| Step | Value[1] | Common reality | | Possibility | | | Human hours saved |
|---|---|---|---|---|---|---|---|
| | | What typically happens | Human hours | How it could be done | Agent hours | Human hours | |
| Review prior-period ECL | High | Very little attempt to examine variances between forecasts and actual outcomes. Forecasts include:<br>1. Economic conditions<br>2. Default / transition rates<br>3. Losses<br>Opportunities to learn from the variances are missed. | 0 | An agent could prepare a summary of forecast vs actual and perform 'what if?' analysis? For example; what would the modelled ECL have been if we had correctly forecast the economic conditions?<br>Humans could review information prepared by the agent and consider implications for their approach. | 0 | 2 | -2 |
| Determine scenarios of future economic conditions | Medium | Whilst the most likely scenario tends to be grounded in observable forecasts of economic indicators, favourable and adverse scenarios rely heavily on expert judgement. Estimates of scenario probabilities are determined qualitatively. | 2 | An agent could scour for information, summarise it and suggest scenarios, including their estimated probabilities, for humans to review. | 0 | 0.5 | 1.5 |
| Gather model input data | Low | Various people run various processes to extract data from various sources and transform it into the format required for input into the ECL system. | 20 | An agent could run the various processes, perform reconciliations and provide the required data and valuable summaries of it, for a person to review. | 0 | 0.25 | 19.75 |

[1] Value of the step in terms of its contribution to understanding portfolio behaviour and making a reasonable estimate of ECL

| Step | Value[1] | Common reality | | Possibility | | | Human hours saved |
|---|---|---|---|---|---|---|---|
| | | **What typically happens** | **Human hours** | **How it could be done** | **Agent hours** | **Human hours** | |
| Run the ECL model | Low | It is not uncommon for the model to fail, because the design of it was fragile. Someone needs to diagnose and resolve the cause of failure.<br>It is also not uncommon for the model to produce unreasonable outputs, because of either a data quality issue or an operational error. | 20 | An agent could run the model and explain the outputs, such as by producing a movement analysis. | 0 | 0.25 | 19.75 |
| Review model outputs:<br>1. Default / transition rates<br>2. LGD<br>3. ECL | High | Assuming data and operational issues have been resolved, the model itself can still produce outputs that someone considers unreasonable. Whilst the review process often leads to overrides of model outputs, rationale for decisions is often inadequately documented, leaving room for challenge by the auditor. | 2 | An agent could perform sensitivity analysis, showing how model outputs would change in response to changes in model inputs.<br>If the system captures the initial model outputs and the values post overrides, the agent could consider both raw and adjusted values when reviewing the forecasts at the next ECL calculation date. | 0 | 2 | 0 |
| Determine overlays | High | Model overlays are fixed at x%.<br>Management overlays are determined qualitatively. | 0.5 | The agent could suggest model and management overlays, in light of historical data. | | | |
| **All** | | | **45** | | **0** | **5** | **39** |

Key points:

1. Time spent on ECL can be reduced by almost 90%, from 44 hours to 5
2. The process inclusive of agents allows people to spend more time on high-value tasks
3. Not obvious from the table, but the process inclusive of agents should leave a stronger audit trail