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cep**Study**

cepDefault-Index 2016

Creditworthiness trends of eurozone countries and other countries

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Key Issues

- The cepDefault-Index 2016 describes the current creditworthiness trends of 25 EU countries¹ as well as those of Iceland, Japan, Canada, Norway, Switzerland and the USA.
- The eurozone's problems are not yet solved. Figures indicate that falling creditworthiness has become firmly established in six eurozone countries. These are Finland, Greece, Italy, Portugal, Slovenia and Cyprus.
- **Finland** has exhibited falling creditworthiness since 2013. Since then, the country has been using foreign credit to finance domestic consumption. Private investment must increase in order to reverse the trend.
- Creditworthiness trends in France have been indefinite since 2005 but have tended towards erosion at least since 2012. Since 2012, even based on the best-case scenario, almost all capacity enhancing capital formation has been financed not by domestic savings but by foreign capital. The significant increase in the propensity to consume has contributed to this.
- Greece is still not creditworthy and there is no sign of a trend reversal. In view of the continuing poor conditions it is clear that even the extensive financial aid from the other eurozone countries and the IMF is clearly outweighed by the capital flight of foreign and domestic investors. The uncertainty over Greece's economic and political future has further intimidated investors.
- ▶ Ireland has exhibited an increase in creditworthiness since 2010. Thanks to its thoroughgoing reforms, Ireland has been able to overcome the crisis which was the result of a property and credit bubble rather than eroding competitiveness.
- **Italy**'s creditworthiness has been deteriorating since 2010. Until 2012, this was due to the fact that Italy was using its borrowings, at least in part, for consumption. Since 2013, the deterioration has been due to dwindling capital stock.
- ▶ **Portugal's** creditworthiness has been deteriorating since 2004. Up until 2011, this was because borrowings were being used for the purpose of consumption. Since 2012, the deterioration has been due to dwindling capital stock.
- Slovenia's creditworthiness has been deteriorating since 2012. The country's capital stock is dwindling due to poor investment conditions. In addition to the numerous bureaucratic barriers, investment is inhibited by the high level of state influence on the Slovenian economy.
- ➤ Spain's creditworthiness has been increasing gradually since 2013. In order to avoid jeopardising what has been achieved, the future government should continue along the path of reform. The reforms already undertaken should not under any circumstances be retracted.
- **Cyprus'** creditworthiness has been deteriorating since 2013. If Cyprus leaves the Economic Adjustment Programme as planned in the first quarter of 2016, further reforms must be implemented so that the country does not risk requiring financial aid again.

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¹ Complete data is not available for Bulgaria, Croatia and Latvia.

Ranking	Country	Creditworthiness trends	I ^c : Capacity enhancing capital formation	NTE: Net lending or borrowing of the total economy	I ^c + NTE		
	Ca	ategory 1: Countries	with rising creditwo	rthiness			
1	Norway		6.2	9.4	15.6		
2	Switzerland		2.3	10.9	13.2		
3	Malta		5.5	6.2	11.7		
4	Sweden		5.8	5.8	11.6		
5	Estonia		7.4	3.5	10.9		
6	Hungary		4.2	6.0	10.2		
7	Ireland		5.1	5.0	10.1		
8	Germany		1.6	8.2	9.8		
8	Lithuania		5.6	4.2	9.8		
10	Luxembourg		6.1	3.5	9.6		
11	Poland		7.2	1.0	8.2		
12	Netherlands		1.9	6.0	7.9		
13	Denmark		0.6	6.7	7.3		
14	Austria		3.6	2.0	5.6		
15	Romania		3.1	2.2	5.3		
16	Iceland	0.9 3.3					
17	Eurozone (19)		1.5	4.1			
18	Czech Republic		0.6	4.0			
19	Belgium		0.6	3.7			
19	Spain		1.7	2.0	3.7		
21	Japan		1.0	0.5	1.5		
22	Slovakia		0.3	0.4	0.7		
	Category	2: Countries where t	rend in creditworthi	ness is uncertain			
23	Canada		4.7	-2.6	2.1		
24	USA	Ĩ	3.1	-2.3	0.8		
25	France		2.1	-1.8	0.3		
	Ca	tegory 3: Countries	with falling creditwo	orthiness			
	_	Note	_	-			
	Category 4: Countr	ries where falling cre	ditworthiness has b	ecome firmly establi	shed		
26	United Kingdom		2.9	-5.0	-2.1		
27	Finland		0.7	-0.8	-0.1		
28	Slovenia		-0.6	7.1	6.5		
29	Italy		-1.2	2.1	0.9		
30	Portugal		-1.5	-1.5 1.3 -0.2			
31	Cyprus		-1.7	-3.6	-5.3		
32	Greece		-5.9	2.8	-3.1		

> Trends in creditworthiness in the first half of 2015²

² Eurozone countries are shown in bold typeface. Creditworthiness trends shown for the eurozone countries of Luxembourg, Austria and Cyprus as well as the non-eurozone countries of Iceland, Japan, Canada, Norway, Poland, Romania, Switzerland, Hungary and the USA are from 2014 because the data for 2015 is incomplete.

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1 Introduction

Once the eurozone countries agreed on an additional third aid package with Greece, media interest in the euro crisis markedly died down. But this should not tempt us to believe that the problems in the eurozone are over. In fact the cepDefault-Index 2016 shows that for a large number of eurozone countries - Finland, Slovenia, Italy, Portugal, Cyprus and Greece - falling creditworthiness has become firmly established; a development which sooner or later will result in creditworthiness being lost altogether.

The fact that the eurozone remains in a fragile condition is shown, in particular, by Finland. There, the long-running economic crisis has led to a discussion about whether to keep the euro as the national currency and there will be referendum on whether to do away with it.

Another danger is looming in that many eurozone economies are seeing a diminution of capital stock. Investment is negative and capital is flowing out of the affected countries. This development, which in the early years of the euro crisis was not pronounced, can be seen in Greece, Italy, Portugal, Slovenia and Cyprus. In order to take account of this phenomenon, the methodology of the cepDefault-Index has been extended accordingly (see Section 2).

The current period of tranquillity on the government bonds market is thus misleading. It is not the result of a sustained recovery in the eurozone but of intervention by the European Central Bank (ECB), which is buying government bonds and thus having a calming effect on capital market players. Measures to permanently stabilise the eurozone therefore remain urgently necessary. Reestablishing the competitiveness of the economies in the problem countries must take priority in this regard. The EU Commission has only limited influence on this. It requires a national willingness to reform.

This cepDefault-Index describes the creditworthiness trends of the eurozone countries and the other EU countries as well as selected countries outside the EU.

The Index measures not only the creditworthiness trends of the public sector but also the entire economy, thus it incorporates private households and companies including the financial sector. This is essential because the creditworthiness of the public sector is heavily dependent on its ability to levy taxes and thus generate funds. This ability is in turn dependent on the competitiveness of companies: where the competitiveness of the private sector declines, the public sector faces an erosion of the national tax base.

Section 2 first describes the methodology and structure of the cepDefault-Index. Section 3 presents a summary of the creditworthiness trends in the evaluated economies.

Sections 4 to 7 describe the creditworthiness trends in the European Union and in major non-EU countries since 1999. For most EU countries, the data for the first half of 2015 was already available. For Luxembourg, Austria, Poland, Romania, Hungary and Cyprus and the non-EU countries which were evaluated, this data was not yet available so the trends up to the end of 2014 were used. Bulgaria, Croatia and Latvia could not be evaluated due to a lack of reliable information.

Section 4 contains the country reports of the problem countries of the eurozone: Finland, France, Greece, Ireland, Italy, Slovenia, Spain, Portugal and Cyprus. Section 5 contains the current figures in the cepDefault-Index for the remaining eurozone countries - Belgium, Germany, Estonia, Lithuania, Luxembourg, Malta, Netherlands, Austria and Slovakia - as well as for the eurozone as a whole.

Section 6 shows the Index values for the remaining EU Member States - Denmark, Poland, Romania, Sweden, Czech Republic, Hungary and the United Kingdom. Section 7 contains the figures for major economies outside the EU, namely Iceland, Japan, Canada, Norway, Switzerland and the USA.

In September 2014, the European statistics authority, Eurostat, and the national statistics agencies converted their data collection systems to the "European Systems of National and Regional Accounts" (ESA 2010) adopted in 2010. The ESA 2010 replaced the ESA 1995. Thus, the data collected under this system also forms the basis of the cepDefault-Index. In order to allow for time series to be examined without changing the data collection rules, the data for previous years has also been recalculated in accordance with the ESA 2010 rules. For most countries, the use of ESA 2010 data in the cepDefault-Index does not result in any major changes in the creditworthiness trends. Exceptions to this apply only to Belgium and Slovenia: Under the ESA 1995, capacity enhancing capital formation in Slovenia increased in 2012 and 2013 but under the ESA 2010 it decreased. Belgium's overall net lending or borrowing in 2013 was negative under the ESA 1995 but positive according to the ESA 2010. In the other years there were no such divergences in either country.

2 Methodology of the cepDefault-Index

The cepDefault-Index measures the trends in a country's ability to repay foreign credits, in other words, its creditworthiness.³ This does not depend solely on the country's indebtedness but rather on the stability of the entire economy. The competitiveness of companies on world markets has particular influence on a country's creditworthiness. The erosion of competitiveness invariably leads to higher imports and lower exports and thus to a current account deficit⁴ the flip side of which is an increase in the foreign debt⁵ of private economic operators. In addition to government budgets, the cepDefault-Index therefore also takes account of the credit behaviour of banks, companies and consumers and thus measures the creditworthiness trends for the country as a whole.

The Index looks at two variables in relation to the calendar year and as a percentage of the gross domestic product (GDP): (1) the level of capacity enhancing capital formation (I^c) and (2) the net lending or borrowing of the total economy (NTE). Also of importance for the Index is (3) the sum of these two variables.

Capacity enhancing capital formation includes the net values (after depreciation) for fixed capital formation by companies and the public sector. Housing construction is not included as it does not result in an expansion of production potential. The fact that house construction is left out of the cepDefault-Index has the welcome side-effect that the creditworthiness trends of an economy can be measured without any distortion of the result arising from housing market bubbles. A positive value for capacity enhancing capital formation means that during the period in question additional production potential has been created giving rise to value added which can be used to pay off foreign credit. A negative value means that the potential of the economy, and thus its creation of value added which can be used to pay off foreign credit, is shrinking. This is a clear indication that an economy's creditworthiness is being eroded.

The net lending or net borrowing of the total economy illustrates how much capital an economy requires from abroad and/or how much it transfers abroad. A negative NTE, i.e. net capital imports, may be caused by the following: Firstly, it may arise as a result of domestic current account deficits - due to a lack of competitiveness - which are financed by foreign credit. Secondly, it may arise where foreigners undertake more (direct) investment domestically than abroad and this is financed by corresponding money transfers. Thirdly, it may arise where nationals move large volumes of capital from abroad (capital flight) back home.

For easier interpretation of the index results, the economies surveyed are divided into four risk categories.

Risk Category 1 (green light) exists where both the l^c value and the NTE value are positive. This means: The country's creditworthiness is increasing because it has created additional production potential in the year in question. In addition, it does not need capital from abroad; both capacity enhancing capital formation and domestic consumption can be financed on balance from domestic capital formation and there is even a surplus to invest abroad. The country is therefore increasing its creditworthiness.

³ It therefore measures a process rather than a state of affairs.

⁴ Where there are flexible exchange rates, an adjustment is made over time which results in the balancing of the current account. However, in a currency union such an adjustment is not possible.

⁵ Or the depletion of private assets.

Risk Category 2 (yellow light) exists where a positive l^c value is accompanied by but exceeds a negative NTE value, i.e. the overall result is positive. In this case, it is not possible to give a clear assessment of the creditworthiness trend in the country in question because, on the one hand, additional production potential is being created, but, on the other, foreign capital is required, even if only a small amount.

In this situation, the crucial question is whether the influx of foreign capital is being used for investment or consumption⁶. This question is important because foreign credits used for capacity enhancing capital formation create fixed assets with which interest and credits can be paid back, given a reasonable rate of return on investment. This type of qualified net borrowing may even indicate that a country is highly attractive as a business location because foreign investors see profitable investment opportunities and seek to make use of them. On the other hand, foreign credits used for consumption expenditure do not add any value that might contribute to the repayment of interest and credits. In this case, domestic resources must be used to repay the external credit. This type of qualified net borrowing arises in particular where the economy is losing, or has already lost, its competitiveness on world markets.

The official statistics do not indicate for what purpose foreign capital is used domestically - investment or consumption. In order to avoid ultimately unreliable estimates, the cepDefault-Index assumes a best-case scenario in favour of the surveyed economy. The calculation is based on the assumption that domestic investment is primarily funded from borrowings, while domestic income is primarily used for consumption expenditure. In other words, the assumption is that foreign credits maximise output which facilitates their repayment.

This leads to a systematic distortion: the Index makes the country look healthier than it actually is because it assumes that, for the maximum possible level of repayment of interest and capital, new production capacities will arise which are attributable to the foreign credit and whose additional output will facilitate the repayment of the foreign credit. In reality, this is obviously not the case.

Risk Category 3 (red-yellow light) may exist in two forms which differ according to whether the capacity enhancing capital formation is positive or negative.

The first form is characterised by the fact that although - as in Category 2 - a positive I^c value is accompanied by a negative NTE, unlike category 2, the NTE value exceeds the I^c value, i.e. the I^c + NTE value is negative. This means: The country's creditworthiness is declining because the country needs more foreign capital than the total amount used for capacity enhancing capital formation. In other words: In arithmetical terms, the country is consuming not only 100% of the domestic income but, in addition, also a part of the net capital imports. Hence, the national economy incurs foreign debt in order to finance consumption. Such a trend threatens creditworthiness.

These correlations reveal an important feature of the cepDefault-Index: It distinguishes between whether a problem country reduces its demand for foreign credit by reducing consumption or by reducing capacity enhancing capital formation. Only the former approach to reform is sustainable and therefore reflected in the Index. A drop in net borrowing at the cost of capacity enhancing capital formation, however, does not affect the Index. In order for the Index to show a trend reversal, a drop in net borrowing must be accompanied by the avoidance of consumption rather than of investment because the latter results in a decline in the economy's production potential -

⁶ Here, and in the rest of the report, consumption refers to all expenditure which does not constitute capacity enhancing capital formation. Consumption in this sense therefore also includes, in particular, private housing construction.

which is crucial for the repayment of foreign credit - relative to the demand for foreign credit. This hinders debt sustainability.

The second - even more problematic - form is characterised by the fact that the l^c value is actually negative. This also means: The country's creditworthiness is declining because capital stock - which it needs to pay off foreign credit - is, in this case, actually in absolute decline. Falling capital stock is a sign of a lack of competitiveness and low long-term growth expectations for companies; as a result of their expectations, foreign and domestic investors are not even willing to invest domestically at the level required simply to maintain the existing level of economic output. The diminished capital stock then actually results in low - or even negative - economic growth and rising unemployment. This sort of vicious circle of self-fulfilling expectations can lead to the impoverishment of a country.

In this situation, the question whether NTE is also negative or positive, is of secondary importance as regards the trend in creditworthiness. A negative NTE indicates that irrespective of the negative net investment activity, foreign capital is required just to continue financing excessive domestic consumption - because there is no net investment. A positive NTE indicates that the fall in investment activity, and thus in economic output, is accompanied by the withdrawal of foreign capital, and possibly even by capital flight on the part of domestic investors transferring their money abroad.

Risk Category 4 (red light): Erosion of creditworthiness lasting for one or more years, in the forms described under Risk Category 3, indicates that this not a temporary problem but a structural one; the risk of a complete loss of creditworthiness has intensified or, in fact, taken place.

Risks to a country's fiscal policy resulting from property and banking sector bubbles are deliberately only taken into account by the cepDefault-Index insofar as they lead to demand for foreign credit, or to negative net investment, because this sort of bubble can only damage an economy's international creditworthiness in such cases.

The cepDefault-Index also deliberately leaves out the origin of the foreign credit. This is sensible because state financial aid – ESM, EFSF, EFSM, IWF and individual eurozone countries - in fact simply replaces private foreign creditors with public foreign creditors without directly affecting the demand for foreign capital. This approach is the only way to provide an unrestricted picture of the structural situation of the economy.



The methodology used by the cepDefault-Index is summarised below:

The cepDefault-Index

3 Overview of the cepDefault-Index values for the countries surveyed

The table on the next page shows the trends in creditworthiness for the economies surveyed in the first half of 2015. No half-yearly values are available for Iceland, Japan, Canada, Luxembourg, Norway, Austria, Poland, Romania, Switzerland, Hungary, the USA and Cyprus. In this case, creditworthiness trends for 2014 are shown. No reliable figures are available for Bulgaria, Croatia or Latvia so the Index for these countries has not been calculated. The creditworthiness trends of the countries over time are set out in Sections 4 to 7.

As the table shows, the creditworthiness trends of the eurozone countries remain very mixed. The creditworthiness of Malta, Estonia and Ireland has increased the most. Ireland's creditworthiness trend is remarkable considering that the country was receiving financial aid until 2013.

The largest decline in creditworthiness, as in the previous years, has been in the two southern European countries of Greece and Cyprus. The fact that the erosion of creditworthiness is now accompanied by negative investment quotas, in all the problem countries apart from Finland and the United Kingdom - by contrast with the early years of the euro crisis - gives cause for concern. This intensifies the problems of these countries because it makes it even more difficult for economies that, on balance, are receiving less investment, to regain their competitiveness and thereby eliminate the main cause of the erosion of creditworthiness.

Ranking	Country	Creditworthiness trends	I ^c : Capacity enhancing capital formation	l [¢] + NTE				
	Ca	ategory 1: Countries	with rising creditwo	orthiness				
1	Norway		6.2	9.4	15.6			
2	Switzerland		2.3	10.9	13.2			
3	Malta		5.5	6.2	11.7			
4	Sweden		5.8	5.8	11.6			
5	Estonia		7.4	3.5	10.9			
6	Hungary		4.2	6.0	10.2			
7	Ireland		5.1	5.0	10.1			
8	Germany		1.6	8.2	9.8			
8	Lithuania		5.6	4.2	9.8			
10	Luxembourg		6.1	3.5	9.6			
11	Poland		7.2	1.0	8.2			
12	Netherlands		1.9	6.0	7.9			
13	Denmark		0.6	6.7	7.3			
14	Austria		3.6	2.0	5.6			
15	Romania		2.2 5.3					
16	Iceland		3.3	4.2				
17	Eurozone (19)		1.5	2.6	4.1			
18	Czech Republic		3.4	0.6	4.0			
19	Belgium	8	0.6	3.7				
19	Spain		1.7	2.0	3.7			
21	Japan		1.0	0.5	1.5			
22	Slovakia		0.3	0.4	0.7			
	Category	2: Countries where t	rend in creditworthi	ness is uncertain				
23	Canada		4.7	-2.6	2.1			
24	USA		3.1	-2.3	0.8			
25	France		2.1	-1.8	0.3			
	Ca	tegory 3: Countries	with falling creditwo	orthiness				
	-	2	_	-	_			
	Category 4: Count	ries where falling cre	ditworthiness has b	ecome firmly establis	shed			
26	United Kingdom		2.9	-5.0	-2.1			
27	Finland		0.7	-0.8	-0.1			
28	Slovenia		-0.6	7.1	6.5			
29	Italy	-1.2 2.1 0.4						
30	Portugal		-1.5 1.3 -0.2					
31	Cyprus		-3.6	-5.3				
32	Greece		-5.9	2.8 -3.1				

Trends in creditworthiness in the first half of 2015⁷

⁷ Eurozone countries are shown in bold typeface. Creditworthiness trends shown for the eurozone countries of Luxembourg, Austria and Cyprus as well as the non-eurozone countries of Iceland, Japan, Canada, Norway, Poland, Romania, Switzerland, Hungary and the USA are from 2014 because the data for 2015 is incomplete.

4 **Problem Countries**

In the following Section, the creditworthiness trends of selected countries since 1999 are presented by way of country profiles. The country profiles cover all eurozone countries currently exhibiting a decline in creditworthiness and/or requiring financial aid from other eurozone countries: these are Finland, Greece, Italy, Portugal, Slovenia and Cyprus. In addition, country profiles have also been provided for eurozone countries that have required financial aid in the past even though their creditworthiness is not currently declining; those are Ireland and Spain. Finally, France's creditworthiness trends are also set out in a country profile. Although a clear statement on the decline in France's creditworthiness is not currently possible, France is right on the border with an Index value of just 0.4. In view of the size of its economy, France's declining creditworthiness could have major consequences for the eurozone.

In addition to a summary of creditworthiness trends, each country profile contains four bar charts: Of importance for the Index are capacity enhancing capital formation (I^c), net lending or net borrowing of the total economy (NTE) and the sum of the two (I^c + NTE). The rate of consumption is also shown.

The bar colouring in the first three charts corresponds to the methodology of the Index: It indicates whether the respective value is unproblematic (green) or problematic (red) or whether no assessment can be made (yellow) or whether it is irrelevant for the report (pale). The NTE values and the I^c + NTE values always show the same bar colours. The colouring system is briefly explained below.

Negative I^c values are red because the capital stock is diminishing. In this case, creditworthiness is eroding. The colours of the corresponding NTE values and I^c + NTE values are then shown as pale because they are irrelevant for assessing creditworthiness trends. Positive I^c values are green as they signal a growth in capital stock, which is a necessary but insufficient condition for increasing creditworthiness.

Where I^c values are positive, the NTE values - and thus also the I^c + NTE values, which are necessarily positive - are also green because the country is increasing its creditworthiness.

Where I^c values are positive but NTE values negative, the colour of the NTE values and of the I^c + NTE values depends on the indication given by the I^c + NTE value. Where the I^c + NTE value is positive it will be yellow, for a negative one it will be red. Yellow indicates that borrowings can be used in full for capacity enhancing capital formation, i.e. they are not required to finance consumption. In this case the creditworthiness trend is uncertain. Red indicates that borrowings exceed capacity enhancing capital formation. In this case, some of the borrowings will be used for consumption. The country's creditworthiness is declining.

The fourth chart in the country profiles shows the consumption rate as a percentage of disposable income. Although it is not part of the calculation of the trend in creditworthiness, declining creditworthiness is often accompanied by excessive consumption. The illustration of the consumption rate therefore provides an impression of how serious the current problems of a country really are. The critical threshold is considered to be a consumption rate of 100% of the disposable income.

4.1 Finland

Summary: Finnish creditworthiness has declined since 2013. This trend continued in the first half of 2015.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	1	1	1	1	1	1	1	1	1	1	1	1	2	2	3	3	4
I ^c	4,2	4,5	4,5	3,4	3,4	3,6	3,8	3,7	5,0	4,9	2,5	2,2	2,6	2,2	1,3	1,0	0,7
NTE	6,9	7,6	8,1	8,2	4,9	5,9	3,3	4,1	4,2	2,8	2,1	1,5	-1,4	-1,8	-1,7	-2,1	-0,8
I ^c + NTE	11,1	12,1	12,6	11,6	8,3	9,5	7,1	7,8	9,2	7,7	4,6	3,7	1,2	0,4	-0,4	-1,1	-0,1

Capacity enhancing capital formation (I^c): Investment activity in Finland has never recovered since the slump in 2009, and has in fact declined further. In the first half of 2015, capacity enhancing capital formation was at an all-time low of 0.7% of GDP.



Net lending or net borrowing of the total economy (NTE): In 2011, Finland became a net borrower for the first time since the introduction of the euro in 1999. This has not changed since then. After reaching an historic high of 2.1% of GDP in 2014, borrowings fell back significantly in the first half of 2015 to 0.8%.



I^c + NTE: The I^c + NTE value from the marginally positive I^c and the negative NTE has been negative since 2013. This is also true, if to a lesser extent, for 2015. Creditworthiness has therefore deteriorated for a third year in a row.



Consumption rate: Since the introduction of the euro in 1999, the Finnish consumption rate has risen by over 15 percentage points to 100.8% of the disposable income. Since 2011, it has exceeded the average for the eurozone; in the first half of 2015, it was even 6 percentage points above it.



Result: Finland's creditworthiness has been deteriorating since 2013. This trend continued in the first half of 2015.

Cause: Although capacity enhancing capital formation in Finland was slightly positive in the first half of 2015, despite a generally downward trend, it was again below the foreign capital requirement. Foreign credits thus continued to be used, as they have been since 2013, at least in part, to finance consumption.

Recommended action: Private investment must increase in order to strengthen creditworthiness. For this, first and foremost, there must be structural change - away from the paper industry towards industries with a more promising future. Since the creation of businesses will help to ensure the success of this type of structural change, the low start-up level in Finland must be increased by improving the conditions.

4.2 France

Summary: France's creditworthiness trend has been uncertain since 2005 and this continued in the first half of 2015.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2
											$\bigcirc \bigcirc \bigcirc$		$\bigcirc \bigcirc \bigcirc$				
le.	4,2	4,7	4,5	3,9	3,8	3,9	4,0	4,2	4,7	4,6	3,0	3,1	3,3	3,2	2,9	2,6	2,2
NTE	2,7	1,5	1,4	1,2	0,3	0,5	-0,4	-0,6	-1,0	-1,4	-1,6	-1,7	-2,2	-3,1	-2,6	-2,3	-1,8
I ^c + NTE	6,9	6,2	5,9	5,1	4,1	4,4	3,6	3,6	3,7	3,2	1,4	1,4	1,1	0,1	0,3	0,3	0,4

Capacity enhancing capital formation (I^c): The fall in capacity enhancing capital formation, which began in 2011, also continued in the first half of 2015. Nevertheless, at 2.2% of GDP, France's investment rate remained significantly higher than the eurozone average (1.5%).



Net lending or net borrowing of the total economy (NTE): The foreign credit requirement, which had been constant since 2005, fell in the last two years and this trend continued in the first half of 2015 when it fell to 1.8% of GDP.



I^c + NTE: The sum of I^c and NTE has been positive since the introduction of the euro, but since 2012 has been only at the very lowest level, due to the high level of borrowings.



Consumption rate: Over the last three years, the French consumption rate has remained stable at 98% of the disposable income and thus just below the critical threshold of 100%. Since 2009, it has exceeded the average for the eurozone - in the first half of 2015, with 97.8%, by just 3 percentage points.



Result: Creditworthiness trends in France have been indefinite since 2005 but have tended towards erosion at least since 2012.

Cause: Since 2005, France has been financing an increasing amount of its investments by way foreign credits rather than domestic savings. Since 2012, even in the best-case scenario (see Section 2), virtually the entire capacity enhancing capital formation has been financed by way of foreign capital. The propensity to consume, in particular, which has risen significantly since 2009, has contributed to this. France as a production location is also showing high production costs. Because a large proportion of French exports are sensitive to price increases, large sections of the French economy are quite if not totally uncompetitive.

Recommended action: To improve creditworthiness, either the price competitiveness of the French economy must be improved or the less price sensitive hi-tech sector must be expanded. In both cases, comprehensive structural reforms are necessary. Improving international competitiveness would also reduce the high unemployment rate.

4.3 Greece

Summary: The erosion of Greek creditworthiness began in 2002. Today the country is uncreditworthy.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	2	2	2	3	3	4	4	4	4	4	4	4	4	4	4	4	4
Ic.	7,8	7,7	8,2	7,3	7,5	6,5	4,1	5,4	7,0	6,2	3,8	0,5	-1,8	-5,5	-6,2	-6,3	-5,9
NTE	-5,0	-7,2	-7,7	-8,3	-9,6	-7,5	-8,5	-10,6	-13,7	-14,9	-12,3	-9,7	-8,5	-2,6	0,3	3,7	2,8
	2.8	0.5	0.5	-1.0	-2.1	-1.0	-4.4	-5.2	-6.7	-8.7	-8.5	-9.2	-10.3	-8.1	-5.9	-2.6	-3.1

Capacity enhancing capital formation (I^c): Greek capital stock has declined massively since 2011. In the first half of 2015 alone, the drop amounted to 5.9% of Greek GDP. No other eurozone country has seen anywhere near such a severe drop in the capital stock. The reasons for this are the lack of international competitiveness, the largely inoperative public administration and additionally, since 2015, the political uncertainty. Foreign and domestic investors are not willing to invest under these conditions. The longer this trend continues, the more impoverished the country becomes. The negative I^c value can be traced back to the private sector: Whilst public net investment is slightly positive, private is strongly negative.⁸



Net lending or net borrowing of the total economy (NTE): From 1999 to 2012, Greece constantly took on new foreign debt. Since 2013 this trend has gone into reverse: Domestic and foreign capital, which is urgently needed in order to at least maintain capital stock if not to rebuild it, is flowing out of the country.



⁸ Cf. European Commission database, Ameco, online at: <u>http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm</u>, accessed on 18.01.2016. **I**^c + **NTE:** The sum of I^c and NTE has been negative since 2002. Initially, this was due to the huge level of capital imports which exceeded the still positive net investment to an ever increasing degree. In 2011 and 2012, both NTE and the I^c value were negative. Since 2013, the negative I^c + NTE value has been exclusively due to the negative I^c value.



Consumption rate: The Greek consumption rate has been significantly higher than the critical 100% threshold since 2005. In the first half of 2015, the Greek economy consumed 114.9% of the disposable income. The Greek consumption rate is thus the highest in the EU. No other country has anywhere near such a high consumption rate. Initially, the excessive consumption was financed by borrowings. Now that foreign private investors are no longer willing to lend, consumption continues at the cost of investment.



Result: Greece is still not creditworthy and there is no sign of a reversal in this trend.

Cause: The decline in Greek creditworthiness was initially due to excessive demand for foreign credit to finance consumption; today it is the result in dwindling capital stock. Greece has been losing capital since 2013. In view of the continuing poor conditions it is clear that even the extensive financial aid from the other eurozone countries and the IMF is clearly outweighed by the capital flight of foreign and domestic investors. Thus capital is lacking for urgently needed investment.

Recommended action: Investment conditions must improve in order to strengthen creditworthiness. The uncertainty over Greece's economic and political future, in particular, has intimidated investors. Greece must decide whether it wants to implement reforms and remain in the euro or whether to leave the euro. The cost of the erratic policy which it has followed up to now is reflected in the dwindling capital stock.

4.4 Ireland

Summary: Ireland's creditworthiness has increased continuously over the last three and a half years and in the first half of 2015 it reached its highest level since the introduction of the euro in 1999. The fact that Ireland needed financial aid between 2010 and 2013 was due to bubbles in the capital investment market. The cepDefault-Index deliberately only provides a rudimentary indication of such risks. For this reason, the Index did not show a clear fall in creditworthiness in any year.



Capacity enhancing capital formation (I^c): In the course of the Irish economic crisis, capacity enhancing capital formation collapsed dramatically in 2009 and 2010. This trend has reversed in the last year and a half. In the first half of 2015, capacity enhancing capital formation again rose to 5.1% of GDP and thus reached almost three and a half times the eurozone average.



Net lending or net borrowing of the total economy (NTE): Since 2010, Ireland has once again become a net exporter of capital. In the first half of 2015, capital exports reached 5.0% of GDP. This is the highest level since the introduction of the euro in 1999.



I^c **+ NTE:** The sum of I^c and NTE has been positive since the introduction of the euro. This was also the case during the crisis when it sank to values below 2 but thus remained positive despite a negative NTE. Since overcoming the crisis, it has gone up more and more and reached its highest point in the first half of 2015.



Consumption rate: The Irish consumption rate as a percentage of the disposable income rose significantly in 2008 and 2009. Since then, however, it has fallen by 13.8 percentage points to reach 83.9% in the first half of 2015. It is thus back at the same level it was at when the euro was introduced and during the years before the crisis as well as being significantly below the eurozone average.



Result: Irish creditworthiness has gone back up since 2010.

Cause: Thanks to its thoroughgoing reforms, Ireland has been able to overcome the crisis - which was the result of a property and credit bubble rather than of a decline in competitiveness or excessive foreign debt. Since 2014, the stark rise in capacity enhancing capital formation has also contributed to Ireland's positive creditworthiness trend.

Recommended action: –

4.5 Italy

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	1	2	1	2	2	2	2	2	2	2	2	3	3	4	4	4	4
						$\bigcirc \bigcirc \bigcirc$				$\bigcirc \bigcirc \bigcirc$							
I ^c	3,8	4,37	4,4	4,7	4,2	4,2	4,1	4,3	4,3	3,6	2,0	1,8	1,4	0,1	-0,8	-1,2	-1,2
NTE	1,0	-0,04	0,2	-0,5	-0,7	-0,4	-0,9	-1,4	-1,3	-2,8	-1,9	-3,5	-3,0	-0,2	1,0	2,2	2,1
I ^c + NTE	4,8	4,33	4,6	4,2	3,5	3,8	3,2	2,9	3,0	0,8	0,1	-1,7	-1,6	-0,1	0,2	1,0	0,9

Summary: Italian creditworthiness has been declining since 2010. This trend continued in 2015.

Capacity enhancing capital formation (I^c): In the first years following the introduction of the euro, Italy's capacity enhancing capital formation was still above the eurozone average.⁹ Since 2003, it has been below it and the gap has widened from year to year. Since 2013, Italy's capital stock has diminished whilst the eurozone's capital stock has continued to grow. The reason for Italy's diminishing capital stock is its low quality as a business location due to the backlog of reforms. It makes investment unattractive. In addition, the high level of unemployment has a negative impact on internal demand. This also reduces the willingness of companies to invest. Finally, the high level of public debt means that even public capital stock is diminishing.



Net lending or net borrowing of the total economy (NTE): From 2002 to 2012, Italy was a net borrower. Since 2013, the country has been a net exporter of capital. The fact that the rate of capacity enhancing capital formation has been negative, also since 2012, indicates that capital, which is needed in order to maintain the capital stock, is flowing out of the country.



⁹ For the eurozone average see Section 5.10.

I^c + NTE: The sum of I^c and NTE was distinctly positive in the first few years after introduction of the euro. As an ever larger proportion of borrowings were used for consumption, the I^c + NTE value fell until it went into the negative in 2010. It has been positive again since 2013 but, because capital stock has been in decline since 2013, this is a sign of capital flight rather than an indication of a positive trend.



Consumption rate: Between 2010 and 2013, the Italian consumption rate was above the critical threshold of 100% of disposable income. It has fallen slightly since then. It is currently at 99.8% of disposable income. It is therefore appreciably higher than the eurozone average of 94.4%. In order to have more capital available for investment, the rate needs to come down significantly.



Result: Italian creditworthiness has been eroding since 2010.

Cause: Until 2012, the decline in Italy's creditworthiness was due to the fact that Italy was using its borrowings, at least in part, for consumption. Since 2013, it has been due to dwindling capital stock. The dwindling capital stock is the result of the country's low level of attractiveness as an international business location.

Recommended action: To increase Italy's creditworthiness, the country must regain its attractiveness as a business location so that capital stock starts to grow again. This means that the conditions for investment must be significantly improved.

4.6 Portugal

Summary: The decline in Portuguese creditworthiness, which began at the latest in 2004, continued in the first half of 2015.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	2	3	3	2	2	3	3	4	4	4	4	4	4	4	4	4	4
Ic.	9,0	9,0	8,5	7,2	5,7	5,4	5,0	4,7	4,9	4,9	3,2	2,7	0,5	-1,87	-2,33	-2,0	-1,5
NTE	-6,7	-9,6	-8,7	-6,9	-5,2	-7,1	-8,8	-9,5	-8,9	-11,4	-9,0	-9,0	-4,0	0,01	2,32	1,7	1,3
I ^c + NTE	2,3	-0,6	-0,2	0,3	0,5	-1,7	-3,8	-4,8	-4,0	-6,5	-5,8	-6,3	-3,5	-1,86	-0,01	-0,3	-0,2

Capacity enhancing capital formation (I^c): Since the introduction of the euro, capacity enhancing capital formation has fallen continuously; since 2012 Portuguese capital stock has diminished. The reason for this is the lack of prospects for growth and a change in the perception of risk by Portuguese companies whose high level of indebtedness makes access to credit additionally difficult. In addition, Portugal is only moderately attractive for direct investment.



Net lending or net borrowing of the total economy (NTE): After a long phase of borrowing, Portugal has been a lender since 2012. Since then the rate of capacity enhancing capital formation has also been negative. This is an indication that capital, which is actually needed at least in order to maintain capital stock, is flowing out of the country.



I^c + NTE: The sum of I^c and NTE has been negative since 2004 although to a much lesser extent in the last few years. Since, at the same time, capital stock is diminishing, this trend is not an indication of a positive trend.



Consumption rate: Portugal's propensity to consume has been above the eurozone average since the introduction of the euro. Although it has fallen since the onset of the crisis, the Portuguese consumption rate was still at 102.3% of disposable income in the first half of 2015. It therefore remains one of the highest in the eurozone.



Result: Portuguese creditworthiness has been eroding since 2004.

Cause: Up until 2011, the erosion of Portuguese creditworthiness was due to borrowings being used for the purpose of consumption. Since 2012, the fall in creditworthiness has been due to dwindling capital stock.

Recommended action: An improvement in creditworthiness requires capital stock to grow rather than diminish. Further reforms to improve Portugal's attractiveness as a business location are essential for this because that is the only way Portugal can improve the prospects for growth for Portuguese companies and also attract more direct investment. A rise in creditworthiness also requires a reduction in the level of consumption.

4.7 Slovenia

Summary: Slovenia's creditworthiness has been eroding since 2012.¹⁰ This trend continued in the first half of 2015.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	2	2	2	2	2	2	2	2	2	2	2	1	1	3	3	4	4
I ^c	8,2	6,8	6,3	5,5	6,1	6,8	7,0	8,3	9,6	10,2	4,1	1,2	0,1	-1,6	-1,3	-0,7	-0,6
NTE	-4,4	-3,9	-1,1	-0,4	-1,9	-3,1	-2,3	-2,0	-4,2	-4,6	-0,1	0,2	0,3	2,6	4,5	7,0	7,1
I ^C + NTE	3,8	2,9	5,2	5,1	4,2	3,7	4,7	6,3	5,4	5,6	4,0	1,4	0,4	1,0	3,2	6,3	6,5

Capacity enhancing capital formation (I^c): With capacity enhancing capital formation having fallen drastically since 2009, Slovenian capital stock has been in decline since 2012. Although this negative growth has seen a continuous slow-down in recent years, in the first half of 2015 capital stock still fell by 0.6% of GDP. Under these conditions, foreign and domestic investors are not even willing to invest at a level necessary to maintain existing capital stock.



Net lending or net borrowing of the total economy (NTE): In the first two years after introduction of the euro in 2007, Slovenia experienced a large influx of capital which it used for investment. From 2009 to 2011, the influx of capital dried up. Since 2012, Slovenia has been a net exporter of capital. In the first half of 2015 alone, capital amounting to 7.1% of GDP left the country. No end to this trend is yet in sight.



¹⁰ The creditworthiness trends depicted for Slovenia in 2012 and 2013 do not accord with the results in the 2014 cepDefault-Index. This is because the data collection rules have been changed by the European statistics authority Eurostat (for details see Section 1).

I^c + NTE: The sum of I^c and NTE is positive throughout. Initially, this was due to the willingness to invest. Since 2012, it has been due to the fact that the capital necessary for investment has been flowing out of Slovenia and is not therefore indicative of a positive trend.



Consumption rate: The Slovenian consumption rate rose continuously in the first few years after introduction of the euro in 2007. In 2012, it exceeded the critical threshold of 100% of disposable income. Since then, it has fallen significantly to 91.6% of disposable income. It is therefore below the eurozone's average rate. The comparatively low consumption rate indicates that the erosion of creditworthiness is not due to an excessive propensity to consume but to conditions which make the country unattractive to investment.



Result: Slovenian creditworthiness has been eroding since 2012. This trend continued in the first half of 2015.

Cause: The country's capital stock is dwindling due to poor investment conditions. In addition to the numerous bureaucratic barriers, investment is inhibited by the high level of state influence on the Slovenian economy. By contrast with other problem countries, the cause of the crisis is not a propensity to consume on the part of the Slovenian population.

Recommended actions: In order to check the decline in creditworthiness, the country must improve the conditions for investment. This can be done, for example, by privatising state-owned companies and reducing barriers to direct investment.

4.8 Spain

Summary: Spain's creditworthiness has been increasing continuously since 2012. Between 2012 and 2014, Spain needed financial aid to support its banks because the country had to deal with the aftermath of a property bubble. The cepDefault-Index deliberately only shows the risks arising from property bubbles to the extent that they result in negative net foreign investment. This has not been the case in Spain since the outbreak of the crisis. For this reason, the Index did not show a clear fall in creditworthiness in any year.



Capacity enhancing capital formation (I^c): After falling drastically between 2008 and 2013 as a result of the end of the property bubble, capacity enhancing capital formation is now increasing slightly once more. In the first half of 2015, it was at 1.7% of GDP, just over the eurozone average of 1.5%.



Net lending or net borrowing of the total economy (NTE): Prior to the outbreak of the crisis, Spain registered high capital import surpluses. Since 2012 it has registered capital export surpluses. In the first half of 2015, these rose to 2.0% of GDP. With the capital exports, Spain will be able to reduce its high level of foreign debt and thus become more resistant to external shocks.



I^c + NTE: The capital import surpluses which arose prior to the crisis were accompanied by very high investment rates so should not be classified as a danger to creditworthiness. The sum of I^c and NTE remained positive even after the outbreak of the crisis and since 2011 – when it came close to reaching zero - it has risen starkly once more.



Consumption rate: Spain's propensity to consume has been falling for three and a half years. In the first half of 2015, the Spanish population consumed 95% of disposable income. Although this is still above the eurozone average it is well below 100%.



Result: Spain's creditworthiness has increased gradually since 2012.

Cause: Spain's positive creditworthiness trend has been achieved, in particular, by its consistent implementation of reforms, including the increase of its international competitiveness. This has led to current account surpluses which in turn brought about a positive NTE.

Recommended action: The efforts at reform which Spain has undertaken have had a positive impact on the country's creditworthiness. In order to avoid jeopardising what has been achieved, the new government should continue along the path of reform. The reforms already implemented should not under any circumstances be retracted.

4.9 Cyprus

Summary: With the exception of one year, creditworthiness in Cyprus has been falling since 2004.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Risk category	2	3	2	2	2	3	3	4	4	4	4	4	2	3	3	4
				$\bigcirc \bigcirc \bigcirc$												
I ^c	5,6	5,1	4,6	5,9	5,1	4,9	4,98	7,1	7,4	8,7	6,9	6,4	4,9	2,1	0,4	-1,7
NTE	-2,2	-4,4	-2,4	-2,7	-1,2	-4,1	-5,02	-7,5	-11,0	-15,0	-11,2	-9,5	-3,6	-5,0	-2,4	-3,6
I ^c + NTE	3,4	0,7	2,2	3,2	3,9	0,8	-0,04	-0,4	-3,6	-6,3	-4,3	-3,1	1,3	-2,9	-2,0	-5,3

Capacity enhancing capital formation (I^c): For many years, Cyprus registered a level of capacity enhancing capital formation which was above the eurozone average. It reached its peak in 2008 with 8.7% of GDP and since then it has fallen continuously. It went into the negative for the first time in 2014. Cypriot capital stock has dwindled. This shows that foreign and domestic investors are not willing to invest under existing conditions. The negative I^c value is due to a fall-off in private investment rather than public. Although, since its 2010 peak of 2.9% of GDP, public investment has fallen to 0.3% of GDP, it remains positive. Private net capital investment, on the other hand, has dropped by 7.2% to -2.8%.¹¹



Net lending or net borrowing of the total economy (NTE): Since 1999, Cyprus has constantly needed foreign credit in order to finance its investment and - at least in some years - its consumption. Borrowings reached a peak in 2007. Since then they have fallen significantly, but recently rose again slightly.



¹¹ Cf. European Commission database, Ameco, online at: <u>http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm</u>, accessed on 18.01.2016. I^c + NTE: The sum of I^c and NTE has been negative since 2004 - with the exception of 2011. In every year apart from 2011, foreign credits were used to finance domestic consumption. In 2014, it was due both to a negative I^c value and a negative NTE. This means that the country was not investing sufficiently to maintain capital stock and, in addition, was also, on balance, using foreign credits for consumption.



Consumption rate: One reason for the problems in Cyprus is the high consumption rate. At 106.7% of disposable income it is the second highest in the eurozone after Greece. It means that without foreign credits there would be no capital available for investment. At the same time, consumption must be financed by foreign credits.



Result: Cypriot creditworthiness has been eroding since 2012.

Cause: Whilst the drop in Cypriot creditworthiness between 2004 and 2013 was due to the fact that the country was using part of its foreign credits for consumption, the drop in 2014 was also due to dwindling capital stock. One reason for this is the negative economic development in Russia and Greece with whom Cyprus has close links. This has reduced companies' willingness to invest.

Recommended action: If Cyprus leaves the aid programme as planned in the first quarter of 2016, further reforms must be implemented as a matter of urgency so that the country does not risk requiring financial aid again in the future. In particular, the Cypriot population's propensity to consume must come down significantly. Only then will money be available for investment.

5 Other European countries and the eurozone as a whole

5.1 Belgium

Trend according to the cepDefault-Index

- Green = Improvement in creditworthiness. Yellow = Uncertain trend in creditworthiness.
- Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ic.	4.3	4.4	4.2	2.8	2.2	3.0	3.4	3.2	3.8	3.8	2.3	1.8	2.34	2.2	1.8	2.7	3.1
NTE	4.8	3.8	4.0	5.8	5.6	4.5	3.3	3.7	3.7	1.0	0.8	3.5	0.01	2.1	0.9	0.6	0.6
I ^c + NTE	9.1	8.2	8.2	8.6	7.8	7.5	6.7	6.9	7.5	4.8	3.1	5.3	2.35	4.3	2.7	3.3	3.7

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.







5.2 Germany

Trend according to the cepDefault-Index

Green	= Improvement in creditworthiness.
Yellow	= Uncertain trend in creditworthiness.

Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
											$\bigcirc \bigcirc \bigcirc$		$\bigcirc \bigcirc \bigcirc$				
I ^c	4.5	4.4	3.5	2.2	1.8	1.6	1.5	2.2	2.4	2.4	0.6	1.2	1.9	1.6	1.3	1.6	1.6
NTE	-1.4	-1.5	-0.5	1.7	1.7	4.5	4.5	5.7	6.8	5.5	5.8	5.8	6.0	7.2	6.7	7.8	8.2
I ^c + NTE	3.1	2.9	3.0	3.9	3.5	6.1	6.0	7.9	9.2	7.9	6.4	7.0	7.9	8.8	8.0	9.4	9.8

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.







5.3 Estonia

Trend according to the cepDefault-Index

Green	= Improvement in creditworthiness.
Yellow	= Uncertain trend in creditworthiness.

Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1
	$\bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc \bigcirc$				$\bigcirc \bigcirc \bigcirc$	\bigcirc	$\bigcirc \bigcirc \bigcirc$	\bigcirc	$\bigcirc \bigcirc \bigcirc$					$\bigcirc \bigcirc \bigcirc$		
I ^c	12.2	13.2	14.0	16.8	18.2	16.4	17.1	19.5	19.7	14.8	5.1	4.4	10.2	10.4	10.4	8.5	7.4
NTE	-4.7	-5.3	-7.3	-11.3	-11.9	-12.2	-8.9	-13.5	-14.4	-7.7	6.0	5.5	5.4	1.1	3.1	2.3	3.5
I ^c + NTE	7.5	7.9	6.7	5.5	6.3	4.2	8.2	6.0	5.3	7.1	11.1	9.9	15.6	11.5	13.5	10.8	10.9

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.







5.4 Lithuania

Trend according to the cepDefault-Index

Green	= Improvement in creditworthiness.
Yellow	= Uncertain trend in creditworthiness.

Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	3	3	2	2	2	2	2	2	2	2	1	1	2	1	1	1	1
				$\bigcirc \bigcirc$		$\bigcirc \bigcirc \bigcirc$		$\bigcirc \bigcirc \bigcirc$					$\bigcirc \bigcirc \bigcirc$				
I ^c	5.1	3.1	5.1	6.1	7.8	9.1	10.0	12.5	15.3	12.2	2.5	2.2	4.7	3.7	4.6	4.7	5.6
NTE	-10.9	-5.9	-4.7	-4.7	-6.4	-6.7	-6.0	-8.7	-12.8	-11.3	6.4	3.5	-0.6	1.9	4.5	6.6	4.2
I ^c + NTE	-5.8	-2.8	0.4	1.4	1.4	2.4	4.0	3.8	2.5	0.9	8.9	5.7	4.1	5.6	9.1	11.3	9.8

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.







5.5 Luxembourg

Trend according to the cepDefault-Index

Green = Improvement in creditworthiness. Yellow = Uncertain trend in creditworthiness. Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Risk category	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
lc.	7.2	8.6	7.5	7.5	7.8	6.2	5.4	6.5	7.2	4.9	4.3	6.4	6.0	3.9	6.1
NTE	12.2	7.9	9.0	6.1	10.0	14.3	9.3	9.4	7.0	6.2	6.3	5.8	5.2	4.0	3.5
I ^c + NTE	19.4	16.5	16.5	13.6	17.8	20.5	14.7	15.9	14.2	11.1	10.6	12.2	11.2	7.9	9.6

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness. **Positive I**^c generates additional value which can be used to pay off foreign credit. Where there is positive I^c and **overall net lending**, creditworthiness improves. Where there is positive I^c and **overall net borrowing**, the creditworthiness trend depends on which of them has the greater effect. If I^c exceeds overall net borrowing, a reliable assessment is not possible. If I^c is less than overall net borrowing, creditworthiness will fall.



5.6 Malta

Trend according to the cepDefault-Index

Green = Improvement in creditworthiness. Yellow = Uncertain trend in creditworthiness. Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	2	3	2	1	2	2	2	2	2	2	3	2	1	1	1	1	1
									$\bigcirc \bigcirc \bigcirc$								
I ^c	5.6	6.2	3.6	0.3	4.1	4.1	6.1	5.5	5.9	4.5	3.1	6.4	2.5	3.2	2.9	4.3	5.5
NTE	-2.7	-9.2	-1.3	3.8	-0.8	-1.3	-2.3	-4.7	-1.5	-1.6	-5.1	-2.6	1.1	3.2	4.3	5.2	6.2
I ^c + NTE	2.9	-3.0	2.3	4.1	3.3	2.8	3.8	0.8	4.4	2.9	-2.0	3.8	3.6	6.4	7.2	9.5	11.7

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

5.7 Netherlands

Trend according to the cepDefault-Index

Green = Improvement in creditworthiness. Yellow = Uncertain trend in creditworthiness. Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
I ^c	6.0	5.5	4.9	3.8	3.2	3.0	3.1	3.8	4.3	4.7	3.2	2.1	2.9	1.8	1.0	1.3	1.9
NTE	5.1	6.3	4.9	5.4	6.7	8.1	7.3	8.7	6.9	5.2	6.1	7.5	8.6	9.2	10.7	10.7	6.0
I ^c + NTE	11.1	11.8	9.8	9.2	9.9	11.1	10.4	12.5	11.2	9.9	9.3	9.6	11.5	11.0	11.7	12.0	7.9

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness. **Positive I**^c generates additional value which can be used to pay off foreign credit. Where there is positive I^c and **overall net lending**, creditworthiness improves. Where there is positive I^c and **overall net borrowing**, the creditworthiness trend depends on which of them has the greater effect. If I^c exceeds overall net borrowing, a reliable assessment is not possible. If I^c is less than overall net borrowing, creditworthiness will fall.

5.8 Austria

Trend according to the cepDefault-Index

Green	= Improvement in creditworthiness.
Yellow	= Uncertain trend in creditworthiness.

Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Risk category	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
											$\bigcirc \bigcirc \bigcirc$			$\bigcirc \bigcirc \bigcirc$		
I ^c	6.8	7.5	6.6	5.5	5.9	5.6	5.1	5.0	5.4	5.4	3.9	3.3	4.2	4.1	3.8	3.6
NTE	-1.8	-1.0	-1.0	2.0	1.5	1.7	1.7	2.5	3.3	4.1	1.9	3.2	1.8	1.5	2.0	2.0
I ^c + NTE	5.0	6.5	5.6	7.5	7.4	7.3	6.8	7.5	8.7	9.5	5.8	6.5	6.0	5.6	5.8	5.6

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

5.9 Slovakia

Trend according to the cepDefault-Index

Green	= Improvement in creditworthiness.
Yellow	= Uncertain trend in creditworthiness.

Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	2	2	3	3	4	4	4	4	2	2	3	3	4	1	1	3	1
									$\bigcirc \bigcirc \bigcirc$						$\bigcirc \bigcirc \bigcirc$		
I ^c	7.3	4.1	7.0	5.9	3.4	3.5	6.0	7.2	7.9	6.8	1.4	2.0	3.6	1.0	0.1	-0.1	0.3
NTE	-4.1	-2.8	-7.1	-9.5	-6.7	-6.5	-8.9	-7.8	-5.2	-5.7	-2.6	-3.2	-3.8	1.8	2.2	0.2	0.4
I ^c + NTE	3.2	1.3	-0.1	-3.6	-3.3	-3.0	-2.9	-0.6	2.7	1.1	-1.2	-1.2	-0.2	2.8	2.3	0.1	0.7

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

5.10 Eurozone as a whole

Trend according to the cepDefault-Index

Green = Improvement in creditworthiness. Yellow = Uncertain trend in creditworthiness. Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	1	2	1	1	1	1	1	2	1	2	2	1	1	1	1	1	1
											$\bigcirc \bigcirc \bigcirc$		$\bigcirc \bigcirc \bigcirc$		$\bigcirc \bigcirc \bigcirc$		
I ^c	5.1	5.3	4.9	4.6	4.3	4.3	4.4	4.9	5.2	4.8	2.8	2.5	2.5	1.9	1.4	1.5	1.5
NTE	0.7	-0.1	0.1	0.9	0.4	1.0	0.1	-0.2	0.1	-1.6	-0.2	0.1	0.0	1.3	2.1	2.4	2.6
I ^c + NTE	5.8	5.2	5.0	5.5	4.7	5.3	4.5	4.7	5.3	3.2	2.6	2.6	2.5	3.2	3.5	3.9	4.1

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

6 Other EU Countries

6.1 Denmark

Trend according to the cepDefault-Index

- Green = Improvement in creditworthiness. Yellow = Uncertain trend in creditworthiness.
- Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk catego	у 1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
I ^c	3.4	4.2	3.7	3.1	2.5	2.6	2.9	4.8	4.7	3.7	1.3	0.5	0.5	0.3	0.3	0.7	0.6
NTE	3.6	2.3	3.8	3.3	4.1	3.5	4.4	3.2	1.4	2.7	3.3	5.8	6.1	5.6	7.1	6.2	6.7
I ^c + NTE	7.0	6.5	7.5	6.4	6.6	6.1	7.3	8.0	6.1	6.4	4.6	6.3	6.6	5.9	7.4	6.9	7.3

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

6.2 Poland

Trend according to the cepDefault-Index

Green	= Improvement in creditworthiness.
Yellow	= Uncertain trend in creditworthiness.

Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Risk category	2	2	2	2	2	3	2	2	2	2	2	2	2	2	1	1
					$\bigcirc \bigcirc \bigcirc$		$\bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc \bigcirc$					$\bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc \bigcirc$		
I ^c	9.0	8.5	5.4	3.5	3.2	3.6	4.3	5.5	8.0	9.0	8.2	7.3	8.2	7.1	6.5	7.2
NTE	-5.0	-5.3	-2.3	-2.1	-1.7	-5.8	-2.8	-2.9	-5.5	-5.8	-2.1	-3.4	-2.9	-0.8	1.0	1.0
I ^c + NTE	4.0	3.2	3.1	1.4	1.5	-2.2	1.5	2.6	2.5	3.2	6.1	3.9	5.3	6.3	7.5	8.2

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

6.3 Romania

Trend according to the cepDefault-Index

Green	= Improvement in creditworthiness.
Yellow	= Uncertain trend in creditworthiness.

Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

		1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Risk cate	gory	3	3	4	4	4	4	4	4	2	2	2	2	2	2	1	1
										$\bigcirc \bigcirc \bigcirc$		$\bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc \bigcirc$				
I ^c		-3.6	-1.2	0.5	-1.1	0.4	2.0	3.8	7.8	12.8	15.1	6.6	6.0	7.5	8.0	5.5	3.1
NTE		-3.9	-3.7	-5.3	-0.8	-5.5	-7.4	-7.8	-10.4	-12.0	-12.0	-3.6	-4.4	-3.8	-2.9	1.4	2.2
I ^c + NT	E	-7.5	-4.9	-4.8	-1.9	-5.1	-5.4	-4.0	-2.6	0.8	3.1	3.0	1.6	3.7	5.1	6.9	5.3

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

6.4 Sweden

Trend according to the cepDefault-Index

Green = Improvement in creditworthiness. Yellow = Uncertain trend in creditworthiness. Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
I ^c	5.8	6.0	5.7	4.7	4.7	5.2	5.5	6.2	7.0	6.9	4.1	4.6	5.2	4.9	4.7	5.6	5.9
NTE	3.5	4.5	5.0	5.3	6.6	6.6	7.0	7.8	8.9	8.4	6.6	6.5	5.9	6.3	5.5	5.3	5.8
I ^c + NTE	9.3	10.5	10.7	10.0	11.3	11.8	12.5	14.0	15.9	15.3	10.7	11.1	11.1	11.2	10.2	10.9	11.7

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

6.5 Czech Republic

Trend according to the cepDefault-Index

Green = Improvement in creditworthiness. Yellow = Uncertain trend in creditworthiness. Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	2	1
						$\bigcirc \bigcirc \bigcirc$		$\bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc \bigcirc$								
I ^c	6.1	6.9	7.3	6.6	6.3	6.4	6.9	7.0	8.3	7.6	4.9	4.6	4.4	3.7	2.5	3.1	3.4
NTE	-2.2	-3.7	-3.9	-3.4	-4.6	-3.9	-3.1	-3.3	-4.1	-4.0	-1.8	-3.2	-2.8	-1.1	1.1	-0.2	0.6
I ^c + NTE	3.9	3.2	3.4	3.2	1.7	2.5	3.8	3.7	4.2	3.6	3.1	1.4	1.6	2.6	3.6	2.9	4.0

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

6.6 Hungary

Trend according to the cepDefault-Index

Green	= Improvement in creditworthiness.
Yellow	= Uncertain trend in creditworthiness.

Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Risk category	3	3	2	3	3	4	4	4	4	2	1	1	1	1	1	1
I ^c	5.2	5.6	5.6	6.4	5.8	6.5	6.7	6.4	6.4	5.9	4.1	1.9	1.6	0.9	2.5	4.2
NTE	-8.0	-7.6	-5.3	-6.5	-8.4	-9.6	-8.0	-6.8	-6.6	-5.7	0.9	2.1	3.1	4.1	7.5	6.0
I ^c + NTE	-2.8	-2.0	0.3	-0.1	-2.6	-3.1	-1.3	-0.4	-0.2	0.2	5.0	4.0	4.7	5.0	10.0	10.2

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

6.7 United Kingdom

Trend according to the cepDefault-Index

Green = Improvement in creditworthiness. Yellow = Uncertain trend in creditworthiness. Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	H1 2015
Risk category	2	2	2	2	2	2	2	2	2	2	3	3	2	3	3	4	4
						$\bigcirc \bigcirc \bigcirc$		$\bigcirc \bigcirc \bigcirc$	$\bigcirc \bigcirc \bigcirc$				$\bigcirc \bigcirc \bigcirc$				
I ^c	4.6	4.6	3.9	3.6	3.0	2.9	3.2	3.1	3.6	3.6	1.8	2.1	2.1	2.2	2.2	2.8	2.9
NTE	-2.5	-2.2	-2.0	-2.1	-1.7	-1.8	-1.3	-2.4	-2.5	-3.6	-3.0	-2.8	-1.7	-3.3	-4.5	-5.2	-5.0
I ^c + NTE	2.1	2.4	1.9	1.5	1.3	1.1	1.9	0.7	1.1	0.0	-1.2	-0.7	0.4	-1.1	-2.3	-2.4	-2.1

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

7 Countries outside the EU

7.1 Iceland

Trend according to the cepDefault-Index

- Green = Improvement in creditworthiness. Yellow = Uncertain trend in creditworthiness.
- Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Risk category	2	3	2	1	2	3	3	4	4	4	4	4	4	4	4	1
			$\bigcirc \bigcirc \bigcirc$													
I ^c	9.3	10.0	8.2	5.1	6.4	9.6	13.6	18.2	11.9	7.2	-3.1	-3.4	-1.4	-0.9	-0.9	0.9
NTE	-7.2	-10.4	-4.4	1.1	-5.0	-9.9	-15.9	-23.3	-14.0	-22.8	-9.7	-6.7	-5.4	-4.3	5.7	3.3
I ^c + NTE	2.1	-0.4	3.8	6.2	1.4	-0.3	-2.3	-5.1	-2.1	-15.6	-12.8	-10.1	-6.8	-5.2	4.8	4.2

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

7.2 Japan

Trend according to the cepDefault-Index

Green	= Improvement in creditworthiness.
Yellow	= Uncertain trend in creditworthiness

Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Risk category	1	1	1	1	1	1	1	1	1	1	3	3	4	4	1	1
I ^c	4.1	4.1	3.3	2.1	2.0	1.8	1.9	1.8	1.5	0.6	-1.6	-1.3	-0.9	-0.1	0.4	1.0
NTE	2.2	2.3	2.0	2.7	3.1	3.6	3.5	3.8	4.8	3.2	2.8	3.6	2.0	1.0	0.5	0.5
I ^c + NTE	6.3	6.4	5.3	4.8	5.1	5.4	5.4	5.6	6.3	3.8	1.2	2.3	1.1	0.9	0.9	1.5

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

7.3 Canada

Trend according to the cepDefault-Index

Green	= Improvement in creditworthiness.
Yellow	= Uncertain trend in creditworthiness.

Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Risk category	1	1	1	1	1	1	1	1	1	1	3	2	2	2	2	2
I ^c	3.7	3.5	3.5	3.2	3.6	4.4	5.2	5.7	5.6	5.4	3.3	4.8	5.1	5.3	4.9	4.7
NTE	0.4	3.2	2.9	1.9	1.4	2.2	1.8	0.9	0.4	0.2	-3.4	-3.9	-3.1	-3.7	-3.2	-2.6
I ^c + NTE	4.1	6.7	6.4	5.1	5.0	6.6	7.0	6.6	6.0	5.6	-0.1	0.9	2.0	1.6	1.7	2.1

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

7.4 Norway

Trend according to the cepDefault-Index

Green = Improvement in creditworthiness. Yellow = Uncertain trend in creditworthiness. Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Risk category	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
											$\bigcirc \bigcirc \bigcirc$					
I ^c	5.7	4.0	3.5	3.1	2.9	4.0	5.1	5.9	7.5	6.9	5.7	3.8	4.6	5.3	6.0	6.2
NTE	5.4	14.7	15.8	12.2	12.3	12.3	16.1	16.1	12.2	15.6	10.6	10.9	12.3	12.4	10.0	9.4
I ^c + NTE	11.1	18.7	19.3	15.3	15.2	16.3	21.2	22.0	19.7	22.5	16.3	14.7	16.9	17.7	16.0	15.6

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

7.5 Switzerland

Trend according to the cepDefault-Index

Green = Improvement in creditworthiness. Yellow = Uncertain trend in creditworthiness. Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Risk category	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
				$\bigcirc \bigcirc \bigcirc$		$\bigcirc \bigcirc \bigcirc$										
Ic.	4.2	4.4	3.2	2.7	1.9	2.6	2.8	3.2	3.6	3.1	1.1	1.7	2.2	2.4	2.1	2.3
NTE	9.2	10.5	8.2	6.9	11.7	12.9	13.8	13.4	9.7	1.9	7.3	14.3	6.5	10.6	12.1	10.9
I ^c + NTE	13.4	14.9	11.4	9.6	13.6	15.5	16.6	16.6	13.3	5.0	8.4	16.0	8.7	13.0	14.2	13.2

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

7.6 USA

Trend according to the cepDefault-Index

Green	= Improvement in creditworthiness.
Yellow	= Uncertain trend in creditworthiness.

Red-yellow = Erosion of creditworthiness. Red = Erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Risk category	2	2	2	2	2	2	3	3	2	3	3	4	4	4	2	2
				$\bigcirc \bigcirc \bigcirc$					$\bigcirc \bigcirc \bigcirc$							
I ^c	6.5	6.6	5.7	4.8	4.8	5.1	5.4	5.5	5.1	4.1	1.8	1.8	2.1	2.8	2.8	3.1
NTE	-3.0	-3.9	-3.5	-4.1	-4.5	-5.1	-5.5	-5.8	-5.0	-4.7	-2.7	-3.0	-3.1	-2.9	-2.4	-2.3
I ^c + NTE	3.5	2.7	2.2	0.7	0.3	0.0	-0.1	-0.3	0.1	-0.6	-0.9	-1.2	-1.0	-0.1	0.4	0.8

I^c: Capacity enhancing capital formation records the proportion of capital formation (as a % of GDP), that leads to an increase in the potential for value added. Thus growing economies exhibit a positive value, shrinking economies a negative one.

NTE: The net lending or net borrowing of the total economy constitutes an economy's net capital import requirement (as a % of GDP). Economies that increase foreign assets or reduce foreign debt show a positive NTE (overall net lending). Economies that incur foreign debt or reduce existing foreign assets show a negative NTE (overall net borrowing).

Negative I^c leads to a reduction in production capital and thus, irrespective of the trend in NTE, to the erosion of creditworthiness.

Enclosure I: Database

Country	Database	Special Features
Belgium	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015. The figures for the first half of 2015, for net capital investment in residential buildings, required for calculating capacity enhancing capital formation (Ic), have been carried forward from 2014.
Denmark	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Germany	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Estonia	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Eurozone	Eurostat, Ameco	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Finland	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available.
France	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Greece	Eurostat, Ameco	For 2014, the cepDefault-Index was calculated based on the period from Q1 2014 to Q4 2014 and for the first half of 2015 it was based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Ireland	Eurostat	For all years the cepDefault-Index was calculated on the basis of quarterly information. For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
lceland	Ameco	Values for 2015 were not yet available.
ltaly	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Japan	Ameco	Values for 2015 were not yet available.
Canada	Ameco	Values for 2015 were not yet available.
Lithuania	Eurostat, Ameco	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Luxembourg	Ameco	Values for 2015 were not yet available.
Malta	Eurostat, Ameco	For the years 2000 to 2014, the cepDefault-Index was calculated on the basis of quarterly information. For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Netherlands	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Norway	Eurostat	Values for 2015 were not yet available.
Austria	Eurostat	Values for 2015 were not yet available.
Poland	Eurostat, Ameco	Values for 2015 were not yet available.

Country	Database	Special Features
Portugal	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015. The figures for depreciation, required for calculating capacity enhancing capital formation (Ic), have been carried forward from 2014.
Romania	Eurostat, Ameco	Values for 2015 were not yet available.
Sweden	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Switzerland	Eurostat, Ameco	Values for 2015 were not yet available. For 2014, the figures for net capital investment in residential buildings, required for calculating capacity enhancing capital formation (Ic), have been carried forward from 2013.
Slovakia	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Slovenia	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Spain	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Czech Republic	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Hungary	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
USA	Ameco	Values for 2015 were not yet available.
United Kingdom	Eurostat	For the first half of 2015, the cepDefault-Index was calculated based on the period from Q3 2014 to Q2 2015 because no seasonally adjusted or daily adjusted data was available for the first half of 2015.
Cyprus	Ameco	Values for 2015 were not yet available.

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