# Property Finance: An International Approach

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## Hybrid Forms of Financing

**Chapter 7**

# Agenda

# 7.1 What does mezzanine financing mean? (1/4)

Hybrid forms of financing mainly **consist in mezzanine debt financing and preferred equity.**

**Mezzanine debt financing is fundamentally a subordinate debt**. The name derives from a credit position which is paid back after the senior debt but, at the same moment, it has a privileged position compared to traditional equity.

The use of mezzanine financing has some advantages for a company:

- it enables the debt ratio to be increased obtaining an higher equity expected return
- in RE sector, it enables projects to be terminated whilst retaining the control and participating to profit
- it allows to increase the leverage without changing the level of financial risk for senior lenders (i.e. issuing new senior debt is not required)

# 7.1 What does mezzanine financing mean? (2/4)

**Example 1:** consider an investment project with a value of €5 million financed according to **three different forms of structured financing:**

1. **Unlevered**: only equity with 15% unlevered expected return (only operational risk)
2. **Traditional financing**: senior debt (cost 6% per annum) and equity with an expected return of 24% (operational risk and moderate financial risk)
3. **Mezzanine financing**: senior debt (6% per annum), mezzanine in the form of junior debt (for the sake of simplicity, at an average overall cost of 10% per annum) and equity with a levered expected return of 40% (operational risk and high financial risk)

***Effects of different financial structures***

| | Unlevered | Senior Debt only | Mezzanine |
|---|---|---|---|
| **WACC** | **15.0%** | **11.9%** | **10.8%** |
| Exit | € 6,000 | € 6,000 | € 6,000 |
| Equity | € 5,000 | € 2,000 | € 750 |
| Profit | € 1,000 | € 4,000 | € 5,250 |
| Equity Multiple | 1.20 | 1.50 | 2.33 |

# 7.1 What does mezzanine financing mean? (3/4)

**Example 2:** purchase of an income producing property, though with the possibility of a requalification project. The purchase value is €10 million, which generates cash flows (for the sake of simplicity, after all operating costs) of €700,000. A restructuring project costing €3 million (capital expenditure) would enable annual cash flows to be increased to €1.1 million.
There are **three different scenarios:**

1. **Unlevered, equity only:** initial equity €10 million; post capex equity €13 million
2. **Traditional financing with senior debt** (6% per annum) for an amount equal to 70% (LTC) on the initial investment and without capex financing: initial equity €3 million; post capex equity €6 million
3. **Mezzanine financing:** alongside senior debt, mezzanine financing in the form of junior debt is used (at an average overall cost of 10% per annum) for an amount equal to 20% of the initial investment (which increases the overall LTV from 70% to 90%), thus financing 90% of capital expenditure: initial equity €1 million; post capex equity €1.3 million

# 7.1 What does mezzanine financing mean? (4 / 4)

***Effects of different financial structures***

| | | *Unlevered* | Senior Debt only | *Mezzanine* |
|---|---|---|---|---|
| | Current cash flow (i.e. rent) | € 700 | € 700 | € 700 |
| | Initial Investiment | € 10,000 | € 10,000 | € 10,000 |
| | Capital expenditure | € 3,000 | € 3,000 | € 3,000 |
| | Operating cash flow | € 1,100 | € 1,100 | € 1,100 |
| *70%* | Debt | | € 7,000 | € 7,000 |
| | Cost of debt | | 6.00% | 6.00% |
| *20%* | *Mezzanine financing* | | | € 2,000 |
| | *Cost of Mezzanine financing* | | | 10.00% |
| *90%* | *Mezzanine Capex* | | | € 2,700 |
| | *Mezzanine Cost* | | | 10.00% |
| | Equity (initial) | € 10,000 | € 3,000 | € 1,000 |
| | Equity (after capex) | € 13,000 | € 6,000 | € 1,300 |
| | Profit (initial) | € 700 | € 280 | € 80 |
| | Profit (after capex) | € 1,100 | € 680 | € 480 |
| | Initial yield | 7.00% | 9.33% | 8.00% |
| | Initial yield (after capex) | 8.46% | 11.33% | |

## 7.2 Procedures for establishing mezzanine finance and cost

A mezzanine finance contract is structured in order to combine characteristics of both debt and equity, this means **that the cost (or the expected return for the lender) is higher compared to a senior bank loan, whilst it is lower than the return expected by shareholders.**

The **cost of mezzanine** finance is therefore **dependent upon its two constituent elements:**

- **subordinate debt**, which constitutes in a bank loan with an interest rate which under normal market conditions will be between 400 and 600 basis points above the market rate for an equivalent maturity
- **an equity kicker**, directly linked to the market value of the venture capital for the project financed

The balance between the two components is linked to the level of LTV, for low level of LTV the debt component is prevailing, however as LTV increases the portion of equity kicker grows as well.

## 7.2 Procedures for establishing mezzanine finance and cost

**The debt component:** takes the form of structured financing, since bonds are only rarely issued in the real estate sector and are usually used by property companies. The debt component is usually medium to long-term, it is lower ranked than senior debt as regards interest and capital repayments, and it has a privileged status over equity only.

The debt components can have different forms:

• *zero coupon bonds*: without interest payments during their life, but issued at a discount from their face value

• *stepped interest*: during an initial period the investor receives interest payments that are lower than those prevailing in the market. Later, interest payments rise only momentarily at a level corresponding to that of interest currently offered by the market and in the final period leading up to maturity date the lender enjoys interest payments that are above the market level

• *roll-up:* it is the opposite of stepped interest, with initially elevated interest payments falling at a later stage

Used less frequently: non convertible/convertible bonds and bonds cum warrant

## 7.2 Procedures for establishing mezzanine finance and cost

**The equity kicker:** enables the mezzanine lender to benefit from any increases in the OMV of the asset financed. **The underlying rationale** is that the lender considers that, in view of an increase in the debt ratio, it is running a risk which is comparable to that of shareholders, and hence expects a return in line with their expected IRR. However, in order to achieve that result, it is not possible to increase the interest rate on the debt, since this would introduce excessive rigidity into the financial structure; so the best solution is to use an equity kicker enabling a variable link to be created between the return and the actual economic result.

Mezzanine lenders benefit from any increase in value of the asset financed:
• directly, through the sale of ordinary or preferred shares
• indirectly, through the allocation of warrants or call options on shares in the company financed

The **most common equity kickers** are:
• *warrants*
• *call options* on shares in the SPV
• *preferred shares* which are convertible into ordinary shares
• *back-end fees* paid when the debt component has been repaid in full

# 7.3 Covenants in a mezzanine financing

Hybrid forms of financing mainly **consist in mezzanine debt financing and preferred equity.**

**Mezzanine debt financing is fundamentally a subordinate debt**. The name derives from a credit position which is paid back after the senior debt, but, at the same moment, it has a privileged position compared to traditional equity.

The use of mezzanine financing has some advantages for a company:

- it enables the debt ratio to be increased obtaining an higher equity expected return
- in RE sector, it enables projects to be terminated whilst retaining the control and participating to profit
- it allows to increase the leverage without changing the level of financial risk for senior lenders (i.e. issuing new senior debt is not required)

# 7.4 Economic mechanics of hybrid financing

The definition of the set up of a hybrid financing is complex and laborious. The level of detail required by the contract of this form of financing is extremely high.

**Two different examples:**

1. Mezzanine financing for an income producing property

2. Preferred equity for development projects

## 7.4.1 Mezzanine financing for an income producing property

**Scenario:** consider an income producing property with a 6 year holding period. Assume there are annual increases in rent and in the value of the company.

**Two potential forms of financing**:

1. **Senior debt**, with repayment in the last year and annual financial charges.
2. **Mezzanine financing,** which constitutes of a subordinate junior debt with repayment in the last year and annual financial charge and of an equity kicker paid upon maturity of the loan, calculated on the mezzanine financing capital at an interest rate equal to the difference between the IRR of operating cash flow and financial charges (Kd) on the senior debt, multiplied by an equity kicker multiplier set under contract at 50%.

Example hypothesis:

| | | | |
|---|---|---|---|
| Acquisition price | € 15,000 | | |
| Net Operating Income | € 800 | | |
| NOI annual variation | 3% | | |
| Property Value annual increase | 2% | | |
| **Capital structure** | **LTV** | **Kd** | **EK** |
| Senior Debt | 65% | 5% | |
| Mezzanine | 20% | 8% | 50% |

# 7.4.1 Mezzanine financing for an income producing property

## *Cash flows with senior debt*

| IRR | | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|
| | Property Acquisition & Sale | -€ 15,000 | € 0 | € 0 | € 0 | € 0 | € 0 | € 16,892 |
| | Net operating Income | | € 800 | € 824 | € 849 | € 874 | € 900 | |
| ***6.63%*** | *Operating cash flows* | *-€ 15,000* | *€ 800* | *€ 824* | *€ 849* | *€ 874* | *€ 900* | *€ 16,892* |
| | Senior debt | € 9,750 | | | | | | -€ 9,750 |
| | Interests on Senior debt | | -€ 488 | -€ 488 | -€ 488 | -€ 488 | -€ 488 | -€ 488 |
| ***9.43%*** | **Levered cash flows** | **-€ 5,250** | **€ 313** | **€ 337** | **€ 361** | **€ 387** | **€ 413** | **€ 6,655** |

## *Leveraged cash flows of shareholders with mezzanine financing*

| IRR | | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|
| | Property Acquisition & Sale | -€ 15,000 | | | | | | € 16,892 |
| | Net operating Income | | € 800 | € 824 | € 849 | € 874 | € 900 | € 0 |
| 6.63% | *Operating cash flows* | *-€ 15,000* | *€ 800* | *€ 824* | *€ 849* | *€ 874* | *€ 900* | *€ 16,892* |
| | Senior debt | € 9,750 | | | | | | -€ 9,750 |
| | Interests on Senior debt | | -€ 488 | -€ 488 | -€ 488 | -€ 488 | -€ 488 | -€ 488 |
| 9.43% | *Levered cash flows post senior debt* | *-€ 5,250* | *€ 313* | *€ 337* | *€ 361* | *€ 387* | *€ 413* | *€ 6,655* |
| | Mezzanine | € 3,000 | | | | | | -€ 3,000 |
| | Interests on Mezzanine | | -€ 240 | -€ 240 | -€ 240 | -€ 240 | -€ 240 | -€ 240 |
| ***11.07%*** | ***Pre EK Cash Flows*** | **-€ 2,250** | **€ 73** | **€ 97** | **€ 121** | **€ 147** | **€ 173** | **€ 3,415** |
| | Equity Kicker | | | | | | | **-€ 146** |
| ***10.35%*** | **Free Cash flows to Equity** | **-€ 2,250** | **€ 73** | **€ 97** | **€ 121** | **€ 147** | **€ 173** | **€ 3,269** |

EK= €3,000*(6.63% - 5.00%)*50%*6 periods = €146

# 7.4.1 Mezzanine financing for an income producing property

## Returns for different types of capital

| IRR | | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|---|---|
| ***5.00%*** | Senior debt | -€ 9,750 | € 488 | € 488 | € 488 | € 488 | € 488 | € 10,238 |
| ***8.00%*** | Mezzanine (Debt only) | -€ 3,000 | € 240 | € 240 | € 240 | € 240 | € 240 | € 3,240 |
| ***8.65%*** | Mezzanine (including EK | -€ 3,000 | € 240 | € 240 | € 240 | € 240 | € 240 | € 3,386 |
| ***10.35%*** | Equity | -€ 2,250 | € 73 | € 97 | € 121 | € 147 | € 173 | € 3,269 |

## Relationship between changes in NOI and mezzanine financing

| | | LTV Mezzanine | | | | | |
|---|---|---|---|---|---|---|---|
| | ***10.35%*** | **0%** | **5%** | **10%** | **15%** | **20%** | **25%** |
| NOI Variation | **-4.0%** | 7.86% | 7.77% | 7.65% | 7.48% | 7.20% | 6.69% |
| | **-3.0%** | 8.08% | 8.02% | 7.93% | 7.82% | 7.63% | 7.28% |
| | **-2.0%** | 8.29% | 8.26% | 8.22% | 8.16% | 8.06% | 7.89% |
| | **-1.0%** | 8.51% | 8.51% | 8.51% | 8.51% | 8.51% | 8.50% |
| | **0.0%** | 8.74% | 8.77% | 8.81% | 8.86% | 8.96% | 9.12% |
| | **1.0%** | 8.96% | 9.02% | 9.11% | 9.22% | 9.41% | 9.76% |
| | **2.0%** | 9.20% | 9.29% | 9.41% | 9.59% | 9.88% | 10.40% |
| | **3.0%** | 9.43% | 9.55% | 9.72% | 9.96% | 10.35% | 11.06% |

Shareholders, using mezzanine financing, reach significantly higher profits, but in exchange for increased volatility. In the event of a reduction in NOI, the negative leverage effect of the mezzanine financing will reduce the ultimate profitability of the equity

## 7.4.2 Preferred equity for development projects

**Scenario:** consider a development project which provides for an initial stage involving negative operating cash flows, followed by a stage involving positive cash flows from property sales.

The project is financed using **senior debt** at 55% LTC with a yearly cost of 7%, the drawdown of which occurs on the basis of a WIP report in proportion with operating cash flows, whilst repayment is made at the level of the entire operating cash flow when positive. Financial charges are paid during the relevant period.
Furthermore, the possibility of using **preferred equity** for part of overall financing needs at 15% LTC is also considered, subject to the following privileges:
- priority repayment before equity for the full amount of available cash flow after senior debtors have been paid
- preferred share of profits up to the target IRR of 13%

Example hypothesis:

| Capital Structure | LTC | Rate |
|---|---|---|
| Senior Debt | 55% | 7% |
| Preferred Equity | 15% | 13% |

# 7.4.2 Preferred equity for development projects

## *Operating profitability and levered cash flows*

| IRR | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | Cash in | € 0 | € 0 | € 0 | € 0 | € 10,400 | € 23,400 | € 29,900 | € 36,300 | *€ 100,000* |
| | Cash out | € 13,000 | € 10,400 | € 15,600 | € 21,000 | € 0 | € 0 | € 0 | € 0 | *€ 60,000* |
| *12.94%* | **Operating cash flows** | **-€ 13,000** | **-€ 10,400** | **-€ 15,600** | **-€ 21,000** | **€ 10,400** | **€ 23,400** | **€ 29,900** | **€ 36,300** | ***€ 40,000*** |
| | Loan Balance BoP | € 0 | € 7,150 | € 12,870 | € 21,450 | € 33,000 | € 22,600 | € 0 | € 0 | |
| | ***Debt drawdown*** | ***€ 7,150*** | ***€ 5,720*** | ***€ 8,580*** | ***€ 11,550*** | ***€ 0*** | ***€ 0*** | ***€ 0*** | ***€ 0*** | ***€ 33,000*** |
| | Debt post drawdown | € 7,150 | € 12,870 | € 21,450 | € 33,000 | € 33,000 | € 22,600 | € 0 | € 0 | |
| | *Debt Reimbursment* | *€ 0* | *€ 0* | *€ 0* | *€ 0* | *€ 10,400* | *€ 22,600* | *€ 0* | *€ 0* | *€ 33,000* |
| | Loan Balance EoP | € 7,150 | € 12,870 | € 21,450 | € 33,000 | € 22,600 | € 0 | € 0 | € 0 | |
| | Interest charges | € 501 | € 901 | € 1,502 | € 2,310 | € 1,582 | € 0 | € 0 | € 0 | *€ 6,795* |
| *15.62%* | **Levered cash flows** | **-€ 6,351** | **-€ 5,581** | **-€ 8,522** | **-€ 11,760** | **-€ 1,582** | **€ 800** | **€ 29,900** | **€ 36,300** | ***€ 33,205*** |

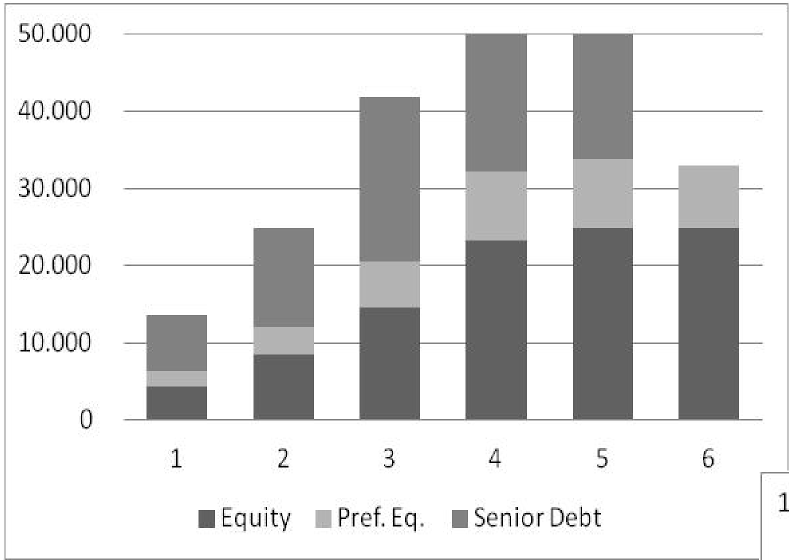
# 7.4.2 Preferred equity for development projects

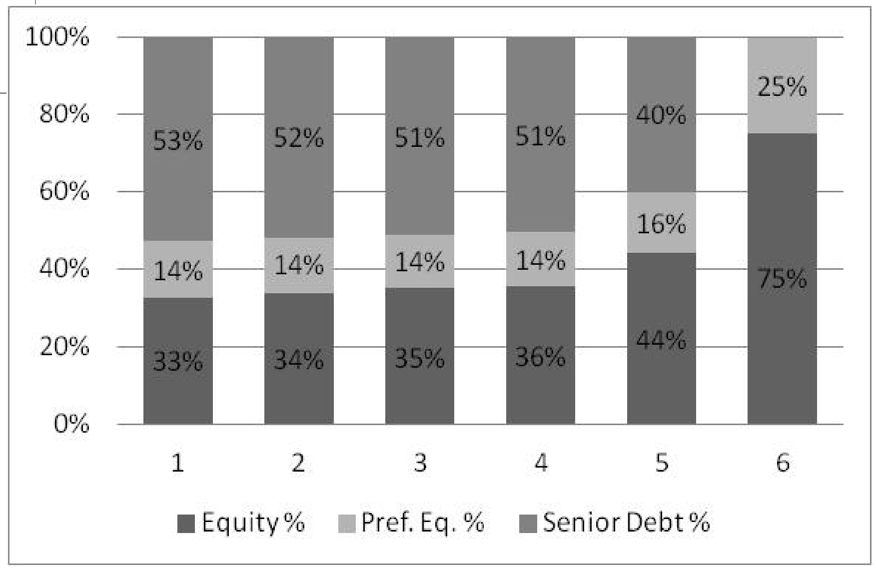
## *Cash flows with preferred equity*

| IRR | | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| *15.62%* | **Levered cash flows** | **-€ 6,351** | **-€ 5,581** | **-€ 8,522** | **-€ 11,760** | **-€ 1,582** | **€ 800** | **€ 29,900** | **€ 36,300** | ***€ 33,205*** |
| | Preferred Equity BoP | € 0 | € 1,950 | € 3,510 | € 5,850 | € 9,000 | € 9,000 | € 8,200 | € 0 | |
| | **Preferred Equity drawdown** | ***€ 1,950*** | ***€ 1,560*** | ***€ 2,340*** | ***€ 3,150*** | ***€ 0*** | ***€ 0*** | ***€ 0*** | ***€ 0*** | ***€ 9,000*** |
| | Preferred Equity post drawdown | € 1,950 | € 3,510 | € 5,850 | € 9,000 | € 9,000 | € 9,000 | € 8,200 | € 0 | |
| | *Preferred Equity Reimbursment* | *€ 0* | *€ 0* | *€ 0* | *€ 0* | *€ 0* | *€ 800* | *€ 8,200* | *€ 0* | *€ 9,000* |
| | Preferred Equity EoP | € 1,950 | € 3,510 | € 5,850 | € 9,000 | € 9,000 | € 8,200 | € 0 | € 0 | |
| *19.46%* | ***Levered cash flows post Pr. Eq.*** | ***-€ 4,401*** | ***-€ 4,021*** | ***-€ 6,182*** | ***-€ 8,610*** | ***-€ 1,582*** | ***€ 0*** | ***€ 21,700*** | ***€ 36,300*** | ***€ 33,205*** |
| | *Preferred Equity cash flows* | *-€ 1,950* | *-€ 1,560* | *-€ 2,340* | *-€ 3,150* | *€ 0* | *€ 800* | *€ 8,200* | *€ 0* | |
| *13.00%* | *Accrued Preferred Equity cash flows* | *-€ 4,588* | *-€ 3,248* | *-€ 4,311* | *-€ 5,136* | *€ 0* | *€ 1,022* | *€ 9,266* | *€ 0* | *-€ 6,995* |
| | *Preferred Equity Profit* | *€ 0* | *€ 0* | *€ 0* | *€ 0* | *€ 0* | *€ 0* | *€ 0* | ***€ 6,995*** | |
| *13.00%* | **Preferred Equity final cash flows** | **-€ 1,950** | **-€ 1,560** | **-€ 2,340** | **-€ 3,150** | **€ 0** | **€ 800** | **€ 8,200** | **€ 6,995** | *€ 6,995* |
| *16.54%* | **Equity cash flows** | **-€ 4,401** | **-€ 4,021** | **-€ 6,182** | **-€ 8,610** | **-€ 1,582** | **€ 0** | **€ 21,700** | **€ 29,305** | *€ 26,210* |
| | ***Total Equity*** | | | | | | | | | ***€ 24,795*** |

# 7.4.2 Preferred equity for development projects

## *Cash flows distribution over time*



# 7.4.2 Preferred equity for development projects

## Effects of change in the conditions applicable to preferred equity

| IRR Target Pref. Eq. | LTC Preferred Equity | | | | | | |
|---|---|---|---|---|---|---|---|
| **16.54%** | **0.00%** | **5.00%** | **10.00%** | **15.00%** | **20.00%** | **25.00%** | **30.00%** |
| **5.00%** | 15.62% | 16.42% | 17.41% | 18.59% | *20.05%* | 21.88% | 24.27% |
| **8.00%** | 15.62% | 16.24% | 17.01% | 17.94% | *19.09%* | 20.56% | 22.51% |
| **11.00%** | 15.62% | 16.02% | 16.53% | 17.15% | *17.93%* | 18.94% | 20.31% |
| **14.00%** | *15.62%* | *15.77%* | *15.97%* | *16.21%* | 16.51% | *16.92%* | *17.49%* |
| **17.00%** | 15.62% | 15.48% | 15.30% | 15.07% | *14.77%* | 14.37% | 13.78% |
| **20.00%** | 15.62% | 15.14% | 14.51% | 13.70% | *12.61%* | 11.06% | 8.66% |
| **23.00%** | 15.62% | 14.74% | 13.58% | 12.04% | *9.86%* | 6.56% | 0.84% |
| **26.00%** | 15.62% | 14.29% | 12.48% | 9.98% | *6.26%* | -0.05% | -15.34% |

The use of mezzanine financing means that the investment can be carried out with a reduced amount of equity and an increase in profits for shareholders. Investors in preferred equity obtain a higher return compared to senior debt lenders, although this corresponds to a higher risk.

## 7.5 Waterfall payout agreement

Development projects are characterised by the presence of **developers**, highly skilled players looking for capitals to operate in large scale projects, and **capital investors**, willing to reach high returns, but not skilled enough to manage a development scheme. Equity investors, due to both high operating and financing risk, cannot afford to invest capital in a complex development scheme alone, so they invest together with a third party developer that invests only a small portion of equity capital. However some strong alignment of interests and a risk split mechanic is required.

The traditional capital structure represents **an inverse hierarchy of risk and payment priority**, where debt holders have priority in payments carrying out the lowest risk, but with a maximum prefixed return equal to the effective interest rate.
On the other extreme of the line, equity investors support an higher risk being subject to a fluctuating return depending on the success of the project; finally, the developer, whose equity contribution is limited, but whose skills are essential to the success of the project, takes on the highest quantity of risk.

## 7.5 Waterfall payout agreement

**Internal Rate of Return Waterfall Payout Agreements (WPA)** allow all equity investors, both the equity partner and the developer, to participate in the scheme splitting profit and risk in a predefined way. The purpose is to create a scheme that shifts downside risk away from equity investors and provides greater upside potential return for the developer, with the final aim to raise capital in a more effective way.

This mechanism allows the equity partners, usually large financial institutions with huge real estate portfolios (but not specific technical development skills) and developers, operating companies with high intangibles (technical skills) and relative little available capital, to operate together.

The former will be able to invest money in real estate in a high risk/return profile area, the latter will be able to work on larger projects (or on more projects) compared to the available capital.

**While the developer skills are often essential for the success of the project, its return is subordinate to both bank and shareholder capital returns**. A traditional development payout split gives a preferred return to the equity investor and to the developer, according to some expected IRR thresholds; then the two partners split the rest with a **predefined proportion (e.g. 80/20).**

# 7.5 Waterfall payout agreement

## A practical example

**Qirefinvestors** is a financial institution with a several billion euro portfolio looking for opportunistic investments in real estate; it has a strong financial analysis background, but it does not have any specific property development management skills.

**Technicarc** is an experienced developer with more than thirty years successful track record ranging from offices to shopping centres; they operate in several countries and on different projects at the same time, receiving development fees, including performance fees and trying to minimize the amount of equity capital on every project. **Their new project is called Oldtimer Village**, a modern concept of shopping centre for vintage cars enthusiasts, whose **expected investment is estimated in €18 million**, while the d**eal closing is expected in 5 years** at a **disposal value of €27 million**. The capital structure is represented by a bank loan and equity provided by Qirefinvestors (equity capital partner) and, in a smaller amount, by Technicarc (developer capital)

For simplicity:

- a zero coupon bond is assumed, but the same results could be reached with a more common development loan
- an initial period investment only is considered, but the same results could be reached with a more realistic development cash flow time distribution
- no taxes and other costs are considered

# 7.5 Waterfall payout agreement

## A practical example

## Development project assumptions

| | Project data | Base Scenario |
|---|---|---|
| *a* | Years to conclusion | 5 |
| *b* | Investment | € 18,000,000 |
| *c* | Loan BoP | € 14,000,000 |
| *d* | Interest rate | 6% |
| *e* | Equity partner capital | € 3,000,000 |
| $f = b - c - d$ | Developer capital | € 1,000,000 |
| $g = c * (1 + d) \wedge a$ | Loan EoP | € 18,735,158 |
| *h* | Sale Price | € 28,000,000 |
| $i = h - e - f - g$ | Total profit | € 5,264,842 |
| $j = h - g$ | **Cash to distribute to all Equity** | **€ 9,264,842** |

Base Scenario: a successful project, with returns higher than the cost of capital for all the tranches of the capital structure.

# 7.5 Waterfall payout agreement

## A practical example

## Development project results with a traditional payout split

| | | | | |
|---|---|---|---|---|
| | **Traditional Payout - Base Scenario** | | | |
| *h* | Sale Price | € 28,000,000 | | |
| | | ***Equity partner*** | ***Developer*** | ***Total*** |
| *e; f* | *Return of capital* | *€ 3,000,000* | *€ 1,000,000* | *€ 4,000,000* |
| *k; l* | Target IRR | 8% | 7% | |
| *m; n = (e; f) *(1 + k; l) ^ a* | Preference earned | € 4,407,984 | € 1,402,552 | |
| *o = min (j; m) / p = min (j; n)* | Preference received | € 4,407,984 | € 1,402,552 | € 5,810,536 |
| *q; r; s = j - o - p* | Profit Split ratio | 80% | 20% | € 3,454,306 |
| *t = q *  s; u = r * s* | Profit Split | € 2,763,445 | € 690,861 | |
| ***v = o + t; w = p + u*** | **Total** | **€ 7,171,429** | **€ 2,093,413** | **€ 9,264,842** |
| | | | | |
| | **Cash Flow - Base Scenario** | **0** | **5** | **IRR** |
| | Project | -€ 18,000,000 | € 28,000,000 | **9.2%** |
| | All Equity | -€ 4,000,000 | € 9,264,842 | **18.3%** |
| | Equity partner | -€ 3,000,000 | € 7,171,429 | **19.0%** |
| | Developer | -€ 1,000,000 | € 2,093,413 | **15.9%** |

A traditional development payout split would just give a preferred 8% return to Qirefinvestors and 7% to Technicarc, than they would split the rest of the profit 80/20%.

# 7.5 Waterfall payout agreement

## A practical example

**Using a WPA a more progressive split is possible**. Qirefinvestors could get a higher part of returns at lower profit levels, while Technicarc would get a higher part at higher profit levels. The split is determined on the future value calculation of the total equity, based on the expected rate of returns. The parts agree to split profits as follows.

| Waterfall Payout Agreement | | |
|---|---|---|
| ***Target IRR*** | ***Equity Partner*** | ***Developer*** |
| 7% | 100% | 0% |
| 10% | 85% | 15% |
| 12% | 60% | 40% |
| > All Equity IRR | 50% | 50% |

In order to create a more progressive split the invested capital of each investor is capitalized at the target rate of return. All cash flows, both negative and positive, must be capitalised at the target rate of return until the end of the project. The total sum, as an absolute value, represents the cash flow enabling the target return to be achieved.

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## A practical example

In the example all the equity until reaching a 7% return is paid to Qirefinvestors, while no profit is paid to the developer Technicarc. That amount is then subtracted from the rest of the profit and the same calculation based on all equity is run at 10%, representing the second threshold of the split. The profit is thereafter split among equity in the predefined proportion (85% to Qirefinvestors and 15% to Technicarc in the example) and so on. After reaching the all equity IRR, the two partners split in equal part all the rest of the profit (€2.215.475 in the example).

| **Waterfall Payout - Base Scenari** | | | | | | | |
|---|---|---|---|---|---|---|---|
| Sale Price | € 28,000,000 | | | | | | |
| Cash to distribute to all Equity | € 9,264,842 | | | | | | |
| Total profit | € 5,264,842 | | | | | | |
| ***Target IRR*** | ***Time 0*** | ***Time 5*** | ***Profit*** | ***Split*** | ***Equity partner*** | ***Developer*** | ***Total*** |
| 7% | -€ 4,000,000 | € 5,610,207 | € 1,610,207 | 100% | € 1,610,207 | € 0 | |
| 10% | -€ 4,000,000 | € 6,442,040 | € 831,833 | 85% | € 707,058 | € 124,775 | |
| 12% | -€ 4,000,000 | € 7,049,367 | € 607,327 | 60% | € 364,396 | € 242,931 | |
| 18.29% | -€ 4,000,000 | € 9,264,842 | € 2,215,475 | 50% | € 1,107,738 | € 1,107,738 | |
| | | | | ***Profit*** | ***€ 3,789,399*** | ***€ 1,475,443*** | ***€ 5,264,842*** |
| | | | | ***Profit%*** | ***72%*** | ***28%*** | |
| | | | | ***Equity*** | ***€ 3,000,000*** | ***€ 1,000,000*** | ***€ 4,000,000*** |
| | | | | ***Total*** | ***€ 6,789,399*** | ***€ 2,475,443*** | ***€ 9,264,842*** |
| | | | | **IRR** | **17.74%** | **19.88%** | **18.29%** |

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## A practical example

**Different scenarios, by simulating a different sale price.**

| | *Worst Scenario* | *Base Scenario* | *Best Scenario* |
|---|---|---|---|
| Sale Price | € 25,500,000 | € 28,000,000 | € 31,000,000 |

The returns for the two investors are pretty different in the different scenarios.

| | Time 0 | Worst Cash Flow | Worst IRR | Base Cash Flow | Base IRR | Best Cash Flow | Best IRR |
|---|---|---|---|---|---|---|---|
| Project | -€ 18,000,000 | € 25,500,000 | **7.21%** | € 28,000,000 | **9.24%** | € 31,000,000 | **11.49%** |
| Loan | -€ 14,000,000 | € 18,735,158 | **6.00%** | € 18,735,158 | **6.00%** | € 18,735,158 | **6.00%** |
| All Equity | -€ 4,000,000 | € 6,764,842 | **11.08%** | € 9,264,842 | **18.29%** | € 12,264,842 | **25.12%** |
| Equity partner | -€ 3,000,000 | € 5,510,946 | **12.93%** | € 6,789,399 | **17.74%** | € 8,289,399 | **22.54%** |
| Developer | -€ 1,000,000 | € 1,253,896 | **4.63%** | € 2,475,443 | **19.88%** | € 3,975,443 | **31.79%** |

The WPA, compared to the traditional profit split based only on one threshold, allows to enhance the developer commitment, because of his lower return for lower project performance, by providing him an higher return when the project is successful.

# 7.5 Waterfall payout agreement

## A practical example

## IRR for different sale price

| *Sale Price* | *Equity* | *Equity Partner Traditional* | *Equity Partner WPA* | *Developer Traditional* | *Developer WPA* |
|---|---|---|---|---|---|
| *€ 25,500,000* | 11.08% | 11.51% | 12.93% | 9.77% | 4.63% |
| *€ 26,000,000* | 12.68% | 13.18% | 14.05% | 11.11% | 8.09% |
| *€ 26,500,000* | 14.19% | 14.76% | 15.02% | 12.39% | 11.53% |
| *€ 27,000,000* | 15.62% | 16.26% | 15.96% | 13.62% | 14.59% |
| *€ 27,500,000* | 16.99% | 17.68% | 16.86% | 14.79% | 17.35% |
| *€ 28,000,000* | 18.29% | 19.04% | 17.74% | 15.92% | 19.88% |
| *€ 28,500,000* | 19.54% | 20.34% | 18.60% | 17.01% | 22.20% |
| *€ 29,000,000* | 20.74% | 21.59% | 19.43% | 18.06% | 24.37% |
| *€ 29,500,000* | 21.90% | 22.78% | 20.24% | 19.07% | 26.39% |
| *€ 30,000,000* | 23.01% | 23.93% | 21.03% | 20.05% | 28.29% |
| *€ 30,500,000* | 24.08% | 25.04% | 21.79% | 21.00% | 30.09% |
| *€ 31,000,000* | 25.12% | 26.12% | 22.54% | 21.92% | 31.79% |

# 7.6 Intercreditor agreement

The **“intercreditor agreement”** is a tool aimed at **regulating creditors’ claim** in order to reduce the general level of risk by defining the security ranking under ordinary conditions and in case of default. The agreement clearly expresses all the creditor claims, covenants and guarantees.

In fact, in a mezzanine financing senior creditors ask for restrictions for mezzanine lenders in order to avoid the transfer of value to creditors with different seniority.

The main elements of this document are:

- the acknowledgement of their duties, rights and reciprocal obligations by both lenders
- the definitions and rules of construction and the approval of loans and loan documents
- the transfer of mezzanine loan or senior loan
- the foreclosure of separate collateral (where all guarantees are described and the lenders state that other guarantees not mentioned are no longer valid)
- the levels of subordinations of mezzanine loan
- the payment subordination (where all payment rules are stated)

  

# Contacts

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