evidence	Calibration Controls
Risk identification	Assess inventory risk prior to provision outcomes	Gross margin, inventory scale and composition, turnover days, operating cash flow	Audited notes prioritized; changes in consolidation scope presented separately
Provision response	Compare relative levels and current-period changes	Provision balance, provision ratio, new accruals, accrual intensity, reversals or write-offs	All amounts denominated in 100 million yuan; unknown reduction items not disaggregated
Matching and disclosure	Cross-verify risk, accounting policies and verifiability	Trend consistency, accounting policies, notes, key audit matters	No uniform provision ratio threshold set; no irregularity conclusions drawn

Note: Source: Compiled by the authors based on Accounting Standards for Business Enterprises and the research design.

3. Comparison of inventory risks across the three companies

3.1. Profit buffer and inventory scale

Changan Automobile's revenue increased from 105.142 billion yuan in 2021 to 164.000 billion yuan in 2025, while its gross margin declined from 20.49% in 2022 to 15.54%. Over the same period, its gross inventory balance rose from 7.406 billion yuan to 22.846 billion yuan. In 2024 and 2025, inventories grew by 22.81% and 31.84% respectively, while revenue grew by only 5.58% and 2.67%. This growth includes stockpiling for new models and changes in consolidation scope, but two consecutive years of "inventory outpacing revenue" indicate that inventory digestion pressure can no longer be explained solely by sales growth.

SAIC Motor has the largest inventory base, which reached 102.754 billion yuan in 2023 and fell back to 84.526 billion yuan in 2025. Inventories declined by 20.16% in 2024, alongside 15.44% and 20.00% drops in

revenue and sales volume respectively that year; this de-stocking was driven by contracting demand. In 2025, revenue rebounded to 646.152 billion yuan, turnover improved accordingly, and risks eased compared with the earlier period. However, the group's operations span both complete vehicles and auto parts, so aggregate improvements cannot replace impairment testing for individual brands and models.

BAIC BluePark posted negative gross margins for three consecutive years from 2022 to 2024. Despite 92.53% revenue growth in 2025, its gross margin only recovered to 0.43%. Its gross inventory balance fell continuously after a sharp increase in 2022, reaching 1.885 billion yuan in 2025. Inventory contraction is a positive signal, but the near-absence of a gross margin buffer means that a large discount or the scrapping of dedicated materials could still affect net realizable value. Changes in profitability and turnover for the three companies are shown in Figure 1.

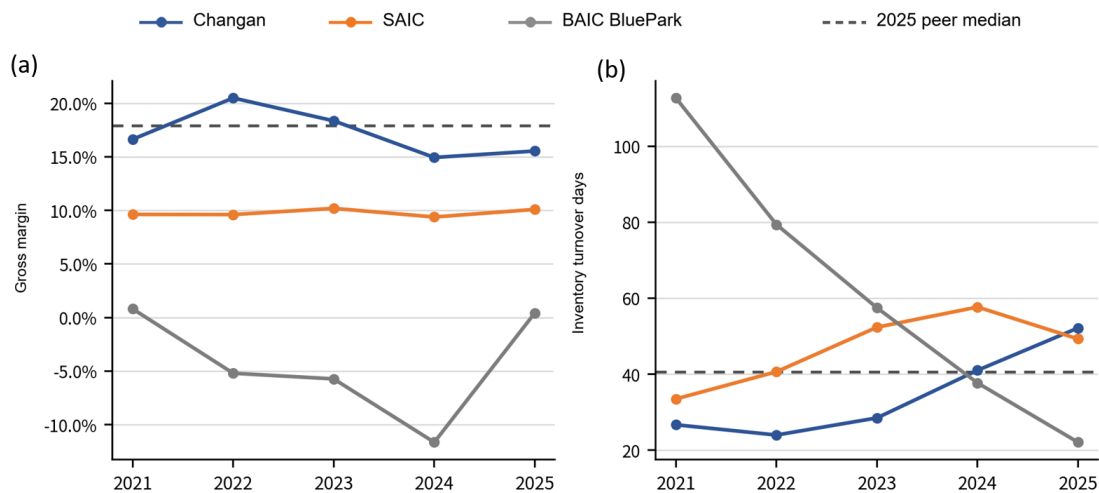


Figure 1. Changes in inventory risk indicators for the three companies: (a) gross margin; (b) inventory turnover days

Note: Source: Annual reports of case companies [22-24] and peer sample companies [25-28]; the dashed line represents the 2025 median of four peer companies, not the historical industry average.

3.2. Inventory structure, turnover and cash flow

In 2025, finished goods accounted for 85.51% of Changan Automobile's gross inventory balance, with risk concentrated in the liquidation of complete vehicles. For SAIC Motor, this ratio stood at 66.64%, with a relatively balanced distribution between raw materials and work in progress. For BAIC BluePark, the share of finished goods fell to 34.20%, while raw materials rose to 64.75% (see Table 2). The decline in BAIC BluePark's finished goods share does not mean risk has disappeared: after platform switches or model discontinuation, dedicated materials may not be repurposed for other uses. Broad inventory categories can indicate where risks lie, but cannot identify specific model years or inventory age.

Changan Automobile's inventory turnover days lengthened from 24.00 days in 2022 to 52.17 days in 2025, and its net cash flow from operating activities fell to 1.836 billion yuan in 2025. SAIC Motor's turnover days peaked at 57.68 days in 2024 and improved to 49.29 days in 2025, with operating cash flow remaining at 34.307 billion yuan. BAIC BluePark's turnover days shortened from 112.70 days to 22.09 days, with operating cash flow turning positive in 2025. Overall, Changan Automobile's risks rose in the later period, SAIC Motor's risks deteriorated before recovering, and BAIC BluePark saw improved liquidation but still faced high

profitability and material risks. Cash flow is also affected by factors such as receivables and payables, and is only used as a supplementary signal in this paper.

Table 2. Comparison of inventory structure across the three companies, 2025

Company	Gross inventory balance (100 million yuan)	Share of raw materials	Share of work in progress	Share of finished goods	Share of other items
Changan Automobile	228.46	4.97%	7.46%	85.51%	2.06%
SAIC Motor	845.26	17.62%	14.87%	66.64%	0.87%
BAIC BluePark	18.85	64.75%	0.85%	34.20%	0.20%

Note: Source: Inventory notes in the 2025 annual reports of the three companies [22-24]; ratios calculated based on gross inventory balances.

The dashed lines in Figure 1 correspond to 17.89% and 40.53 days respectively. In 2025, all three companies recorded gross margins below the peer benchmark; Changan Automobile and SAIC Motor had higher turnover days than the benchmark, while BAIC BluePark was lower. BAIC BluePark's faster de-stocking alongside its weak profit buffer indicates that turnover and value risk are not interchangeable. The peer sample has different business structures, so the dashed lines do not serve as a uniform early warning threshold.

4. Analysis of write-down provision differences and matching performance

4.1. Provision levels and current-period changes

In 2025, SAIC Motor's write-down provision balance reached 4.886 billion yuan, compared with 328 million yuan for Changan Automobile and 208 million yuan for BAIC BluePark. Absolute amounts are largely driven by scale, and the ranking changes when converted to provision ratios: approximately 1.44% for Changan, 5.78% for SAIC Motor, and 11.03% for BAIC BluePark. BAIC BluePark's higher ratio is linked to its losses, negative gross margins and material risks, and cannot be taken as direct evidence that its accounting policies are more prudent than those of the other two companies.

The trajectories of provision balances also differ markedly. Changan Automobile's provision balance stood at 644 million yuan in 2023 and fell to 247 million yuan in 2024. SAIC Motor's balance rose year by year from 2.698 billion yuan in 2021 to 4.886 billion yuan in 2025. BAIC BluePark's balance climbed to 447 million yuan in 2022 before declining along with inventory contraction. Expanding denominators, the sale of previously provisioned inventories and changes in product mix all affect the provision ratio, and examining a single ratio in isolation omits this context.

In 2025, BAIC BluePark recorded 515 million yuan in new provisions, with an accrual intensity of 1.84%. SAIC Motor accrued 1.899 billion yuan, with an intensity of 0.29%. Changan Automobile accrued 202 million yuan, with an intensity of 0.12%. In the same year, "reversals or write-offs" for the three companies amounted to 556 million yuan, 1.475 billion yuan and 134 million yuan respectively. Write-offs generally mean the sale of impaired inventories, while reversals require evidence of price recovery or cost reduction; the two have different economic implications. Where annual reports do not disaggregate the two, the combined caliber is retained. Key data are presented in Figure 2 and Table 3.

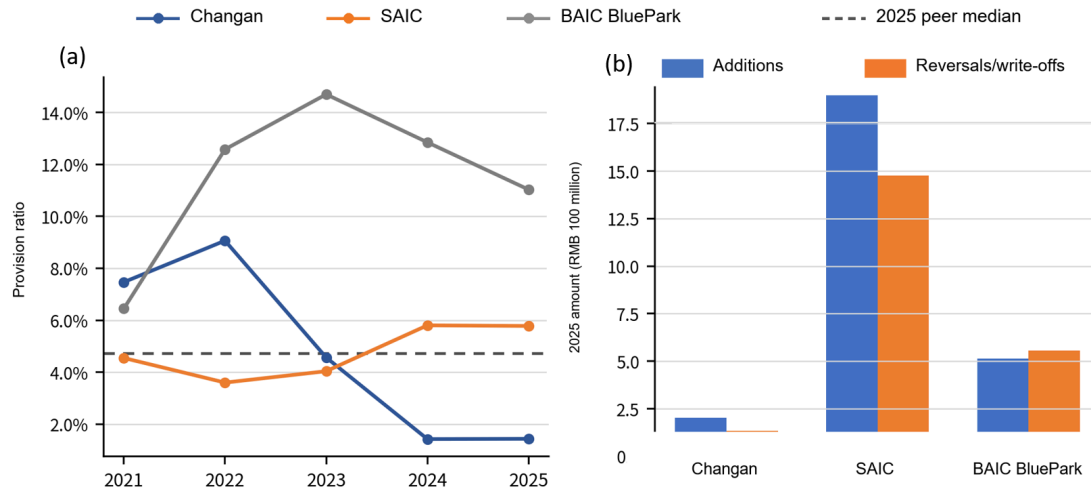


Figure 2. Changes in inventory write-down provision indicators for the three companies: (a) write-down provision ratio; (b) amount of accruals and reversals/write-offs in 2025

Note: Source: Annual reports of case companies [22-24] and peer sample companies [25-28]; the dashed line in subfigure (a) represents the 2025 peer median; no amount benchmark is set for subfigure (b), and reduction amounts follow the combined caliber of annual reports.

Table 3. Key indicators of inventory write-down provisions for the three companies, 2025

Company	Ending provision balance (100 million yuan)	Provision ratio	Current-year accruals (100 million yuan)	Accrual intensity	Reversals or write-offs (100 million yuan)
Changan Automobile	3.28	1.44%	2.02	0.12%	1.34
SAIC Motor	48.86	5.78%	18.99	0.29%	14.75
BAIC BluePark	2.08	11.03%	5.15	1.84%	5.56

Note: Source: Inventory notes in the 2025 annual reports of the three companies [22-24]; provision ratios and accrual intensity calculated by the authors.

The peer median provision ratio is 4.71%. Changan Automobile's 1.44% is below the benchmark, SAIC Motor's 5.78% is slightly above, and BAIC BluePark's 11.03% is considerably higher. These figures only serve to identify verification directions, and the magnitude of the ratio cannot be directly interpreted as the degree of prudence. No amount line is set for the right-hand figure, as differences in corporate scale would distort the comparison.

4.2. Alignment between risk and provision accruals

From 2024 to 2025, Changan Automobile maintained a high share of finished goods and lengthening turnover, yet its provision ratio fell to approximately 1.4%. New accruals picked up somewhat in 2025, but the annual report did not clarify whether new inventories consisted mainly of lower-risk new models, nor did it provide information on model years and inventory age. It can only be concluded that "public information is insufficient to fully verify alignment", rather than directly asserting under-provisioning.

SAIC Motor faced operating pressure from 2022 to 2024, with its provision ratio rising gradually, and remained at approximately 5.8% after recovery in 2025. Domestic studies have examined asset impairment judgments from the perspective of earnings management theory [6-10], and relevant international research also notes that the motives and economic consequences of asset write-downs must be judged in conjunction with specific contexts [11-15]. On this basis, management may adopt more prudent assumptions about selling prices, sales volume or disposal costs in low-profit years, accruing more provisions to form "profit reserves" that are reversed when performance improves; this is only a testable motive. The data do not show a uniform pattern: total profits from 2023 to 2025 were 25.973 billion yuan, 10.511 billion yuan and 24.909 billion yuan respectively; new accruals were 2.846 billion yuan, 1.576 billion yuan and 1.899 billion yuan; and reversals or write-offs were 2.007 billion yuan, 981 million yuan and 1.475 billion yuan. Accruals were not the highest in 2024, the year of greatest pressure, and large reductions coexisted with large accruals in 2025.

BAIC BluePark increased provisions in tandem with inventory expansion and negative gross margins in 2022. Turnover improved and the provision ratio declined thereafter, but remained significantly higher than the other two companies in 2025. The falling share of finished goods and rising share of raw materials to 64.75% indicate that risk has shifted more from complete vehicle sales to material reusability and model compatibility; the higher accrual intensity is broadly consistent with this risk structure. The relative assessments of the three companies are presented in Table 4, but do not constitute audit conclusions.

Table 4. Assessment of alignment between inventory risk and provision accruals for the three companies

Company	Key risk evidence	Provision performance	Relative assessment
Changan Automobile	Inventory growth outpaced revenue in the later period; high share of finished goods; lengthening turnover and declining cash flow	Provision ratio fell to approximately 1.4%; accruals picked up in 2025	Public information insufficient for full verification; explanations needed for models, model years and inventory age
SAIC Motor	Large accruals and reductions in both 2023 and 2025; lowest profit in 2024 but not the highest accruals	Provision ratio of approximately 5.8%; large accruals and reductions coexist	Generally aligned overall; earnings management motives require disaggregation of reversals and write-offs and parameter back-testing; existing evidence is insufficient
BAIC BluePark	Sustained losses and earlier negative gross margins; improved turnover but rising share of raw materials	Provision ratio remains high; accrual intensity is markedly higher	Risk and accruals are broadly aligned in direction; risk structure has shifted

Note: Source: Assessed by the authors based on operating indicators and inventory notes; does not constitute irregularity findings or audit conclusions.

The nature of reduction items is more critical. If the 1.475 billion yuan consists mainly of write-offs following the sale of impaired inventories, it merely represents the carry-forward of provisions alongside inventory cost, and cannot be regarded as current-period "profit release". Only reversals indicate the disappearance of impairment factors and may affect current profit or loss. SAIC Motor's notes disclose the two items in combination, making it impossible to reconstruct the corresponding chain between prior-year accruals and subsequent-year reversals. The risk of earnings management only increases if parameters suddenly turn

pessimistic during periods of pressure and are then quickly reversed, without supporting evidence such as price rebounds, cost reductions or inventory sales.

Verification should track the same vehicle model or component, comparing parameter adjustments, post-balance-sheet transactions, the following year's reversal rate and budget deviations. Accruals accounted for 7.62% of SAIC Motor's total profit in 2025, indicating that estimates are material, but not sufficient to prove earnings manipulation.

4.3. Policy disclosure and audit focus

All three companies apply the lower of cost and net realizable value method, with differences lying mainly in the granularity of information. The 2025 notes disclose broad inventory categories and provision movements, but lack matrices of models, model years and inventory age, nor do they disclose the sensitivity of parameters such as selling prices, sales volume and selling expenses. BAIC BluePark listed inventory write-down provisions as a key audit matter, with related procedures covering physical supervision, inventory age, post-balance-sheet sales and commercial policies. Changan Automobile and SAIC Motor did not include this as a key audit matter that year. Key audit matters only indicate audit priorities and are not equivalent to misstatements.

BAIC BluePark disclosed more audit procedures, but the results of model-level parameters remain invisible. SAIC Motor has more complete movement items, but the group-level caliber makes it difficult to locate risk sources. Changan Automobile's notes are insufficient to explain the coexistence of a falling provision ratio and lengthening turnover. The comparability issues shown in Table 5 stem partly from accounting estimates and partly from business boundaries and disclosure granularity, and cannot be resolved by a uniform provision ratio threshold.

Table 5. Comparison of inventory impairment disclosures and audit focus across the three companies

Company	Characteristics of note disclosures	Key audit matters in 2025	External verification limitations
Changan Automobile	Discloses broad category balances, provision movements and principled valuation bases	No; focus is mainly on revenue and product quality warranties	Lack of model, model year, inventory age and sensitivity data makes it difficult to explain the falling provision ratio
SAIC Motor	Relatively complete categories and movements; some other reductions presented separately	No; audit focus is more dispersed	Diversified group operations limit the positioning of risk sources and reduction reasons
BAIC BluePark	Detailed policy explanations; audit matters cover commercial policies and post-balance-sheet sales	Yes	Richer audit procedures, but still no model-level parameter results and combined reduction items

Note: Source: 2025 annual reports and audit reports of the three companies [22-24].

5. Existing issues and underlying causes

The most prominent issue in the cases is not "whether provisions are accrued", but whether external users can verify them. All three companies disclose inventories by broad categories such as raw materials, work in progress and finished goods, where fast-selling new models may offset the risks of older model years.

Meanwhile, estimated selling prices lack explanations of transaction samples, observation periods and subsidy treatment. In some years, only "reversals or write-offs" are presented in total, making it difficult to test the reasonableness of prior judgments against subsequent outcomes.

The issues first arise from the products themselves. The proliferation of models, configurations and software versions, combined with shorter replacement cycles, requires item-by-item verification of discontinuation, after-sales and replacement plans for dedicated parts. Second, cash incentives, insurance subsidies, trade-in subsidies and financial interest subsidies may be recorded in different accounts, so official prices do not equal net transaction prices. Under the dealership model, channel inventory pressure may also feed into manufacturers' data later than changes in terminal sales.

Information is also dispersed within enterprises: sales departments hold transaction and channel inventory data, product departments control replacement plans, and finance departments are responsible for impairment models. Delayed parameter updates can lead to year-end tests relying on outdated forecasts. Auditors can spot-check post-balance-sheet sales and inventory age, but can hardly cover all models and regions. Trade secrets and disclosure costs are real, but they also make it difficult for public information to verify the adequacy of provisions.

6. Improvement recommendation

NEV manufacturers can establish a two-dimensional impairment test model based on "inventory age + technology generation", rather than only classifying by storage time. Complete vehicles and dedicated materials should first be disaggregated by model, model year, powertrain and battery solution, intelligent driving hardware, and electrical and electronic architecture version, then categorized by inventory age into 0–90 days, 91–180 days, 181–365 days, and over 365 days. On the technology dimension, four categories can be distinguished: current generation, current generation with significant price cuts or feature upgrades, previous generation, and discontinued mismatched products. Special tests should be triggered by events such as new platform launches, the shift from 400V to 800V architecture, generational upgrades of intelligent driving chips or sensors, changes in battery systems, model discontinuation, and dedicated parts that cannot be reused across models. This matrix is used to determine testing priorities and evidence intensity, while measurement ultimately follows the lower of cost and net realizable value, rather than mechanical accrual by age bracket.

Net realizable value estimates should also be based on "net transaction prices", with uniform reconciliation of cash incentives, trade-in subsidies, insurance or financial interest subsidies, dealer rebates and complimentary options. Enterprises can use Vehicle Identification Numbers (VINs) and model years to link on-book inventories, dealer inventories, terminal invoicing and post-balance-sheet transactions. Different technical risk judgments should apply to models that can continue to receive upgrades via Over-The-Air (OTA) updates versus models that cannot access new features due to outdated intelligent driving hardware. Dedicated parts should be further classified into cross-model reusable parts, after-sales spare parts, and parts with no reuse prospects. Sales, product, R&D and finance departments should update parameters quarterly, and internal audit should back-test promotion margins, liquidation cycles and disposal costs.

Without disclosing the commercial floor prices of individual models, annual reports can disclose balances and provision ratios by inventory age and technology generation combinations, separately explain accruals, reversals, write-offs and other reductions, and provide aggregate sensitivity to falling net transaction prices or rising disposal costs. Auditors should spot-check subsidy reconciliation, major generational upgrade milestones, post-balance-sheet price cuts and VIN sales records. Regulators can standardize core classifications and reduction item caliber for the automobile industry. The timing of risk transmission differs

across direct sales, dealership and overseas channels, so disclosures should retain necessary channel-specific differences. The implementing entities and pathways for each issue are presented in Table 6.

Table 6. Key issues, causes and improvement pathways

Issue	Case evidence	Primary causes	Implementing entities	Improvement pathways
Overly broad test units	All lack provision information by model year, inventory age and technology version	Short replacement cycles; varying reusability of dedicated materials	Product, R&D, sales and finance departments	Establish an "inventory age × technology generation" matrix; set platforms, batteries, intelligent driving hardware and discontinuation as trigger items
Difficult verification of net selling prices	No explanation of transaction samples, observation periods and subsidy treatment	Diverse promotion forms; official prices ≠ net transaction prices	Sales, finance and internal audit departments	Uniformly reconcile cash incentives, trade-ins, insurance, interest subsidies, rebates and complimentary options, and conduct back-testing
Fragmented channel risk	On-book inventories cannot cover all dealer-side pressure	Different sales models; delayed information transmission	Automobile manufacturers and dealer networks	Link on-book inventories, channel inventories, terminal invoicing and post-balance-sheet transactions by VIN and model year
Opaque reduction items	Some years only disclose total reversals or write-offs	Coarse note caliber; intertemporal correspondence invisible	Enterprises and auditors	Disclose reversals and write-offs separately; explain corresponding accrual years and parameter changes, and conduct intertemporal back-testing
Insufficient cross-enterprise comparability	Differences in consolidation scope, business structure and classification caliber	Industry disclosure rules are relatively principled	Regulators and industry associations	Standardize caliber for inventory age, technology generation and reduction items, while retaining explanations of channel and business differences

Note: Source: Compiled by the authors based on case analysis.

7. Conclusion and limitation

Case data reveal three distinct patterns: for Changan Automobile, inventory growth rate, finished goods share and turnover risk rose in the later period, and the alignment of its low provision ratio is difficult to verify with public information; for SAIC Motor, risks deteriorated before recovering, with provision changes generally moving in the same direction as operating signals; for BAIC BluePark, turnover improved markedly, but its loss-making status and rising raw materials share kept its provision ratio high. These differences may be influenced simultaneously by product mix, channels, consolidation scope and estimation parameters, and cannot be reduced to the notion that "a higher ratio means greater prudence".

This paper first identifies operating risks, then discusses provision responses and the verifiability of disclosures, avoiding the inference of risk from provision amounts. The limitations are clear: three cases

cannot represent the entire industry, and annual reports lack data on model-level transaction prices, model years and inventory age, making it impossible to prove a strict causal relationship between price competition and impairment. Future research can expand the sample and examine the statistical relationship between prices, turnover and impairment using model-level price databases.

References

- [1] China Association of Automobile Manufacturers. (2022). *Production and sales of the automobile industry in 2021*. https://www.caam.org.cn/chn/4/cate_154/con_5235337.html. Retrieved July 13, 2026.
- [2] National Development and Reform Commission. (2024). *Production and sales of new energy vehicles in 2023*. https://www.ndrc.gov.cn/wsdwhfz/202403/t20240315_1364969.html. Retrieved July 13, 2026.
- [3] Xinhua News Agency. (2026). *China's automobile production and sales hit new record high in 2025*. <https://www.news.cn/fortune/20260114/cbbd861081c349d8ae238167ca418fa3/c.html>. Retrieved July 13, 2026.
- [4] National Development and Reform Commission. (2024). *Price competition and high-quality development in the automobile industry*. https://www.ndrc.gov.cn/wsdwhfz/202408/t20240823_1392548.html. Retrieved July 13, 2026.
- [5] China Association of Automobile Manufacturers. (2025). *Initiative on maintaining fair competition order and promoting sound industry development*. https://www.caam.org.cn/chn/1/cate_2/con_5236763.html. Retrieved July 13, 2026.
- [6] Li, Z. Q. (2001). An empirical study on asset impairment policies of Chinese listed companies. *China Accounting and Finance Review*, 3(4), 70–113.
- [7] Wang, Y. T. (2000). Economic motives for accounting policy choices: An empirical study based on Shanghai and Shenzhen stock markets. *Accounting Research*, (12), 31–40.
- [8] Wei, M. H. (2000). Basic theories of earnings management and a review of related research. *Accounting Research*, (9), 37–42.
- [9] Dai, D. M., Mao, X. S., & Yao, S. Y. (2005). Research on measurement issues in asset impairment accounting. *Accounting Research*, (6), 35–41.
- [10] Wang, Y. T., Zhou, X., & Zhang, L. (2005). Impairment of long-lived assets: Reflection of fair value or earnings management behavior? *Accounting Research*, (8), 30–36.
- [11] Li, Z. F., Gu, Y., & Lian, Y. J. (2011). The choice of earnings management methods and their economic consequences. *Accounting Research*, (5), 60–68, 96.
- [12] Strong, J. S., & Meyer, J. R. (1987). Asset writedowns: Managerial incentives and security returns. *Journal of Accounting and Economics*, 9(2), 165–186. [https://doi.org/10.1016/0165-4101\(87\)90014-3](https://doi.org/10.1016/0165-4101(87)90014-3)
- [13] Elliott, J. A., & Shaw, W. H. (1988). Write-offs as accounting procedures to manage perceptions. *Journal of Accounting Research*, 26(Supplement), 91–119. <https://doi.org/10.2307/2491182>
- [14] Francis, J., Hanna, J. D., & Vincent, L. (1996). Causes and effects of discretionary asset write-offs. *Journal of Accounting Research*, 34(Supplement), 117–134. <https://doi.org/10.2307/2491429>
- [15] Riedl, E. J. (2004). An examination of long-lived asset impairments. *The Accounting Review*, 79(3), 823–852. <https://doi.org/10.2308/accr.2004.79.3.823>
- [16] Chen, H., Frank, M. Z., & Wu, O. Q. (2005). What actually happened to the inventories of American companies between 1981 and 2000? *Management Science*, 51(7), 1015–1031. <https://doi.org/10.1287/mnsc.1050.0368>
- [17] Gaur, V., Fisher, M. L., & Raman, A. (2005). An econometric analysis of inventory turnover performance in retail services. *Management Science*, 51(2), 181–194. <https://doi.org/10.1287/mnsc.1040.0298>

- [18] Eroglu, C., & Hofer, C. (2011). Lean, leaner, too lean? The inventory-performance link revisited. *Journal of Operations Management*, 29(4), 356–369. <https://doi.org/10.1016/j.jom.2010.05.002>
- [19] Ministry of Finance of the People's Republic of China. (2006). *Accounting standard for business enterprises No. 1 – Inventories*.
- [20] Ministry of Finance of the People's Republic of China. (2014). *Basic standard for enterprise accounting (Ministry of Finance Decree No. 76)*.
- [21] China Securities Regulatory Commission. (2023). *Accounting regulatory report on 2022 annual financial reports of listed companies*.
- [22] Chongqing Changan Automobile Co., Ltd. (2026). *Annual reports 2021–2025*.
- [23] SAIC Motor Corporation Limited. (2026). *Annual reports 2021–2025*.
- [24] BAIC BluePark New Energy Technology Co., Ltd. (2026). *Annual reports 2021–2025*.
- [25] BYD Company Limited. (2026). *Audited financial statements (2025 fiscal year)*.
- [26] Great Wall Motor Company Limited. (2026). *2025 annual report*.
- [27] Seres Group Co., Ltd. (2026). *2025 annual report*.
- [28] Anhui Jianghuai Automobile Group Corp., Ltd. (2026). *2025 annual report*.