POLITECNICO
MILANO 1863

Financial Planning

Dr. Yulia Sidorova
Yulia.Sidorova@polimi.it

Agenda

credit rating
d/e ratio
repayment schema

- Financial planning
- Credit rating
- Bank loans
- Syndicated bank loans
- Corporate bonds
- Leasing
    - Operating leasing
    - Financial leasing
- Factoring
- Lines of credit
- Exercise

from 15 to 18 of 16 video

Financial Planning

depend on investment
our period of budgeting

...

financial insolvency

- Financial planning
  - Long term
    - Bank / syndicated bank loan
    - Corporate bonds

      from people and institution

      it's connected to reputation
    - Leasing

      equipment by leasing doesn't come in right of use as an asset
  - Short term

    different dso dpo
    cash problem
    - Bridge bank/syndicated bank loan
    - Lines of credit
    - Factoring

Big Three

STANDARD
&POOR'S

MOODY'S

FitchRatings

Big Three

they provide ratings

Credit Quality	DBRS		Moody's		S&P		
	Long Term	Short Term	Long Term	Short Term	Long Term	Global CP Scale	Canadian CP Scale
Superior more stable	AAA	R-1 high	Aaa	P-1	AAA	A-1+	A-1 (high)
	AA high	R-1 high	Aa1	P-1	AA+	A-1+	A-1 (high)
	AA	R-1 mid	Aa2	P-1	AA	A-1+	A-1 (high)
	AA low	R-1 mid	Aa3	P-1	AA-	A-1+	A-1 (high)
Good	A high	R-1 low	A1	P-1	A+	A-1	A-1 (mid)
	A	R-1 low	A2	P-1	A	A-1	A-1 (mid)
	A low	R-1 low	A3	P-2	A-	A-2	A-1 (low)
Adequate	BBB high	R-2 high	Baa1	P-2	BBB+	A-2	A-1 (low)
	BBB	R-2 mid	Baa2	P-2	BBB	A-2	A-2
	BBB low	R-2 low	Baa3	P-3	BBB-	A-3	A-3
Speculative	BB high	R-3 high	Ba1	Not Prime	BB+	B	B
	BB	R-3 high	Ba2	Not Prime	BB	B	B
	BB low	R-3 high	Ba3	Not Prime	BB-	B	B
Riskier Highly Speculative	B high	R-3 mid	B1	Not Prime	B+	C	C
expected return on equity higher	B	R-3 mid	B2	Not Prime	B	C	C
	B low	R-3 low	B3	Not Prime	B-	C	C
bank won't give us money	CCC	R-3 low	Caa	Not Prime	CCC	C	C

Bank loans

- Bank loan is a debt provided by a bank to the company
- Can be either long or short term, depending on the maturity

maturity date: the day we repay all the amount and the interest

INTEREST	• Interest to be paid to the bank refinancing rate
	  • Fixed rate on the day of taking the loan / never less than the central bank of the company
	  • Floating rate depends on params like euro bonds, and most stable bond returns for that specific industry

MATURITY	• Contractual term of loans

REPAYMENT SCHEME	• Scheduled repayment of interests: monthly, quarterly, semiannually, annually …
	• Scheduled repayment of capital:
	  • Bullet: the repayment of capital is at maturity date once at a time
	  • Amortized: the repayment of capital is amortized over time divided to several years

PRIORITY IN CASE OF DEFAULT	• Priority in the repayment of interests and capital; debtholders have the priority on equity holders

Bank loans

- Bank loans require warranties
- Mortgage is a form of guarantee which is constituted by real estates
- In cases the borrower fails in respecting its obligations, the bank can recoup the potential losses through the mortgage
- Nevertheless, the bank does not acquire the property of the mortgage but can sell it on the market
- The issue of a long-term loan implies other costs such as the negotiation costs, evaluation of the mortgage value, insurance premia

also add administrative costs, insurance, ...

Bank Loans example

19.1 Net financial debt

(EUR millions)	**2022**	**2021**	**2020**
Bonds and Euro Medium-Term Notes (EMTNs)	10,185	11,872	13,866
Bank borrowings	194	293	199
Long-term borrowings	**10,380**	**12,165**	**14,065**
Bonds and Euro Medium-Term Notes (EMTNs)	1,486	3,072	1,094
Current bank borrowings	222	377	346
Euro- and US dollar-denominated commercial paper	7,247	4,172	8,575
Other borrowings and credit facilities	144	191	418
Bank overdrafts	200	203	156
Accrued interest	60	61	49
Short-term borrowings	**9,360**	**8,075**	**10,638**
Gross borrowings	**19,739**	**20,241**	**24,703**
Interest rate risk derivatives	144	(6)	(68)
Foreign exchange risk derivatives	170	(63)	321
Gross borrowings after derivatives	**20,053**	**20,172**	**24,956**
Current available for sale financial assets[a]	(3,552)	(2,544)	(752)
Cash and cash equivalents[b]	(7,300)	(8,021)	(19,963)
Net financial debt	**9,201**	**9,607**	**4,241**

(a) See Note 14.
(b) See Note 15.1.

Net financial debt does not include purchase commitments for minority interests' shares (see Note 21) or lease liabilities (see Note 7).

Bank Loans example

19.2 Breakdown of gross borrowings by payment date and type of interest rate

(EUR millions)		Gross borrowings			Impact of derivatives			Gross borrowings after derivatives		
		Fixed rate	Floating rate	Total	Fixed rate	Floating rate	Total	Fixed rate	Floating rate	Total
Maturity:	December 31, 2023	1,796	7,563	9,360	(771)	912	141	1,025	8,475	9,500
	December 31, 2024	2,797	-	2,797	(297)	309	12	2,501	309	2,809
	December 31, 2025	1,559	-	1,559	-	-	-	1,559	-	1,559
	December 31, 2026	1,364	-	1,364	(20)	-	(20)	1,344	-	1,344
	December 31, 2027	885	-	885	(822)	985	164	63	985	1,049
	December 31, 2028	1,745	-	1,745	-	18	18	1,745	18	1,763
	Thereafter	2,029	-	2,029	-	-	-	2,029	-	2,029
Total		**12,176**	**7,563**	**19,740**	**(1,910)**	**2,224**	**314**	**10,266**	**9,787**	**20,053**

See Note 23.3 regarding the market value of interest rate risk derivatives.

The breakdown by quarter of gross borrowings falling due in 2023 is as follows:

(EUR millions)	Falling due in 2023
First quarter	7,558
Second quarter	1,733
Third quarter	19
Fourth quarter	50
Total	**9,360**

Bank Loans example

Barilla

The Italian Food Company. Since 1877.

The “Bank borrowings and leasing obligations” include an amortizing loan with the European Investment Bank (EIB) subscribed in January 2012 for euro 50,000 and expiring in 2020, the non-current portion outstanding as of 31 December 2018 amounted to euro 3,124 (euro 9,367), and also the non-current portion of 375 euro, for a new medium- long term loans, that has been issued during the year, with an initial amount of 536 euro; the maturity date is in January 2023, in the face of demand of non-repayable grant to region Piemonte (Italy), for an investment on energy-saving in plant of Novara.

The same line item includes the decrease of the portion of medium/ long-term leasing obligations mainly relating to the finance leases for the cogeneration plants in Italy, with a balance at year-end of euro 6,850 (euro 11,412).

The maturity dates of medium/long-term borrowings are illustrated in the table below:

	From 2 to 5 years	Over 5 years	Total
Bonds	115,109	293,171	**408,280**
Bank borrowings and leasing obligations	9,120	1,260	**10,380**
Total medium/long-term bank borrowings	**124,229**	**294,431**	**418,660**

Bank Loans example

Barilla
The Italian Food Company. Since 1877.

which type of interest rates ... floating rate
fixed for unclear situations

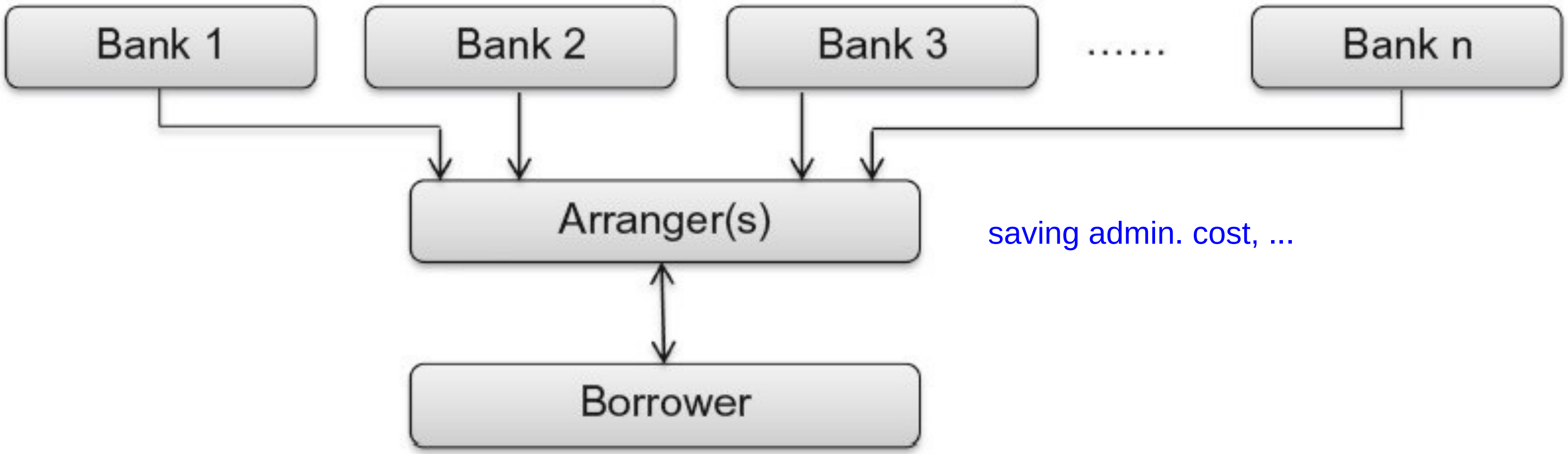
Borrower	Description	Interest rate	At 12/31/2018	Maturity
Barilla France	Bonds (including cross currency and interest rate swaps)	floating	85,252	2023
Barilla Iniziative	Bonds (including cross currency and interest rate swaps)	floating	277,793	2025 - 2027
Barilla Iniziative	EIB loan	floating	9,367	2020
Barilla G.e R. Fratelli Group	Banks	floating	9,175	2019 -2023
Barilla G.e R. Fratelli Group	Leasing companies	fixed	11,412	2019 - 2029
Total bank borrowings (either due within or after one year) *			**392,999**	

Syndicated bank loans

provided by several banks, the amount of money is so big, is not affordable for only one bank

bridge

- A syndicated loan is provided by a group of lenders. It is structured, arranged, and administered by one or several commercial or investment banks known as arrangers
- The aim is to lend money to a borrower with a unique contract. This allows the partition of credit that a stand-alone bank could not disburse.



saving admin. cost, ...

Example: Syndicated loan emission (ENI)

un'impresa integrata nell'energia

LONDON, April 4 2012 (Reuters) - Four banks are coordinating a **12 billion-**euro bridge loan for Italian oil and gas group Eni's proposed demerger or sale of gas grid operator Snam, which will be one of this year's biggest syndicated deals, banking sources said on Tuesday.

Coordinators BNP Paribas, JP Morgan Intesa and UniCredit are working with the Eni on the syndicated loan and are expected to underwrite it with the help of other banks, before the summer break.

Italy gave approval in January for the separation of ENI and Snam as part of the liberalization plans designed to cut energy costs for customers and business. This will also allow Eni to reduce debts on its balance sheet, paving the way for investment in exploration and production.

Eni, which owns a 53 percent stake in Snam that is worth around 7 billion euros, plans to exit the company by September 2013.

The bridge loan is the largest to emerge from southern Europe since 2007, when Italian utility Enel raised a 35 billion-euro loan to finance its joint bid with Acciona for 75% stake in Endesa.

Around 20 international commercial and investment banks have pitched for the deal, but not all are expected to underwrite the transaction

The term sheet sent out to banks details a **€6 billion loan deal maturing over one year,** with two extension options amounting to another 12 months**. The rest of the debt will be maturing over a tenor of up to five years.**

Example: Digi Communications

Digi Communications says secures syndicated loan worth 163 mln euros

1 MIN READ

Feb 5 (Reuters) - Cable and internet provider DIGI Communications N.V.

* Says Digi Group secured syndicated loan providing for three facilities in Hungarian forint, Romanian leu and euro currencies.

* Says the medium-term loan partially refinances a bridge loan from 2017 for a corresponding value of about 163 million euros ($202.95 million).

* Says it and its subsidiaries will use part of the loan to finance the acquisition by Digi Kft. of the Hungarian telecommunications operator Invitel Tavkozlesi Zrt, and the rest for general corporate spending and capital expenditures.

* The loan, which was arranged by Citibank and ING, has a five-year maturity and an annual interest rate of 2.65 percent. ($1 = 0.8031 euros) (Reporting by Luiza Ilie)

Our Standards: *The Thomson Reuters Trust Principles.*

Bank loans: concluding remarks

	Bank Loan	Syndicated Bank loan
Characteristics	• Loans are contractually defined and negotiated between the firm and the bank	• Loans are contractually defined and negotiated between the firm and the consortium of banks
Emission	• Financial intermediaries are not fundamental • A loan emission requires transparency and disclosure between the firm and the bank	• The arranger(s) manage the syndicated loan emission • A loan emission requires transparency and disclosure between the firm and the banks
Costs	• The cost for the company are the interest payment and reimbursement of capital • The transaction costs are lower than a syndicated loan	• The cost for the company are the interest payment and reimbursement of capital • The transaction costs are higher than a bank loan
Benefits	• The loan is customized and can be renegotiated more easily than syndicated loans	• The loan is customized but it can be renegotiated less easily than bank loan

Corporate bonds

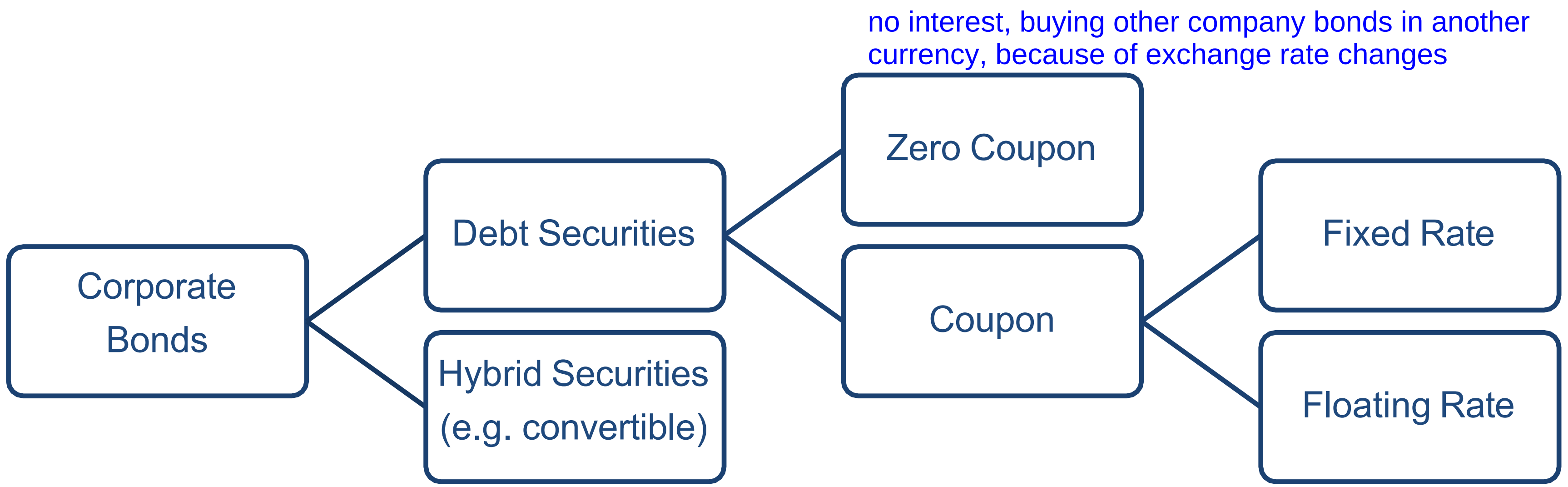
- A bond is a security that requires the issuer (i.e. company) to pay specified interests (coupons) and make principal payments to the bondholders at maturity or even on specified dates
- The bond emission can be targeted to
  - Institutional investors
  - Retail investors
  - Both

COUPON	• Interest to be paid to bondholders
MATURITY	• Contractual term or settlement of bonds

REPAYMENT SCHEME	• Scheduled repayment of interests: monthly, quarterly, semiannually, annually …
	• Scheduled repayment of capital:
	  • Bullet: the repayment of capital is at maturity date
	  • Amortized: the repayment of capital is amortized over time

PRIORITY IN CASES OF DEFAULT	• Priority in the repayment of interests and capital; bondholders have the priority on equity holders

Corporate bonds types



Zero coupon: the bond pays no coupon (this is unlikely for corporate bonds)

Coupon: the bond pays coupons over time

- Fixed rated coupon: the amount of coupon is contractually defined
- Floating rate coupon: the algorithm for computing the coupon is contractually defined

Corporate bond emission

Example: Bond emission (ENI)

un'impresa integrata nell'energia

San Donato Milanese (Milan), 9 September 2011 - CONSOB (the Italian Stock Exchange Regulator) approved the prospectus relating to the offer and the admission to listing on the Mercato Telematico delle Obbligazioni (MOT) of a maximum aggregate amount of 1 billion euro Eni bonds reserved exclusively for Italian retail investors.

Investors may subscribe fixed-rate bonds ("Eni TF 2011/2017"), floating-rate bonds ("Eni TV 2011/2017") or a combination of both

The proceeds of the offer, which was approved by the Eni Board of Directors on 27 April 2011, will be used for operating management purposes, included the refinancing and the consolidation of short term debt.

Investors can subscribe to the fixed or floating-rate bonds with a minimum investment of 2,000 euro, equal to 2 bonds, with the potential to increase their subscription further by at least 1 bond, with a par value of 1,000 euros per bond.

Subscribers will not be charged any subscription fees or commissions. Both fixed-rate and floating-rate bonds have a 6-year maturity and the principal will be repaid in full at maturity.

The bonds are listed on the Mercato Telematico delle Obbligazioni (MOT), organized and managed by Borsa Italiana S.p.A., where the investors will be able to trade their bonds once issued.

Example: Bond emission (ENI)

un'impresa integrata nell'energia

Issuer	**Eni S.p.A.**
Issuer rating	Moody's A1(05/10/2011) Standard & Poor's A+ (19/05/2010)
Market of negotiation	Borsa - Mercato telematico delle obbligazioni (MOT)
Underwriting group	Banca Imi and Unicredit
Selling group	Lead group: Banca Imi, Unicredit. Other: Poste Italiane and other commercial banks and intermediaries

	ENI TF 2011/2017	**ENI TV 2011/2017**
Number of bonds	1.109.565 (number of bondholders: 42.976)	215.011 (number of bondholders: 11.456)
Nominal value per bond	1.000 Euro	1.000 Euro
Nominal value of emission	1.109.565.000 Euro	215.011.000 Euro
Coupon (gross)	4,875% (annual)	EURIBOR (6m)+2,8% (annual)
Emission date	11 Oct 2011	11 Oct 2011
Maturity date	11 Oct 2017	11 Oct 2017
Capital value reimbursement	At maturity date	At maturity date

Example

The Italian Food Company. Since 1877.

	Nominal value in currency (USD thousands)	Nominal coupon in USD	Maturity	Carrying value	Hedging transaction		Effective average interest rate
					Nominal value in euro	Effective average interest rate	
	75,000	4.76%	15 July 2021	68,301	50,562	1.03% (V)	1.19%
	50,000	4.86%	15 July 2023	46,807	33,718	0.92% (V)	1.03%
	150,000	4.43%	13 Dec 2025	133,779	115,050	0.77% (V)	0.82%
	185,000	4.03%	28 Oct 2027	159,393	169,867	0.74% (V)	0.80%
Total Notes	**460,000**			**408,280**	**369,197**		

(V)Variable (Floating) interest rate

The interest rate and foreign exchange risks relating to the US Private Placements are hedged by cross currency and interest rate swaps, details of which are provided in note 7. The first tranche of the bonds amounting to USD 75 million was repaid on the maturity date in July 2018.

Corporate bonds: concluding remarks

Corporate Bonds	
Characteristics	• Bonds are standardized and address a plurality of investors • Bonds' characteristics are contractually defined by the issuer (no negotiation between the issuer and bondholders)
Emission	• Financial intermediaries are fundamental for a bond emission • A bond emission requires transparency and disclosure between the firm and the market
Costs	• The cost for the company are the coupon payment and reimbursement of capital • High transaction costs (e.g. fees, administrative, disclosure, marketing etc.) • Bond emission cannot be renegotiated • Bond emission is therefore affordable for investment-grade companies with a sound reputation
Benefits	• Bond emission allow the company to access a more extensive and liquid market

tradable

Leasing

package and equipment

- A lease is a contractual agreement between a lessee (user = company) and a lessor (the owner of the asset). The lease is targeted to a specific asset.
- It gives the right to the lessee to use an asset for a period, making periodic payments to the lessor.
- The lessor could be the asset manufacturer or an independent leasing company that buys the asset from the manufacturer and leases it out.

MATURITY	• Contractual term or settlement of the lease
REPAYMENT SCHEME	• Scheduled rent: monthly, quarterly, semiannually, annually

vending machines

Operating Leasing standardize

- An operating or service lease is usually signed for a period much shorter than the actual life of the asset
- The asset is generally standardized
- At the end of the life of the lease, the equipment reverts back to the lessor, who will either offer to sell it to the lessee or lease it to somebody else
  - The lessee usually has the option to cancel the lease and return equipment to the lessor.
- The ownership of the asset resides with the lessor, with the lessee bearing little or no risk if the asset becomes obsolete
- The lessee pays the rent but installation, maintenance and other costs are on the behalf of lessor

dimention of the company will be smaller! in balance sheet: less assets

IFRS 16

Summary of IFRS 16

right of use : leased! it is an asset

Objective

IFRS 16 establishes principles for the recognition, measurement, presentation and disclosure of leases, with the objective of ensuring that lessees and lessors provide relevant information that faithfully represents those transactions. [IFRS 16:1]

Accounting by lessees

Upon lease commencement a lessee recognises a right-of-use asset and a lease liability. [IFRS 16:22]

The right-of-use asset is initially measured at the amount of the lease liability plus any initial direct costs incurred by the lessee. Adjustments may also be required for lease incentives, payments at or prior to commencement and restoration obligations or similar. [IFRS 16:24]

Under the cost model a right-of-use asset is measured at cost less accumulated depreciation and accumulated impairment. [IFRS 16:30(a)]

Example: Operating Lease (Easyjet)

some of aircrafts

europe by easyJet

The overwhelming majority of major airlines do lease at least some of their aircraft.

Leasing allows airlines with weak balance sheets or with poor future prospects to increase capacity without locking capital.

This aircraft resell value is an important aspect to consider when comparing leasing vs purchasing, as well as tax incentives derived from amortization

The largest aircraft owners are aircraft leasing companies. For example, GECAS (General Electric Capital Aviation Services), the largest aircraft lessor, currently owns around 1,970 aircraft, being operated by 270 airlines around the world in over 75 countries.

Example: Operating Lease (Easyjet)

Fleet as at 30 September 2022 (excluding aircraft on a zero-rent basis)

	Owned	Leased	**Total**	% of fleet	Changes since Sep-21	Future deliveries	Purchase options	Purchase rights
A319	35	59	**94**	29%	(3)	–	–	–
A320	105	62	**167**	52%	7	–	–	–
A320neo	37	7	**44**	14%	7	135[1]	–	3
A321neo	4	11	**15**	5%	1	33[1]	–	–
	181	**139**	**320**[2]			**168**	**–**	**3**
Percentage of total fleet	57%	43%						

1. easyJet retains the option to alter the aircraft type of future deliveries, subject to providing sufficient notification to the OEM.
2. At 30 September 2022, easyJet was storing three operating leased aircraft which have been acquired for future operations. These are held at zero rent and are excluded from the fleet numbers.

Example: Operating Lease (Easyjet)

18. Leases

easyJet holds aircraft under leasing arrangements that are recognised as right of use assets and lease liabilities, with remaining lease terms ranging up to 10 years. easyJet is contractually obliged to carry out maintenance on these aircraft, and the cost of this is provided based on the number of flying hours, days and cycles operated and the estimated cost of the maintenance events. Further details are given in note 1.

Information in respect of right of use assets, including the carrying amount, additions and depreciation, are set out in note 11. Information in respect of the carrying value and interest arising on lease liabilities is set out in note 25 and note 2 respectively. A maturity analysis of lease liabilities is set out below.

Amounts recognised in the statement of cash flows	**Year ending 30 September 2022 £ million**	Year ending 30 September 2021 £ million
Capital payments	**(206)**	(261)
Interest payments	**(43)**	(41)

Lease liabilities	**30 September 2022 £ million**	30 September 2021 £ million
Maturity analysis - contractual undiscounted cash flows		
Less than one year	**(297)**	(251)
One to five years	**(723)**	(730)
More than five years	**(258)**	(316)
	(1,278)	(1,297)

Example: Operating Lease (Easyjet)

Lease liabilities included in the statement of financial position	**30 September 2022 £ million**	30 September 2021 £ million
Current	**(247)**	(189)
Non-current	**(866)**	(890)
Total	**(1,113)**	(1,079)

easyJet also enters into short-term leases and low-value leases which are not recognised as right of use assets and lease liabilities. The expense recognised in the year in relation to these leases is disclosed below.

Amounts recognised in income statement	**Year ending 30 September 2022 £ million**	Year ending 30 September 2021 £ million
Interest on lease liabilities	**43**	42
Expenses relating to low-value leases	**4**	5
Expenses relating to short-term wet leases	**53**	(14)
	100	33

The £14 million credit in the prior year recognised as expenses relating to short-term wet leases relates to the release of an accrual which was no longer required.

Finance Leasing

specific asset done specificly for that company
we get it from the producer of the asset. we garantee to pay for the lifetime of this asset

- Finance lease generally lasts for the life of the asset
- The asset is generally less standardized than operating lease
- At the end of the life of the lease, the equipment reverts back to the lessor but it is generally redeemed by the lessee
  - A financial lease generally cannot be cancelled !!!
- In many cases, the lessor is not obligated to pay insurance and taxes on the asset, leaving these obligations up to the lessee
- A finance lease imposes substantial risk on the shoulders of the lessee

Example: Finance Leasing

Barilla
The Italian Food Company. Since 1877.

- 2 cogeneration plants in Italy (redemption date 2020 and 2022)
- Several real estate finance lease in France (redemption date 2015)
- Mill plant in Germany (redemption date 2028)

Beni in leasing finanziario
Il valore netto contabile dei beni in leasing finanziario ammonta a 33.258 euro (38.055 euro) ed è relativo a:

	Terreni	Fabbricati	Impianti e macchinari	Altri beni	Totale
Saldo al 31/12/2013	**191**	**4.485**	**28.309**	**273**	**33.258**
Saldo al 31/12/2012	**191**	**4.717**	**32.993**	**154**	**38.055**

	31/12/2013	31/12/2012
Entro 1 anno	5.582	8.102
Da 1 a 2 anni	5.184	5.333
Da 2 a 3 anni	5.052	4.931
Da 3 a 4 anni	5.052	4.798
Da 4 a 5 anni	5.052	4.798
Oltre 5 anni	12.615	14.719
Totale valore pagamenti minimi futuri	**38.538**	**42.681**

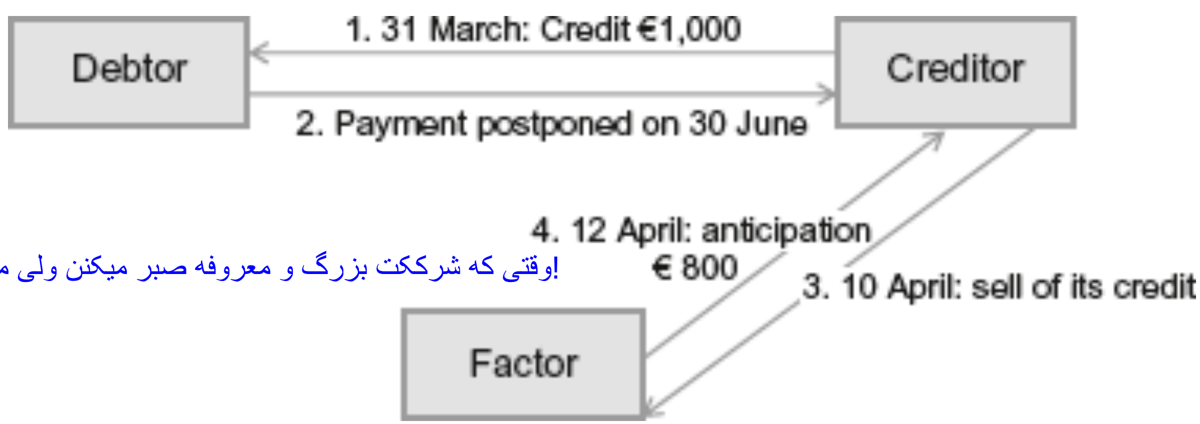
Leasing: concluding remarks

	Operating Lease	Finance Lease
Characteristics	• The leased property is usually standardized • The maturity of lease is shorter than the life of the asset • The lessor has the legal ownership of the asset and is in charge of installation and maintenance costs as well as other risks and charges.	• The lessee fund the availability of a good instrumental to its business (not as standardized as the operating lease) • The maturity of lease is generally equal to the life of the asset • The lessor has the legal ownership of the asset. The lessee is in charge of all other costs and risks at the end it's for comapny
Emission	• The lessee tends to renovate the contract or return the asset to the lessor (typically the redemption of the asset is not common)	• At the end of the contract the lessee usually redeems the asset
Costs	• The cost for the company is the rent	• The cost for the company is the rent and the amortization, interest and costs/fees to provide to the locator
Benefits	• The leasing allows to avoid the disbursement of the whole amount of investment to purchase the asset • The administrative procedures are simpler for leasing than for a bank loan • The leasing debt amortization is more flexible than the one of loans since it allows to model the debt service on the cash flow pattern	

Factoring

the money will be very fast, nevertheless it has a high interest

- Factoring is a credit service that concerns the acquisition of commercial credit by an intermediary (factor) in order to receive advance payments
- The factor pays a percentage to the counterparty as soon as it receives an assignment or the receivable



مثل چک فروختن میمونه!
وقتی که شرککت بزرگ و معروفه صبر میکنن ولی میان چک و قبض یکی دیگه رو میخرن!

INTEREST	• Interest is related to the percentage of discount on the face value of the commercial credit
MATURITY	• Contractual term
REPAYMENT SCHEME	• Scheduled repayment the day the debtor is supposed to pay

Factoring

the companies know each other well ...

The factoring agreement can be:

with recourse: guarantee that they receive the money

- ✓ the credit risk is on the creditor firm under reserve—i.e., the factor requires the return of anticipated amounts to the party who sells the credit in case the debtor does not fulfil its duties at maturity;

without recourse:

- ✓ the factor assumes the insolvency risk. In this case, the factoring cost for the creditor is comprehensive of this risk analysis, and in the case of insolvency, the factor cannot recoup costs from the client who gives the credit. This arrangement is a protection against bad debt quality, even if it is not costless.

Example: Factoring

The most significant trade receivables and revenues, in addition to those from joint ventures, are related to:

- Eurofighter in the scope of the EFA aeronautical programme;
- the Iveco - Oto Melara consortium for production and post-sales assistance on defence and security ground vehicles (VBM Freccia and PZH2000 self-propelled vehicle for the Italian Army);
- NH Industries in the scope of the NH90 helicopter programme;
- Orizzonte - Sistemi Navali for the FREMM programme;
- the Ferrovie dello Stato Italiane group for the supply of trains and systems.

The Group during the period disposed without recourse of receivables for a total carrying value of approximately €mil. 572 (€mil. 739 in the first nine months of 2013).

Finmeccanica, Interim financial report at 30 September 2014

Factoring: concluding remarks

Factoring	
Characteristics	• Factoring is contractually defined
Emission	• Financial intermediaries are not fundamental • Factoring requires transparency and disclosure between the firm and the factor. The factor should have information not only on the company but also on the debtor in order to easily value its insolvency risk
Costs	• The cost for the company equals the discount on the face value of the commercial credit • There are some transaction costs (e.g. fees, administrative, disclosure, etc.) • Factoring is affordable not only for investment-grade companies with a sound reputation • *Without* recourse factoring bears a higher discount percentage on the value of the credit due to the debtor insolvency risk
Benefits	• Factoring allows the company to have liquidity instead of waiting for the natural maturity of receivables • In case of a factoring without recourse, the company does not suffer the risk of insolvency of the debtor

Lines of credit

short term

expensive

like the credit card! for 100K € per month

no maturity date

- A line of credit is an available amount of money that a firm can borrow
- It is a very flexible option of financing
- It should be used for covering short-term cash imbalances due to the mismatching of operating cycle inflows and outflows; otherwise, it will become a very onerous obligation

INTEREST	• Interest to be paid to the bank • Fixed rate
MATURITY	• No contractual maturity
REPAYMENT SCHEME	• Scheduled repayment of interests: monthly, quarterly, semiannually, annually … • Repayment of capital: is not scheduled but it is amortized over time
PRIORITY IN CASE OF DEFAULT	• Priority in the repayment of interests and capital; debt holders have the priority on equity holders

Example: Lines of credit

Note 6. Short-term Borrowings and Long-term Debt

Short-term borrowings consist of commercial paper and lines of credit. Short-term borrowings at January 31, 2018 and 2017 were $5.3 billion and $1.1 billion , respectively, with weighted-average interest rates of 1.5% and 6.2% , respectively.

The Company has various committed lines of credit in the U.S., committed with 23 financial institutions, totaling $12.5 billion as of January 31, 2018 and 2017 , respectively. These committed lines of credit are summarized in the following table:

	As of January 31,					
	2018			2017		
(Amounts in millions)	Available	Drawn	Undrawn	Available	Drawn	Undrawn
Five-year credit facility [1]	$ 5,000	$ —	$ 5,000	$ 5,000	$ —	$ 5,000
364-day revolving credit facility [1]	7,500	—	7,500	7,500	—	7,500
Total	$ 12,500	$ —	$ 12,500	$ 12,500	$ —	$ 12,500

(1) In May 2017, the Company renewed and extended its existing five-year credit facility and its existing 364-day revolving credit facility, both of which are used to support its commercial paper program.

The committed lines of credit in the table above mature at various times between May 2018 and May 2022 , carry interest rates generally ranging between LIBOR plus 10 basis points and LIBOR plus 75 basis points, and incur commitment fees ranging between 1.5 and 4.0 basis points. In conjunction with the committed lines of credit listed in the table above, the Company has agreed to observe certain covenants, the most restrictive of which relates to the maximum amount of secured debt. Additionally, the Company also maintains other committed lines of credit outside of the U.S. with an available and undrawn amount of approximately $4.0 billion as of January 31, 2018 .

Apart from the committed lines of credit, the Company has trade and stand-by letters of credit totaling $2.6 billion and $3.6 billion at January 31, 2018 and 2017 , respectively. These letters of credit are utilized in normal business activities.

WALMART INC. 10-K report for the fiscal year ended January 31, 2018

Example: Lines of credit

- It is quite usual to have access to different credit lines. This is due to the fact that this multiple access could turn to generate a positive effect on the company liquidity in case of unpredicted situations in cash flows.

"We have made optimal use of the favorable conditions in a volatile environment and have created a long-term liquidity buffer with the early renewal of the existing credit line," Daimler Chief Financial Officer Bodo Uebber said in a statement.

Daimler said the credit line replaces an existing 9 billion euro syndicated credit line ahead of schedule and the new loan carries more favorable terms.

Lines of credit: concluding remarks

Lines of credit	
Characteristics	• It is a very flexible solution to manage cash inflows and outflows • There is not a contractually defined maturity
Emission	• Lines of credit are managed between the bank and the firm
Costs	• The interest rate is very high in comparison with other forms of financing • There could be some fees related to the maximum amount borrowed
Benefits	• It is a very flexible form to manage liquidity • It takes not a long period of time to have access to the line (i.e. days)

Exercise

Company JOY is preparing the budget for the accounting year 2021 (January-December 2021). While preparing the cash budgets, they realise that they will have a problem of cash in 2021. They consider to fix this problem with a bank loan of 20,000€ with a duration of five years to be activated on January 1st, 2021.

The bank offers to JOY different possibilities in terms of interest rate (always fixed), repayment of debt and commissions. There are three possibilities (A, B, C).

Exercise

OPTION A

- Annual fixed interest rate: 10%
- Commission: 3,200
- Repayment of debt: bullet (at maturity date)

OPTION B

- Annual fixed interest rate: 5%
- Commission: 200
- Repayment of debt: amortized

!!!درصد رو روی باقیمانده میدیم ۵

Exercise

OPTION C

کش فلو در انتهای سال اول رو حساب میکنه در نتیجه
هیچ فرقی بین سال اول این ۳ مورد نیست!
... حالا میریم مرحله بعد برای حساب کردن کلش
هدف اینه کل کاست او دبت رو کمتر بشه که جمع
اینترست و کامیشن هست.

- Annual fixed interest rate: 6%
- Commission: 0
- Repayment of debt: amortized

For all the three options:

- The payment of the debt interest will start in January 2021.
- The commission is upfront and must be paid the 1st January 2021, at the activation of the bank loan.
- In case of amortised loan, the amortisation is linear (equally divided across the 5 years), starts in 2021 and the annual repayment done at the end of the year.