Guidance

Working capital model documentation and user guide

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This document provides a detailed description of the Working Capital Model, which is published alongside the EBIT allowance review statutory consultation.

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Contents

1. Introduction

The working capital (WC) model is a simplified financial model developed for the purpose of estimating the working capital of a notional supplier. It enables us to determine the average level of working capital that such a company would need to maintain in order to remain financeable across a range of wholesale price scenarios. The model was initially developed by CEPA but has since been modified internally and tailored for Ofgem's needs.

Within the WC model, we assume that the notional supplier is efficient, meaning that over an extended period, the default tariff cap will accurately reflect the costs that retailers face. We also assume it is not vertically integrated. The notional supplier can generate profits (based on the EBIT allowance) which it retains as cash available for operations (the model assumes that during the period of a price shock, cash will be used to build resilience rather than being distributed to shareholders).

For the purposes of this consultation, we have used the WC model to analyse the impacts of a 1-in-20 price shock on the notional supplier's finances, and on the amounts of working capital and cash it would need to maintain to withstand this. The resulting average working capital figure is one of the key inputs into the revised EBIT allowance that we are proposing should be included within the default tariff price cap calculation methodology.

The model covers a period of 24 months, from Apr-23 to Mar-25, and we analyse the impact of a price shock that spans 12 months, from Oct-23 to Sep-24, with a 'normal' 6-month lead in and lead out.

It is important to note that the WC Model is based on a number of simplifying assumptions about a notional efficient retailer and not an actual retail company. These include assumptions around customer credit balances and access to external financing and are described in detail below.

The working capital values generated by the model at this stage are indicative only, as our priority at this stage is to provide clarity on the calculations involved. We will review and update the inputs used before confirming the final values in the lead-up to their implementation in October 2023.

- This guidance document provides a description of
- The overall structure of the WC Model;
- The key inputs into the model;
- The way the model uses wholesale price forecasts to calculate the expected level of working capital.
- A description of how to run the model.

The appendix to this document describes a second model used for this work - the Stochastic Wholesale Prices Model (SWPM). This model is used to generate a set of forecasts representing a 1-in-20 price shock that can be used in the WC Model.

2. Model Description

Overview

The WC Model has been designed to analyse the impacts on supplier finances of a range of different scenarios and assumptions. We use it here to assess the impacts on cash and working capital from a significant change in wholesale costs, including the effects of:

- The wholesale costs themselves;
- The resulting backwardation costs; and
- The associated volume risk costs that may result from actual customer numbers differing from the numbers they had hedged for.

The WC model applies a two-stage process to assess these impacts. First, it calculates the resulting changes to the notional supplier's profit & loss statement, balance sheet and cash flow statement. Second, it checks whether the notional supplier's cash balance and working capital both remain positive throughout the period covered by the model. If not, it calculates the additional level of starting capital required to prevent this from happening and adds this in. From this, it can then calculate the average level of working capital maintained by a supplier that is sufficiently capitalised to withstand a 1 in 20 scenario of prices, volume risk and backwardation.

Principal WC Model Inputs

As noted in the Introduction, the WC model makes use of the outputs of the SWPM model to determine the values of the three categories of wholesale-related costs to be included in its calculations. As noted in the Introduction, the WC model makes use of the outputs of the SWPM to determine the values of the three categories of wholesale-related costs to be included in its calculations. The SWPM model is a stochastic model that uses historic energy price data to run a Monte Carlo simulation of future price movements, from which we have taken the values that represent the 95th percentile (P95) of forecasted outcomes, and used these as the inputs for the WC model. The SWPM is a stochastic model that uses historic energy price data to run a Monte Carlo simulation of future price movements, from which we have taken the values that represent the 95th percentile (P95) of forecasted outcomes, and used these as the inputs for the WC model.

To generate the values for use in the model, we ran a simulation on the SWPM on 21 April 2023, which used actual price data from the previous 2 years to generate forecasts for the 12-month period from 1 October 2023 to 30 September 2024. The accuracy of the model increases as the run date gets closer to the start of the forecast date (since it is able to take account of more recent price data) and we will therefore base our final calculations on a further run to be carried out closer to the start of cap period 11a, but before the observation window commences.

The SWPM model provides forecasts for wholesale costs, backwardation costs and volume risk costs for the 12-month period from October 2023 to September 2024. The SWPM provides forecasts for wholesale costs, backwardation costs and volume risk costs for the 12-month period from October 2023 to September 2024. These are provided in the form of an annual cost per customer. The wholesale costs are calculated on the assumption that the notional supplier will follow a 3-1.5-12 hedging strategy, matching the assumption within the price cap methodology. This means that the

values produced by the model represent both the quarterly wholesale costs incurred by the notional supplier and the Direct Fuel costs allowance within the price cap. The SWPM model includes shaping and imbalance costs as part of its wholesale cost forecasts, and consequently, these are taken account of within the price cap allowance forecasts. The SWPM includes shaping and imbalance costs as part of its wholesale cost forecasts, and consequently, these are taken account of within the price cap allowance forecasts.

The volume risk costs generated by the SWPM model represent both the suppliers existing customers switching between tariff types, and customers switching in or out. The volume risk costs generated by the SWPM represent both the suppliers existing customers switching between tariff types, and customers switching in or out. In a falling price scenario, existing customers may either switch to fixed tariffs or move to another supplier with cheaper tariffs. In both cases, the supplier incurs the cost of unused hedges as a result. In a rising price scenario, customers will switch from fixed price tariffs to the capped default tariff as the former expires, in which case the supplier will have to buy more fuel than they had hedged for. More information about the SWPM model can be found in the appendix of this paper.

While the volume risk costs may imply a change in the number of customers, we do not adjust the customer numbers within the WC model. This is because the model generally works on a per-customer basis, with the assumption that revenues equal costs over the long term, which means that varying the customer numbers would have minimal impact.

For the current version of the WC model, we generated a set of forecasts from the SWPM model on 23 April 2023. For the current version of the WC model, we generated a set of forecasts from the SWPM on 23 April 2023. As noted in the Introduction, the working capital values calculated here are indicative. Final numbers, and the associated model, will be published alongside the EBIT allowance review decision.

As mentioned above, the assumption underlying the cost inputs into the WC model is that a 1-in-20 (P95) upwards price shock occurs from October 2023 through to September 2024, with wholesale prices peaking in Q3 2024. The SWPM forecast provides us with these 1-in-20 wholesale costs for that 12-month period. For the lead-out period after the price shock, we assume that prices remain equal to the final quarter of the price shock for another 6 months. For the initial 6 months covered by the WC model, we use the prices that were available at the time the SWPM forecast was made, i.e. the actual direct fuel allowance for cap period 10a and the forecast at the time for period 10b[1]. At this stage, we consider it more appropriate to use the forecast for 10b since this creates more consistency with the SWPM model outputs. At this stage, we consider it more appropriate to use the forecast for 10b since this creates more consistency with the SWPM outputs. Ahead of the decision, we will update inputs to reflect the most up-to-date information available at the time.

In relation to backwardation costs, we similarly use actual/forecast DTC allowances for Apr-23 to Sep-23, followed by the SWPM model forecasts for Oct-23 to Sep-24, but assume no backwardation costs from the six-month lead-out period taking place in Oct-24 to Mar-25 (given that this period does not feed into the working capital calculations). In relation to backwardation costs, we similarly use actual/forecast DTC allowances for Apr-23 to Sep-23, followed by the SWPM forecasts for Oct-23

[1] Our calculations on the working capital model were run on 12 May 2023, before the final numbers for DTC period 10b were confirmed, and therefore relied on the latest forecast available at that time.

to Sep-24, but assume no backwardation costs from the six-month lead-out period taking place in Oct-24 to Mar-25 (given that this period does not feed into the working capital calculations). Volume risk costs are only applicable during the period of the price shock, and we, therefore, treat these as zero from lead-in and lead-out periods. Table 1 summarises how we have determined the values for the three wholesale-related cost categories across this period:

Table 1: Cost setting

	Apr-23 – Sep-23 Lead in period	**Oct-23 – Sep-24** Working capital estimation period	**Oct-24 – Mar-25** Tail period
Wholesale Costs	Actual/forecast DF cost allowances in DTC periods 10a and 10b at time of model run	SWPM model P95 scenario	Constant value based on the final quarter of SWPM model P95 scenario Constant value based on the final quarter of SWPM P95 scenario
Backwardation Costs	Actual/forecast backwardation cost allowances in DTC periods 10a and 10b at time of model run	SWPM model P95 scenario	Zero
Volume Risk Costs	Zero	SWPM model P95 scenario	Zero

Other model inputs

This section describes how the other inputs into the model have been determined, and how they are used within it.

Notional supplier customer base

The characteristics of the notional supplier's customer base have been set to reflect those of a medium-sized supplier. We have set customer numbers at 1.4 million for electricity and 1.2 million for gas, while meter types and payment methods are based on overall UK averages.[2] We assume their consumption also matches Ofgem's current Typical Domestic Consumption Values[3], and that the seasonality of this matches the assumptions used within the DTC methodology[4]. These values are all set out on InputsC rows 30 to 65 and InputsM rows 28 to 30.

Revenues and costs

The model calculates revenues for the notional supplier on the assumption that all of its customers are on the default tariff cap. For each quarter, it determines the unit rate and standing charge by fuel and payment type, based on the DTC Nil Consumption and Typical Consumption allowances, and multiplies these by the customer numbers and seasonal consumption to produce the monthly earned revenues.

[2] DESNZ: Quarterly Energy Prices March 2023. Available here
[3] Ofgem: Decision for Typical Domestic Consumption Values 2020. Available here
[4] Ofgem: Default tariff cap level Supplementary workbook to Annex 2, 3 and 4. Available here

Beyond the wholesale-related costs described above, the model assumes that other cost categories will match the associated revenue allowances within the DTC. This allows it to isolate and quantify the specific impacts of the change in wholesale costs.

For each of the non-fuel cost DTC categories, we use the actual values for Q2 2023, and our latest forecasts for Q3 2023. From Q4 2023 onwards, we have applied a simplified approach of uprating costs in line with CPIH through the period covered by the model. For the purposes of this work, we consider there would be minimal value in producing detailed forecasts of capacity market and other costs, given the overall cost-neutrality of these within the model.

We have assumed that from Q3 2023 onwards, the EBIT allowance will be calculated on the basis of 1.481% plus a fixed element of £19.46 per customer per year, divided equally between electricity and gas.

Our expectation is the Headroom allowance included within the DTC will typically be absorbed by a variety of non-forecastable costs. Consequently, we have included a category of "Additional costs" within the "Operations" tab, which is set to match the Headroom allowance value.

Monthly cost data is calculated using the monthly demand estimates in InputsM for all cost categories except for operating costs and capacity market costs, which have a flat monthly profile.

Payment and Revenue Timings

Table 2 sets out the assumed timings for payment of costs and receipt of revenues:

Table 2: Payment and revenue timings

Category	**Timing**
Fuel costs	Payment is a month after delivery
Policy costs: • RO Obligations • Capacity Market payments, ECO and Warm Home Discount costs • CfD payments, Feed-in-Tariff, AAHEDC and Green Gas Levy payments	• Paid annually in August • Paid in the month of consumption/delivery • Paid quarterly in arrears
Network costs	Paid in the month of delivery
Operating costs	Paid in the month of operation
Direct debit revenues	Monthly receipt of 1/12th of the annualised cost of the current DTC level[5]
Standard credit revenues	50% billed monthly (received one month in arrears), 50% billed quarterly (on average received two months in arrears)
Prepayment revenues	Received in the month of consumption

[5] We assume that DD payment levels are reset quarterly in line with revisions to the DTC.

Corporation tax	Corporation tax liabilities (and deferred tax assets)are calculated monthly and added to a running total for the tax year. At the end of March, these are moved into a "Previous year liability", which is then paid out the following January (in line with normal practice).
VAT	VAT is applied at a 5% rate on customer revenues, and at a 20% rate on network costs. Net VAT liability is calculated monthly and then paid out at the end of each quarter.

Treatment of backwardation allowance

For the period of the modelled price shock (Oct-23 to Sep-24), we use the backwardation cost provided by the SWPM model forecast. This is used to determine the resulting revenue recovery by converting it to a price cap allowance that takes account of the deadband and is spread over 6 months, in line with existing policy.

We consider it appropriate for the model to reflect the 6 month recovery period by including a category of deferred revenue for the portion of backwardation revenues that will be received in the following quarter. This creates a deferred backwardation recovery asset, which is included under 'Other current assets' in the WorkCap tab.

For the first 6 months of the model, the actual/forecast DTC values include backwardation allowances. Since a portion of these allowances relate to costs incurred prior to the start of the model, we consider it more appropriate to neutralise these by including backwardation costs for this period that exactly match the allowances. This ensures that the model outputs only take account of backwardation costs relating to the price shock.

Opening Balances

To produce the notional supplier's balance sheet and a cash flow statement that represents an existing company (as opposed to a newly formed one), the model calculates a set of opening balances. The revenue and cost-related balances are based on the assumption that the DTC level in the opening quarter of the model is also applied across the preceding year. The opening balances are as follows:

- **Opening fixed assets:** We have set the opening fixed assets value at £90 per customer, based on our calculation of 6 years' worth of depreciation and amortisation costs. Our reasoning for this decision is set out in paragraphs 4.11 – 4.26 of the consultation document.
- **Opening direct debit balance:** This figure has been calculated on the basis that direct debit balances should average zero over the annual cycle, meaning that the notional supplier does not rely on credit balances to finance its activities.
- **Opening standard credit debit balances:** We have calculated these based on the assumption that 50% of these customers are billed monthly and 50% quarterly – an approximation to the currently observed practice.

- **Opening fuel liabilities:** This represents electricity and gas fuel costs incurred in March 2023, which are paid in April 2023, assuming that the notional supplier pays for fuel the month after delivery.
- **Opening RO liabilities:** This represents RO balances accumulated in the financial year to date and is calculated using our assumed customer base and demand profile, combined with the standard RO unit charge.
- **Opening tax liabilities:** The model calculates an opening corporation tax liability by taking the full-year EBIT value as the expected profit level and applying the current corporation tax rate of 25%. We assume that VAT liabilities are paid at the end of each quarter, so the opening value in April 2023 is zero.

Other key financial assumptions

- **Ringfencing:** We have applied the approach to ringfencing set out in our April 2023 Decision on Strengthening Financial Resilience[6], meaning that there is 100% ringfencing of renewables obligations (RO) balances.
- **Dividend payments:** The model has been set up to calculate a Cash Available for Dividends value (see Equity tab, rows 40:50), but since it is being used to demonstrate the resilience of the notional supplier against a significant price shock, we make the assumption that in such a scenario the company would not be paying out dividends and have accordingly set the value of dividends paid to zero. We are also of the view that dividend payment levels and frequency greatly vary across businesses, hence it would be difficult to generalise assumptions in that regard.
- **Credit Facilities:** The model assumes that the company does not have access to a Revolving Credit Facility. Given that most observed non-vertically integrated suppliers currently don't have access to a facility of this sort, our aim was to establish an average capital employed value for a company that is entirely equity financed.

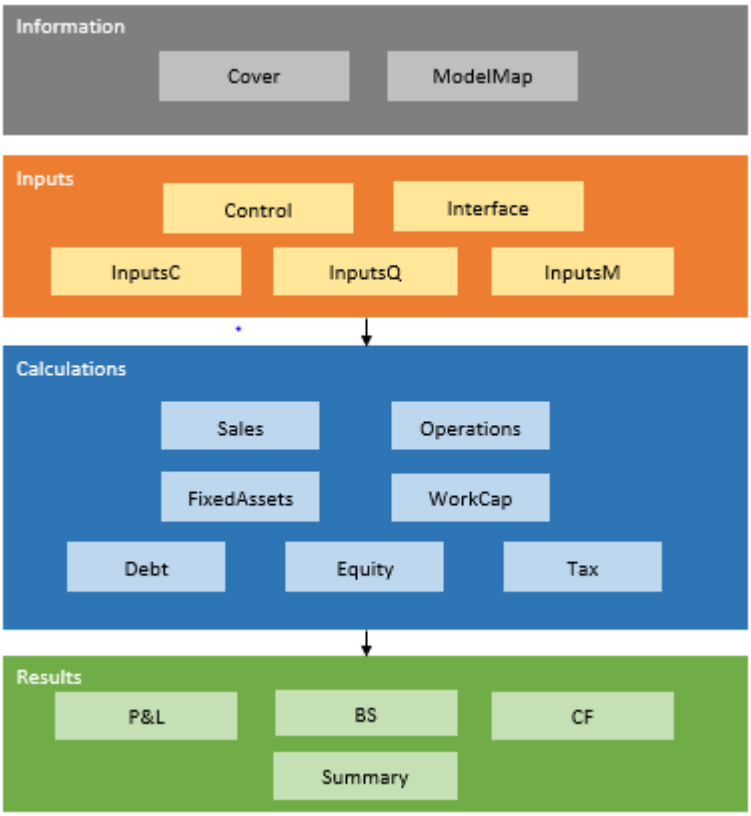
[6] Ofgem: Decision on Strengthening Financial Resilience. Available here.

3. Model Guide

Overview

Figure 1 provides an outline of the model's structure.

Figure 1. Model structure.



Sheet Descriptions

Below is a short description of the data and calculations contained within each sheet of the model.

Inputs

Control: This contains the optimisation macro, along with the data required to run this and the options on the cash and capital constraints to be applied.

For the purposes of calculating the capital employed values for this consultation, we have set both the minimum cash level and minimum capital level to zero.

Clicking on the 'Optimisation' button runs a macro that calculates how much equity needs to be injected at the beginning of the period to ensure that the company never runs out of cash, for the set of values and conditions that have been entered in the Inputs sheets.

Clicking on the button results in the 'Opening cash balance per blended SVT customer' and the 'Share capital invested opening value per blended SVT customer' being overwritten with the new

values. These feed through into the Equity and Debt sheets, and ultimately into the capital employed values.

InputsC (Constants): This contains inputs which are constant; those in yellow are the settings for the specific scenario that has been developed, while those in red are universal constants. The Sensitivities part of this sheet allows the choice of whether to include or exclude the backwardation and volume risk costs generated by the SWPM model.

InputsQ (Quarterly Inputs): This is where the inputs from SWPM's forecasting model are brought in and used to build up the quarterly price cap limit for each fuel/payment method. As part of generating the quarterly price cap data, this tab applies the backwardation deadband to determine the level of costs that are recoverable through the price cap allowance and then calculates how this will be spread over the 6 month recovery period.[7]

InputsM (Monthly Inputs): This tab contains inputs which have a monthly profile. This includes the monthly consumption profile underlying the DTC and CPIH inflation forecasts.

Calculations

The **Sales** and **Operations** sheets are used to drive revenues and costs. The **Fixed Assets**, **WorkCap**, **Equity** and **Tax** sheets are used to calculate values and balances that appear on the P&L, balance sheet and cash flow statement. The **Debt** sheet is used to calculate cash balances, including ringfenced cash balances.

Sales: The top half of this sheet calculates earned revenue in the month it is actually incurred, based on customers (by fuel, meter type, payment method), consumption, standing charges and unit rates, while the bottom half calculates inflows from direct debit, standard credit, PPM customers.

This sheet also calculates costs classified as cost of sales on the P&L – i.e. costs which change per unit of sale and which largely flow through to other industry parties (fuel costs, backwardation, network costs, policy costs).

Operations: This sheet deals only with operating costs – i.e. costs related to the activities of the supplier itself. These include:

- Operating costs (plus payment method uplift).
- An estimate of bad debt expenses (which are first backed out of the operating cost and payment method uplift allowances).
- The Depreciation & Amortisation allowance, which is backed out to be reported separately
- Smart metering network costs (treated as operating costs for simplicity)
- Additional costs, are set to match the DTC Headroom allowance (as noted above.

[7] note that during the price shock period we start with backwardation costs and determine the allowance from these, whereas during the first 6 months, we start with the allowances, and work out the costs from these).

WorkCap: The Working Capital sheet calculates balance sheet values which arise because of the difference in timings between revenues and costs being incurred, and the actual inflows and outflows of cash. These include:

- Net customer debit balances
- Net customer credit balances
- Fuel cost liabilities
- Network cost liabilities
- Policy cost liabilities (particularly RO balances which are paid once per year – and note assumed starting RO balance from the previous year)

Fixed assets: All suppliers will have tangible and intangible fixed assets on their balance sheet. Some capital will have been originally employed to purchase these. The DTC operating cost allowance has a 7%/8% depreciation component built in, and we assume that the purchase of new fixed assets matches depreciation to achieve neutrality.

Results

P&L, BS and CF sheets: These sheets set out the calculations to produce the profit and loss, balance sheet and cash flow statements for the notional supplier based on the calculations above.

Summary: This sheet presents the relevant outputs from the model's calculations to determine the average levels of working capital during the period of the price forecast scenario generated by the stochastic wholesale prices model (SWPM) model. We have rounded the average working capital value to the nearest £ 1 per customer.

The Summary sheet also charts the movements in both capital employed and cash available for operations during the modelled period. This demonstrates that while capital employed remains relatively static, there are much greater fluctuations in the level of cash available, and consequently, it is the latter that creates the binding constraint for the level of opening equity in the company.

Instructions for running the model

To run the model, carry out the following steps:

- On the 'Interface' tab, cells D19 to G26 (as shown below), enter the values for Wholesale Cost, Backwardation Cost and Volume Risk Cost from Q4 2023 to Q3 2024 that reflect the chosen price scenario. These must be expressed in £ per customer per year. No other price cap elements are required, as the model calculates these automatically. The values for Q2 2023 and Q3 2023 (rows 36 to 95) should not be updated, as they reflect actual (or very close to actual) values.

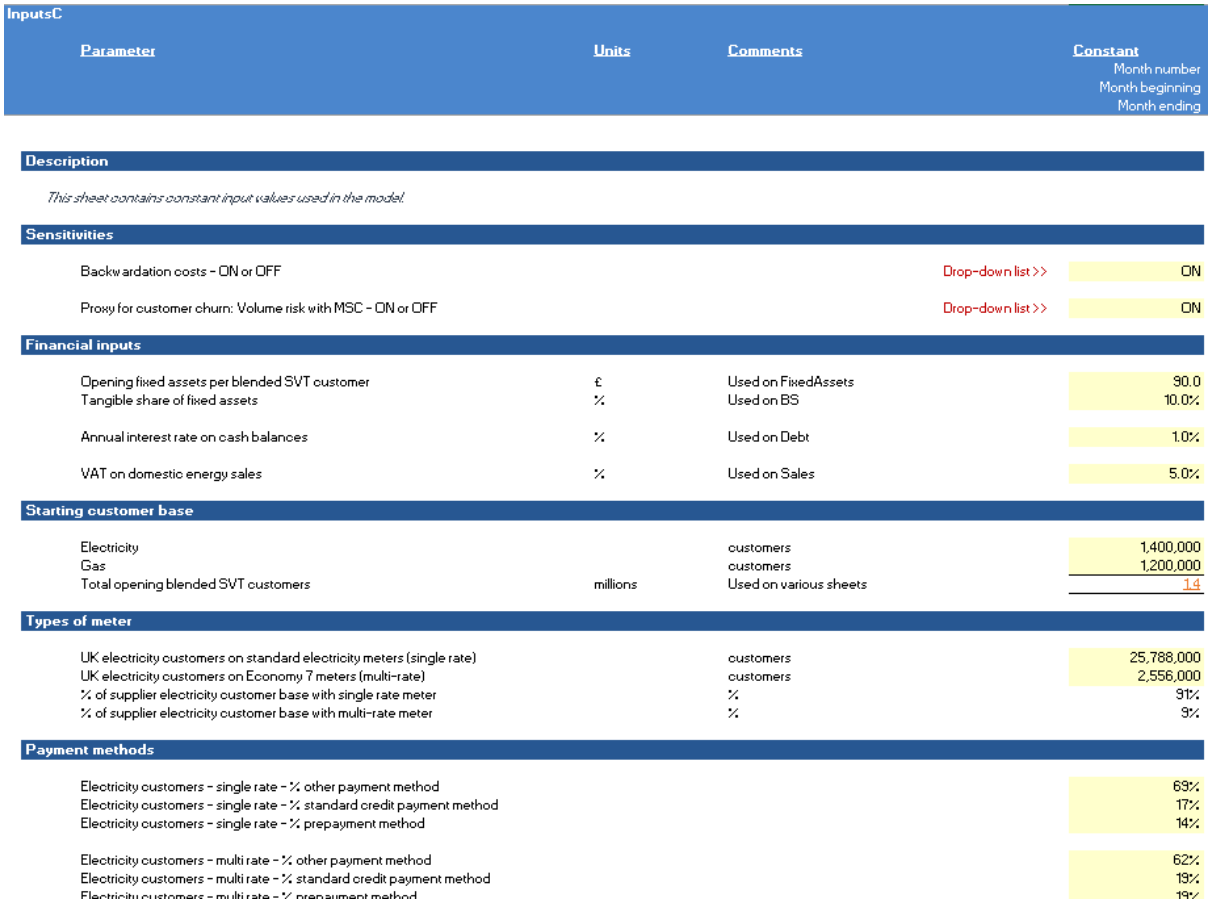
Figure 2. Price inputs to model

Values from SWPM outputs (3rd quarter of model onwards)

All values in £/customer/year	Electricity Modelled values				Assumed values	
	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025
Electricity						
Wholesale Cost	849.4	971.3	1051.2	1115.8	1115.8	1115.8
Backwardation Cost	42.0	83.5	9.0	23.5	0.0	0.0
Volume Risk Cost	5.6	6.2	1.9	2.0	0.0	0.0
Gas						
Wholesale Cost	1069.3	1205.2	1252.2	1340.0	1340.0	1340.0
Backwardation Cost	25.3	113.3	14.7	13.4	0.0	0.0
Volume Risk Cost	6.7	9.6	1.6	0.9	0.0	0.0

- On the 'InputsC' tab, enter the relevant details of the notional supplier in relation to Financial Inputs (rows 19 to 26), Starting Customer Base (rows 28 to 32), Types of Meter (rows 34 to 39) and Payment Methods (rows 41 to 53). This tab can also be used to select whether to exclude the impacts of the backwardation and volume risk costs entered in the Interface tab (rows 13 to 17). The values in the lower half of this sheet (rows 55 downwards) primarily reflect existing policy decisions made by Ofgem, and therefore should not be changed. There is also a section for "Opening Balances" (rows 127 to 135), which are calculated automatically by the model and should not be amended.

Figure 3: Supplier characteristics inputs to model

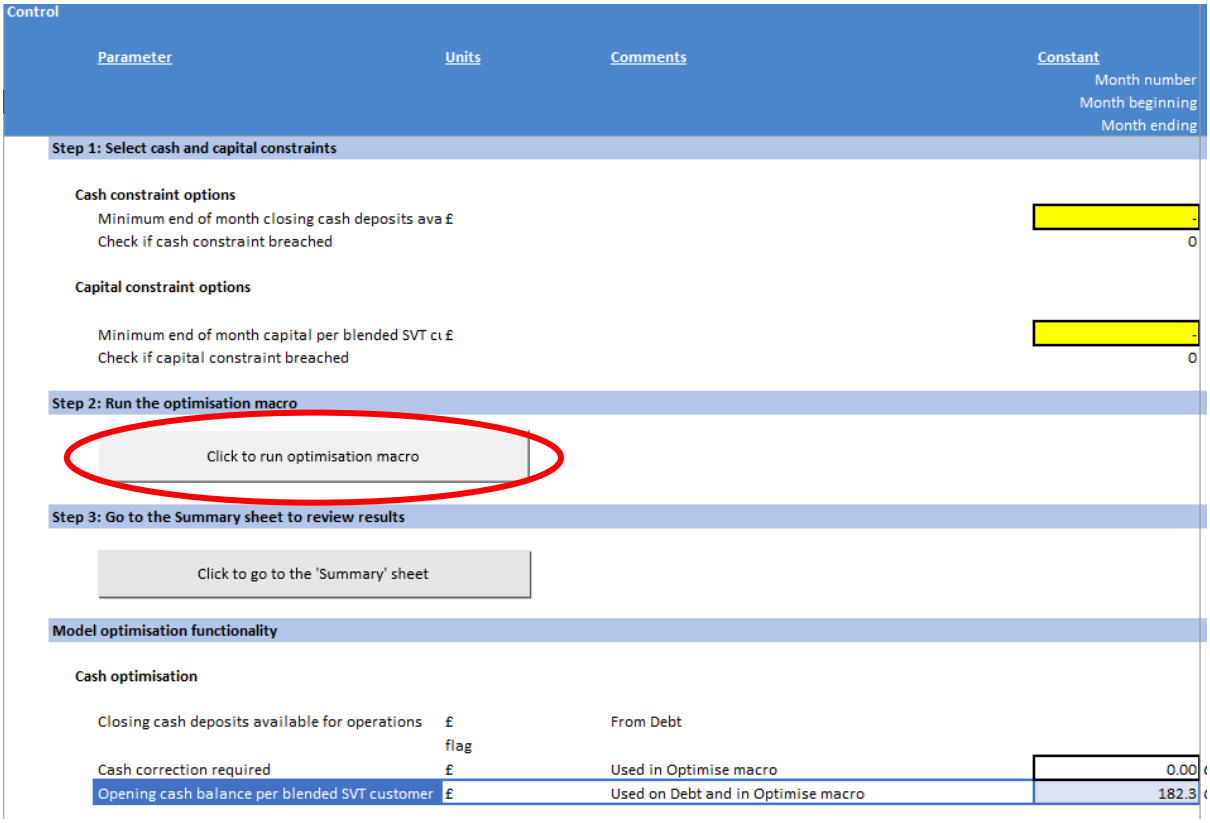


InputsC

Parameter	Units	Comments		Constant Month number Month beginning Month ending
Description				
This sheet contains constant input values used in the model.				
Sensitivities				
Backwardation costs - ON or OFF			Drop-down list >>	ON
Proxy for customer churn: Volume risk with MSC - ON or OFF			Drop-down list >>	ON
Financial inputs				
Opening fixed assets per blended SVT customer	£	Used on FixedAssets		90.0
Tangible share of fixed assets	%	Used on BS		10.0%
Annual interest rate on cash balances	%	Used on Debt		1.0%
VAT on domestic energy sales	%	Used on Sales		5.0%
Starting customer base				
Electricity		customers		1,400,000
Gas		customers		1,200,000
Total opening blended SVT customers	millions	Used on various sheets		1.4
Types of meter				
UK electricity customers on standard electricity meters (single rate)		customers		25,788,000
UK electricity customers on Economy 7 meters (multi-rate)		customers		2,556,000
% of supplier electricity customer base with single rate meter		%		91%
% of supplier electricity customer base with multi-rate meter		%		9%
Payment methods				
Electricity customers - single rate - % other payment method				69%
Electricity customers - single rate - % standard credit payment method				17%
Electricity customers - single rate - % prepayment method				14%
Electricity customers - multi rate - % other payment method				62%
Electricity customers - multi rate - % standard credit payment method				19%
Electricity customers - multi rate - % prepayment method				19%

On the 'Control' tab, run the optimisation macro by clicking the button (see figure 4. This will determine the level of opening cash required in order to keep both cash and working capital above zero for the period covered by the model. Once the 'Optimisation complete' message box appears, use the second button to jump to the Summary tab, which will show the resulting average working capital value, as well as a chart of cash and working capital levels over the model period.

Figure 4: Control tab



The ‘Control’ tab also allows for the minimum cash and working capital values to be set as non-zero values, though this is not relevant for the purposes of this modelling.

Appendix 1: Stochastic Wholesale Prices Model (SWPM)

SWPM[8] was developed by NERA for Ofgem to forecast a range of wholesale forward prices. It is used for analysing the effect of prospective changes to the price cap. Its main module is programmed in Python.

The model employs a Monte Carlo simulation to generate a large number of potential pathways for future wholesale prices, based on its observation of historic price movements. By producing a range of forecasts it allows us to identify the future price levels associated with different probabilities, and for the EBIT modelling exercise, we use the P95 forecast, to represent a 1-in-20 event.

The model is used to produce the three required input values for the Working Capital model: the DTC wholesale cost allowance; backwardation costs; and volume risk costs. Each of these is determined on a quarterly basis for the period October 2023 to September 2024. In order to calculate these values, the model uses the most recent 2 years' worth of actual price data to produce a Monte Carlo simulation of future prices out to the end of September 2024. From these forecasts, we can then calculate the P95 values for each of the three inputs to the working capital model as follows:

DTC wholesale price allowance: Calculated following the 3-1.5-12 hedging strategy set out in the DTC methodology. The forward price curve is taken from the 14-month observation window running up to 1.5 months before the start of the quarter in question, in line with the DTC methodology. Allowances for line loss (electricity only), UIG (gas only) and shaping and balancing are then added on to produce a quarterly price cap allowance value (net of backwardation costs, which are calculated separately).

Backwardation costs: Calculated by taking the difference between the wholesale price allowance as calculated above, and the average cost of forward contracts for the quarter in question (representing the expected hedging cost for the supplier).

Volume risk costs: Calculated as the cost to the supplier from either hedges sold at a loss due to customers switching away (falling price scenario) or additional hedges needing to be purchased for customers that move from fixed tariffs to SVT (rising price scenario), multiplied by the predicted number of customers that switch supplier or tariff. The number of customer switches is calculated using our estimate of price elasticities.

Users of the Working Capital model can produce their projections of wholesale allowances, backwardation, and volume risk, and test them by inputting them into the relevant cells shown in Figure 2.

[8] This model was developed in 2022 to assess the impact of policy changes in the price cap – for example the move to a quarterly cap.: https://www.ofgem.gov.uk/sites/default/files/2022-05/Price%20cap%20-%20Statutory%20consultation%20on%20changes%20to%20the%20wholesale%20methodology.pdf