Chapter 43
Mergers and demergers

When the financial manager celebrates a wedding (or a divorce!)

At first glance, this chapter might seem to repeat the previous ones in that selling a company almost always leads to linking it up with another. In everyday language we often talk of the merger of two companies, when in reality one company typically takes control of the other, using the methods described in the Chapter 42. In fact, all that we have previously said about synergies and company valuations will be used in this chapter. **The only fundamental difference we introduce here is that 100% of the seller's consideration will be in shares of the acquiring company and not in cash.**

In addition, because markets nowadays prefer "pure-play" companies, demergers have come back into fashion. We will take a look at them in Section 43.3.

Section 43.1
All-share deals

In this section, we will examine the general case of two separate companies that decide to pool their operations and redistribute roles. Before the business combination can be consummated, questions of valuation and power-sharing among the shareholders of the new entity must be resolved. Financially, the essential distinguishing feature among mergers and acquisitions is the nature of the consideration paid: 100% cash, a combination of cash and shares or 100% shares. Our discussion will focus on the last of these forms. Finally, we will not address the case of a company that merges with an already wholly-owned subsidiary, which raises only accounting, tax and legal issues and no financial issues.

1/ The different techniques

(a) Legal merger

A legal merger is a transaction by which two or more companies combine to form a single legal entity. In most cases, one company absorbs the other. The shareholders of the acquired company become shareholders of the acquiring company and the acquired company ceases to exist as a separate legal entity.

A legal merger is a combination of the assets and liabilities of two or more companies into a single legal entity.

From legal and tax points of view, this type of business combination is treated as a contribution of assets and liabilities, paid in new shares issued to the ex-shareholders of the acquired company. This type of transaction is often used in group restructuring, and it is rare to see two listed companies merge, as most of the time one launches an offer on the other. The opposite example is the merger between Procter & Gamble and Gillette in 2005 on the basis of 0.9774 Procter shares for every Gillette share.

(b) Contribution of shares

Consider the shareholders of companies *A* and *B*. Shareholders of company *B*, be they individuals or legal entities, can enter into a deal with company *A* wherein they **exchange their shares** of *B* for shares of *A*. In this case, companies *A* and *B* continue to exist, with *B* becoming a subsidiary of *A* and the shareholders of *B* becoming shareholders of *A*.

Financially and economically, the transaction is very close to the sale of all or part of company *B* funded by an equivalent issue of new company *A* shares, reserved for the shareholders of company *B*.

For listed companies, the most common approach for achieving this result is a share exchange offer as described in Chapter 42.

(c) Asset contribution

In a **contribution** (or transfer) **of assets**, company *B* contributes a portion of its assets (and liabilities) to company *A* in return for shares issued by company *A*.

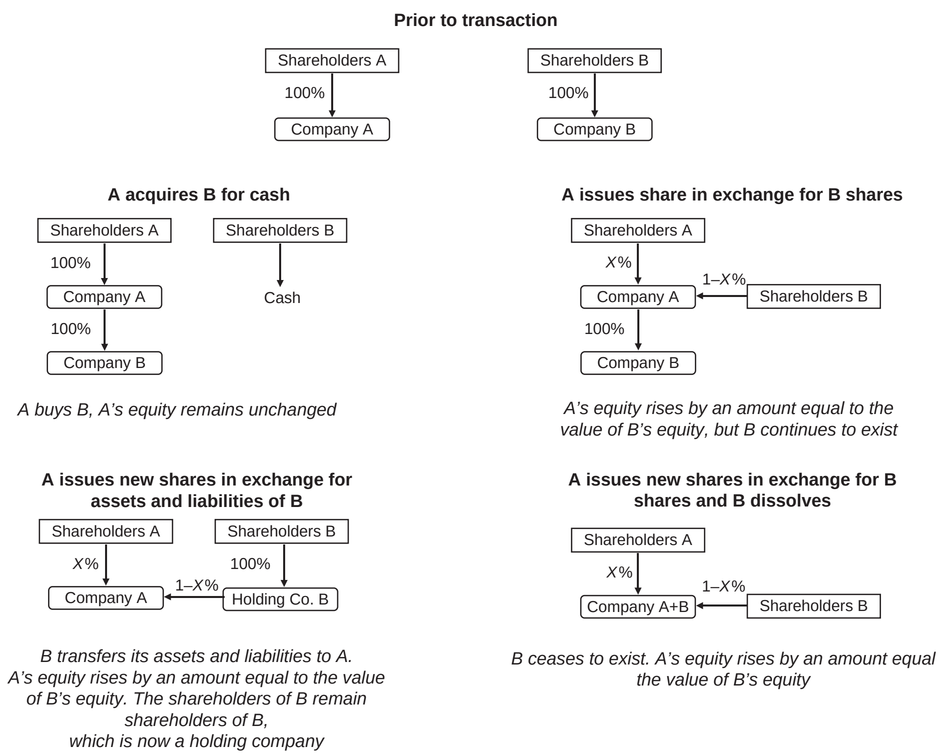
In a legal merger, the shareholders of company *B* receive shares of company *A*. In a transfer of assets, however, company *B*, not the shareholders thereof, receives the shares of company *A*. The position of company *B* shareholders is therefore radically different, depending on whether the transaction is a legal merger or a simple transfer of assets. In the transfer of assets, company *B* remains and becomes a shareholder of company *A*. Shareholders of *B* do not become direct shareholders of company *A*. In the legal merger, shareholders of *B* become direct shareholders of company *A*.

If company *B* contributes all of its assets to *A*, *B* becomes a holding company and, depending on the amount of the assets it has contributed, can take control of *A*. This procedure is often used in corporate restructurings to transfer certain activities to subsidiaries.

Economically, there is no difference between these transactions. The group created by bringing together *A* and *B* is economically identical regardless of how the business combination is effected.

As an example of asset contribution you can have a look at the Vivendi Games–Activision transaction in 2008. Vivendi contributed its video games assets (mostly the on-line game World of Warcraft) to Activision in exchange for 54% of the new Activision.

STRUCTURES FOR BUSINESS COMBINATIONS



2/ ANALYSIS OF THE DIFFERENT TECHNIQUES

For simplicity's sake, we will assume that the shares of both companies are fairly priced and that the merger does not create any industrial or commercial synergies. Consequently, there is no value creation as a result of the merger.

(a) From the point of view of the company

Companies *A* and *B* have the following characteristics:

(in €m)	Enterprise value	Value of shareholders' equity agreed in the merger
Company *A*	900	450
Company *B*	1000	750

Depending on the method used, the post-transaction situation is as follows:

(in €m)	*A* acquires *B* shares for cash[1]	*A* issues new shares in exchange for *B* shares and dissolves *B*	*A* issues new shares in exchange for *B* shares and *B* becomes a 100% subsidiary of *A*	*A* issues new shares in exchange for assets and liabilities of *B*
Value of *A*'s new capital employed (now $A + B$)	1900	1900	1900	1900
Value of *A*'s shareholders' equity	450	1200	1200	1200
Percentage of *A* held by *A* shareholders	100%	37.5%	37.5%	37.5%
Percentage of *A* held by *B* shareholders	–	62.5%	62.5%	62.5%[2]

1 *The acquisition of B is financed by debt, not a capital increase.*

2 *In fact, company B, not its shareholders, holds 62.5% of A.*

Enterprise value and consolidated operating income are the same in each scenario. Economically, each transaction represents the same business combination of companies *A* and *B*.

Financially, however, the situation is very different, even putting aside accounting issues. If *A* pays for the acquisition in shares, the shareholders' equity of *A* is increased by the shareholders' equity of *B*. If *A* purchases *B* for cash, the value of *A*'s shareholders' equity does not increase.

It can be noted that when the target is a listed company, a 100% successful share exchange offer is financially equivalent to a legal merger.

We reiterate that our reasoning here is strictly arithmetic and we are not taking into account any impact the transaction may have on the value of the two companies. If the two companies were already correctly priced before the transaction and there are no synergies, their value will remain the same. If not, there will be a change in value. **The nancial mechanics (sale, share exchange, etc.) have no impact on the economics of a business combination.**

This said, there is one important financial difference: an acquisition paid for in cash does not increase a group's financial clout (i.e. future investment capacity), but an all-share transaction creates a group with financial means which tend to be the sum of that of the two constituent companies.

From the point of view of the acquiring company, the only difference between a share exchange and a cash acquisition is in the financial clout of the new group.

In terms of value creation, our rules still hold, unless there are synergies or market inefficiencies.

(b) From the point of view of shareholders

A cash acquisition changes the portfolio of the acquired company's shareholders, because they now hold cash in place of the shares they previously held.

Conversely, it does not change the portfolio of the acquiring company's shareholders, nor their stake in the company.

An **all-share transaction** is symmetrical for the shareholders of *A* and *B*. No one receives any cash. When the dust settles, they all hold claims on a new company born out of the two previous companies. Note that their claims on the merged company would have been exactly the same if *B* had absorbed *A*. In fact, who absorbs whom is not so important; it is the percentage ownership the shareholders end up with that is important. Moreover, it is common for one company to take control of another by letting itself be "absorbed" by its "target".

Merger synergies are not shared in the same way. In a cash acquisition, selling shareholders pocket a portion of the value of synergies immediately (depending on the outcome of the negotiation). The selling shareholders do not bear any risk of implementation of the synergies. In an all-share transaction, however, the value creation (or destruction) of combining the two businesses will be shared according to the relative values negotiated by the two sets of shareholders.

In a cash acquisition, shareholders of the acquiring company alone assume the acquisition risks. In an all-share transaction, the risks are shared by the two groups of shareholders.

For the shareholders of company *B*, **a contribution of shares**, with *B* remaining a subsidiary of *A*, has the same effect as a legal merger of the two companies. An **asset contribution** of company *B* to company A is also very similar to a legal merger. The only difference is that, in an asset contribution, the claim of company *B's* ex-shareholders on company *A* is via company *B*, which becomes a holding company of company *A*.

3/ PROS AND CONS OF PAYING IN SHARES

In contrast to a cash acquisition, there is no cash outflow in an all-share deal, be it an exchange of shares, an asset contribution in return for shares, or a demerger with a distribution of shares in a new company. The transaction does not generate any cash that can be used by shareholders of the acquired company to pay capital gains taxes. For this reason, it is important for these transactions to be treated as "tax free".

What is the advantage of paying in shares? The efficient markets hypothesis, which analyses a merger as an acquisition followed by a capital increase, does not provide a satisfactory answer. Sometimes company managers want to change the ownership structure of the company so as to dilute an unwelcome shareholder's stake, constitute a group of core shareholders or increase their power by increasing the company's size or prestige. More importantly, paying in shares enables the company to skirt the question of financing and merge even with very large companies. Some critics say that companies paying in shares are paying for their acquisitions with "funny money"; we think that depends on post-merger ownership structure and share liquidity. And, most importantly, it depends on the ability of the merged company to harness anticipated synergies and create value. On p. 887 of Chapter 42, we provide a table setting out the pros and cons of payment in shares vs. cash.

Section 43.2
THE MECHANICS OF ALL-SHARE TRANSACTIONS

1/ RELATIVE VALUE RATIO AND EXCHANGE RATIO

In practice, a noncash merger requires first that the target company be valued. Then the acquiring company must be valued, since it must issue new shares to the target's shareholders. The ratio of shareholders' equity value of company *A* shareholders' equity value of company *B* is called **relative value**. To determine relative values, a full valuation of the two companies to be merged is generally performed, according to the methods described in Chapter 32. Such valuation is usually done on a standalone basis, with synergies valued separately.

Let us take another look at companies *A* and *B*, with the following key figures:

(in €m)	Value of shareholders' equity[3]	Value of shareholders' equity agreed in the merger
A (acquirer)	450	450
B (target)	680	750

3 *Market capitalisation if the companies are listed.*

The difference between the 750 agreed and the 680 is nothing but the result of a negotiation. *B* has succeeded in convincing *A* that either its market valuation underestimated its intrinsic value or that *A*'s market cap was over optimistic. Remember that during the negotiation of the relative value ratio, the companies will usually gather much more information than what has been made public.

In our example, the relative value ratio is 1.67 (750/450). In other words, *B* is deemed to be worth 1.67 times *A*. The agreed relative value ratio gives the ex-shareholders of *A* $1/(1 + 1.67)$ or 37.5% of the shares of the new company and the ex-shareholders of *B* $1.67/(1 + 1.67)$ or 62.5%.

If the relative value ratio were 1.5 – i.e. close to the ratio of the market capitalisation of the two companies, the ownership structure of the two shareholder groups would be different (40%/60%).

> The relative value agreed between the two companies determines who will own how much of the new company. As a result, this ratio will define the power each shareholder will wield after the transaction.

Once relative values have been determined, often after long, protracted negotiations, the **exchange ratio** is a direct result thereof. It is the ratio of the number of shares of company *A* to be tendered for each company *B* share received.

Once again, let's assume the following characteristics for companies *A* and *B*:

	Value of shareholders equity agreed in merger (€)	Number of shares	Value per share
A (acquirer)	450m	4,500,000	100
B (acquiree)	750m	3,750,000	200

In exchange for contribution of capital of 750m, *A* issues 7,500,000 (= 750m/100) new shares to the shareholders of *B*. Company B's 3,750,000 outstanding shares will be exchanged for the 7,500,000 newly-issued *A* shares. The exchange ratio is therefore 1 *B* share for 2 *A* shares (or 1 for 2).

Once relative values are determined, calculating the exchange ratio is a simple matter:

$$\text{Exchange ratio} = \text{Relative value ratio} \times \frac{\text{Premerger number of } A \text{ shares}}{\text{Premerger number of } B \text{ shares}}$$

$$\underset{\substack{(\ldots A \text{ shares for}\\ \text{one } B \text{ share})}}{2} = \underset{\substack{(B \text{ is worth} \ldots\\ \text{times } A)}}{1.67} \times 4{,}500{,}000/3{,}750{,}000$$

The difficulty is not so much in determining the per-share value of the acquired company as in establishing the **relationship that will serve as the basis for the exchange**. There is flexibility for the parties to set the value of shares as long as the exchange ratio is kept. We're not interested in calculating absolute shareholder equity values, but relative values. We often observe that the parties will both inflate values of their companies, but at the end of the negotiation all that matters is the relative value!

It is customary in the mergers and acquisitions business to examine the impact of the exchange ratio on the performance metrics generally monitored by the market. The most frequently-used measures are net income, cash flow, dividends, market capitalisation and sometimes book value[4] . . .

4 *Some analysts look at the impact on sales, EBITDA, or EBIT. We think these are inappropriate because they do not take account of the company's relative debt burden (i.e. relative weight of debt in the overall financing of the company).*

2/ DILUTION OR ACCRETION CRITERIA

To help refine our analysis, let us suppose companies *A* and *B* have the following key financial elements:

(in €m)	Sales	Net income	Book equity	Value of shareholders' equity
A	1500	15	250	450
B	5000	35	450	680

Putting aside for one moment potential industrial and commercial synergies, the financial elements of the new company $A + B$ resulting from the merger with *B* are as follows:

(in €m)	Sales	Net income	Book equity	Value of shareholders' equity
Group $A + B$	6500	50	700	1130

In theory, the value of the new entity's shareholders' equity should be the sum of the value of the shareholders' equity of *A* and *B*. In practice, it is higher or lower than this amount, depending on how advantageous investors believe the merger is.

Using the agreed relative value ratio of 1.67, our performance measures for the new group are as follows:

(in €m)	Group net income	Group book equity	Theoretical value of group shareholders' equity
The ex-shareholders of *A* have a claim on: vs. before the transaction:	18.75 15	262.5 250	423.75 450
The ex-shareholders of *B* have a claim on: vs. before the transaction:	31.25 35	437.5 450	706.25 680
TOTAL Before transaction After transaction	50 50	700 700	1130 1130

As a result of the agreed relative value ratio, the ex-shareholders of *B* suffer a **dilution** (reduction) in book equity, as their portion declines from 450m to 437.5m, and in their share of the net income of the new entity. At the same time, they enjoy an **accretion** in their share of the new group's theoretical market capitalisation from 680m to 706.25m. Naturally, the situation is the opposite for the ex-shareholders of A.

When *A* absorbs *B* via a share exchange, if the relative value of (*B*/*A*) is less than the relative ratio calculated for a given reference metric (value of shareholders' equity, book value, net income, etc.), the ex-shareholders of *A* enjoy an accretion in value for that metric.
On the other hand, when the agreed relative value of (*B*/*A*) is higher than the reference metric, *A*'s shareholders will suffer dilution for that metric.

Turning our attention now to the earnings per share of companies *A* and *B*, we observe the following:

5 *Price/Earnings ratio.*

	Value of shareholders' equity (€m)	Net income (in €m)	P/E[5]	Number of shares (million)	Earnings per share
Company *A*	450	15	30	4.5	3.33
Company *B*	680	35	19.4	3.75	9.33

6 *Before goodwill.*

On the basis of the relative value ratio agreed in the merger (750/450), the earnings per share[6] of the new group *A* now stand at (15 + 35) /(4.5 + 7.5) or 4.17 per share. EPS have risen from 3.33 to 4.17, representing an increase of more than 25%. The reason is that the portion of earnings deriving from ex-company *B* is purchased with shares valued at *A*'s P/E multiple of 30 (450/15), whereas *B* is valued at a P/E multiple of 21

(750/35). Company *A* has issued a number of shares that is relatively low compared with the additional net income that *B* has contributed to *A*'s initial net income.

Earnings per share (before acquisition accounting) automatically increase when the P/E of the acquiring company is greater than the P/E of the acquired company (and vice versa).

The reasoning is similar for other performance metrics, such as cash flow per share.

3/ SYNERGIES

As an all-share merger consists conceptually of a purchase followed by a reserved capital increase, the sharing of synergies is a subject of negotiation just as it is in the case of a cash purchase.

In our example, let us suppose that synergies between *A* and *B* will increase the after-tax income of the merged group by €10m from the first year onwards.

The big unknown is the credit and the value investors will ascribe to these synergies:

- 300m – i.e. a valuation based on *A*'s P/E multiple of 30;
- 194m – i.e. a valuation based on *B*'s P/E multiple of 19.4;
- 226m – i.e. a valuation based on a P/E multiple of 22.6, the average of the P/Es of *A* and *B*;
- some other value.

Two factors lead us to believe that investors will attribute a value that is lower than these estimates:

- The amount of synergies announced at the time of the merger is only an estimate and the announcers have an interest in maximising it to induce shareholders to approve the transaction. In practice, making a merger or an acquisition work is a managerial challenge. You have to motivate employees who may previously have been competitors to work together, create a new corporate culture, avoid losing customers who want to maintain a wide variety of suppliers, etc. Experience has shown that
  - more than half of all mergers fail on this score;
  - actual synergies are slower in coming;
  - the amount of synergies is lower than originally announced.
- Sooner or later, the company will not be the only one in the industry to merge. Because mergers and acquisitions tend to come in waves, rival companies will be tempted to merge for the same reasons: unlock synergies and remain competitive. As competition also consolidates, all market participants will be able to lower prices or refrain from raising them, to the joy of the consumer. As a result, the group that first benefited from merger synergies will be forced to give back some of its gains to its customers, employees and suppliers.

A study of the world's largest mergers and acquisitions shows that the P/E multiple at which the market values synergies when they are announced is well below that of both the acquiring company and the target.

Based on this information, let's assume that the investors in our example value the €10m p.a. in synergies at a P/E of 12, or €120m.

The value of shareholders' equity of the new group is therefore:

$$450 + 680 + 120 = 1250\text{m}$$

Value is created in the amount of $1250 - 1130 = 120$m. This is not financial value creation, but the result of the merger itself, which leads to cost savings or revenue enhancements. The €120m synergy pie will be shared between the shareholders of *A* and *B*.

At the extreme, the shareholders of *A* might value *B* at 800m. In other words, they might attribute the full present value of the synergies to the shareholders of *B*. The relative value ratio would then be at its maximum, 1.78.[7] Note that in setting the relative value ratio at 1.67, they had already offered the ex-shareholders of *B* 84%[8] of the value of the synergies!

The relative value ratios of 1.19[9] and 1.78 constitute the upper and lower boundaries of the negotiable range. If they agree on 1.19, the shareholders of *A* will have kept all of the value of the synergies for themselves. Conversely, at 1.78, all of the synergies accrue to the shareholders of *B*.

The relative value choice determines the relative ownership stake of the two groups of shareholders, *A*'s and *B*'s, in the post-merger group, which ranges from 45.6%/54.4% to 36%/64%. The difference is significant!

Determining the value of potential synergies is a crucial negotiating stage. It determines the maximum merger premium that company *A* will be willing to pay to the shareholders of *B*:

- large enough to encourage shareholders of *B* to approve the merger;
- small enough to still be value creating for *A*'s shareholders.

7 $(680 + 120)/450$.

8 $(62.5\% \times 1250 - 680)/120$.

9 $680/(450 + 120)$.

4/ THE "BOOTSTRAP GAME"

Until now, we have assumed that the market capitalisation of the new group will remain equal to the sum of the two initial market capitalisations. In practice, a merger often causes an adjustment in the P/E, called a **rerating** (or eventually a derating!). As a result, significant transfers of value occur to and between the groups of shareholders. These value transfers often offset a sacrifice with respect to the post-merger ownership stake or a post-merger performance metric.

If we assume that the new group *A* continues to enjoy a P/E ratio of 30 (ignoring synergies), as did the pre-merger company *A*, its market capitalisation will be 1500m. The ex-shareholders of *A*, who appeared to give up some relative value with regard to the post-merger market cap metric, see the value of their share of the new group rise to 562.5m,[10] whereas they previously owned 100% of a company that was worth only 450m. As for the ex-shareholders of *B*, they now hold 62.5% of the new group, a stake worth 937.5m, vs. 100% of a company previously valued at only 680m.

10 $3.75\% \times 1500$.

Whereas it seemed *A*'s shareholders came out losing, in fact it's a win-win situation. The transaction is a money machine! The limits of this model are clear, however. *A*'s pre-merger P/E of 30 was the P/E ratio of a growth company. Group *A* will maintain its level of growth after the merger only if it can light a fire under *B* and convince investors that the new group also merits a P/E ratio of 30.

This model works only if company *A* keeps growing through acquisition, "kissing" larger and larger "sleeping beauties" and bringing them back to life. If not, the P/E ratio of the new group will simply correspond to the weighted average of the P/E ratios of the merged companies.[11]

You have probably noticed by now that it is advantageous to have a high share price, and hence a high P/E ratio. They allow you to issue highly-valued paper to carry out acquisitions at relatively low cost, all the while posting automatic increases in earnings per share. You undoubtedly also know how to recognise an accelerating treadmill when you see one . . .

11 *This is a variant of the tale Warren Buffett told Berkshire Hathaway shareholders in his February 1982 letter to shareholders. http://www.berkshirehathaway.com/letters/1981.html*

The higher a company's P/E ratio is, the more attractive it is for the company to make acquisitions.

The potential immediate rerating after the merger does not guarantee creation of shareholder value. In the long run, only the new group's economic performance will enable it to maintain its high P/E multiple.

5/ WHICH WAY SHOULD THE MERGER GO?

Is *A* going to absorb *B* or the reverse? Several factors have to be taken into account.

Whether the company is listed or not is a factor, since in a merger between a listed and unlisted company, it is likely that the listed company will take over the unlisted one in order to simplify administrative procedures and to avoid an exchange of shares for the hundreds or the thousands or even hundreds of thousands of shareholders of the listed company.

There are of course legal considerations when agreements signed by the acquired company contain a change of control clause, for example in the concessions sector or for loan agreements, with some loans falling due immediately.[12]

12 *This is how TF1 was able to take full control over Eurosport after its partner Canal + was merged into Vivendi Universal.*

There are also psychological reasons why sometimes it makes more sense to continue trading under the name or structure of an entity which has been in existence for a very long time and which has great sentimental value for management and shareholders. In such cases, it is the oldest structure that becomes the acquiring company.

There are also some managers who believe that they will be in a better position within the new structure if their company is the acquiring rather than the acquired company. There are others who wish to make a symbolic statement about where the power lies.

Then there are those who are obsessed with EPS who are keen for the acquiring company to be the one with the highest P/E ratio, so the merger will be acrretive in terms of EPS. Our readers will know how cautiously we tread when it comes to EPS.[13]

13 *See Chapter 19.*

In some countries, the tax issue is the main factor in deciding which way the merger should go. The acquired company loses all of its tax loss carryforwards, while the acquiring company is allowed to hold onto its own. Elsewhere, it is possible for the company resulting from the merger of two companies to hold onto the tax loss carryforwards of the company that is acquired, providing that the merger is not being carried out solely for tax reasons. This reduces the importance of the tax issue in deciding who should take over whom.

Section 43.3
DEMERGERS AND SPLITOFFS

Demergers are not uncommon in countries where their tax treatement is not punitive.

1/ PRINCIPLES

The principle of a demerger is simple. A group with several divisions, in most cases two, decides to separate them into distinct companies. The shares of the newly-created companies are distributed to the shareholders in exchange for shares of the parent group. The shareholders, who are the same as the shareholders of the original group, now own shares in two or more companies and can buy or sell them as they see fit.

There are two basic types of transactions, depending on whether, once approved, the transaction applies to all shareholders or gives shareholders the option of participating.

- A **demerger** is a separation of the activities of a group: the original shareholders become the shareholders of the separated companies. The transaction can be carried out by distributing the shares of a subsidiary in the form of a dividend (a spinoff), or by dissolving the parent company and distributing the shares of the ex-subsidiaries to the shareholders (a splitup). Immediately after the transaction, the shareholders of the demerged companies are the same, but ownership evolves very quickly thereafter.
- In a **splitoff**, shareholders have the option to exchange their shares in the parent company for shares in a subsidiary. To avoid unnecessary holdings of treasury shares, the shares tendered are cancelled. A splitoff is a share repurchase paid for with shares in a subsidiary rather than in cash. If all shareholders tender their shares, the splitoff is identical to a demerger. If the offer is relatively unsuccessful, the parent company remains a shareholder of the subsidiary.

2/ WHY DEMERGE?

Broadly speaking, studies on demergers have shown that the shares of the separated companies outperform the market, both in the short and long term.

In the context of the efficient markets hypothesis and agency theory, demergers are an answer to conglomerate discounts (see Chapter 40). In this sense, a demerger creates value, because it solves the following problems:

- Allocation of capital within a conglomerate is suboptimal, benefiting divisions in difficulty and penalising healthy ones, making it harder for the latter to grow.
- The market values primary businesses correctly but undervalues secondary businesses.
- The market has trouble understanding conglomerates, a problem made worse by the fact that virtually all financial analysts are specialised by industry. With the number of listed companies constantly growing and investment possibilities therefore

expanding, investors prefer simplicity. In addition, large conglomerates communicate less about smaller divisions, thus increasing the information asymmetry.
- Lack of motivation of managers of non-core divisions.
- Small base of investors interested by all the businesses of the group.
- The conglomerate has operating costs that add to the costs of the operating units without creating value.

Demergers expose the newly-created companies to potential takeovers. Prior to the demerger, the company might have been too big or too diverse. Potential acquirers might not have been interested in all of its businesses. And the process of acquiring the entire company and then selling off the unwanted businesses is cumbersome and risky. A demerger creates smaller, pure-play companies, which are more attractive in the takeover market. Empirically, it has been shown that demerged subsidiaries do not always outperform. This is the case when the parent company has completely divested its interest in the new company or has itself become subject to a takeover bid.

Lastly lenders are not great fans of demergers. By reducing the diversity of activities and consequently potentially increasing the volatility of cash flows, they increase the risk for lenders. At one extreme, the value of their debt decreases if the transaction is structured in such a way that one of the new companies carries all the debt, while the other is financed by equity capital only.

In practice, however, debtholders are rarely spoiled that way. Loan agreements and bond indentures generally stipulate that, in the event of a demerger, the loan or the bonds become immediately due and payable.

Consequently they are in a position to negotiate demerger terms that are not unfavourable to them. This explains why empirical studies have shown that, on average, demergers lead to no transfer of value from creditors to shareholders.

Because of their complexity and the detailed preparation they require, demergers are less frequent than mergers. Examples include Time Warner and AOL's dial-up service, Procter & Gamble and Folger (coffee), Bayer (pharmacy) and Lanxess (chemicals), Total (oil) and Arkema (chemicals), Electrolux (appliance) and Husqvarna (outdoor power products).

In a study published in 2004, Veld and Veld-Merkoulova show evidence based on a European sample of demergers that demergers do create value. As demonstrated in some US studies, the abnormal returns following the announcement of a demerger are on average around 2–4% (depending on the sample used).

Demerging is not a panacea. If one of the demerged businesses is too small, its shares will suffer a deep liquidity discount. And not all conglomerates are financial failures: General Electric and Bouygues are two prominent examples to the contrary.

If we wanted to be cynical, we might say that demergers represent the triumph of sloth (investors and analysts do not take time to understand complex groups) and selfishness (managers want to finance only the high-performance businesses).

But it's also the triumph of modern financial theory, which says that enterprises that bring together unrelated businesses without creating value will not stay as a group indefinitely.

SUMMARY

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Business combinations, commonly referred to as mergers and acquisitions, can take many forms. The most important distinction among them is the method of payment: (i) cash or cash and shares or (ii) 100% in shares.

All-share deals can take several forms:

- **legal merger**: two or more companies are combined to form a single company. In general, one company is dissolved and absorbed into the other;
- **contribution of shares**: the shareholders of company *B* exchange their shares for shares of company *A*;
- **asset contribution**: company *B* transfers a portion of its assets to company A in exchange for shares issued by company *A*.

The economics of the business combination are independent of the financial arrangements. This said, in an all-share deal the resources of the two entities are added together, increasing the merged company's financial capacity, compared with what it would have been after the conclusion of a cash deal. Also, in an all-share deal, all the shareholders of the resulting group share the risks of the merger. When the deal is negotiated, the companies are valued and the **relative value ratio** and **exchange ratio** are set. The exchange ratio is the number of shares of the acquiring company that will be exchanged for the tendered shares of the acquired company. The relative value ratio determines the position of each group of shareholders in the newly-merged group.

The higher a company's P/E ratio is, the more tempted it will be to carry out acquisitions by issuing shares, because its earnings per share will automatically increase. But be careful! No value is automatically created. The increase in EPS is only a mathematical result deriving from the difference between the P/E ratios of the acquirer and the acquiree. At the same time, the P/E ratio of the new entity declines, because the market capitalisations of the new group should theoretically correspond to the sum of the market capitalisation of the two companies prior to the merger. Sometimes the new company's P/E ratio stays the same as the acquiring company's P/E ratio. We call this the "magic kiss" effect, because it implies that the company has only to "wake up" the "sleeping beauty" it has acquired. In each case, the value of the merger synergies is added to the value of the new company. How they are shared by the two groups of shareholders determines the premium the acquiring company will pay to the target's shareholders to persuade them to participate in the deal.

A demerger is a simple concept. A diversified group decides to separate several business divisions into distinct companies and to distribute the shares of the new companies to shareholders in return for shares of the parent group. It is often an answer to too low a valuation for a group with too far-flung activities.

The value created by a demerger can be analysed as follows:

- unlocking the value trapped in the conglomerate discount (efficient markets hypothesis);
- increasing the motivation of the managers of the newly independent company (agency theory).

A demerger results in companies being more exposed to takeover bids.

QUESTIONS

@ quiz

1/What is the fundamental difference between a merger and a sale:

- for the shareholder of the acquired company?
- for the acquiring company?
- for the shareholder of the acquiring company?
- for the acquired company?

2/Unlike what happens when a company is sold, when companies merge, their shareholders' equity is added together. Why?

3/In your view, what are the possible reasons behind a merger? And a demerger?

4/Ignoring tax issues, would a shareholder with a 51% controlling interest in a company be better off buying another company or merging with it?

5/Is the dilution of EPS that follows all mergers generally greater or less than that which follows a standard capital increase?

6/Why is the determination of the exchange parity important?

7/What is the difference between the relative value ratio and the exchange ratio?

8/When negotiating, is agreement first reached on the relative value or on the calculation method?

9/Why do shareholders in an acquired company agree to the dilution of their shareholdings after completion of the merger?

10/Where does the creation of value lie in a merger?

11/Why are the legal procedures related to mergers so onerous?

12/In what circumstances can a demerger lead to creation of shareholder value? And value for creditors?

13/Can the success of a merger be judged by comparing the market performance of the new entity with that of the reference index?

14/Can the success of a merger be judged by looking at the change in share price of the companies when the merger is announced?

EXERCISES

1/ Alpha AG is wholly owned by Mr Alpha and Beta AG is wholly owned by Mr Beta. The key figures for the two companies are as follows:

	Net profit	Equity value	Book equity
Alpha	60	750	800
Beta	30	1500	400

Alpha acquires Beta. Calculate the shareholdings (as a percentage) of Mr Alpha and Mr Beta using net profits, equity value and book equity. What are your conclusions?

2/ Below are the key figures for Gamma plc and Delta plc:

	Net profit	Book equity	P/E	Number of shares
Gamma	20	60	50	2000
Delta	40	300	8	1000

(a) Gamma acquires Delta. The criterion selected for calculation purposes is equity value. Calculate the old and new EPS, equity per share, and the percentage of the shareholdings of the former shareholders of Gamma in the new entity.
(b) Redo the calculations with a P/E for Gamma of only 15, and then 6.
(c) What are the minimum and maximum relative values if the synergies that come out of the merger increase the profits of the new group by 10, and if the new group is valued on the basis of a P/E of 21? What would the ratios be then?
(d) What is the value of Epsilon, the new name for the merged Gamma and Delta (still with synergies of 10) if it is valued on the basis of a P/E of 50?
(e) What is the value created and what does it represent?

ANSWERS

Questions

1/ *The shareholder of the acquired company receives shares instead of cash. The acquiring company issues shares instead of reducing cash (or incurring debt), its shareholding structure is modified. The shareholder of the acquiring company loses some control, but the risk is shared. The acquired company no longer exists as a separate legal entity.*
2/ *By definition since assets and liabilities are pooled together.*
3/ *Synergies from the positive site hybrid on the negative one. Conglomerate discounts.*
4/ *Having the company buy the target, so as not to lose its controlling interest in it.*
5/ *This isn't where the problem lies. What's important is to know whether the merger will create value and not whether EPS will be diluted.*
6/ *Because it is the basis for sharing the creation of value and sharing power inside the new group.*
7/ *Relative value is the value of one of the companies compared with the other. Exchange ratio is the number of shares in the acquiring company that are exchanged for one share in the acquired company.*
8/ *On relative value and then on the calculation methods which would lead to the determination of the agreed relative value. On the surface, it looks like the opposite is true.*
9/ *Because they form part of a larger whole that is likely to generate synergies and because the merger could result in the P/E of the new entity being revalued.*
10/ *In the synergies created.*
11/ *In order to ensure the equal treatment of shareholders – the rights of all shareholders should be respected.*
12/ *When there is a conglomerate discount that will disappear. Rarely for creditors.*

13/*Not only. The initial business plans drawn up by companies should be taken into account.*
14/*Yes, thanks to the efficiency of markets.*

Exercises

1/

	Net profits	Value	Shareholders' equity
Mr Alpha's share	2/3	1/3	2/3
Mr Beta's share	1/3	2/3	1/3

The criteria selected are crucial.

2/*(a) and (b)*

	Old (for Gamma)	New (P/E = 50)	New (P/E = 15)	New (P/E = 6)
EPS	0.01	0.0227	0.0145	0.0082
Equity per share	0.03	0.136	0.087	0.049
% of control held by Gamma shareholders	100% of Gamma	75.8	48.4	27.3

The higher a company' s P/E, the more it will get out of a merger.

(a) *If Gamma shareholders get all of the synergies: relative value of 3.59 and exchange ratio of 0.557 Gamma shares for 1 Delta share. If Gamma shareholders sell all of the synergies: relative value of 2.13 and exchange ratio of 0.940 Gamma shares for 1 Delta share.*
(b) *Value of the whole* $= 50 \times (40 + 20 + 5) = 3250$.
(c) *Wealth created* $= 2180$. *The wealth created is a result of synergies (500) and the revaluation of Delta (1680).*

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