



Annex 3

Macro-economic scenarios for 2011 EU-wide stress test

		Austria		Belgium		Bulgaria		Cyprus		Czech Republic		Denmark		Estonia		Finland		France		Germany		Greece		Hungary		Ireland		Italy		Latvia		Lithuania		Luxembourg					
		2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012				
(1)	Baseline Scenario																																						
	GDP at constant prices	1.7	2.1	1.8	2.0	2.6	3.8	1.5	2.2	2.3	3.1	1.9	1.8	4.4	3.5	2.9	2.3	1.6	1.8	2.2	2.0	-3.0	1.1	2.8	3.2	0.9	1.9	1.1	1.4	3.3	4.0	2.8	3.2	2.8	3.2				
	Unemployment rate	4.2	4.0	8.8	8.7	9.1	8.0	6.6	5.9	7.0	6.7	6.3	5.8	15.1	13.6	7.8	7.2	9.5	9.2	6.7	6.3	15.0	15.2	11.0	10.3	13.4	12.7	8.3	8.2	17.7	16.2	16.9	15.1	5.6	5.6				
	Short-term interest rates																																						
	Long-term interest rates	1.5	1.8	1.5	1.8	4.5	4.8	1.5	1.8	2.0	2.4	1.7	2.2	1.5	1.8	1.5	1.8	1.5	1.8	1.5	1.8	1.5	1.8	5.9	6.1	1.5	1.8	1.5	1.8	1.8	2.0	2.1	2.4	1.5	1.8				
	Nominal USD exchange rate	3.1	3.3	3.6	3.8	6.3	6.5	5.0	5.2	3.8	4.0	2.8	3.0	5.5	5.7	2.9	3.1	3.1	3.3	2.7	2.9	11.5	11.7	7.1	7.1	8.6	8.8	4.3	4.5	10.4	10.6	5.5	5.7	3.1	3.3				
(1)	Inflation*	0.7	0.7	0.7	0.7	1.4	1.4	0.7	0.7	17.6	17.6	5.4	5.4	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	196.3	196.3	0.7	0.7	0.7	0.7	0.5	0.5	2.5	2.5	0.7	0.7				
(1)	Commercial Property Prices	2.1	1.8	1.9	1.9	3.2	3.1	3.3	2.5	2.1	2.2	2.1	2.0	3.6	2.3	2.1	1.8	1.6	1.6	1.8	2.0	2.2	0.5	3.9	3.7	0.4	0.6	1.8	1.9	1.1	1.8	2.3	2.8	2.1	1.6				
	Residential Property Prices	3.0	3.5	1.0	0.0	0.0	0.0	-2.0	0.0	0.0	1.5	0.0	1.5	7.0	5.0	0.0	0.0	0.8	1.1	2.8	3.2	-2.0	0.0	0.0	2.0	-2.5	1.5	0.6	1.8	0.0	0.0	0.1	4.9	6.9	3.4				

Source: EU Commission, National Supervisory Authorities (real estate prices)

		Austria		Belgium		Bulgaria		Cyprus		Czech Republic		Denmark		Estonia		Finland		France		Germany		Greece		Hungary		Ireland		Italy		Latvia		Lithuania		Luxembourg					
		2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012				
	Deviation from baseline																																						
	GDP at constant prices	-2.4	-2.7	-1.8	-2.2	-1.5	-2.3	-2.1	-1.6	-2.6	-1.6	-1.5	-2.0	-2.6	-4.4	-3.4	-1.7	-1.2	-1.6	-3.1	-1.4	-1.0	-2.3	-0.9	-2.0	-2.5	-1.6	-1.2	-2.4	-1.7	-3.5	-2.0	-4.6	-2.6	-2.3				
	Unemployment rate	0.3	0.8	0.2	1.1	0.1	0.9	0.3	1.2	0.8	1.7	0.9	2.5	0.3	1.4	0.5	0.9	0.1	0.6	0.1	0.6	0.2	1.1	0.1	0.6	1.5	3.1	0.3	1.0	0.6	2.6	0.4	2.1	0.0	0.1				
	Short-term interest rates																																						
	Long-term interest rates	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3			
	Nominal USD exchange rate	0.2	0.2	0.8	0.8	0.8	0.8	1.4	1.4	0.3	0.3	0.2	0.2	0.4	0.4	0.1	0.1	0.5	0.5	0.0	0.0	2.6	2.6	1.1	1.1	2.6	2.6	1.4	1.4	0.6	0.6	0.6	0.6	0.8	0.8				
	Inflation	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-1.7	-1.7	-0.5	-0.5	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-19.4	-19.4	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.1	-0.1				
	Commercial Property Prices	-0.7	-0.7	-0.7	-2.0	-0.1	-0.2	-0.4	-0.7	-0.4	-2.1	-0.5	-0.5	-0.8	-0.6	-1.5	-3.1	-0.3	-0.7	-0.4	-1.0	0.0	-0.6	-0.8	-1.1	-0.3	0.0	-0.5	-1.1	-0.5	-0.9	-0.3	-0.7	-0.7	-0.3				
	Residential Property Prices	-13.0	-13.5	-11.3	-16.6	-13.3	-14.6	-10.1	-19.3	-15.0	-21.3	-11.4	-11.5	-22.7	-27.7	-17.8	-14.1	-10.8	-26.9	-12.8	-13.2	-14.3	-17.0	-12.1	-12.0	-19.5	0.0	-10.6	-11.8	-15.1	-21.5	-15.2	-21.9	-16.9	-13.7				

Source: ECB, EBA (commercial real estate shock)

		Austria		Belgium		Bulgaria		Cyprus		Czech Republic		Denmark		Estonia		Finland		France		Germany		Greece		Hungary		Ireland		Italy		Latvia		Lithuania		Luxembourg					
		2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012				
	EBA Adverse Scenario																																						
	GDP at constant prices	-0.7	-0.6	0.0	-0.2	1.1	1.5	-0.6	0.6	-0.3	1.5	0.4	-0.2	1.8	-0.9	-0.5	0.6	0.4	0.2	-0.9	0.6	-4.0	-1.2	1.9	1.2	-1.6	0.3	-0.1	-1.0	1.6	0.5	0.8	-1.4	0.2	0.9				
	Unemployment rate	4.5	4.8	9.0	9.8	9.2	8.9	6.9	7.1	7.8	8.4	7.2	8.3	15.4	15.0	8.3	8.1	9.6	9.8	6.8	6.9	15.2	16.3	11.1	10.9	14.9	15.8	8.6	9.2	18.3	18.8	17.3	17.2	5.6	5.7				
	Short-term interest rates																																						
	Long-term interest rates	2.8	3.1	2.8	3.1	5.8	6.1	2.8	3.1	3.3	3.7	3.0	3.5	2.8	3.1	2.8	3.1	2.8	3.1	2.8	3.1	2.8	3.1	7.2	7.4	2.8	3.1	2.8	3.1	3.1	3.3	3.4	3.7	2.8	3.1				
	Nominal USD exchange rate	3.3	3.5	4.4	4.6	7.1	7.3	6.4	6.6	4.1	4.3	3.0	3.2	5.9	6.1	3.0	3.2	3.6	3.8	2.7	2.9	14.1	14.3	8.2	8.2	11.2	11.4	5.7	5.9	11.0	11.2	6.1	6.3	3.9	4.1				
	Inflation	0.6	0.6	0.6	0.6	1.3	1.3	0.6	0.6	15.9	15.9	4.8	4.8	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	176.8	176.8	0.6	0.6	0.6	0.6	0.5	0.5	2.2	2.2	0.6	0.6				
	Commercial Property Prices	-1.4	1.1	1.2	-0.1	3.1	2.9	2.9	1.8	1.7	0.1	1.6	1.5	2.8	1.7	0.6	-1.3	1.3	0.9	1.4	1.0	2.2	-0.1	3.1	2.6	0.1	0.6	1.3	0.8	0.6	0.9	2.0	2.1	1.4	1.3				
	Residential Property Prices	-10.0	-10.0	-10.3	-16.6	-13.3	-14.6	-12.1	-19.3	-15.0	-19.8	-11.4	-10.0	-15.7	-22.7	-17.8	-14.1	-10.0	-25.8	-10.0	-10.0	-16.3	-17.0	-12.1	-10.0	-2.0	1.5	-10.0	-10.0	-15.1	-21.5	-15.1	-17.0	-10.0	-10.3				

		Austria		Belgium		Bulgaria		Cyprus		Czech Republic		Denmark		Estonia		Finland		France		Germany		Greece		Hungary		Ireland		Italy		Latvia		Lithuania		Luxembourg					
		2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012				
	2010																																						
	GDP at constant prices	2.0		2.0		-0.1		0.5		2.4		2.3		2.4		2.9		1.6		3.7		-4.2		1.1		-0.2		1.1		-0.4		0.4		3.2					
	Unemployment rate	4.4		8.6		9.8		6.8		7.3		6.9		17.5		8.3		9.6		7.3		12.5		11.1		13.7		8.4		19.3		17.8		5.5					
	Short-term interest rates																																						
	Long-term interest rates	1.1		1.1		4.1		1.1		1.3		1.2		1.1		1.1		1.1		1.1		1.1		5.4		1.1		1.1		1.3		1.7		1.1					
	Nominal USD exchange rate	2.9		3.4		6.1		4.8		3.6		2.6		5.3		2.7		2.9		2.5		11.3		7.1		7.9		4.1		10.1		5.3		2.8					
	Inflation	0.8		0.8		1.5		0.8		18.9		5.6		0.8		0.8		0.8		0.8		0.8		206.2		0.8		0.8		0.5		2.6		0.8					

Source: EU Commission

Notes:

- (1) With the exception of the US and Japan the private consumption deflator is used
- (2) Baseline commercial and residential real estate price assumptions provided by the respective national supervisory authorities. Where information on baseline assumptions for commercial real estate is not available, the same movements as for residential prices have been assumed.
- (3) Deviation from baseline and adverse scenarios are explained in the ECB note on adverse scenario specification (see EBA ST 2011 002 Annex 2). For all EEA countries with exception of Ireland, adverse scenario impacts on commercial real estate are derived by adding to the baseline assumptions double of the deviation, with caps set at -10% (min) and +30% (max) (-10% < baseline + 2*deviation in inflation terms) > 30%). For Ireland, real estate price changes are following PCAR II.

Macro-economic scenarios for 2011 EU-wide stress test

		Malta		Netherlands		Poland		Portugal		Romania		Slovakia		Slovenia		Spain		Sweden		United Kingdom		Norway	
		2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
Baseline Scenario																							
GDP at constant prices	annual percent change (y-o-y)	2.0	2.2	1.5	1.7	3.9	4.2	-1.0	0.8	1.5	3.8	3.0	3.9	1.9	2.6	0.7	1.7	3.3	2.3	2.2	2.5	1.8	2.3
Unemployment rate	as % of the total labour force	6.6	6.5	4.4	4.3	9.2	8.5	11.1	11.2	7.4	7.0	14.2	13.4	7.2	6.6	20.2	19.2	8.0	7.5	7.9	7.8	3.5	3.3
Short-term interest rates	Short term nominal interest rates (3M) at year-end Euribor, Libor or similar interbank rates, depending on the country	1.5	1.8	1.5	1.8	5.1	5.4	1.5	1.8	7.2	7.5	1.5	1.8	1.5	1.8	1.5	1.8	2.1	2.4	1.4	2.0	2.5	2.4
Long-term interest rates	Long term nominal interest rates (10Y) at year-end Treasuries	4.3	4.5	2.9	3.1	5.8	5.7	6.9	7.1	7.5	7.7	4.0	4.2	4.0	4.2	4.7	4.9	3.0	3.1	3.5	3.8	3.8	3.7
Nominal USD exchange rate	Level of nominal USD exchange rate to the respective currency (year average)	0.7	0.7	0.7	0.7	2.8	2.8	0.7	0.7	3.1	3.1	0.7	0.7	0.7	0.7	0.7	0.7	6.7	6.7	0.6	0.6	5.8	5.8
Inflation*	% change from previous year (y-o-y)	2.0	2.3	1.5	1.6	2.9	3.0	2.3	1.3	5.5	3.2	3.2	2.8	2.0	2.2	1.5	1.4	1.4	1.9	2.6	1.4	1.3	2.0
Commercial Property Prices	% change from previous year (y-o-y)	1.0	2.0	4.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-15.0	-9.0	2.9	3.8	0.0	0.0	5.9	4.6
Residential Property Prices	% change from previous year (y-o-y)	1.0	2.0	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-5.3	-3.0	2.9	3.8	0.0	0.0	5.9	4.6
Source: EU Commission, National Supervisory Authorities (real estate prices)																							
Deviation from baseline																							
		2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
GDP at constant prices	annual percent change (y-o-y)	-5.1	-1.7	-2.2	-2.5	-0.9	-1.6	-2.0	-3.4	-1.5	-1.7	-2.6	-2.6	-1.1	-1.6	-1.7	-2.8	-2.9	-3.5	-2.9	-1.6	-1.9	-0.8
Unemployment rate	as % of the total labour force	0.8	2.3	0.5	1.6	0.2	1.3	0.5	1.7	0.1	0.4	0.2	0.9	0.5	1.1	1.1	3.2	0.8	2.6	1.1	2.8	0.1	0.5
Short-term interest rates	Short term nominal interest rates (3M) at year-end Euribor, Libor or similar interbank rates, depending on the country	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.0	1.0
Long-term interest rates	Long term nominal interest rates (10Y) at year-end Treasuries	1.4	1.4	0.2	0.2	0.7	0.7	2.5	2.5	0.9	0.9	0.3	0.3	0.4	0.4	1.7	1.7	0.1	0.1	0.3	0.3	0.0	0.0
Nominal USD exchange rate	Level of nominal USD exchange rate to the respective currency (year average)	-0.1	-0.1	-0.1	-0.1	-0.3	-0.3	-0.1	-0.1	-0.3	-0.3	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.7	-0.7	-0.1	-0.1	-0.2	-0.2
Inflation*	% change from previous year (y-o-y)	-1.3	-0.7	-1.0	-1.5	-0.3	-0.7	-1.1	-1.6	-1.4	-2.5	-1.2	-2.3	-0.4	-0.3	-0.6	-1.6	-1.2	-2.8	-0.7	-2.2	-0.1	-0.5
Commercial Property Prices	% change from previous year (y-o-y)	-12.6	-32.0	-14.0	-14.0	-14.2	-24.1	-10.0	-16.9	-15.5	-22.2	-10.0	-17.3	-10.0	-16.0	-14.0	-15.9	-14.8	-21.4	-15.4	-20.8	-16.0	-16.0
Residential Property Prices	% change from previous year (y-o-y)	-6.3	-17.5	-5.0	-6.4	-7.1	-12.0	-2.9	-8.4	-7.7	-11.1	-4.7	-8.6	-3.8	-8.0	-7.0	-8.0	-7.4	-10.7	-7.7	-10.4	-8.0	-8.0
Source: ECB, EBA (commercial real estate shock)																							
EBA Adverse Scenario																							
		2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012	2011	2012
GDP at constant prices	annual percent change (y-o-y)	-3.1	0.5	-0.7	-0.8	3.0	2.6	-3.0	-2.6	0.0	2.1	0.4	1.3	0.8	1.0	-1.0	-1.1	0.4	-1.2	-0.7	0.9	-0.1	1.5
Unemployment rate	as % of the total labour force	7.4	8.8	4.9	5.9	9.4	9.8	11.6	12.9	7.5	7.4	14.4	14.3	7.7	7.7	21.3	22.4	8.8	10.1	9.0	10.6	3.6	3.8
Short-term interest rates	Short term nominal interest rates (3M) at year-end Euribor, Libor or similar interbank rates, depending on the country	2.8	3.1	2.8	3.1	6.4	6.7	2.8	3.1	8.5	8.8	2.8	3.1	2.8	3.1	2.8	3.1	3.4	3.7	2.7	3.3	2.5	2.4
Long-term interest rates	Long term nominal interest rates (10Y) at year-end Treasuries	5.7	5.9	3.1	3.3	6.5	6.4	9.4	9.6	8.4	8.6	4.3	4.5	4.4	4.6	6.4	6.6	3.1	3.2	3.8	4.1	3.8	3.7
Nominal USD exchange rate	Level of nominal USD exchange rate to the respective currency (year average)	0.6	0.6	0.6	0.6	2.5	2.5	0.6	0.6	2.8	2.8	0.6	0.6	0.6	0.6	0.6	0.6	6.0	6.0	0.6	0.6	5.6	5.6
Inflation*	% change from previous year (y-o-y)	0.7	1.6	0.5	0.1	2.6	2.3	1.2	-0.3	4.1	0.7	2.0	0.5	1.6	1.9	0.9	-0.2	0.2	-0.9	1.9	-0.8	1.2	1.5
Commercial Property Prices	% change from previous year (y-o-y)	-11.6	-30.0	-10.0	-10.0	-14.2	-24.1	-10.0	-16.9	-15.5	-22.2	-10.0	-17.3	-10.0	-16.0	-29.0	-24.9	-11.9	-17.6	-15.4	-20.8	-10.1	-11.4
Residential Property Prices	% change from previous year (y-o-y)	-5.3	-15.5	-3.5	-4.9	-7.1	-12.0	-2.9	-8.4	-7.7	-11.1	-4.7	-8.6	-3.8	-8.0	-12.3	-11.0	-4.5	-6.9	-7.7	-10.4	-2.1	-3.4
2010																							
		Malta	Netherlands	Poland	Portugal	Romania	Slovakia	Slovenia	Spain	Sweden	United Kingdom	Norway											
GDP at constant prices	annual percent change (y-o-y)	3.1	1.7	3.5	1.3	-1.9	4.1	1.1	-0.2	4.8	1.8	1.9											
Unemployment rate	as % of the total labour force	6.6	4.5	9.5	10.5	7.5	14.5	7.2	20.1	8.3	7.8	3.5											
Short-term interest rates	Short term nominal interest rates (3M) at year-end Euribor, Libor or similar interbank rates, depending on the country	1.1	1.1	4.0	1.1	6.8	1.1	1.1	1.1	1.6	0.9	1.9											
Long-term interest rates	Long term nominal interest rates (10Y) at year-end Treasuries	4.1	2.7	5.7	6.6	7.3	3.8	3.8	4.4	2.8	3.1	6.0											
Nominal USD exchange rate	Level of nominal USD exchange rate to the respective currency (year average)	0.8	0.8	3.0	0.8	3.2	0.8	0.8	0.8	7.2	0.7	6.0											
Inflation	% change from previous year (y-o-y)	1.9	1.0	2.6	1.4	6.1	0.7	2.1	1.7	1.8	3.2	1.6											
Source: EU Commission																							

Notes:

(1) With the exception of the US and Japan the private consumption deflator is used

(2) Baseline commercial and residential real estate price assumptions provided by the respective national supervisory authorities. Where information on baseline assumptions for commercial real estate is not available, the same movements as for residential prices have been assumed.

(3) Deviation from baseline and adverse scenarios are explained in the ECB note on adverse scenario specification (see EBA ST 2011 002 Annex 2). For all EEA countries with exception of Ireland, adverse scenario impacts on commercial real estate are derived by adding to the baseline assumptions double of the deviation, with caps set at -10% (min) and -30% (max) (<10% < (baseline + (2*deviation in inflation terms)) > 30%). For Ireland, real estate price changes are following PCAR II.