



Wellesley

Wellesley appoints MIAC  
to conduct industry best  
practice “stress test”  
using Bank of England  
macroeconomic scenarios.

## SUMMARY TABLE\*

### Cumulative Loss (100 months) % of Gross Facility Limit

Modelling 10% Default Entry p.a. + macro impact – In stress scenarios this equates to up to 25% net default entry with up to 33% fall in house prices.

BASE	90D Sale Discount at 25%, Personal Guarantees (PGs) at 10-20%	0.04%
	90D Sale Discount at 25%, No PGs	0.13%
STRESS	90D Sale Discount at 30%, PGs at 10-20%	1.44%
	90D Sale Discount at 30%, No PGs	2.76%
STRESS with Mgt. Actions	90D Sale Discount at 30%, PGs up over scenario (capped at 40%)	0.74%
	90D Sale Discount at 30%, No PGs	2.30%

\*The full MIAC results matrix is on page 3 but the summary table above shows modelled impact of Wellesley loan book under three scenarios, i) Base, ii) Stress and iii) Stress with management actions, where the stress of severe market conditions means house prices fall up to 33% and up to 25% of development loans are in default.

## Background to Wellesley's stress testing of its loan book

**It is standard practice among banks and insurance companies to conduct stress tests using financial modelling to look at how their businesses might perform in a more extreme economic environment.**

In the alternative finance market companies have not widely published such independent stress tests, Wellesley is only aware of Landbay (2015) and Funding Circle (2014) publishing independent externally validated stress tests. Given that backdrop and the relative infancy of the sector, to get most credibility from a stress test exercise it is important that it is executed by an expert independent third party and is set against a clear set of macroeconomic and market assumptions.

Wellesley appointed MIAC Analytics Ltd (MIAC) to conduct a stress test on Wellesley's residential development loan portfolio. MIAC work with UK banks, building societies and alternative finance houses, including Landbay. In North America MIAC work for six of the top 10 largest mortgage servicers and nine of the 12 Federal Home Loan Banks, as well as providing services to the FDIC, Fannie Mae and Freddie Mac.

# MIAC's modelling and assumptions

**The modelling performed by MIAC has been designed specifically to combine the idiosyncrasies of the property development asset class in which Wellesley operate and incorporates the underlying property valuations (full RICS Red Book valuations) from one of the UK's top surveyors, such as Savills or Knight Frank.**

When under stress, these have been appropriately discounted under each economic scenario based on a combination of the information in those valuations, the housing market projection and MIAC's assumptions. MIAC implemented the macroeconomic scenarios that are used by UK regulatory bodies to assess the resilience of UK banks and building societies to a deterioration in global economic conditions.

These Bank of England derived macroeconomic scenarios cover the period 2018 to 2022 and include two key versions, i) Base Scenario, "fair weather", showing the current environment continuing and, ii) Stress Scenario, "bad weather", with house prices falling 33% in a recessionary environment. Where required, the macroeconomic variables were rebased for a 2019 projection point, and extended beyond 2022 to include the full outcome results that are manifested by the scenarios and modelling.

## ***Commenting on the results of the stress test, Joe Macklin, Director of MIAC said:***

*"MIAC have taken a conservative and matrix-driven approach to implementing the key assumptions in this exercise and have been prudent in our assessments based on the information provided.*

*Therefore, we believe the results are conservative estimates of Wellesley's future loan portfolio performance. In conclusion, given the adverse nature of the stresses we have applied in line with the Bank of England scenarios, it is anticipated that, subject to implementation of their intended strategy and lending policy, Wellesley's loan portfolio is expected to demonstrate resilience."*

# MIAC – “Summary of Report”

## The below is a summary of the stress test report as provided by MIAC.

MIAC Analytics (“MIAC”) have been engaged by Wellesley Finance Plc (“Wellesley”) to provide an independent multi-scenario stress test of the £132 million residential development portfolio (as at Jan 19) that has been originated since their strategy and lending policy change during 2016, and includes the projection of future lending volume.

A new lending volume generator was developed as part of the process to create new loans within the lending policy, and a lending policy adjusted by management actions within the ‘Stress’ scenario, to reflect the intended future growth rate of the portfolio. Given that the existing portfolio generated from Wellesley’s current strategy is not yet seasoned, and the fact Wellesley anticipate securing institutional investment for material new lending, the importance of this component of the work is paramount in providing the necessary comfort for Wellesley and their current and prospective investors and borrowers.

The assumptions incorporated into the cash flow process were generated through a combination of propriety models, analysis of the data provided versus the characteristics of the existing portfolio, market research and experience. The basis for generating and applying these assumptions to each loan is detailed in this report. While assumptions are open to discussion and debate, MIAC believes the approach to generating key assumptions has been prudent and has therefore resulted in conservative estimates of future portfolio performance.

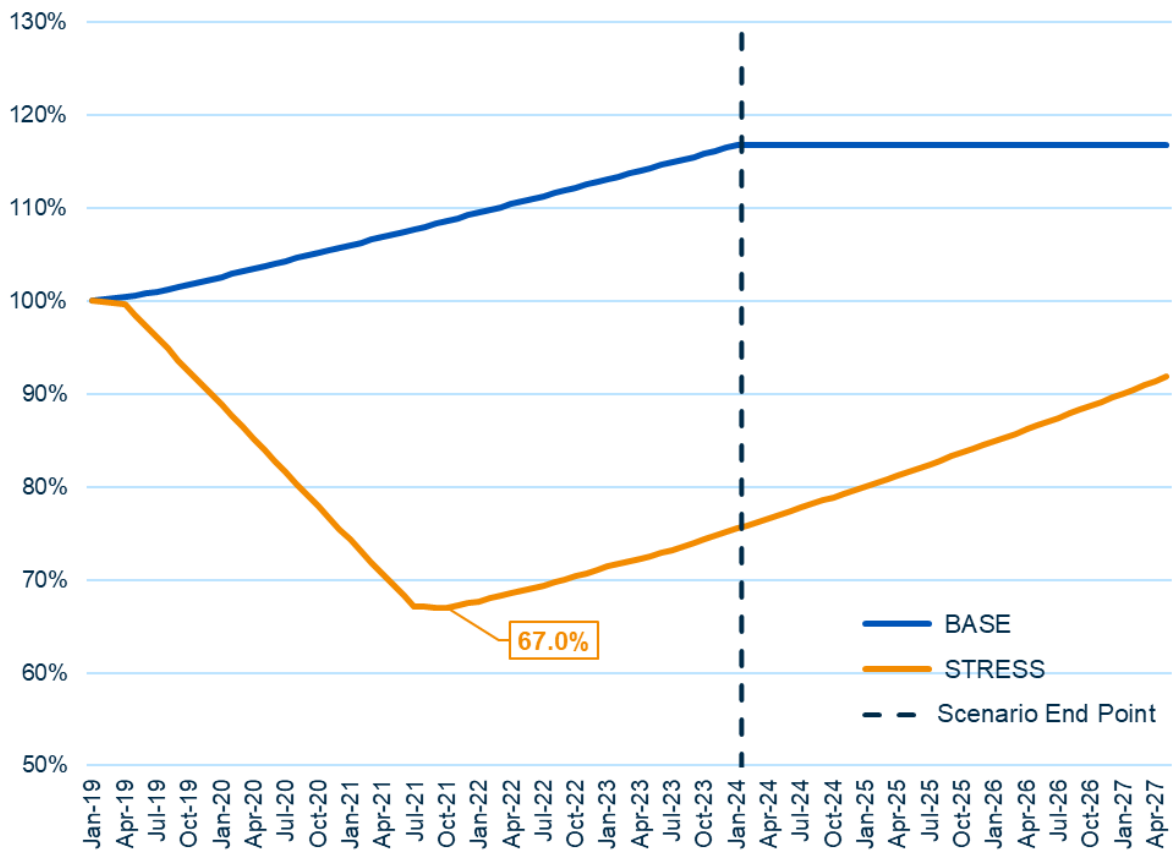
Two scenarios were applied to the portfolio, with three sets of results; 1. ‘Base’ = Outcome given expected economic environment and future lending plans, 2. ‘Stress’ = Outcome given Base lending volume and policy in a recessionary environment, 3. ‘Stress’ with management actions = Outcome given adjusted lending policy (management actions) as a result of the recessionary economic environment.

		Cumulative Loss (100 months) % of Gross Facility Limit (GFL)			
		4% Default Entry p.a. (plus Macro)	6% Default Entry p.a. (plus Macro)	8% Default Entry p.a. (plus Macro)	10% Default Entry p.a. (plus Macro)
BASE	90D Sale Discount at 25%, PGs at 10-20%	0.00%	0.03%	0.02%	0.04%
	90D Sale Discount at 25%, No PGs	0.08%	0.12%	0.15%	0.13%
STRESS	90D Sale Discount at 30%, PGs at 10-20%	0.79%	0.98%	1.27%	1.44%
	90D Sale Discount at 30%, No PGs	1.53%	2.01%	2.23%	2.76%
STRESS with Mgt. Actions	90D Sale Discount at 30%, PGs up over scenario (capped at 40%)	0.34%	0.52%	0.66%	0.74%
	90D Sale Discount at 30%, No PGs	1.19%	1.58%	1.93%	2.30%

*“The portfolio demonstrated relative resilience to the adverse economic conditions it was stressed under. The collateralised position taken on each development is instrumental in the loss insulation. Whilst difficult to reflect in the modelling until more history is derived, Wellesley’s recent increased governance and monitoring around all loan origination and management will also be essential in ensuring a risk optimised performance going forward.”*

# Appendix 1

## Cumulative House Price Paths from Projection Point



## Appendix 2

### Portfolio Profile by Gross Facility Limit (“GFL”)

GFL Band	Ac's	% Ac's
<£2m	2	11%
£2-£5m	4	21%
£5-£10m	3	16%
£10-£20m	6	32%
£20-£30m	3	16%
£30-£40m	1	5%
£40-£50m	0	0%
<b>Totals</b>	<b>19</b>	<b>100%</b>

## Appendix 3

Stress scenario Loss % GFL by Annual Lending Cohort.  
(90D Sale Discount at 30%, Personal Guarantees at 10-20%)

Default 10%	SCENARIO YEAR									60 Months	100 Months	
	Orig. Year	2019	2020	2021	2022	2023	2024	2025	2026	2027 (4 months)	Loss% GFL (Cohort)	Loss% GFL (Cohort)
	2016	0.00%	0.00%	0.47%							0.47%	0.47%
	2017	0.00%	0.00%	0.03%	0.08%						0.11%	0.11%
	2018		0.00%	0.36%	0.00%	0.00%					0.36%	0.36%
	2019			0.35%	1.02%	1.20%	0.16%				2.57%	2.73%
	2020				0.08%	1.54%	1.51%	0.02%			1.61%	3.15%
	2021					0.22%	1.84%	0.83%	0.00%		0.22%	2.88%
	2022						0.21%	0.60%	0.21%	0.00%	0.00%	1.02%
	2023							0.03%	0.14%	0.01%	0.00%	0.17%
	All Lending	0.00%	0.00%	0.03%	0.10%	0.36%	0.57%	0.28%	0.09%	0.00%	0.49%	1.44%

**Note:** Results in this table – split by lending cohort year and scenario year – are based on the stated assumptions and contribute to one cell in the overall results matrix. The 10% annual default entry rate is increased by MIAC's modelled macro risk scalars phasing between 1 and 4.9 across the stress scenario (some cure from default is assumed).