

**Online Appendix to**  
**“Earnings Management via Not-wholly-owned Subsidiaries”**

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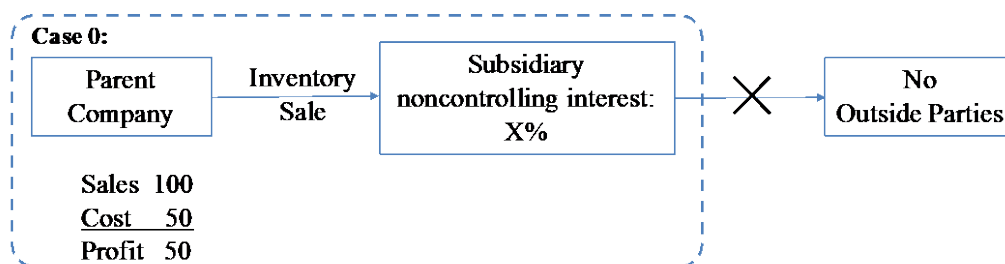
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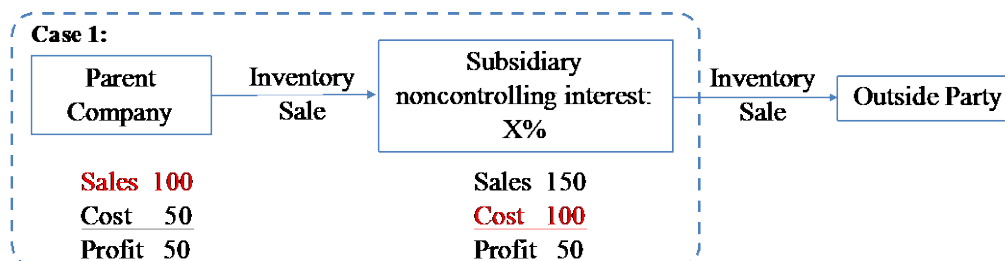
## Online Appendix 1    Ways to Shift Income from a Not-wholly-owned Subsidiary to the Parent Company

### Approach 1: Intercompany Transactions inside the Consolidated Entity

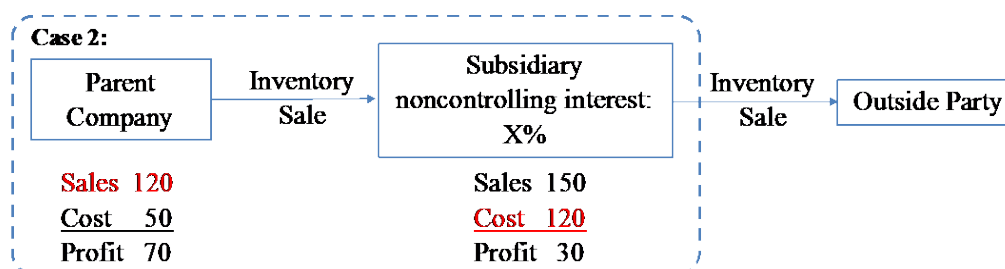
Companies can shift income by purposely increasing or decreasing internal sale prices on intercompany transactions when the products or services are eventually sold to an outside party. If no outside party is involved, intercompany transactions will be eliminated upon consolidation and result in zero earnings in the consolidated income statement. The following downstream transaction provides an example of income shifting through intercompany transactions when the parent company sells a product at a higher price than normal to its subsidiary, which in turn sells the product at the regular price to an outside party. Suppose noncontrolling investors own X% of the subsidiary.



**Case 0:** The parent sells to the subsidiary at \$100 and no outside party is involved. This sale transaction is eliminated in consolidated financial statements. Consolidated net income (*CNI*) = 0



**Case 1:** The parent company sells inventory (cost of goods sold = \$50) to the subsidiary for \$100, which in turn sells it to an outside party for \$150. Consolidated net income (*CNI*) = 50 + 50 = 100. Income attributable to noncontrolling interests (*NON*) = 50\*X%. The consolidated net income attributable to the parent company from this transaction (*NI*) = (100-50) + (150-100)\*(1-X%) = 100 - 50\*X%.



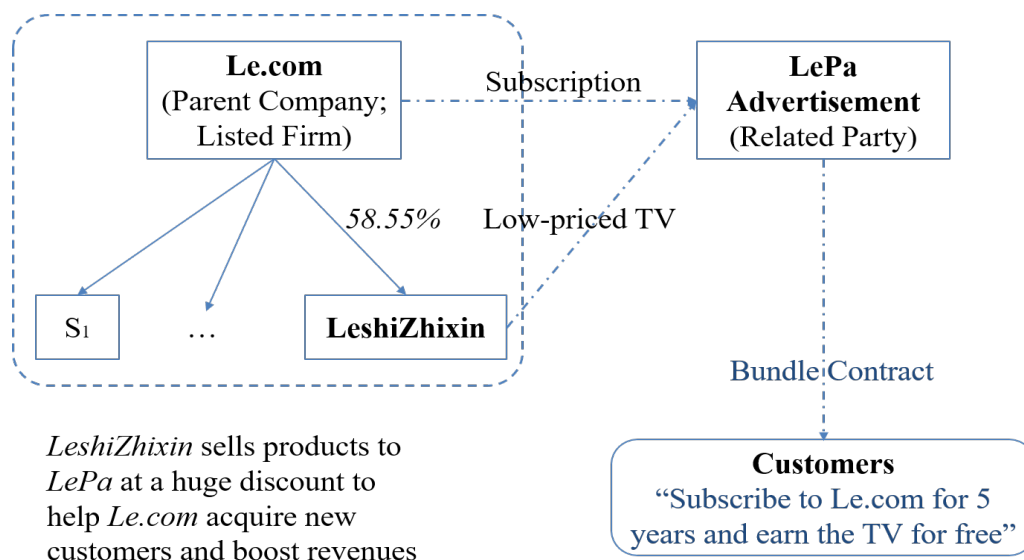
**Case 2:** The parent company increases the selling price from \$100 to \$120. Consolidated net income ( $CNI$ ) =  $70 + 30 = 100$ . Income attributable to noncontrolling interests ( $NON$ ) =  $30 * X\%$ . The consolidated net income attributable to the parent company ( $NI$ ) =  $(120 - 50) + (150 - 120) * (1 - X\%) = 100 - 30 * X\%$ .

Therefore, the parent company shifts \$20 from its subsidiary to itself by increasing the internal sale price to \$120, and the net gain on the parent's net income is  $20 * X\%$ .

Income shifted from subsidiary to parent: **\$20**  
 Net gain on the consolidated net income attributable to the parent company:  **$20 * X\%$**

### Approach 2: Related-party Transactions outside of The Consolidated Entity

The parent company and its subsidiary can bundle their products and services in such a way that the subsidiary provides low-priced products while the parent company sells high-priced products to outside parties, in order to shift income from the subsidiary to the parent company. Coordinating and facilitating such transactions is easier when the outside party is a related party to the parent company. We take Le.com as an example to illustrate this type of transaction.



Le.com (ticker symbol: 300104) was a publicly traded Chinese A-share firm (delisted on May 14, 2020). It was formerly one of the largest video streamers in China and was often referred to as the “Netflix of China.” The firm’s core business (with the parent company) is a subscription-based video streaming service, offering a library of films and TV episodes. In 2012, the firm established a not-wholly-owned subsidiary called LeshiZhixin, a TV manufacturer, with 58.55% ownership interest as of 2016.

LeshiZhixin has served as a promotion vehicle for the parent company since it started operations in 2013. The main product of LeshiZhixin, called “Super TV,” usually sells at much lower prices relative to similar products in the market. Importantly, LeshiZhixin sells the Super TV with a built-in TV app from Le.com, accompanied by a one-month free subscription to Le.com’s content. In 2016, Le.com announced that a customer could get a Super TV for free by subscribing to the five-year video streaming service, a promotion that dramatically increased

the parent company's subscription revenues. Essentially, the cost of these huge discounts on TV sales is borne by LeshiZhixin, but the benefit of increased subscription revenue goes to the parent company. The parent company shares only 58.55% of the subsidiary's profits/losses. Le.com's audit report in 2016, although an unqualified opinion, sheds light on the underlying related-party transactions with both the parent and subsidiary. Both Le.com and LeshiZhixin sold their products to related parties (LePa Advertisement) outside of the consolidated entity. The related company packaged the TVs and subscription services into a bundle to be resold to customers. The related party turned out to be under the control of the founder of Le.com, who still controls Le.com.

In the table below, we present the consolidated net income of the entire entity (*CNI*), noncontrolling interests in subsidiary earnings (*NON*), consolidated net income benefiting the parent firm Le.com (*NI*), the value of related-party transactions scaled by average total assets (*RPT*), the median value of *RPT* among the same industry-year firms, the percentage of the controlling shareholder's shares pledged at the fiscal year-end (*PLEDGE*), and the median value of *PLEDGE* among the same industry-year firms from 2011 to 2016.

	2011	2012	2013	2014	2015	2016
<i>CNI</i> (Million RMB)	130.878	189.966	232.381	128.797	217.117	-221.893
<i>NON</i> (Million RMB)	-0.243	-4.228	-22.629	-235.233	-355.910	-776.652
<i>NI</i> (Million RMB)	131.121	194.194	255.010	364.030	573.027	554.759
<i>RPT</i>	0.000	0.000	0.003	0.021	0.337	0.627
Industry Median <i>RPT</i>	0.001	0.000	0.000	0.001	0.001	0.001
<i>PLEDGE</i>	0.000	0.654	0.498	0.804	0.860	0.900
Industry Median <i>PLEDGE</i>	0.000	0.000	0.000	0.008	0.068	0.267

The descriptive statistics above show that Le.com reported strong growth in net income (*NI*), whereas its subsidiaries had reported huge losses since 2013 when LeshiZhixin started its operation. The divergence between *NON* and *NI* is associated with an increasing trend of related party transactions that are well above the industry median, consistent with media concerns that Le.com shifted income from not-wholly-owned subsidiaries to the parent company using related-party transactions. Le.com's controlling shareholder increasingly pledged his shares for personal loans at a percentage well above the industry median, adding to the incentives to inflate earnings, i.e., to support a high stock price and to mitigate the liquidation risk of his pledged shares.

## Online Appendix 2 The Sample of Anecdotal Cases Used in Validity Test

This appendix describes the sample of anecdotal cases used in the second validity test (Panel C of Table 2) and related comment letters or financial news. Anecdotal cases include the Le.com case in Online Appendix 1, three examples raised by regulators in Appendix 2, and anecdotal examples of income shifting based on regulatory comment letters or financial news searched as of July 2023. We search regulatory comment letters in the Jianweidata database, which collects all the comment letters issued by Chinese security regulators (CSRC, SSE, SZSE, etc.). We search financial news via Baidu News, which is the equivalent of Google News in China. The search is based on the keywords “noncontrolling interests in subsidiary earnings” plus “shift,” “transfer,” “manipulate,” “loss,” or “decrease” (all in Chinese).

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**Total sample size:** 82 firm firm-year observations (77 observations with sufficient data to calculate *ABNON*)

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### **Subsample 1 (3 firm-year observations): The Le.com case described in Online Appendix 1**

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- Firm & Related fiscal year:  
Le.com Co Ltd (ticker symbol: 300104), 2014~2016
- Financial media suspicions (in Chinese, accessed on July 14, 2023):  
Concerning the 2014 annual report:  
<http://finance.china.com.cn/stock/ssgs/20150727/3253611.shtml>;  
<http://www.techweb.com.cn/internet/2015-07-27/2180944.shtml>;  
[http://finance.ce.cn/rolling/201507/28/t20150728\\_6052984.shtml](http://finance.ce.cn/rolling/201507/28/t20150728_6052984.shtml)  
Concerning the 2015 annual report:  
<http://tech.china.com.cn/internet/20160523/230538.shtml>;  
<http://finance.china.com.cn/industry/company/20160530/3745053.shtml>  
Concerning the 2016 annual report:  
<http://www.techweb.com.cn/internet/2017-04-20/2514988.shtml>;  
<https://www.tmtpost.com/2597823.html>

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### **Subsample 2 (8 firm-year observations): Three examples of suspected firms described in Appendix 2**

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- Firm & Related fiscal year:
    - (1) Hainan Development Holdings Nanhai Co Ltd (ticker symbol: 002163), 2017~2018
    - (2) Top Resource Conservation & Environment Corp (ticker symbol: 300332), 2017~2019
    - (3) Zhejiang Narada Power Source Co Ltd (ticker symbol: 300068), 2017~2019
  - Regulatory concerns (in Chinese):

For (1): comment letter on the application for seasoned equity offering (file number: 203619), issued on January 22, 2021; Question 10-(2)

For (2): comment letter on the application for seasoned equity offering (file number: [2020]-020005), issued on July 10, 2020; Question 1-(1)

For (3): comment letter on the application for seasoned equity offering (file number: [2020]-020171), issued on September 1, 2020; Question 5-(2)
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**Subsample 3 (7 firm-year observations): Other suspected firms raised by regulators**

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- Firm & Related fiscal year:

- (1) Henan Shenhua Coal & Power Co Ltd (ticker symbol: 000933), 2016
- (2) Linewell Software Co Ltd (ticker symbol: 603636), 2016
- (3) Citychamp Dartong Co Ltd (ticker symbol: 600067), 2016
- (4) Muyuan Foods Co Ltd (ticker symbol: 002714), 2017~2019
- (5) Zhejiang Sunflower Great Health LLC (ticker symbol: 300111), 2020

- Regulatory concerns (in Chinese):

For (1): comment letter on the 2016 annual report (file number: SZSE [2017]-64), issued on April 18, 2017; Question 7

For (2): comment letter on the 2016 annual report (file number: SSE [2017]-0327), issued on March 27, 2017; Question 3

For (3): comment letter on the 2016 annual report (file number: SSE [2017]-0521), issued on May 5, 2017; Question 3

For (4): general comment letter (file number: SZSE small and medium-sized board [2021]-29), issued on March 15, 2021; Question 2

For (5): comment letter on the 2020 annual report (file number: SZSE ChiNext board [2021]-217), issued on May 12, 2021; Question 6

- Note: One observation without sufficient data to calculate *ABNON* (ticker symbol: 002714, year 2017)

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**Subsample 4 (64 firm-year observations): Suspect firms mentioned by financial media**

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- Firm & Related fiscal year:

- (1) BOE Technology Group Co Ltd (ticker symbol: 000725), 2018~2020, 2022
  - (2) Sichuan Western Resources Holding Co Ltd (ticker symbol: 600139), 2018~2020
  - (3) Datang Telecom Technology Co Ltd (ticker symbol: 600198), 2017, 2019~2020
  - (4) Ling Yun Industrial Co Ltd (ticker symbol: 600480), 2019~2020
  - (5) TCL Technology Group Corp (ticker symbol: 000100), 2020
  - (6) Semiconductor Manufacturing International Corp (ticker symbol: 688981), 2018~2019
  - (7) Yonghui Superstores Co Ltd (ticker symbol: 601933), 2017~2019
  - (8) Seazen Holdings Co Ltd (ticker symbol: 601155), 2017~2019
  - (9) China Fortune Land Development Co Ltd (ticker symbol: 600340), 2017~2019
  - (10) Zoomlion Heavy Industry Science & Technology Co Ltd (ticker symbol: 000157), 2017~2019
  - (11) Perfect World Co Ltd (ticker symbol: 002624), 2017~2019
  - (12) Tecon Biology Co Ltd (ticker symbol: 002100), 2017~2019
  - (13) Hangzhou Hikvision Digital Technology Co Ltd (ticker symbol: 002415), 2017~2019
  - (14) Inner Mongolia Junzheng Energy & Chemical Group Co Ltd (ticker symbol: 601216), 2017~2019
  - (15) Sichuan Languang Development Co Ltd (ticker symbol: 600466), 2017~2019
  - (16) FAWER Automotive Parts Ltd Co Ltd (ticker symbol: 000030), 2017~2019
  - (17) Zhuhai Huafa Properties Co Ltd (ticker symbol: 600325), 2017~2019
  - (18) Guanghui Energy Co Ltd (ticker symbol: 600256), 2017~2019
  - (19) Hangzhou Silan Microelectronics Co Ltd (ticker symbol: 600460), 2017~2019
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- (20) Zhejiang Aokang Shoes Co Ltd (ticker symbol: 603001), 2017~2019
  - (21) Henan Shenhua Coal & Power Co Ltd (ticker symbol: 000933), 2019
  - (22) Zhejiang DunAn Artificial Environment Co Ltd (ticker symbol: 002011), 2019
  - (23) Suning.Com Co Ltd (ticker symbol: 002024), 2018
  - (24) Langold Real Estate Co Ltd (ticker symbol: 002305), 2017
  - (25) Pengdu Agriculture & Animal Husbandry Co Ltd (ticker symbol: 002505), 2017
  - (26) Baofeng Group Co Ltd (ticker symbol: 300431), 2016~2017

- Financial media suspicions (in Chinese, accessed on July 14, 2023):

For (1):

[http://finance.ce.cn/stock/gsgdbd/202304/06/t20230406\\_38483943.shtml?ivk\\_sa=1023197a](http://finance.ce.cn/stock/gsgdbd/202304/06/t20230406_38483943.shtml?ivk_sa=1023197a);

<https://finance.sina.com.cn/stock/observe/2020-09-17/doc-iivhvpwy7334217.shtml>;

[http://finance.ce.cn/stock/gsgdbd/202009/22/t20200922\\_35791595.shtml](http://finance.ce.cn/stock/gsgdbd/202009/22/t20200922_35791595.shtml);

<https://www.jiemian.com/article/3674294.html>

For (2)~(6): <https://finance.sina.com.cn/stock/observe/2020-09-17/doc-iivhvpwy7334217.shtml>

For (7): [http://finance.ce.cn/stock/gsgdbd/202009/22/t20200922\\_35791595.shtml](http://finance.ce.cn/stock/gsgdbd/202009/22/t20200922_35791595.shtml);

<https://www.jiemian.com/article/3674294.html>

For (8)~(21): [http://finance.ce.cn/stock/gsgdbd/202009/22/t20200922\\_35791595.shtml](http://finance.ce.cn/stock/gsgdbd/202009/22/t20200922_35791595.shtml)

For (22): <https://zhuanlan.zhihu.com/p/115180583>

For (23): <https://www.jiemian.com/article/3674294.html>

For (24): [http://finance.ce.cn/rolling/201708/24/t20170824\\_25277881.shtml](http://finance.ce.cn/rolling/201708/24/t20170824_25277881.shtml)

For (25): <http://finance.china.com.cn/industry/20181023/4789051.shtml>

For (26): <https://www.jiemian.com/article/3674294.html>;

<http://news.jstv.com/a/20170810/1502367922451.shtml>;

[http://finance.ce.cn/rolling/201608/30/t20160830\\_15376889.shtml?from=singlemessage](http://finance.ce.cn/rolling/201608/30/t20160830_15376889.shtml?from=singlemessage);

<http://tech.china.com.cn/internet/20160511/229314.shtml>

- Note: Four observations without sufficient data to calculate *ABNON* (ticker symbol: 600139, year 2020; ticker symbol: 688981, year 2018~2019; ticker symbol: 300431, year 2016;)
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