

Fixed assets: meaning, structure, depreciation, sources of financing

Lecture for Corporate Finance



**SILESIAN
UNIVERSITY**

SCHOOL OF BUSINESS
ADMINISTRATION IN KARVINA

Mgr. Tetiana Konieva, Ph.D

Corporate Finance

FIU/BAFIK

Outline of the lecture

- Structure of fixed assets
- Investing activity
- Examples of tangible and intangible assets of Xiaomi
- Distribution of depreciation of tangible and intangible assets by costs
- Distribution the value of fixed assets
- Tax saving effect
- Terms of depreciation
- The Four Basic Methods of Depreciation
- Forming of depreciation fund
- Sources for fixed assets financing



Structure of fixed assets:



Fixed assets (Non-current assets) – those, which are not current assets:

Intangible assets – an identifiable non-monetary asset without physical substance (patented technology, computer software, databases and trade secrets; trademarks, internet domains; video and audio-visual material; franchise agreements; marketing rights (**International Accounting Standard IAS 38 — Intangible Assets**) = original value - accumulated amortisation:

original value

accumulated amortisation

Incomplete capital investment (unactuated equipment, equipment that is not put into operation, unfinished building)

Tangible assets; Property, equipment, buildings, vehicles = original value - accumulated depreciation

original value (price of purchase excluding VAT + transportation + insurance + cost of installation + customs fees.)

accumulated depreciation

Investment property – is property (land or a building or part of a building or both) held (by the owner or by the lessee under a finance lease) to earn rentals or for capital appreciation or both (International Accounting Standard IAS 40 — Investment Property):

land held for long-term capital appreciation

land held for a currently undetermined future use

building leased out under an operating lease

vacant building held to be leased out under an operating lease

property that is being constructed or developed for future use as investment property

Investment property is property (land or a building or part of a building or both) held (by the owner or by the lessee under a finance lease) to earn rentals or for capital appreciation or both.

Long-term biological assets (adult, working, productive livestock - cattle, goats, pigs, horses; gardens, vineyards)

Long-term financial investments:

calculated by the equity method in other enterprises (Investments in associates and joint ventures in amount more, than 20% of their capital)

Other financial investments (stocks, bonds of other enterprises, states; deposits for a term of more than 1 year)

Long-term accounts receivable; Long-term trade and other receivables

Deferred tax assets

Other fixed assets

Total fixed assets

Investing activity



- International Accounting Standard 7 — Statement of Cash Flows:

investing activities are the acquisition and disposal of long-term assets and other investments that are not considered to be cash equivalents. Examples of investing activities are cash outflow for the purchase of fixed assets and financial investments, securities issued by other entities; cash inflow from the sale of the fixed assets, financial investments, received dividends, interest rate

II. Cash flow from investing activities
Cash inflow from sales of:
financial investments
fixed assets
Cash inflow from received:
percent
dividends
Cash inflow from derivatives
Other cash inflow
Cash outflow for purchase of:
financial investments
fixed assets
Cash outflow by derivatives
Other cash outflow
Net Cash flow from investing activities

Examples of tangible assets of Xiaomi



	Electronic equipment RMB'000	Office equipment RMB'000	Buildings RMB'000	Leasehold improvements RMB'000	Construction in progress RMB'000	Total RMB'000
At January 1, 2021						
Cost	1,402,988	24,358	3,633,346	1,033,174	1,675,615	7,769,481
Accumulated depreciation	(643,957)	(17,283)	(86,084)	(716,500)	—	(1,463,824)
Net book amount	759,031	7,075	3,547,262	316,674	1,675,615	6,305,657

Examples of tangible assets of Xiaomi



Year ended December 31, 2021

Opening net book amount	759,031	7,075	3,547,262	316,674	1,675,615	6,305,657
Currency translation differences	(4,116)	(212)	—	(2,425)	(46)	(6,799)
Additions	471,452	1,713	—	901,423	1,120,435	2,495,023
Transfer from construction in progress to investment properties, buildings and others	—	—	33,014	—	(1,088,898)	(1,055,884)
Acquisition of subsidiaries (Note 39)	954	26	23,890	—	—	24,870
Disposals	(31,010)	(19)	—	(46,783)	—	(77,812)
Depreciation charge (Note 9)	(297,370)	(2,222)	(86,990)	(333,852)	—	(720,434)
Closing net book amount	898,941	6,361	3,517,176	835,037	1,707,106	6,964,621

Examples of tangible assets of Xiaomi



Closing net book amount	898,941	6,361	3,517,176	835,037	1,707,106	6,964,621
At December 31, 2021						
Cost	1,775,713	25,717	3,690,248	1,885,773	1,707,106	9,084,557
Accumulated depreciation	(876,772)	(19,356)	(173,072)	(1,050,736)	—	(2,119,936)
Net book amount	898,941	6,361	3,517,176	835,037	1,707,106	6,964,621

Distribution of depreciation of tangible assets by costs



Depreciation expenses have been charged to the consolidated income statement as follows:

	Year ended December 31,	
	2021	2020
	RMB'000	RMB'000
Administrative expenses	165,892	120,863
Selling and marketing expenses	291,287	165,270
Research and development expenses	201,678	201,426
Cost of sales	61,577	30,033
	720,434	517,592

Examples of intangible assets of Xiaomi



	Goodwill (Note (a)) RMB'000	License RMB'000	Trademarks, patents and domain name RMB'000	Others RMB'000	Total RMB'000
At January 1, 2021					
Cost	253,251	4,549,537	1,150,844	389,491	6,343,123
Accumulated amortization	—	(1,232,529)	(615,839)	(229,136)	(2,077,504)
Net book amount	253,251	3,317,008	535,005	160,355	4,265,619

Examples of intangible assets of Xiaomi



Year ended December 31, 2021

Opening net book amount	253,251	3,317,008	535,005	160,355	4,265,619
Currency translation differences	—	(40)	(2,104)	(2,112)	(4,256)
Additions	—	16,633	42,264	96,422	155,319
Acquisition of subsidiaries (Note 39)	1,443,388	—	999,291	41	2,442,720
Disposals	—	—	(941)	(21,968)	(22,909)
Amortization charge (Note 9)	—	(1,026,159)	(163,491)	(67,684)	(1,257,334)
Closing net book amount	1,696,639	2,307,442	1,410,024	165,054	5,579,159
At December 31, 2021					
Cost	1,696,639	4,566,090	2,185,896	465,941	8,914,566
Accumulated amortization	—	(2,258,648)	(775,872)	(300,887)	(3,335,407)
Net book amount	1,696,639	2,307,442	1,410,024	165,054	5,579,159

Distribution of depreciation of intangible assets by costs



	Year ended December 31,	
	2021	2020
	RMB'000	RMB'000
Administrative expenses	88,735	35,896
Selling and marketing expenses	4,352	2,078
Research and development expenses	1,164,247	627,592
	1,257,334	665,566

Advantages of fixed assets:

- practically do not feel the impact of inflation, they are better protected from it
- they are characterized by a lower commercial risk of losses in the course of the company's operational activities;
- they are practically protected from unscrupulous actions of partners
- these assets are able to generate a stable profit, ensuring the release of various types of products according to the conditions of the commodity market
- they contribute to the prevention (or significant reduction) of the loss of inventories in the process of their storage
- they are characterized by greater reserves for a significant expansion of the volume of operational activity during the period of growing in the commodity market



Disadvantages of fixed assets:

- subjected to material and moral wear (aging) (especially the active part of production fixed assets and intangible operating assets)
- these assets are difficult to manage operationally, since they change weakly in the structure in the short term
- weakly liquid assets (can be quickly transformed into cash), that cannot serve as a means of ensuring the flow of payments serving operational activities



Distribution the value of fixed assets



Original (beginning) value= Price of purchase without Value Added Tax + Freight (transportation) charges + Installation, testing + Insurance + Custom duties +Registration fees.....

Original value (for example, equipment = \$100000; Useful life = 5 years (period, during which the assets serve))

First year	Second year	Third year	Fourth year	Fifth year
\$100000/5 years/12 months=\$1667 = costs per month	\$100000/5 years/12 months=\$1667 = costs per month	\$100000/5 years/12 months=\$1667 = costs per month	\$100000/5 years/12 months=\$1667 = costs per month	\$100000/5 years/12 months=\$1667 = costs per month

**\$100000 = cash outflow from investing activity ≠ costs at once;
it is distributed during useful life; monthly part will be the cost**

Tax saving effect:



$$\text{Tax profit} = 18\% * (\text{incomes} - \text{costs})$$

Depreciation (amortization) is **cost** for the company, that decrease Tax profit, but doesn't lead to cash outflow (spending money)

Depreciation (amortization) as cost can be included into the:

- **cost of production** (direct material costs (materials, energy, gas, water, spent for the manufacturing of the production) + direct labor costs (salary of employees, that manufacture the production) + Cost of spoiled production + **depreciation** of equipment, that takes part in manufacturing process + general production costs (for maintaining the workshop, where production manufactured; salary of the workshop director, workshop cleaners; heating and lightening of the workshop) +
- **administrative costs** (salary of the director, financial services departments, HR department, supply department, **depreciation** of the administrative fixed assets, representative expenses, audit, etc.),
- **sales costs** (packaging, advertising, transportation of products, **depreciation** of refrigerators, storage of finished products, salary of sales department)
- **Example of Xiaomi**



Terms of depreciation

- **Original value** = Price of purchase without Value Added Tax + Freight charges + Installation, testing + Insurance + Custom duties + Registration fees
- Depreciation – distribution of original value of tangible assets during their useful life
- Amortization – distribution of original value of intangible assets during their useful life
- Useful life – period, during which the assets serve
- Book value = original value – accumulated depreciation
- Salvage (residual) value – price of asset's selling at the end of useful life (0, >0.....)
- Depreciated value = original value – salvage value

The Four Basic Methods of Depreciation



- Straight-line
- Sum-of-the-years' digits
- Double declining balance
- Units of production



The Four Basic Methods of Depreciation

Straight-line method:

$$\text{Annual depreciation} = \frac{(\text{original value} - \text{salvage value})}{\text{useful life}}$$

Double declining balance:

$$\text{Annual depreciation} = \frac{\text{Book value} * 2}{\text{useful life}}$$

$$\text{Depreciation per month} = \text{Annual depreciation} / 12$$

The Four Basic Methods of Depreciation



Sum-of-the-years' digits:

$$\text{Annual depreciation} = \frac{(\text{original value} - \text{salvage value}) * \text{quantity of years up to the end of useful life}}{1+2+3+4+5+6+\dots+10 \text{ useful life}}$$

Units of production:

$$\text{Annual depreciation} = \frac{\text{Annual amount of production from asset} * (\text{original value} - \text{salvage value})}{\text{total amount of production from asset}}$$

$$\text{Depreciation per month} = \text{Annual depreciation} / 12$$

Forming of depreciation fund



Price of the unit of production \$1000=

cost of production (direct material costs (materials, energy, gas, water, spent for the manufacturing of the production) + direct labor costs (salary of employees, that manufacture the production) + Cost of spoiled production + **depreciation of equipment, that takes part in manufacturing process** + general production costs (for maintaining the workshop, where production manufactured; salary of the workshop director, workshop cleaners; heating and lightening of the workshop)

+

profit (administrative costs (salary of the director, financial services departments, HR department, supply department, **depreciation of the administrative fixed assets**, representative expenses, audit, etc.), **sales costs** (packaging, advertising, transportation of products, **depreciation of refrigerators**, storage of finished products, salary of sales department), **profit, tax profit, dividends**)

+

Excise

+

custom duty

+

VAT value added tax

\$1000 cash from the buyer (profit + depreciation)

Achieved money as depreciation should be accumulated into the **depreciation fund for repairing, reconstruction, modernization, buying (building) new fixed assets**

This fund is formed by buyers, that is why original value should be calculated properly, including all costs, connected with fixed assets

The task of the company is selling the production, collecting money from buyers and forming the depreciation fund

Sources for fixed assets financing:

- Depreciation funds
- (Financial) Leasing
- Long-term bank credit
- Issued bonds
- Equity (issued shares)





Thank you for your attention!
