



# Financial Modelling Group

Deal Advisory

Symbol	Value	Set	Charts	Reorder	Reset slices
16.80%	\$19.00	16.80%		Jun 15	\$600.00
25.00%	\$35.65	25.00%		Jun 15	\$600.00
12.25%	\$7.20	12.25%		Jun 15	\$600.00

Buttons: Delete Simulation, Reset Parameters, Date: 7/15/12

# How can we help?

Financial modelling is becoming increasingly important in an increasingly complex world. Solid financial models allow decision makers to stay on top of business issues and make the right choices. With our financial modelling solutions, we aim to assist you with customised modelling tools tailored to your business issues to facilitate and improve your decision-making processes, help you run your business more effectively or shape your business. Our financial modelling offering includes both model build and model review services to address your business issues across all relevant business areas.

## Shape the business

Deciding on the future strategy of the business can be tough, especially when multiple variables and scenarios have to be taken into account. How should available funds be allocated? Where to relocate production facilities? What markets should be entered? Our financial models bring structure into these complex questions and allow for a flexible assessment or ranking of all alternatives.

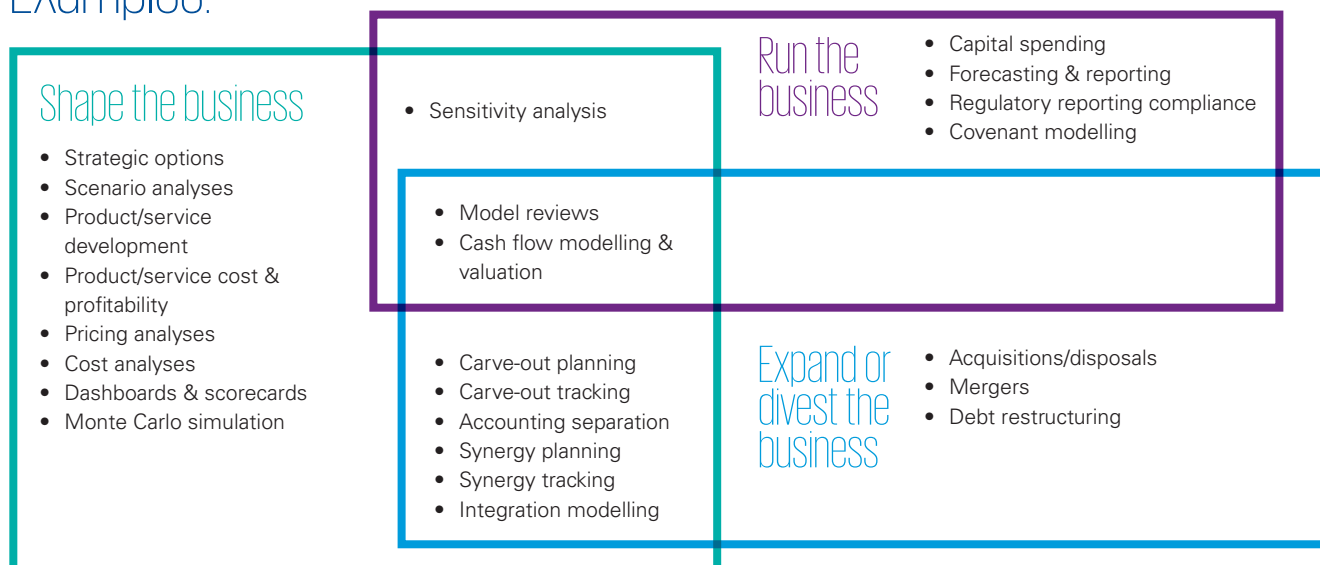
## Run the business

Whether you are managing your business as usual or through a crisis, the achievement of targeted objectives is dependent on setting realistic forecasts, managing capital spending and ensuring cash and regulatory compliance. The supporting financial models should reflect the current business operations, have the ability to measure the impact of current or future changes in key drivers and must include monitoring capabilities.

## Expand or divest the business

When you are developing your business to implement future strategies and meet objectives, you will probably consider bringing together the right capabilities, assets and expertise through transactional activities. We can assist you with measuring the impact of synergy benefits or separation/carve-outs and changes in capital structures on a typical deal. These models must be robust and include the ability to quickly test multiple scenarios and their associated impacts.

## Examples:



# KPMG's Approach

A thorough scoping phase is always the first step in any model we build. The outcome of our scoping session(s) are captured in a clear model scoping plan, outlining the plan of approach and the exact requirements of the model. All our models are therefore purpose built to seamlessly address your issue at hand. All our modelling professionals have been trained in the FAST modelling standard, which ensures transparency, flexibility and transferability of financial models. Our modelling approach addresses typical model issues:

Typical model issue	KPMG response
The model has not been built with a clear focus on the issues and opportunities for which it is used today	We devote the necessary time to understand the model scope, the need for the required model flexibility and the right level of detail. This feeds into a clear model scoping plan, which is first confirmed by you before the actual modelling starts
The model contains errors or is error prone due to an unreliable model structure	Our modelling professionals are trained in a reliable and proven modelling standard which makes the model much less prone to errors and much more transparent and structured
Junior staff members develop the model but they do not have a full understanding of the business issues. Senior professionals understand the issues but they do not have full knowledge on how the model works	Our senior professionals, who have the capability and experience to translate critical business issues into spreadsheet models, will assist you in scoping and designing the model
High degree of personal dependency – only the model developer knows how to run the model accurately or make structural changes	We base our models on a common set of best practice rules that prompt other professionals to use the model efficiently and safely. We also offer training sessions to our clients before model hand-over
Lack of documentation for calculations and assumptions	We have a well-tested approach for documenting model structure, calculations and assumptions as an integral part of our modelling process
High level of complexity and limited dynamics and flexibility	Our focus on early model scoping enables us to construct models with a high level of flexibility and a low level of complexity

## Our added value:

- Fit for purpose tool, as a result of rigorous scoping
- Complexity turned into clear insights
- Enabling scenario and sensitivity analyses
- User-friendly dashboards with clear output visualisation
- Robust, accurate, flexible and practical tool
- Well-trained end-users of the tool



# Who we are

KPMG helps clients to translate key business issues into transparent financial implications. Increased transparency allows for a more effective decision-making process, assisting you in maximising value and minimising risk.

Our Financial Modelling Group combines our strong modelling skills with in-depth sector knowledge and cross-functional expertise from our Corporate Finance, Strategy, Accounting Advisory and Tax departments.

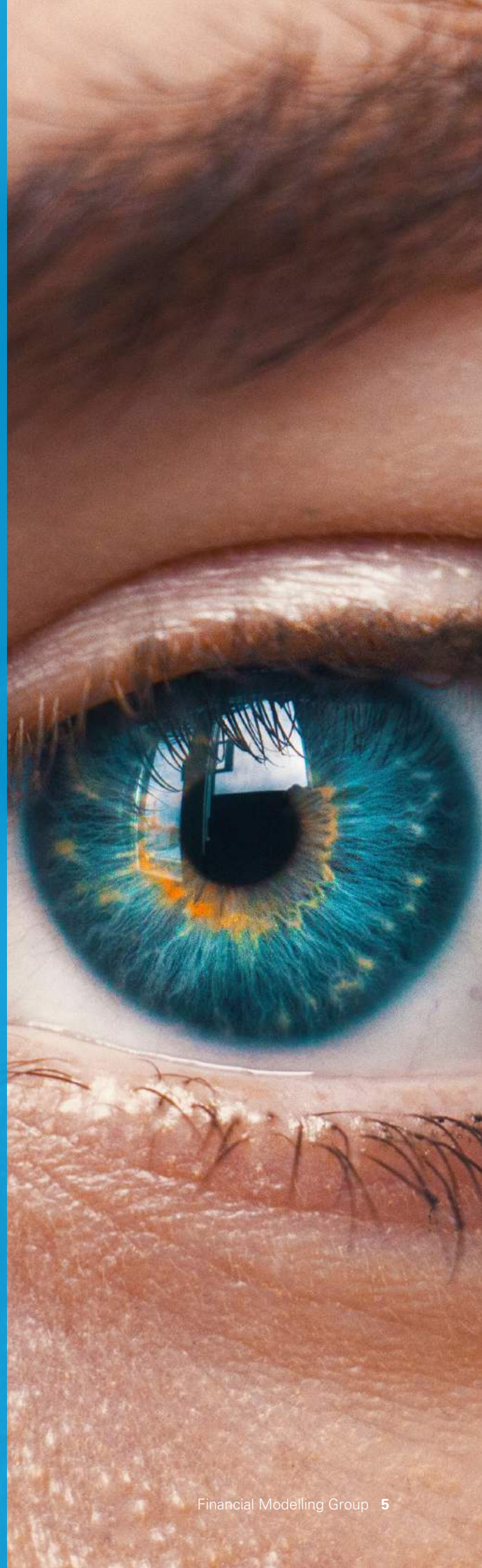
Our dedicated professionals have extensive experience in building models – even under the most demanding circumstances – with the right level of detail and flexibility to analyse critical business issues across industries and over the life cycle of the company.

Our services come highly recommended by leading companies. Please learn more about our solution specific modelling experiences from our embedded factsheets.



# Our service portfolio in detail

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# Business planning

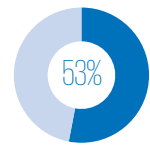
Advisory



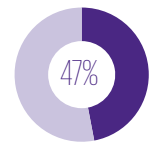
## Increasing need for reliable and robust business models

In a volatile and complex market environment there is increasing pressure on management to streamline the business and quantify the impact of major challenges and opportunities on business plans. Digitization and globalization are posing interesting opportunities. Examples of current issues are worries around the Eurozone, raw material volatilities, the energy transition or a potential double-dip economic recession. With our modelling expertise and commercial understanding we are well-positioned to support you and your board to create structured solutions to provide thorough insight into your businesses and define and analyse alternative scenarios, understand the impact of each scenario and support you in making more robust decisions.

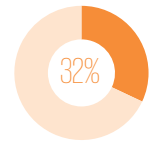
## CEO's strategic priorities for growth in the next 3 years



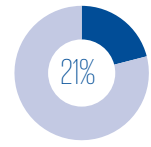
Increasing penetration in existing markets



Innovating new products, services and ways of doing business



Penetrating new verticals



Expanding into new geographical markets

Source: 2017 Global CEO Outlook, KPMG International

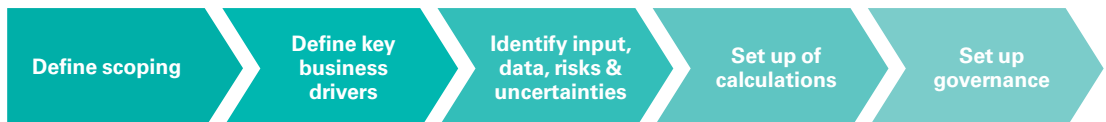


### Typical client issues

- Management needs a robust and reliable tool to be able to assess the impact of the group's strategy on financials or to obtain funding
- Management wants to gain a deeper understanding (e.g. through a sensitivity analysis) on how changing business parameters impact cash flows and valuation
- Management wants to be able to have insight in the consolidated impact of (hypothetical) changes in the (legal) structure of the company and its subsidiaries
- Management wants to elaborate on the impact of different decisions on the business plan through aligning different scenarios
- Management wants to streamline the forecasting process in order to make better informed decisions



### KPMG Approach



### Why KPMG?

- Extensive experience in setting up business planning and forecasting
- Wide expertise across various sectors (e.g. financial services, diversified industrials, energy, infrastructure, real estate, telecommunications, retail, logistics)
- Our deep modelling expertise will help you concentrate on decision-making processes and will support you with a dynamic business planning tool

**Case study**

KPMG assisted a top 3 utility in the Netherlands to improve their control over the forecasting process of a diverse set of subsidiaries (approximately 200). We have rationalized the input gathering process and created a tool to transform these inputs into a number of user-defined consolidated portfolio views in order to more effectively manage and monitor the overall portfolio while adding sensitivity calculation functionalities on all consolidation levels

**Our approach**

We helped to develop an integrated financial model and set up the required governance around the financial model, which provided the client with the following features:

- Consolidated view of the profit and loss, balance sheet and cash flow of their entire portfolio or a user-defined subset of consolidated subsidiaries
- Developed a “dashboard” with the flexibility to change key parameters of the planning process (e.g. price and index sensitivities, subsidy regime scenarios, etc.)
- Offered the flexibility to model key planning parameters on a subsidiary-by-subsidary basis (e.g. expected revenues, intercompany fees, maintenance, financing costs, etc.)
- Established a set of KPIs to monitor the portfolio
- Establish a link to the SAP reporting software to automatically upload the forecasting output to the reporting system
- Dashboarding and sensitivity analysis
- Extensive training for end-users of the model as well as internal model developers, including set up of user manuals

**Client benefit**

- The client has access to an integrated model to manage their growing and diverse asset portfolio. The model provides a combined view on these assets as well as numerous flexible-user-defined – consolidated views on the existing portfolio
- The model provides the client the opportunity to rationalize and facilitate the annual forecasting process and to monitor the KPIs of their portfolio on a consolidated and asset-by-asset basis
- Improved governance around the forecasting process including a clear division of tasks, well-trained users and more granular and complete forecasts for all business units
- The model's outputs can be directly uploaded into the client's accounting software

## Our service – an overview

### Define scoping

- Identification of management's ultimate goal(s) of the model
- Define additional functionalities required
- Establish model's output requirements that support the ultimate goal of the model

### Define key business drivers

- Identification of key business processes driving profitability and costs
- Gain thorough understanding of the key business and ensure the correct level of detail is taken into account
- Identify the risks and uncertainties relating to each driver and determine how to treat these risks

### Identify input, data, risks & uncertainties

- Identify the required data and data sources and develop a process for ongoing collection of information
- Actively involve business controllers in the set-up of input sheets to ensure their support and cooperation

### Set up of calculations

- Taking into account the information gathered in the previous steps, a calculation engine is created
- Calibration and testing of calculation engine to ensure outputs are in line with expectations

### Set up governance

- Set up of governance in the client's organization around the model. The governance document should specify the users, frequency of updating, responsible person(s) for input, maintenance, output, etc.
- Set up of user manuals for different user groups of the model (e.g. controllers, management, model owner, etc.)

## Key contacts

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# Transaction modelling

Advisory

## We offer a wide range of modelling solutions to facilitate your transaction processes in each phase

We can support you with robust modelling solutions to be able to carefully assess the sensitivity of key risk factors to your transaction and value creation. Our transaction models take a pivotal role in the transaction process, generating insights into value under different scenarios while creating outputs for all documents during the process.

### Pre-deal

- Analysis of strategic options
- Development of financial forecasts
- Deal evaluation
- Market modelling
- Accounting, tax and other regulatory considerations

### During the deal

- Deal modelling
- Financing & operational scenarios
- Synergy plans
- Regulatory requirements
- Transaction structuring from tax and commercial aspects

### Post-deal

- Convert deal model to operational model
- Interim management reporting
- Business forecasting
- Synergy tracking



### Typical client issues

- Management intends to evaluate all necessary information during a time-sensitive process in order to create a clear view on valuation/pricing, among others to improve bargaining power with the support of a robust business model, scenario and sensitivity analysis
- Management has to prepare and present an investment proposal for internal stakeholders (e.g. investment committee, board of directors and shareholders)
- Management requires insight into tax and/or accounting impacts and optimization possibilities related to the planned acquisition or divestment
- Management needs to develop financing scenarios around the deal, potentially to be shared with debt/equity providers
- Management requires synergy tracking and interim monitoring of newly acquired assets



### KPMG Approach



### Why KPMG?

- Extensive experience in setting up transaction models, incorporating full support during the deal process (including tax, due diligence, and accounting support)
- Wide expertise across various sectors (e.g. energy, infrastructure, financial services, diversified industrials, real estate, telecommunications, retail, logistics)
- Our deep modelling expertise will allow us to assist you in building an efficient modelling tool to support your business decisions across all key transaction phases



**Case study**

KPMG assisted a renowned global hotel owner/operator to rationalize their complex shareholder structure in order to prepare for a substantial new investment round. We have assisted the client in facilitating discussions between current shareholders and determining the shareholder distribution for a new TopCo to be established for the group of hotel subsidiaries. Subsequently, we assisted in determining the value of the group for a new investor to step in

**Our approach**

We helped to develop an integrated transaction model, which provided the client with the following features:

- A valuation of the different hotel properties and hotel operations, under various scenarios
- Facilitation discussions between the different shareholders on the different valuations to be used in the new TopCo shareholder distribution
- Prepare and sanitize client data in order to prepare for the introduction of a new investor
- A flexible valuation model, incorporating different business units and hotels, allowing for scenario analyses on selected valuation parameters in order to facilitate discussions between shareholders

**Client benefit**

- Management has a clear view on which business units (and which properties) add the most value to the group, allowing for further value optimization pre-transaction
- In the prior situation, shareholders held various stakes in the different subsidiaries, adding up to a rather complex shareholder structure. This structure prevented the client from further growth and attracting additional capital. After our analysis, the shareholder structure was rationalized, allowing for future expansion

## Our service - an overview

### Buy side transaction modelling

#### Obtaining the relevant information

- Provide guidance on due diligence from the acquirers strategic perspective
- Scenario analysis on key value drivers

#### Establishing a bid price

- Generates output for internal approval processes
- Provides the necessary information to establish a bid price

#### Understanding the business

- Assessing the impact of due diligence findings
- Quantifying the impact of the deal structuring (e.g. tax impact, accounting considerations, etc.)

### Sell side transaction modelling

#### Clarification and confidence

- Providing structured and transparent insights for the potential acquirers
- Incorporate vendor due diligence finding where available

#### Value enhancement

- Provides a solid basis upon which to drive value in selling the business by quantifying the key strengths and weaknesses

#### Flexibility

- Facilitates adaptation of the information available if the nature or the structure of the deal changes

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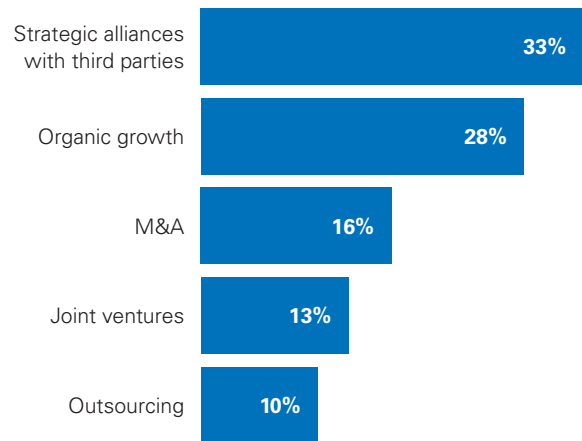
# Strategic option modelling

Advisory

## Strategic option modelling provides insight and confidence throughout the decision-making process

Our strategic option modelling solution equips clients with a robust tool that quantifies the financial impact of various business decisions or changes in the underlying macroeconomic, political or technological environment. The tool could be used for example to plan major strategic changes such as new product launches, portfolio rationalization, restructurings and preliminary investigations of acquisitions. Due to our extensive modelling experience across various sectors, we are a reliable partner for you to translate your business challenges into clear financial implications, facilitating well-informed decision making.

## The most important strategies to drive growth over the next 3 years



Source: 2018 Global CEO Outlook, KPMG International

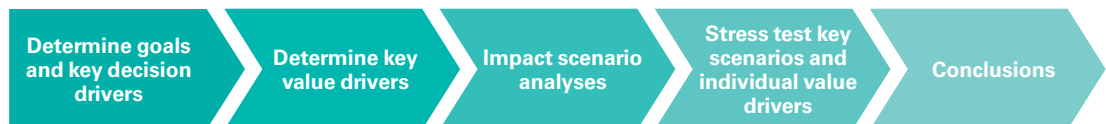


### Typical client issues

- Management is considering to embark on a major strategic shift, but is unsure of the (financial/ operational) impact of the different strategic options to be considered
- Management has a number of business model improvement options and wishes to evaluate which choices will lead to the achievement of strategic goals and maximization of (shareholder) value
- Management would like to carry out a thorough assessment of business risks and opportunities involved with the various capital allocation options
- Management would like to gain a deeper understanding of the financing needs related to different options or scenarios



### KPMG Approach



### Why KPMG?

- KPMG has extensive experience across various sectors (e.g. energy & infrastructure, financial services, diversified industrials, pharmaceuticals, telecommunications, retail, logistics)
- A combination of our strategy knowledge and our deep modelling expertise will allow us to assist you in building an efficient modelling tool to support your business decisions

**Case study**

KPMG assisted one of the largest globally operating brewing companies in the strategic and financial assessment of their global renewable energy program, consisting of almost 300 renewable energy initiatives for breweries worldwide. KPMG assisted the client in assessing and optimizing multiple strategic options related to the roll-out of the renewable energy program facilitating thorough analyses on financial and non-financial impact of different scenarios while taking into account the company's key goals and decision drivers

**Our approach**

- Key strategic goals as well as financial and non-financial constraints and decision drivers were identified through an indicative decision model
- A robust sourcing model was built that incorporates multiple scenarios across technology, financing options, tax implications, market insights, suppliers and sourcing models:
  - allowing input for up to 500 different renewable energy projects
  - providing a user friendly dashboard allowing visualisation of the impact of any combination of projects on the company's future energy consumption and carbon emission
  - including numerous options and sensitivities to be able to assess the financial impact of incentives, changing project characteristics, availability of funding, etc.
- As part of the assignment, KPMG assembled a team of global experts in corporate finance, strategy, sourcing, energy, sustainability and tax to serve as a strategic partner to develop a comprehensive sourcing strategy and implementation plan

**Client benefit**

- Management was able to quickly investigate and compare different future scenarios with respect to its strategy
- Selected options were incorporated into a comprehensive executive presentation for Board approval, providing clear insights into the financial impact of different strategic options, including analyses on funding options, reporting impact, local renewable energy policies and contracting considerations

## Our service - an overview

**Define strategic goals, options and key decision drivers**

- Clearly define strategic goals and available strategic options
- Outline in much detail the key decision levers and constraints, both in financial as in commercial terms
- Align the concluded goals, options and decision drivers with top management

**Determine key value drivers of business case**

- Determine the key value drivers of both the business as-is as well as for the available strategic options
- Specify relevant relationships (competitive implications, consumer demand, channel strategy)
- Identify major risks and uncertainties to the options/scenarios

**Impact scenario analyses**

- Build robust and dynamic financial decision model, able to analyse and compare selected strategic scenarios
- Select preferred scenarios and assess options based on financial and non-financial impact
- Disclose summary report, allowing management to fully explore all strategic options and eventualities
- Highlight strengths and weaknesses of the strategic options

**Stress test key scenarios and individual value drivers**

- Conduct stress-testing on the agreed scenarios and the key business drivers

**Conclude and recommend**

- Provide an overview of the quantified outcome of the various options together with an overview of the major assumptions and dependencies such that C-suite is enabled for informed decision making
- Provide detailed summary reporting if required

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# Interim monitoring and reporting

Advisory

## A focused reporting process and tool can enhance management information facilitating more effective decision making

We can assist you with building a re-usable interim reporting (actuals versus budget) and forecasting tool and process that allows decision making with an accurate and reliable view of the future. This allows you to focus your efforts on decision making, rather than on creating recurring detailed quarterly or monthly analyses. An efficient interim reporting process would equip you with greater confidence in the predicted cash flows and allow you to track any major deviation from your strategic plans.



### Typical client issues

- Management lacks confidence in current projections and has a need for a more robust reporting and forecasting structure
- Company has a poor track record of providing guidance to stakeholders or financial markets and results often fall short of expectations
- Management has difficulties in determining future financing requirements, given inadequate forecasting track record
- Management faces difficulties in allocating funds between business units / subsidiaries due to uncertainty in each individual unit's forecast
- Management requires a more detailed and reliable forecasting model to support impairment and/or going concern analyses
- Management faces difficulties in adjusting their processes for the implementation of new accounting standards, e.g. IFRS 9, 15 and 16
- Management needs to apply a range of adjustments to compose company figures to achieve consistency across the group during interim reporting processes



### KPMG Approach



### Why KPMG?

- Our in-depth understanding of value drivers, seasonalities and life cycles of various industries – in combination with deep modelling and reporting skills – allows us to build a well calibrated interim monitoring and reporting tool with the right focus
- We have the accounting knowledge and expertise to set up these models in order to support reporting and forecasting in-line with specific accounting and audit requirements

**Case study**

KPMG was engaged by one of the world's largest furniture retailers with hundreds of stores worldwide, to assist with the development of a forecasting model for investing and reporting purposes. The company was looking for a reporting tool which was able to import, consolidate and analyse historical and forecasted financial information and generate tailor-made reports for internal and external stakeholders

**Our approach**

KPMG assisted the client with the development of a tailored financial model. Our approach included the following activities:

- Assist in clearly defining the objective and scope of the model:
  - Level of detail of the data to process
  - Key parameters for the model to highlight
  - Define report content including KPIs (financial and non-financial, short and long term)
- Support client with data collection by creating templates to upload data consistency in the processing tool and determine ownership of users and owners of the tool (input, review and interpretation of the data)

The model capabilities included:

- Assess and challenge key parameters per division such as revenue growth, gross margins, operating expenditures and capital expenditures by applying the following methods:
  - Backward (forecasting accuracy) testing
  - Market data comparison
  - Business plan analysis
- Set up reporting output (consolidated, per BU or per country), focused on key value drivers and other financial and non-financial KPIs, e.g.:
  - Gross margin and opex development
  - Investment profile in relation to cash liquidity
  - Conventional vs renewable energy use
  - Amount of stores vs E-commerce
  - ROCE, ROIC and other key ratios

**Client benefit**

- A robust re-usable tool and process, allowing fast decision making with an accurate and reliable view of the future.
- An efficient interim reporting process with greater confidence in the predicted cash flows and allowing the company to track progress of strategic plans and enabling efficient discussion with key stakeholders through standardised reporting

## Our service – an overview

**Define monitoring and reporting requirements**

- Define monitoring and reporting goals and required outputs per user (group)
- Define model set-up and detailed scope
- Define report content (including operational and financial KPIs)
- Identify data sources and map data items required

**Design information flow and reporting tool**

- Define reporting and hierarchical structure e.g. by business unit, aggregations by division, etc.
- Define final user (groups) e.g. core reporting team, controllers, support, etc.

**Develop reporting tool and write documentation**

- Build reporting tool
- Develop separate report generation and change control processes
- Develop user guide for reporting tool and report generation

**Test and train**

- Test reporting team with relevant users
- Test reporting output with different users
- User training

**Implement**

- Full roll-out
- Post implementation review
- Sign-out model and present hand-over model documentation
- Provide broad training

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# Integration and separation modelling

Advisory

## Companies are under increasing pressure to focus on their core competences

In the globalising world companies are under increasing pressure to focus on their core competences, which often requires active portfolio management of activities. Our integration modelling services assist on identifying and tracking synergies from a pre-deal phase until full integration to maximise deal value. In addition, our separation modelling offerings include the creation of carve-out financial statements, valuation models and an assessment of the financial impact of separating a company to operate on a stand-alone basis.



### Typical client issues

- Management needs assistance in quantifying estimated synergy or separation benefits pre-deal in a time-critical process
- Management needs support in translating a pre-deal high level benefits case into an actionable detailed bottom-up synergy case with phasing, costs to achieve synergies, aligned with the future operating model and clear ownership of the granular synergy initiatives
- Management requires advice on how to best monitor benefits from a change program to ensure planned benefits are achieved
- Management aims to better understand the financial and tax implications of a deal



### KPMG Approach



### Why KPMG?

- Our in-depth understanding of value drivers, seasonalities and life cycles of various industries allows us to build a well-calibrated interim monitoring and reporting tool with the right focus
- We have extensive expertise in building interim monitoring and reporting models, which generate reports on different aggregation levels
- We have in-depth experience assessing the value creation aspect over the deal life cycle, from the pre-deal synergy case through till monitoring, tracking and reporting of the benefits achieved
- Experience working in a clean team environment when needed due to regulatory restrictions



**Case study**

KPMG assisted in the merger between two telecom players. The merger itself was subject to clearance from the EC (competition commission). The clearance was expected to take 12 months and the buyer wanted to use the time before closing more efficiently. Achieving € 160m synergy case was critical to the success of the transaction and demonstrates the viability of the transaction to the EC for approval

**Our approach**

- Pre-signing due diligence case was not aligned with the desired end state operating model of the combined organisation
- Baseline (cost and FTE) analysis was done at a very high level and did not reflect the actual situation
- Limited direct access to management of one of the companies at this stage of the transaction due to confidentiality and anti-competition reasons (EC approval pending)

**Client benefit**

Our model and approach facilitated the following activities:

- Detailed allocation of high level synergy case to granular synergy initiatives based on NewCo (combined organisation) operating model
- FTE / organisation design support to build the employee (cost) baseline, validate synergies and support in role mapping for NewCo (combined organisation)
- Procurement and non-technology team to validate and identify potential new synergy areas based on market information
- Identification of gaps in the synergy estimate flagged early as potential risk items and enable fulfilment of synergy case via identification of additional synergy opportunities

## Our service – an overview

### Build the pre-deal business and benefits case

- Pre-deal identification and justification of synergies

### Build a detailed benefits and synergy plan with phasing and costs to achieve synergies

- Frequent updating of financial information allows for credible management forecasting and early warning of KPIs, which fall behind the targeted level

### Define the consolidated baseline

- Define a baseline to measure achievement of synergies post-deal

### Track the realized benefits and synergies

- Specification of personal responsibilities and allocation of accountability ensures nothing 'falls through the cracks'

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# Cash flow generator modelling

Advisory



Our loan portfolio cash flow generator provides management with the tool to generate cash flow forecasts from (mortgage) loan portfolios. The tool can either be used on a stand-alone basis, as part of interconnected set of tools and models or as a fully integrated part of a valuation model. The tool can also be included in our loan portfolio analysis platform, which can be used to create in-depth views of loan portfolios.

Due to our extensive experience in the loan portfolio market, we are a reliable partner for you to translate business challenges into financial implications.



## Typical client issues

Management needs (mortgage) loan portfolio cash flow forecasts, which are typically used for:

- Interest rate risk management of (mortgage) loan portfolios, including scenario analyses
- Business planning
- Strategic options analyses for loan portfolios
- Fair value and net present value analyses, for instance for financial accounting purposes (fair value accounting) or in a deal environment (portfolio pricing analyses)
- Other financial accounting purposes such as hedge accounting
- Analysing structured funding transactions such as securitisations. These analyses can also be used to perform further fair value analyses of instruments backed by (mortgage) loan portfolios (asset backed obligations and structured hedge instruments)



## KPMG Approach

As part of implementing the tool our approach involves the following steps:

- Define the client requirements in terms of formats and type of output (aggregate portfolio data versus loan-by-loan data) and input parameters
- Mapping of the source data to the input requirements of the loan portfolio cash flow generator tool
- Deliver and implement solution
- Provide user manual and user training
- Include the use of the tool in process design and documentation



## Why KPMG?

- Extensive experience in (mortgage) loan portfolio market: (mortgage) loan portfolio management, fair value analysis, interest rate risk management
- Our deep loan portfolio modelling expertise will help you concentrate on decision-making processes and efficient financial reporting

**Case study**

KPMG assisted a large institutional investor with a sizable investment in a Dutch mortgage loan portfolio (>EUR 600 million). The client lacked a clear view on the value and value development of this portfolio. KPMG built a tool to assist the client in the periodic fair value analyses of the mortgage loan portfolio

**Our approach**

We help our client by performing our valuation analysis using our cash flow generator tool as an integrated part of our valuation model. The model has the following features:

- Loan-by-loan cash flow forecasting, applying loan-specific amortization type and loan prepayment estimates
- The forecasted cash flows per loan are discounted using a loan-specific discount rate
- The portfolio value is the aggregate of the values of the individual loans
- The model uses various scenarios for the prepayment rate assumption, which implies generating cash flows in these different scenarios

**Client benefit**

The client has outsourced the valuation process and can rely on an efficient process which is standardized and robust. Because the model calculates the value of individual loans, it also helps the client by segmenting the portfolio and provide the aggregate value per segment.



## Key contacts



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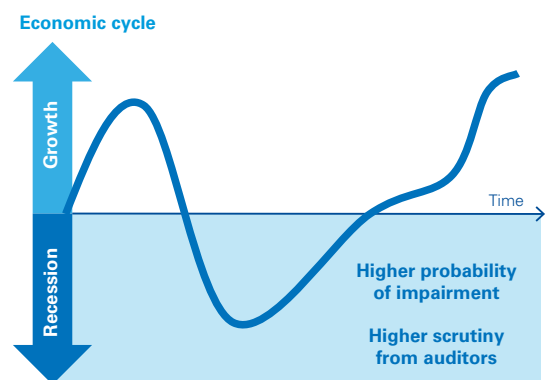
# Impairment test modelling

Advisory



## Uncertain macroeconomic environment keeps impairment tests in focus

The volatile economy and capital markets as well as the current interest rate environment create a relatively uncertain market environment for companies in the short and medium term. The adequate incorporation of the current risks and uncertainties into the budget remains a challenge for corporate decision makers. Accordingly, a key recurring exercise of companies will be the annual impairment testing. We can assist you in performing impairment testing as well as conducting reviews of in-house impairment tests.



### Typical client issues

- Top management plans to carry out an annual impairment test to examine if there were any triggering events (change in cost of capital, country risk, cross rates, market environment, sales and margin prospects) that could alter the valuation of their investments/CGUs and require creation/reversal of provisions
- Top management requires assistance to check if in-house impairment testing models are still compliant with the recent accounting rules
- Top management faces tighter scrutiny from auditors and supervisory bodies (e.g. AFM). For example, to reassess whether the price paid for an earlier acquisition is still justified



### How can we help?

- Our modelling offerings include:
- Building proprietary and custom made value-in-use and fair value-less-cost-to-sell models
  - Calculating the carrying amount
  - Providing guidance on cost of capital and determining the appropriate rates for CGUs
  - Reviewing in-house impairment tests



### Why KPMG?

- KPMG has considerable experience with impairment test modelling. We understand the requirements and issues both from a commercial as well as from an auditor's perspective. As such, we are well positioned to anticipate areas that are likely be challenged by your auditors, and help you formulate adequate responses to their questions
- Our team has deep knowledge of the current key impairment testing issues and is well placed to determine how they would affect your business
- Our deep sector understanding (e.g. financial services, diversified industrials, energy, infrastructure, telecommunications, retail, logistics) makes us an ideal partner for your impairment test modelling or review

**Case study**

One of KPMG's major clients, an international retailer of both food and non-food products, was required to perform the annual goodwill impairment test. One of the operating activities was considered to be an asset held for sale and should be reported as such based on IFRS 5. The forecast of the company was split into a forecast per CGU, which served as input for the determination of the value in use per CGU. However, the forecast related to the asset held for sale was not available and needed to be determined by carving-out the relevant P&L and balance sheet items from the forecasts of the various CGUs. KPMG assisted the client by setting up a dynamic model which allowed the client to carve-out the relevant pieces by applying allocation keys which we based on historical analysis

**Our approach**

- We assisted the client in the overall goodwill impairment test by determining the carrying amount per CGU whilst carving-out the asset held for sale and thereby reallocating goodwill
- Additionally, we have built a dynamic forecast model to determine the forecast per CGU which served as the basis for the determination of the value in use. We determined the cost of capital per CGU which was used to discount the cash flows following from the forecast. The outcomes of the GIT were presented in a comprehensive KPMG report which was shared with the auditor of the client

**Client benefit**

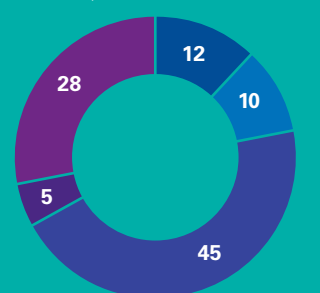
By leveraging our knowledge of the expected review process of the auditor of the client, we were able to anticipate the topics that were up for discussion and added value to our client with a smooth and efficient review process

## Our service - an overview

Key phases of the impairment testing process

- Population of impairment test with latest business plan
- Determine cost of capital and growth rate based on market participant concept
- Determine recoverable amount (i.e. the highest from fair value-less-cost-to-sell and value-in-use) and the carrying amount
- Calculation of any valuation headroom or impairment
- Reconciliation between pre- and post-tax calculation
- Preparation of sensitivity calculations
- Reasonability checks based on trading multiples and current market capitalization of the company
- Drafting notes to the financial statements
- Preparation of communication towards internal and external stakeholders

**Specification of triggering event**  
Total (in percent)



- Drop in orders
- Price decline
- Worsening long-run expectations
- Cost of capital
- Others

Source: KPMG

## Key contacts

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# Model review

Advisory



## A model review provides confidence and credibility

Our deep understanding of value drivers throughout various industries combined with model review software tools makes us an ideal partner for you to carry out a financial model review. We are prepared to challenge your model from both a technical and a commercial perspective. We offer various levels of reviews, ranging from technical spreadsheet reviews to regulatory reviews, which measure compliance with among others local tax and accounting rules.



### Typical client issues

- Management would like to increase the level of comfort in a financial (forecasting) tool (often developed internally) through a third party review
- Internal (e.g. shareholders, management, credit committee, etc.) or external stakeholders (e.g. potential lenders, authorities or potential investors) require an independent review of the business model and/or check whether the figures that are used as input data in the model can be reconciled to approved, external sources
- Management would like to review if forecasts are calculated in line with local tax and/or accounting rules



### KPMG Approach



### Why KPMG?

- We have deep expertise in carrying out efficient and in-depth spreadsheet reviews
- Our wide ranging sector and functional experience (e.g. project financing) equips us with a thorough understanding of the commercial aspects of financial models
- We are equipped with special software to review your financial models in an efficient way
- Furthermore, we are ready to advise you on structural, mathematical, control and regulatory improvements





### Selected case studies

KPMG assisted many (international) clients from different industries with model review services. Below are a few examples of recent model reviews:

- For a large Dutch utility we reviewed the financial forecast models underlying each business unit in order to prepare for a sale of the company
- For a Dutch bank we reviewed the template investment decision model made internally to assess the attractiveness of new equity and mezzanine investments
- For a large Dutch utility we reviewed the forecast Qlickview application for the heat business. The model incorporated several underlying data sources that were also part of the review
- For a large care provider in the Netherlands we performed a review on the forecast model to give additional comfort to the financiers of the company
- For a large European provider of parking facilities we reviewed the internally created template investment model used to assess strategic investment opportunities
- For a German investment company we assessed the financial model of a renewable energy project as part of their due diligence of a new investment opportunity
- For a large Dutch municipality we assessed the model underlying their real estate strategy. In addition we reviewed the underlying documentation to assess the correct incorporation of the documented model requirements

## Our service - an overview

### LIGHT REVIEW

Check formulae consistency & logical integrity

Check VBA code

Providing recommendations for further model improvement

Check assumptions against underlying (project) documentation

Assist in remedying model issues

### THOROUGH REVIEW

Check reasonableness of input, output and market assumptions

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