cepStudy

cepDefault-Index 2017

Creditworthiness trends of the eurozone countries

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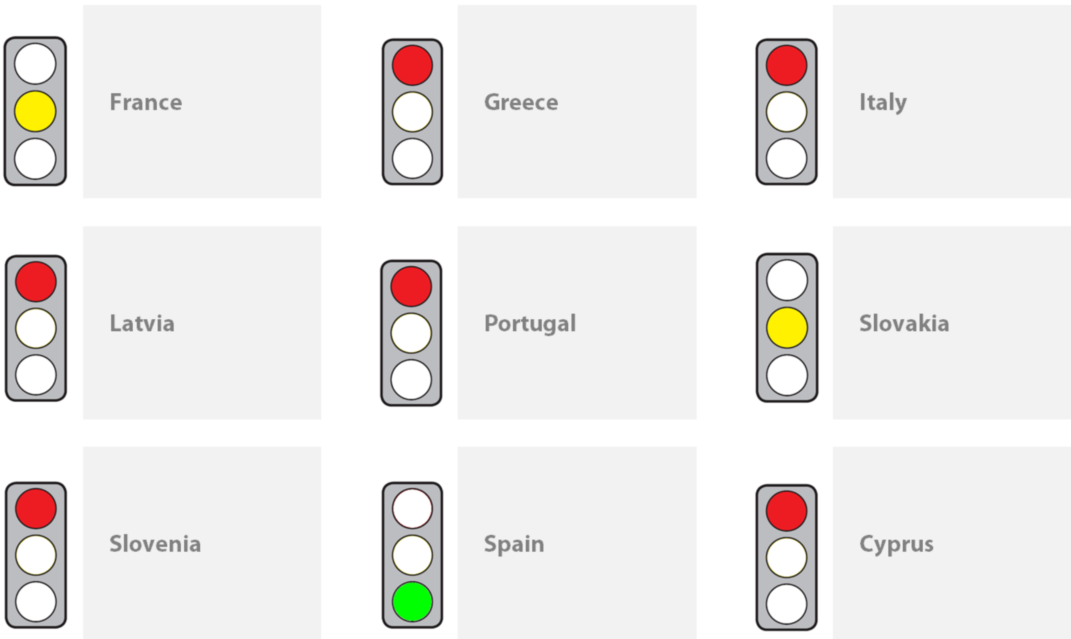
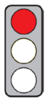
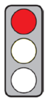
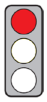
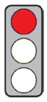
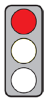
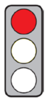
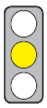
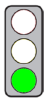


Key Issues

- The cepDefault-Index 2017 describes the creditworthiness trends of the eurozone countries from 1999 until 2016 in each case.[1]
- The turmoil threatening the very existence of the eurozone continues. In 2016, falling creditworthiness was firmly established in six countries, namely Greece, Italy, Latvia, Portugal, Slovenia and Cyprus.
- **Greece** remains uncreditworthy and there is no sign of a reversal in this trend. The level of consumption remains much too high. Added to this there has been a huge depletion of capital stock. 
- **Italy's** creditworthiness has declined continuously since 2010. The reason for this is an erosion in capital stock since 2013. This is the result of the unsolved economic problems, the high level of public debt and political uncertainty. 
- **Latvia's** creditworthiness has been deteriorating since 1999. Latvian capital stock has diminished every year bar one since 2009. The Latvian population's propensity for excessive consumption is also problematic. 
- **Portugal's** creditworthiness has been deteriorating since 2004. There are two reasons for this. Firstly, the country's capital stock is diminishing. Secondly, the country is consuming beyond its means. 
- **Slovenia's** creditworthiness has now been deteriorating for four years. Capital stock is diminishing due to poor investment conditions. By contrast with other problem countries, the level of consumption is not a cause of the crisis. 
- **Cyprus'** creditworthiness has been deteriorating since 2012. The main reason for this is the excessive propensity to consume. Since 2012, Cyprus has, on balance, required external loans to finance domestic consumption. 
- **France's** creditworthiness trends remain unclear due to its traditionally high level of investment. The Index rose somewhat in the first half of 2016 thanks to a slight increase in investment and a fall in consumption. 
- **Spain's** creditworthiness has continuously improved since 2012 and the improvement has gained momentum each year. To avoid jeopardising this trend, the Spanish government must quickly reduce the still high public deficit. 
- The creditworthiness in Finland and Slovakia is unclear; the creditworthiness in Belgium, Germany, Estonia, Latvia, Luxembourg, Netherlands and Austria has increased.

[1] The Index could not be calculated for Ireland and Malta because the required data was not available or was not sufficiently reliable. Creditworthiness trends shown for Luxembourg and Austria are from 2015 because the data from 2016 required for calculating the cepDefault-Index is incomplete.

Trends in creditworthiness in the first half of 2016[2]

Rank	Country	Creditworthiness trends	I^c: Capacity enhancing capital formation	NTE: Net lending or borrowing of the total economy	I^c + NTE
Category 1: Countries with rising creditworthiness					
1	**Germany**		1.7	8.8	10.5
2	**Netherlands**		2.7	7.4	10.1
3	**Luxembourg**		5.0	4.1	9.1
4	**Estonia**		5.9	0.7	6.6
5	**Lithuania**		4.7	1.8	6.5
6	**Austria**		3.7	2.0	5.7
7	**Eurozone**		1.5	3.6	5.1
8	**Spain**		1.8	2.3	4.1
9	**Belgium**		2.6	1.2	3.8
Category 2: Countries where trend in creditworthiness is uncertain					
10	**Slovakia**		1.6	-0.4	1.2
11	**France**		2.8	-1.8	1.0
12	**Finland**		1.2	-0.5	0.7
Category 3: Countries with falling creditworthiness					
	–		–	–	–
Category 4: Countries where falling creditworthiness is firmly established					
13	**Cyprus**		0.6	-2.4	-1.8
14	**Italy**		-0.9	2.4	1.5
15	**Slovenia**		-1.6	7.0	5.4
16	**Portugal**		-1.7	0.8	-0.9
17	**Latvia**		-2.4	1.9	-0.5
18	**Greece**		-5.7	1.5	-4.2

[2] The Index could not be calculated for Ireland and Malta because the required data was not available or was not sufficiently reliable. Creditworthiness trends shown for Luxembourg and Austria are from 2015 because the data from 2016 required for calculating the cepDefault-Index is incomplete. The figures for the eurozone average are calculated without these countries.

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1 Introduction

Although the widely feared re-ignition of the euro crisis following the failure of the Italian referendum on constitutional reform, did not materialise, the eurozone has still not settled down. In 2017, elections are due to take place in the Netherlands, France and Germany, and possibly also Italy, in which anti-European parties can expect a large increase in votes. If they form the government in a eurozone country, referendums on EU membership, or at least euro membership, cannot be ruled out. Even the President of the European Central Bank, Mario Draghi, felt the need to warn Italy against an exit from the eurozone: "If a country were to leave the Eurosystem, its national central bank's claims on or liabilities to the ECB would need to be settled in full."[3] Thus for countries with a high level of Target liabilities, which includes Italy in particular, an exit will be very expensive. Draghi's statement is remarkable in that he had not previously made any reference to the modalities of leaving the euro. Until then he had considered the introduction of the euro to be irreversible.[4]

The political uncertainty about the future of the euro has also been fired by the dispute about Greece's debt sustainability which is going on between the eurozone countries and the European Stability Mechanism on the one hand and the International Monetary Fund (IMF) on the other. If the IMF ultimately refrains from taking part in the already ongoing third rescue package for Greece, there will have to be another vote on it in the German Bundestag. The fact that such a discussion is necessary at all arises, in particular, from the fact that Greece is still not creditworthy seven years after the outbreak of the euro crisis, which is first and foremost due to its failure to make reforms to restore competitiveness.

It has finally become clear in the last few months that the eurozone countries are still unable to agree on a solid fiscal policy. Thus numerous eurozone countries, above all France, Italy, Portugal and Spain are not taking the debt limits of the Stability and Growth Pact seriously. This has further undermined confidence in the future of the euro.

All these developments mean that, since the start of the year, government bond yields in the eurozone countries are once again diverging more starkly.

The cepDefault-Index 2017 also suggests a greater differentiation in national bond yields. Thus the current issue indicates that the creditworthiness trends of the eurozone countries differ markedly from one another. Whilst the creditworthiness of two thirds of eurozone countries is increasing year on year, it is diminishing just as steadily in other eurozone countries or, as in the case of Greece, has long since disappeared. The group of eurozone countries who have long had diminishing or diminished creditworthiness, includes Greece, Italy, Latvia, Portugal, Slovenia and Cyprus. With the exception of Cyprus, the decline in creditworthiness in these eurozone countries is the result of a negative investment rate. This is particularly problematic: If the resulting depletion of capital stock continues over a long period of time, the economy sinks into poverty.

The depletion of capital stock arises particularly from a decline in private investment. This shows that the affected eurozone countries are unable to offer investors competitive conditions. Strengthening the competitiveness of these countries must therefore be the first priority.

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3 Mario Draghi (2017): Draghi warnt Europas Populisten, in Süddeutsche Zeitung of 23 January 2017, online at: http://www.sueddeutsche.de/wirtschaft/ezb-draghi-warnt-europas-populisten-1.3345291.

4 "The euro is – and has to be – irrevocable in all its member states", Mario Draghi, 27 November 2014, lecture at the University of Helsinki, online at: https://www.ecb.europa.eu/press/key/date/2014/html/sp141127_1.en.html.

This cepDefault-Index 2017 is divided into five sections.

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 and 5 describe the creditworthiness trends in the eurozone countries since 1999. For most euro countries, the data for the first half of 2016 was already available. Data for 2016 was not yet available for Luxembourg and Austria, so the trends up to the end of 2015 have been used. The Index could not be calculated for Ireland and Malta because the required data was not available or was not sufficiently reliable.

Section 4 contains portraits of those euro countries where the erosion of creditworthiness has become firmly established. To be specific, these are Greece, Italy, Latvia, Portugal, Slovenia and Cyprus. In addition, Section 4 contains portraits of those euro countries whose creditworthiness, although uncertain in 2016, was eroding in previous years. These are Finland, France and Slovakia. Finally, Section 4 contains a portrait of Spain whose current creditworthiness has in fact increased rather than declined thanks to the reforms undertaken since 2012, but which has required financial aid in the past.

Section 5 contains the current figures in the cepDefault-Index for the remaining eurozone countries - Belgium, Germany, Estonia, Lithuania, Luxembourg, Netherlands and Austria - as well as for the eurozone as a whole.

2 Methodology of the cepDefault-Index

The cepDefault-Index measures the trends in a country's ability to repay external loans, in other words, its creditworthiness.[5] 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 deficit[6] the flip side of which is an increase in the foreign debt[7] 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

[5] It therefore measures a process rather than a state of affairs.

[6] 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,

[7] Or the depletion of private assets.

foreign debt. 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 debt, 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 net 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 external loans. 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 I^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.

Risk Category 2 (amber light) exists where a positive I^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 consumption[8]. This question is important because external loans used for capacity enhancing capital formation create fixed assets with which the interest and loans can be repaid, 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, external loans used for consumption expenditure do not add any value that might contribute to the repayment of interest and loans. In this case, domestic resources must be used to repay the external loan. 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 - investment or consumption - foreign capital is used domestically. 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 capital imports, while domestic income is primarily used for consumption expenditure. In other words, the assumption is that external loans 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

[8] 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.

production capacities will arise which are attributable to the external loan and whose additional output will facilitate the repayment of the external loan. In reality, this is obviously not the case.

Risk Category 3 (red-amber 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 external loans 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 an avoidance of consumption rather than of investment because the latter results in a decline in the economy's production potential - which is crucial for the repayment of external loans - relative to the demand for external loans. This hinders debt sustainability.

The second - even more problematic - form is characterised by the fact that the I^c value is actually negative. This also means: The country's creditworthiness is declining because capital stock - which it needs to pay off external loans - 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.

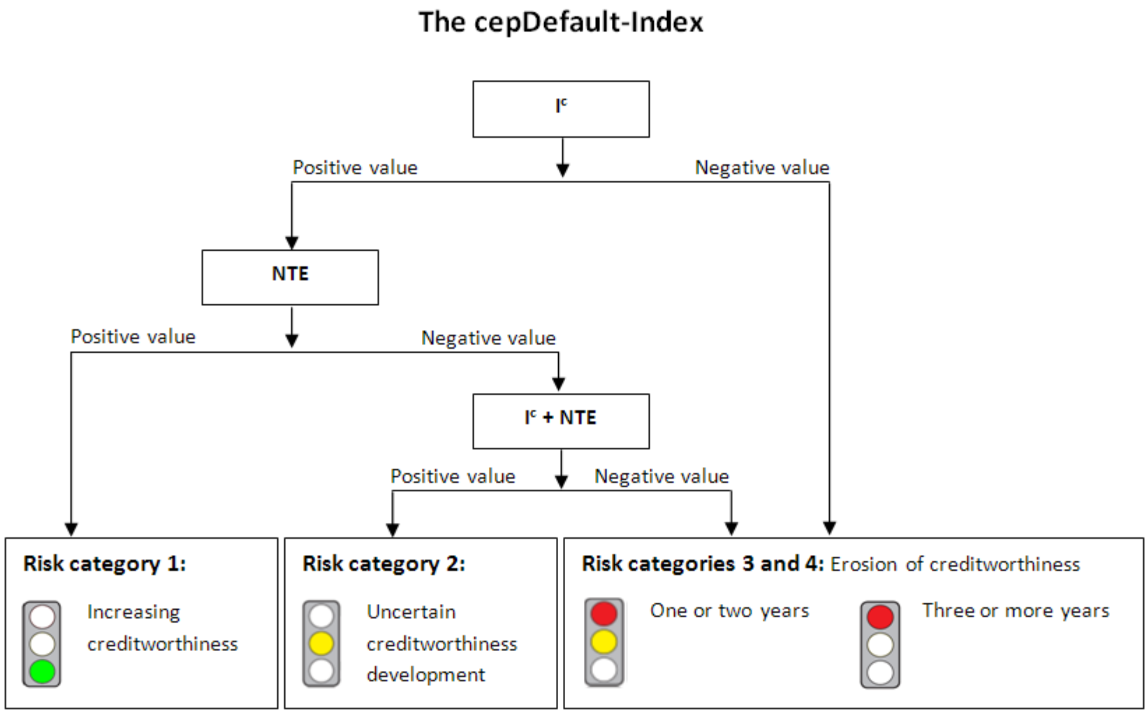
In this situation, the question whether NTE is also negative or positive, is of secondary importance as regards the trend in creditworthiness. A negative NTE indicates that irrespective of the negative net investment activity, foreign capital is required just to continue financing excessive domestic 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 three or more years, in the forms described under Risk Category 3, indicates that this is not a temporary problem but a structural one; the risk of a complete loss of creditworthiness has intensified or, in fact, become reality.

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 external loans or to negative net investment because only this sort of bubble can damage an economy's international creditworthiness in such cases.

The cepDefault-Index also deliberately leaves out the origin of the external loan. This is sensible because state financial aid – from ESM, EFSF, EFSM, IWF and the 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.



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

The table on the opposite page shows the trends in creditworthiness for the economies surveyed in the first half of 2016.[9]

Trends in creditworthiness in the first half of 2016

Rank	Country	Creditworthiness trends	I^c: Capacity enhancing capital formation	NTE: Net lending or borrowing of the total economy	I^c + NTE
Category 1: Countries with rising creditworthiness					
1	**Germany**		1.7	8.8	10.5
2	**Netherlands**		2.7	7.4	10.1
3	**Luxembourg**		5.0	4.1	9.1
4	**Estonia**		5.9	0.7	6.6
5	**Lithuania**		4.7	1.8	6.5
6	**Austria**		3.7	2.0	5.7
7	**Euro Zone**		1.5	3.6	5.1
8	**Spain**		1.8	2.3	4.1
9	**Belgium**		2.6	1.2	3.8
Category 2: Countries where trend in creditworthiness is uncertain					
10	**Slovakia**		1.6	-0.4	1.2
11	**France**		2.8	-1.8	1.0
12	**Finland**		1.2	-0.5	0.7
Category 3: Countries with falling creditworthiness					
	–		–	–	–
Category 4: Countries where falling creditworthiness is firmly established					
13	**Cyprus**		0.6	-2.4	-1.8
14	**Italy**		-0.9	2.4	1.5
15	**Slovenia**		-1.6	7.0	5.4
16	**Portugal**		-1.7	0.8	-0.9
17	**Latvia**		-2.4	1.9	-0.5
18	**Greece**		-5.7	1.5	-4.2

As the table shows, the creditworthiness trends of the eurozone countries remain very mixed. The creditworthiness of Germany, Netherlands and Luxembourg has increased the most.

As in the previous years, Greece has seen the greatest loss of creditworthiness. In addition, Cyprus, Italy, Slovenia, Portugal and Latvia indicate an established decline in creditworthiness. With the exception of Cyprus, the erosion of creditworthiness in all these eurozone countries is the result of a diminishing and increasingly ageing capital stock. The consequence of this is that the economy grows only slightly - if at all - and competitiveness falls. A solid economic basis, however, is a prerequisite both for widespread prosperity and sufficient tax income with which to finance public expenditure and not least interest payments to foreign creditors.

[9] The Index could not be calculated for Ireland and Malta because the required data was not available or was not sufficiently reliable. Creditworthiness trends shown for Luxembourg and Austria are from 2015 because the data from 2016 required for calculating the cepDefault-Index is incomplete. The figures for the eurozone average are calculated without these countries.

4 Problem Countries of the eurozone

To begin with, this section contains portraits of those countries in the eurozone where the erosion of creditworthiness has become firmly established. These are Greece, Italy, Latvia, Portugal, Slovenia and Cyprus. Secondly, this section contains portraits of those eurozone countries whose creditworthiness, although uncertain in 2016, was eroding in previous years. These are Finland, France and Slovakia. Thirdly, this section contains a portrait of Spain whose current creditworthiness did in fact increase rather than decline thanks to the reforms undertaken since 2012, but which has required financial aid in the past. The portraits appear in alphabetical order.

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) as a percentage of the gross domestic product (GDP) in each case and the sum of the two (I^c + NTE).

The bar colouring in these 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 (amber) or whether it is irrelevant for the report (pale). The colours of the bars for NTE values and IC + NTE values always correspond. 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 positive NTE values - and thus also the Index values, which must also be 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 amber, for a negative one it will be red. Amber indicates that capital imports 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 capital imports exceed capacity enhancing capital formation. In this case, some of the capital imports are used as external loans for consumption. This part of the capital imports will not therefore activate any investments which, when in the form of future value creation potential, are the prerequisite for repaying external loans. Result: The country's creditworthiness declines.

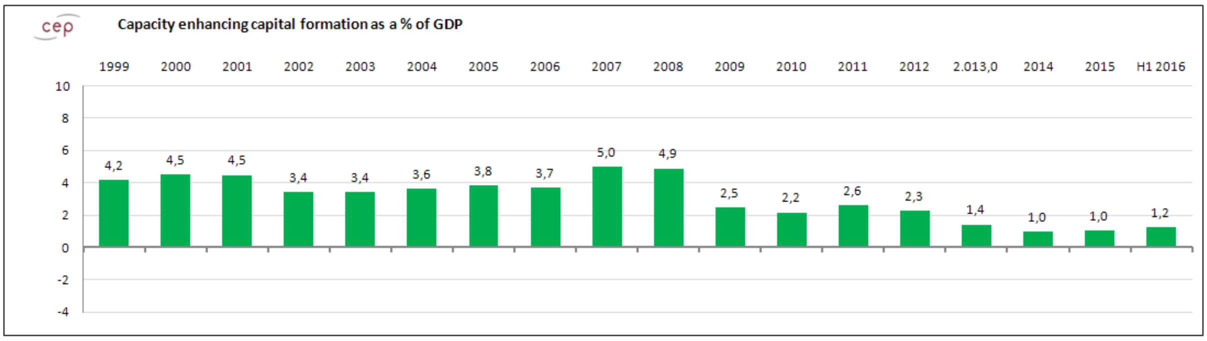
The fourth chart in the country profiles shows the consumption rate as a percentage of available income. Although it is not part of the calculation of the trend in creditworthiness, declining creditworthiness is often accompanied by excessive consumption. The illustration of the consumption rate therefore 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 available income. Where this value is exceeded it means the population is consuming more than it is earning in income; in other words it is living beyond its means.

4.1 Finland

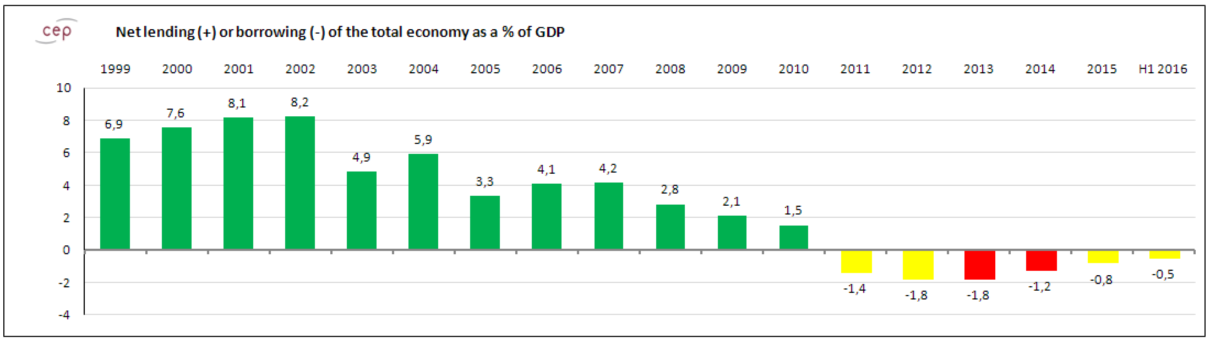
Summary: Following a decline in creditworthiness in 2013 and 2014, Finland's creditworthiness trends have been uncertain since 2015.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	H1 2016
Risk category	1	1	1	1	1	1	1	1	1	1	1	1	2	2	3	3	2	2
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	2,3	1,4	1,0	1,0	1,2
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	-1,8	-1,2	-0,8	-0,5
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	0,5	-0,4	-0,2	0,2	0,7

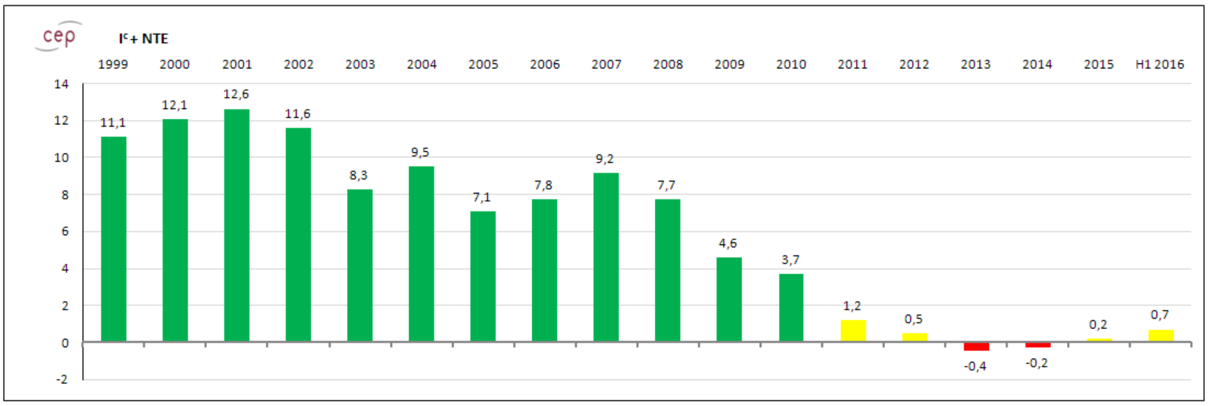
Capacity enhancing capital formation (I^c): Investment activity in Finland has stabilised at a low level. In the first half of 2016, capacity enhancing capital formation rose slightly for the first time since 2011 by 1.2% of GDP. This figure is still well below the pre-crisis level, however.



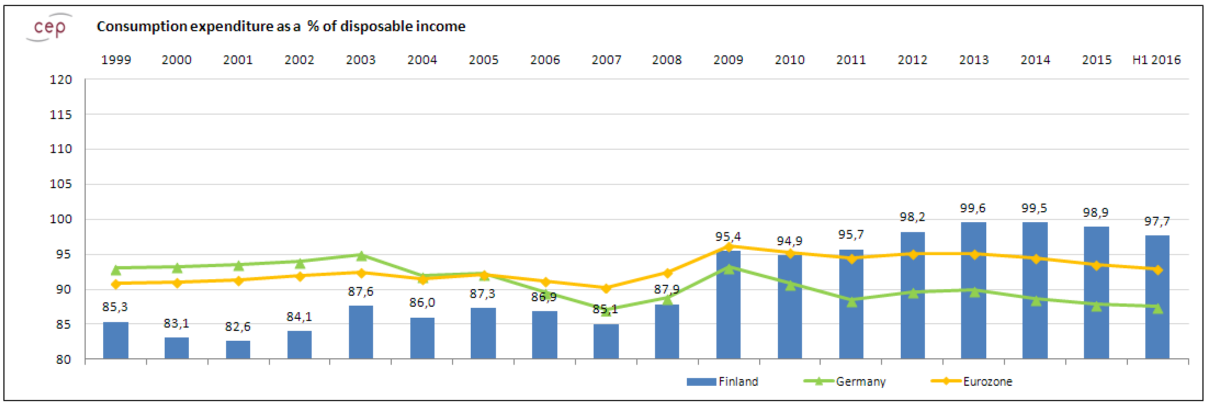
Net lending or net borrowing of the total economy (NTE): Since 2011, Finland has been a net importer of capital. Capital export surpluses have, however, fallen steadily since 2014. This positive trend also continued in the first half of 2016: On balance, Finland imported capital amounting to 0.5% of GDP.



I^c + NTE: The sum of I^c and NTE was negative in 2013 and 2014. Thus in those years, Finland borrowed for the purposes of consumption. The figure has been positive again since 2015: capital imports are again balanced by investment. This was possible due to a fall in the consumption rate.



Consumption rate: After a rise of over 14 percentage points in the Finnish consumption rate between the introduction of the euro in 1999 and 2013, the consumption rate has fallen once again since 2014. At 97.7% of the available income it was still just short of 5 percentage points above the 92.9% average for the eurozone in the first half of 2016.[10]



Result: The trend in Finland's creditworthiness has been unclear since 2015. By comparison with 2013 and 2014, when creditworthiness clearly declined, this is an improvement.

Cause: Capacity enhancing capital formation in Finland has stabilised at a low level and recently even increased. At the same time, capital imports fell on balance. The reason for this is the decline in consumption since 2014.

Recommended action: Private investment, in particular, must increase further in order to strengthen creditworthiness. For this, there must be a more significant drop in the level of consumption. This is the only way to finance additional investment without pushing up net capital imports.

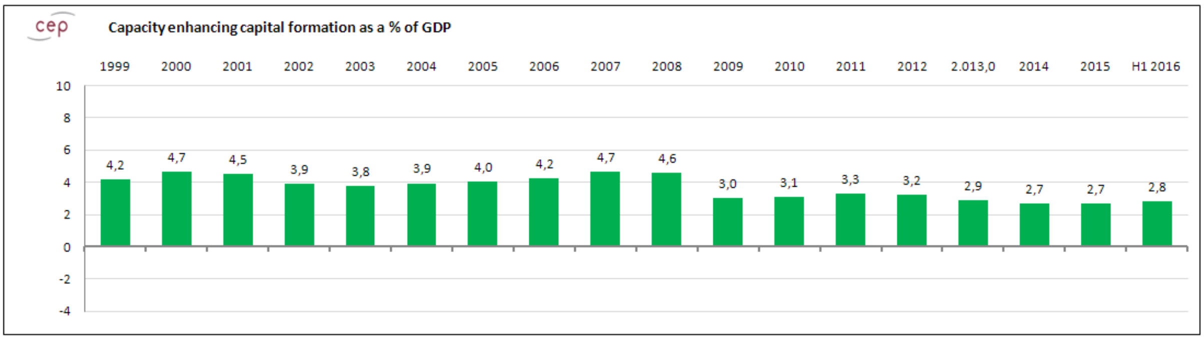
[10] The value for the eurozone in the first half of 2016, both here and in the following, does not include Austria, Cyprus, Luxembourg and Portugal because the consumption data was not available when the Analysis went to print.

4.2 France

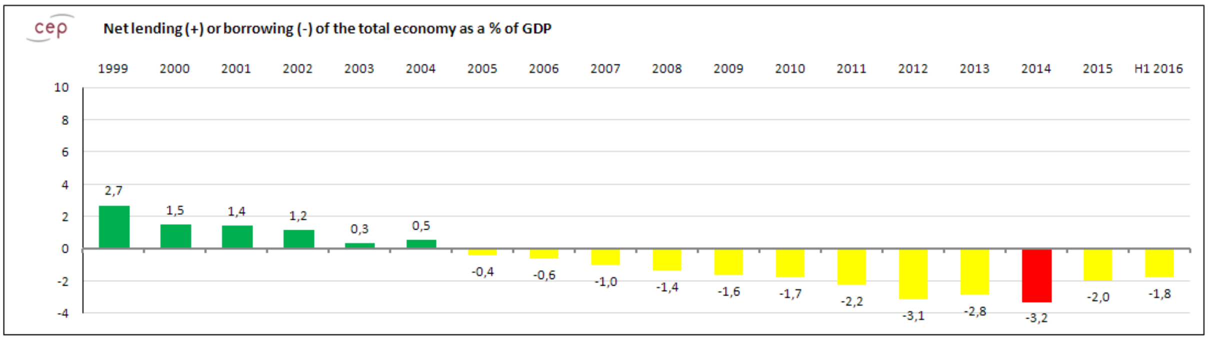
Summary: Following a decline in France's creditworthiness in 2014, its creditworthiness trends have been uncertain since 2015.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	H1 2016
Risk category	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	2	2
I^c	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	2,7	2,7	2,8
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	-2,8	-3,2	-2,0	-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	0,1	-0,5	0,7	1,0

Capacity enhancing capital formation (I^c): The fall in capacity enhancing capital formation, which began in 2011, came to a stop in 2015 and saw a turnaround - albeit modest - in the first half of 2016. At 2.8% of GDP, however, France continued to invest significantly more than the eurozone average of 1.5% in the first half of 2016[11].

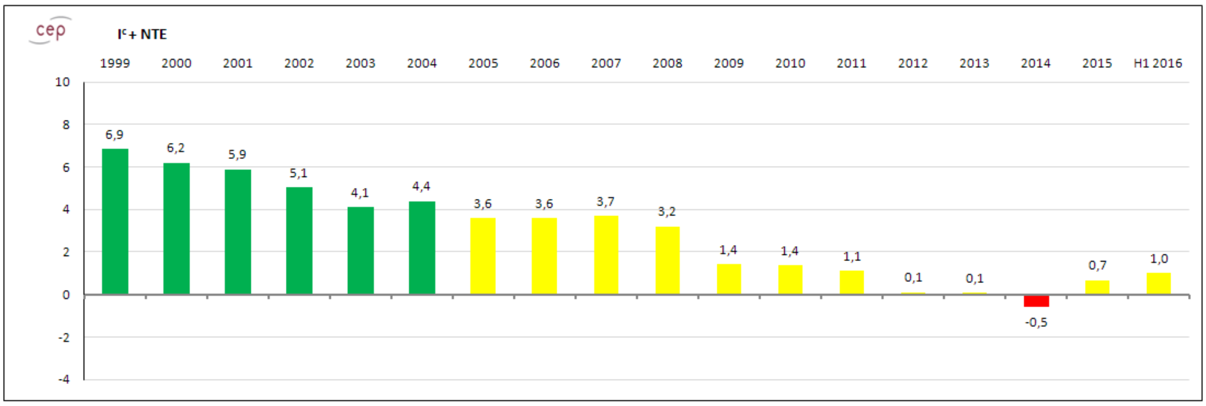


Net lending or net borrowing of the total economy (NTE): Since 2005, the French economy has, on balance, been dependent on external loans to finance domestic investment but the demand for foreign credit has fallen since its 2014 high of 3.2% of GDP. In the first half of 2016, it fell to 1.8% of GDP.

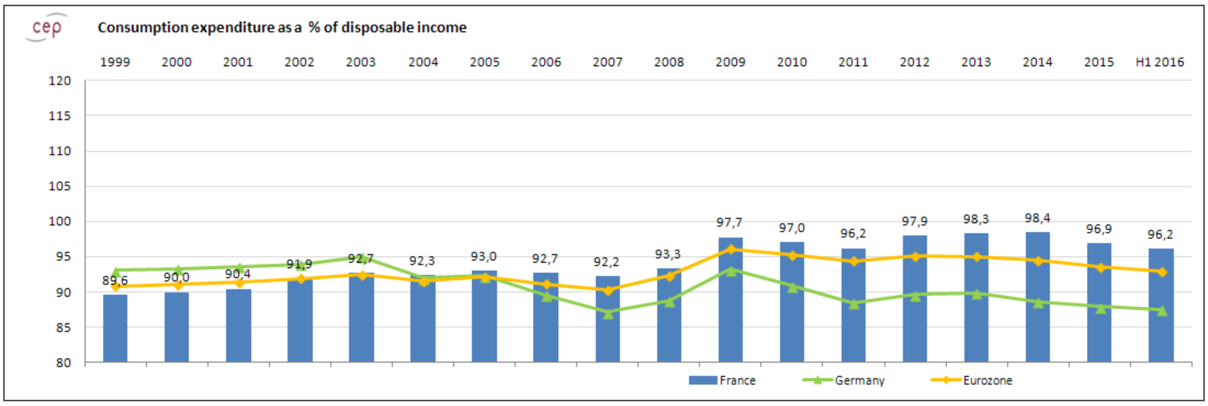


[11] The value for the eurozone in the first half of 2016 does not include Austria, Ireland, Luxembourg and Malta because the investment data was not available when the Analysis went to print.

I^c + NTE: The sum of I^c and NTE has fallen steadily since the introduction of the euro until it became negative in 2014. The figure has been slightly positive again since 2015. This trend is the result of a fall in capital imports since 2015.



Consumption rate: In 2013, the French consumption rate reached a high of 98.4% of available income and since then has fallen once again. In the first half of 2016, the consumption rate returned to its 2011 level of 96.2% of available income. It thus still exceeded the eurozone average however by 3.3 percentage points.



Result: France's creditworthiness trends were unclear between 2005 and 2013 but tended towards decline until 2014 they clearly declined. The trend has been uncertain again since 2015:

Cause: The positive trend since 2015 is due to the fact that the French economy has on balance imported less foreign capital and capacity enhancing capital formation has at the same time remained constant. This was possible due to the fall in the propensity to consume.

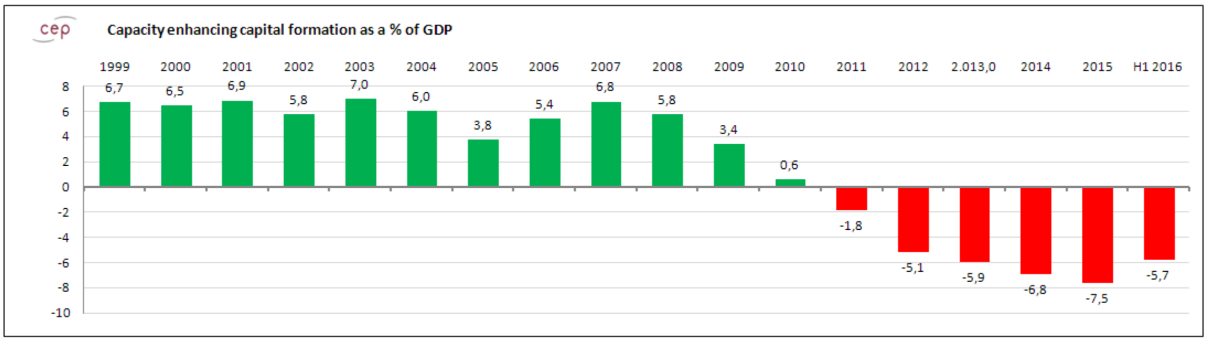
Recommended action: In order for France's creditworthiness to increase, however, the propensity to consume must fall still further. Only then can investments be financed on balance without foreign capital.

4.3 Greece

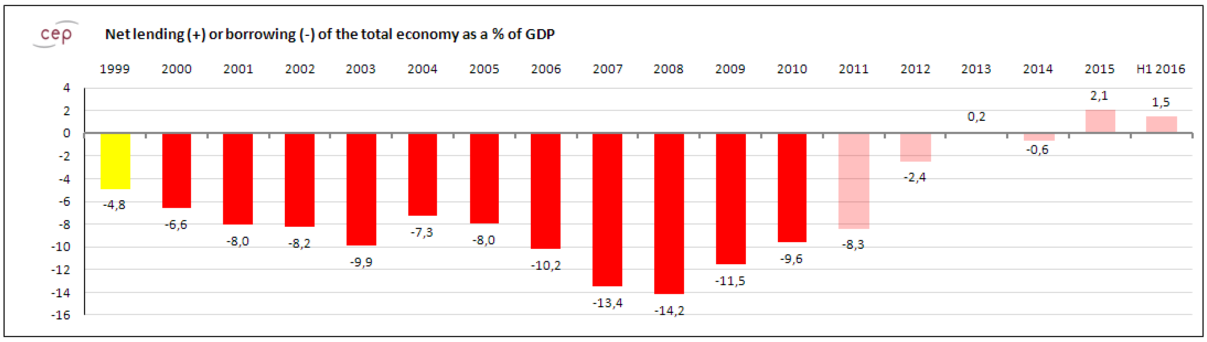
Summary: Greek creditworthiness has been declining since 2000. The country remains uncreditworthy.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	H1 2016
Risk category	2	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
I^c	6,7	6,5	6,9	5,8	7,0	6,0	3,8	5,4	6,8	5,8	3,4	0,6	-1,8	-5,1	-5,9	-6,8	-7,5	-5,7
NTE	-4,8	-6,6	-8,0	-8,2	-9,9	-7,3	-8,0	-10,2	-13,4	-14,2	-11,5	-9,6	-8,3	-2,4	0,2	-0,6	2,1	1,5
I^c + NTE	1,9	-0,1	-1,1	-2,4	-2,9	-1,3	-4,2	-4,8	-6,6	-8,4	-8,1	-9,0	-10,1	-7,5	-5,7	-7,4	-5,4	-4,2

Capacity enhancing capital formation (I^c): The decline in Greek capital stock which began in 2011 and reached its height in 2015, is continuing. It diminished less in the first half of 2016 than in previous years but at 5.7% of GDP the rate of decline was still higher than in all the other surveyed countries. Between 2011 and 2014 the negative I^c value was the result of a fall in both public and private investment. In 2015, however, the sole cause was investment restraint in the private sector.[12] This shows that the conditions for foreign and domestic investment remain unattractive.

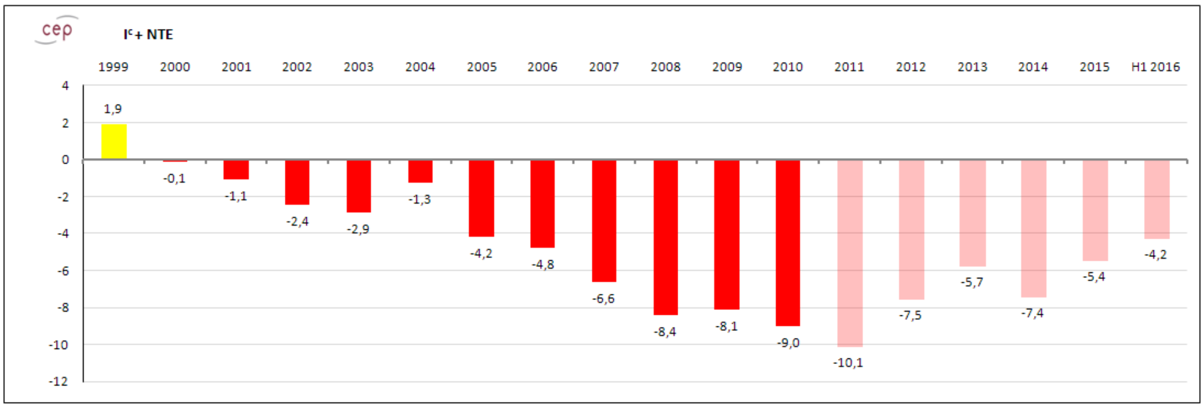


Net lending or net borrowing of the total economy (NTE): On balance, year on year between 1999 and 2012, Greece was in debt externally. Although, since 2015, Greece has once again become a net capital exporter, this development is in no way positive because at the same time Greece's capital stock has diminished. Net capital export is therefore a sign of capital flight: domestic and foreign capital, which is urgently needed in order to at least maintain an already severely diminished level of capital stock, is flowing out of the country.

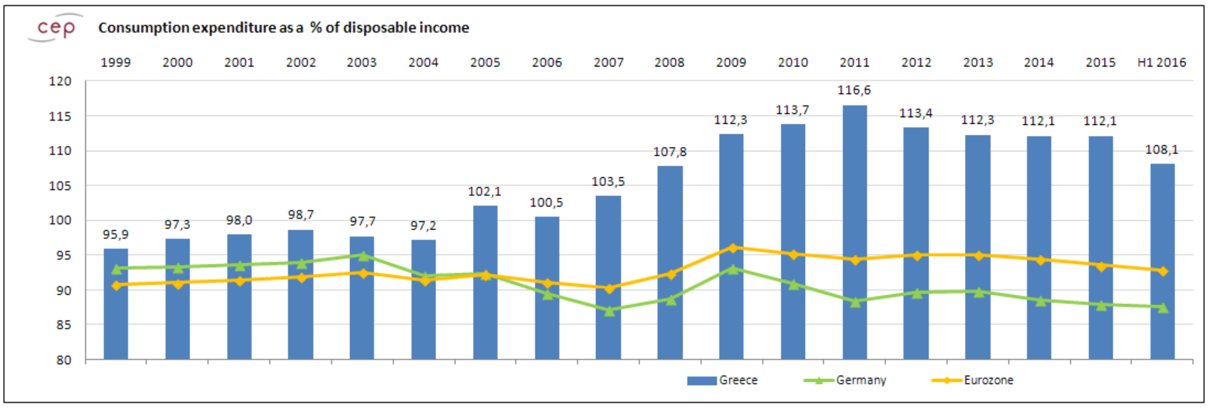


12 Cf. Data base of the European Commission, Ameco, online at: http://ec.europa.eu/economy_finance/ameco/user/serie/SelectSerie.cfm, accessed on 31.01.2016.

I^c + NTE: The sum of I^c and NTE has been negative for Greece since as long ago as 2000. Until 2010, this was solely due to the huge level of capital imports which exceeded investments. In 2011 and 2012, both NTE and the I^c value were negative. Since 2015, the negative figure for I^C + NTE is solely due to a negative I^c value - i.e. declining capital stock.



Consumption rate: The Greek consumption rate has been higher than the 100% threshold since 2005. Although it has been falling since 2012, in the first half of 2016 - as has been the case since 2008 - it was by far the highest in the EU and exceeded the eurozone average by 15.2 percentage points.



Result: Greece is still not creditworthy. Although capital stock declined less in the first half of 2016 than in previous years, it would be risky to infer a turnaround at this stage.

Cause: Until 2010, the negative trend in Greek creditworthiness was the result of excessive consumption and low international competitiveness. Both led to a high demand for foreign credit. A stark decline in capital stock combined with capital flight added to this in 2011. As long as the investment climate in Greece remains poor, even financial aid from the other eurozone countries will do nothing to change the situation. This mixture of factors results in a steady impoverishment of Greece.

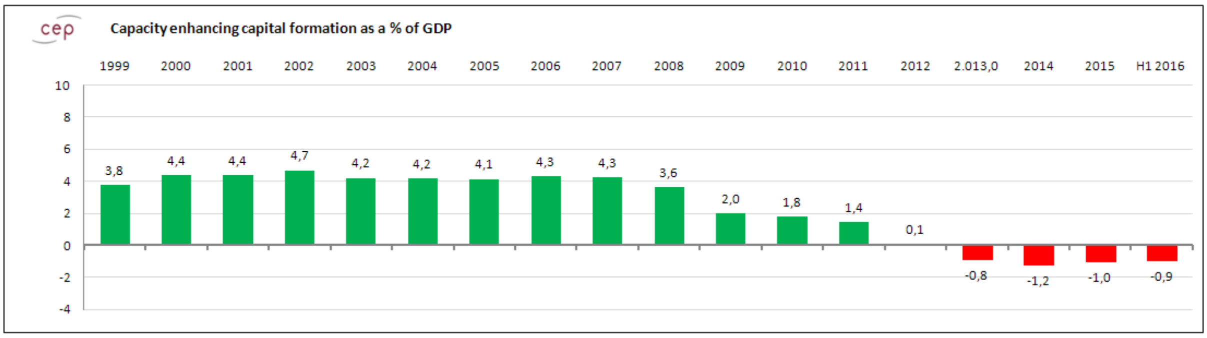
Recommended action: Investment conditions must be augmented in order to improve creditworthiness. In addition, reform plans to which the Greek Government has committed itself in return for financial aid, must be consistently implemented otherwise capital flight will continue and neither domestic nor foreign companies will be willing to invest. The latter is necessary in order for Greece to become creditworthy once again in the long term.

4.4 Italy

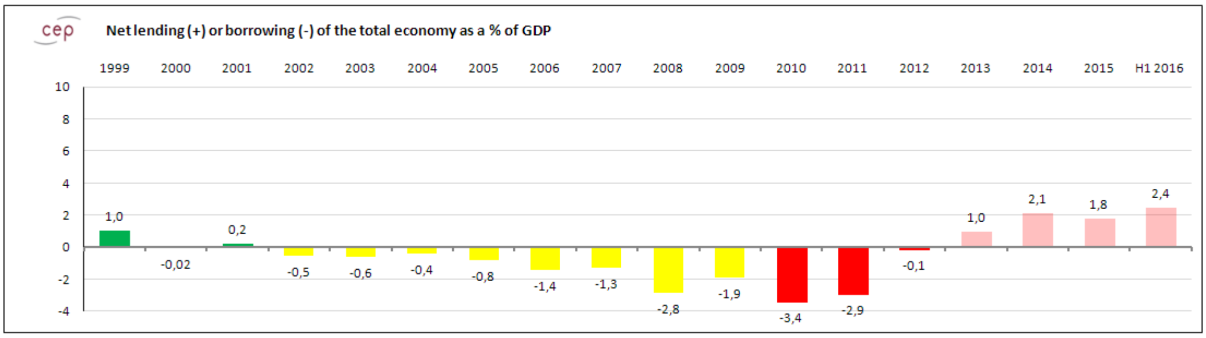
Summary: Italian creditworthiness has been eroding since 2010. This saw no change in the first half of 2016.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	H1 2016
Risk category	1	2	1	2	2	2	2	2	2	2	2	3	3	4	4	4	4	4
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	0,06	-0,8	-1,2	-1,0	-0,9
NTE	1,0	-0,02	0,2	-0,5	-0,6	-0,4	-0,8	-1,4	-1,3	-2,8	-1,9	-3,4	-2,9	-0,12	1,0	2,1	1,8	2,4
I^c + NTE	4,8	4,4	4,6	4,2	3,6	3,8	3,3	2,9	3,0	0,8	0,1	-1,6	-1,5	-0,06	0,2	0,9	0,8	1,5

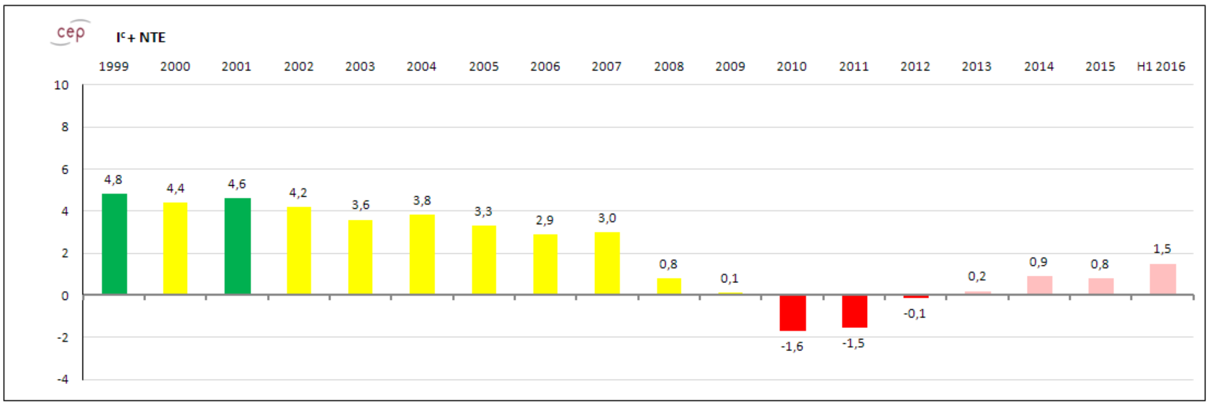
Capacity enhancing capital formation (I^c): Italy is one of the five eurozone countries whose capital stock is falling. The decline began in 2013 and has continued at a rate of about 1% of GDP each year. One reason for this is the country's high level of public debt. It restricts the scope for public investment to such an extent that net public investment has been negative since 2012. Secondly, the poor investment conditions mean that private investors cannot expect a positive economic development. This reduces the willingness of companies to invest and thus also allows a decline in private capital stock. This situation is exacerbated not just by the high level of unemployment - it has almost doubled since 2007 - but also by the problems in the Italian banking sector and not least the uncertainty about future political developments.



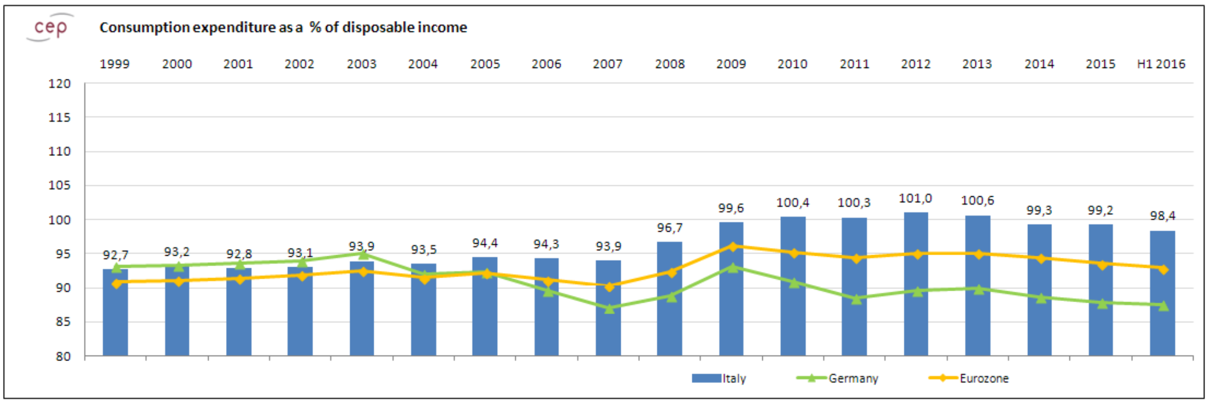
Net lending or net borrowing of the total economy (NTE): On balance, Italy needed foreign capital from 2002 to 2012 in order to finance its investments and later also its consumption. Since 2013, Italy has been a net capital exporter. Since net capital export is attended by declining capital stock, this is not a positive trend but in fact a sign of capital flight.



I^c + NTE: The sum of I^c and NTE was positive until 2009 but since 2002 Italy has been a net capital importer. Since 2013, the sum has been positive once again making Italy a net capital exporter but since capital stock declined at the same time, this is a sign of capital flight and therefore means Italy's situation is continuing to worsen.



Consumption rate: Between 2010 and 2013, Italian consumption was above the threshold of 100% of available income. The rate has fallen back below the threshold since 2014, currently lying at 98.4%. This figure is however significantly (5.5 percentage points) above the eurozone average of 92.9%.



Result: Italian creditworthiness has declined steadily since 2010.

Cause: Until 2012, the erosion of Italian creditworthiness was due to the Italian population's excessive propensity to consume and investment activity which, though positive, was too low. Since 2013, however, a reduction in capital stock due to negative investment has been the reason for the decline in creditworthiness. This is the result of the unsolved economic problems, the high level of public debt and political uncertainty.

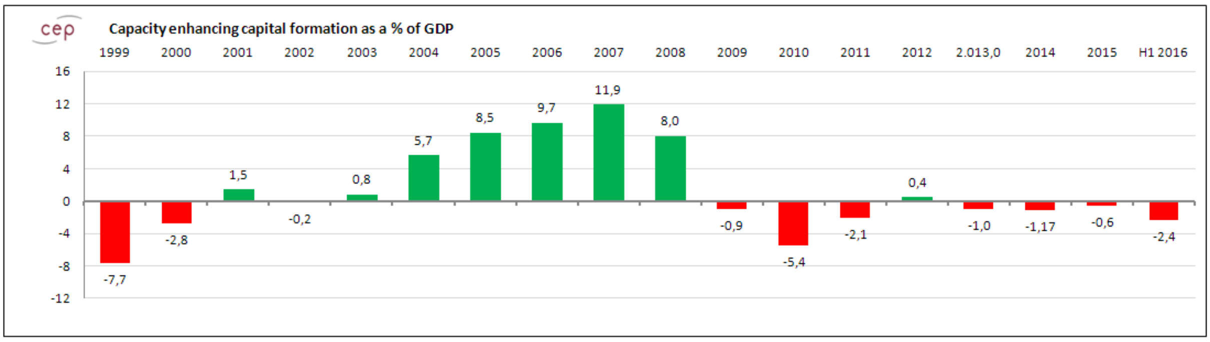
Recommended action: Italy must improve investment conditions in order to strengthen its creditworthiness. This is the only way for capital stock to start growing again. In addition to further fundamental structural reforms to improve the stability of the Italian banking sector, this requires the reduction of public debt, by bringing down public consumption and an end to uncertainty over future political developments.

4.5 Latvia

Summary: Latvia's creditworthiness has been deteriorating since as long ago as 1999 and so far there is no indication of an upwards trend.

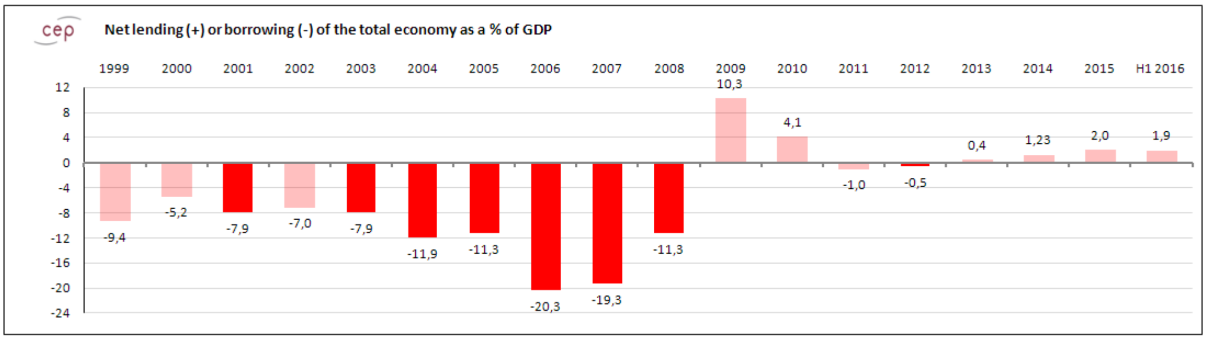
	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	H1 2016
Risk category	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
I^c	-7,7	-2,8	1,5	-0,2	0,8	5,7	8,5	9,7	11,9	8,0	-0,9	-5,4	-2,1	0,4	-1,0	-1,17	-0,6	-2,4
NTE	-9,4	-5,2	-7,9	-7,0	-7,9	-11,9	-11,3	-20,3	-19,3	-11,3	10,3	4,1	-1,0	-0,5	0,4	1,23	2,0	1,9
I^c + NTE	-17,1	-8,0	-6,4	-7,2	-7,1	-6,2	-2,8	-10,6	-7,4	-3,3	9,4	-1,3	-3,1	-0,1	-0,6	0,06	1,4	-0,5

Capacity enhancing capital formation (I^c): Latvia's capital stock fell in 1999 and 2000. In subsequent years it grew - in some cases massively. This trend came to an abrupt halt in 2009 however. Since then, Latvian capital stock has declined except in 2012. In the first half of 2016, it fell by 2.4% of GDP - the highest rate of decline since 2010.



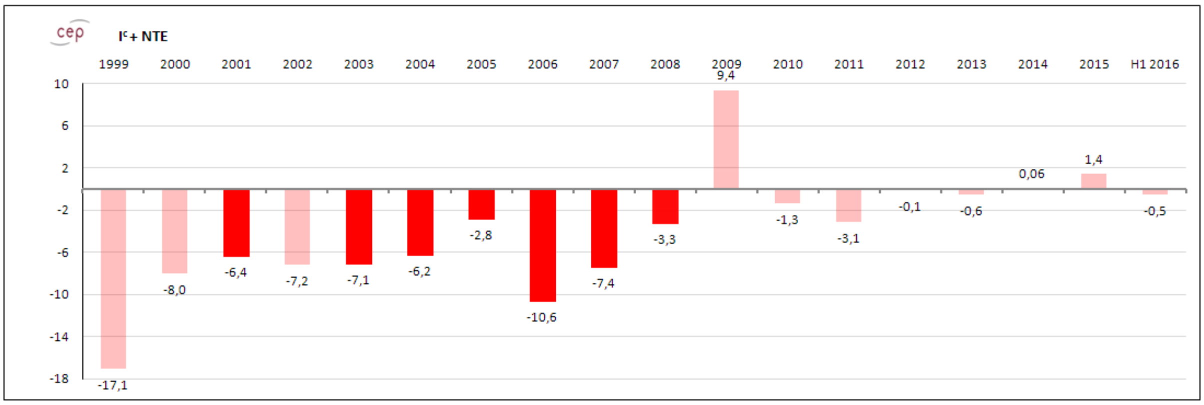
Capacity enhancing capital formation as a % of GDP

Net lending or net borrowing of the total economy (NTE): Between 1999 and 2008, Latvia was a net importer of capital on a large scale. In 2006 and 2007, Latvian capital imports reached 20% of GDP. This stopped abruptly in 2009. Since then, Latvia has been a net capital exporter almost continuously. Following high capital export rates in 2009 and 2010, Latvian capital exports have stabilised at a low level. Since capital exports have also been accompanied by a decline in capital stock, they do not represent a positive trend. In fact they are an indication of capital flight.

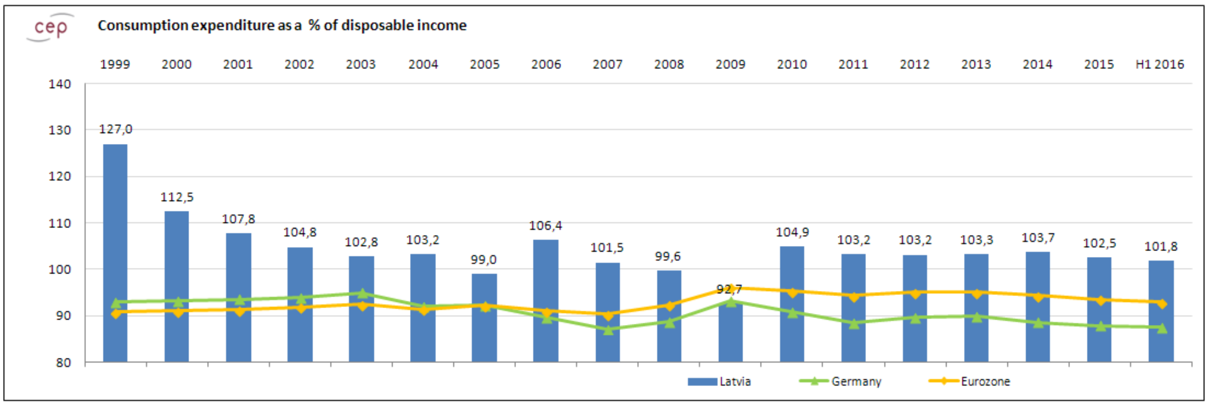


Net lending (+) or borrowing (-) of the total economy as a % of GDP

I^c + NTE: Since 2013, I^c + NTE has fluctuated between low positive and low negative values. However, as capital stock has also been falling since 2013, this indicator is irrelevant for assessing the creditworthiness trend.



Consumption rate: The cause of declining creditworthiness in Latvia is the population's high propensity to consume. Since 1999, the consumption rate has only fallen below the critical 100% threshold on two occasions - 2005 and 2009. It is currently at 101.8%. This is one of the highest rates in the eurozone.



Result: Latvia's creditworthiness has fallen steadily since 1999.

Cause: The decline in Latvia's creditworthiness is firstly due to the decline in capital stock which - with one exception - has been the case in Latvia since 2009. This trend shows that the conditions for private investment are inadequate. Secondly, the Latvian population's highly excessive propensity to consume is also problematic.

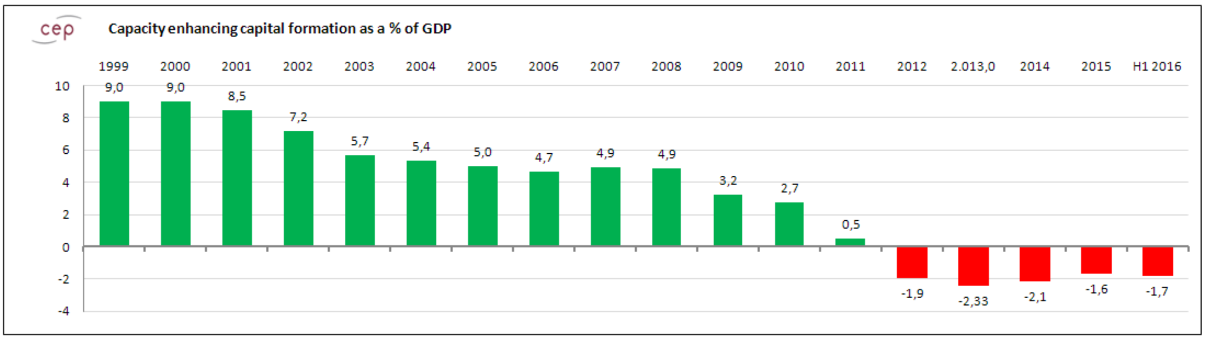
Recommended action: In order to increase Latvia's creditworthiness, capital stock must start growing once more which requires Latvia to make itself more attractive as an investment location. At the same time, in order to prevent a repeated proliferation of net capital imports, consumption must be brought down. Only then will more domestic capital be available for investment.

4.6 Portugal

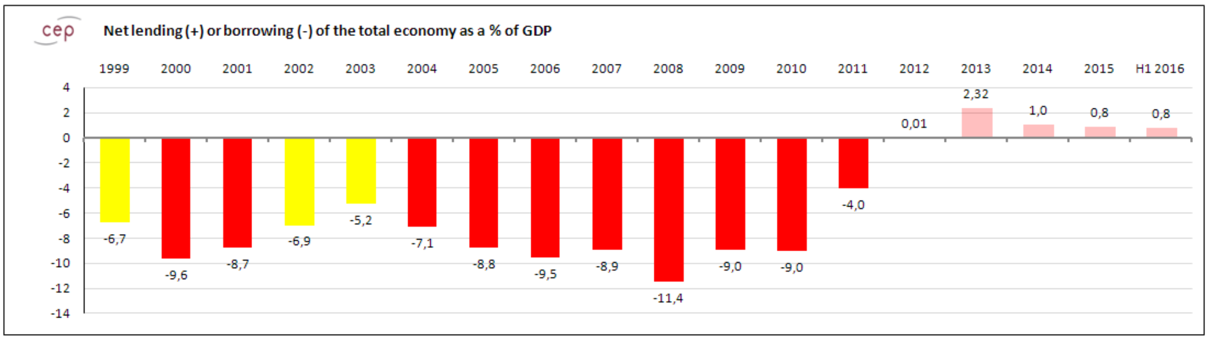
Summary: Portuguese creditworthiness has been falling since 2004. This trend continued in the first half of 2016.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	H1 2016
Risk category	2	3	3	2	2	3	3	4	4	4	4	4	4	4	4	4	4	4
I^c	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	-1,9	-2,33	-2,1	-1,6	-1,7
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	1,0	0,8	0,8
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	-1,9	-0,01	-1,1	-0,8	-0,9

Capacity enhancing capital formation (I^c): Portugal also belongs to the group of eurozone countries in which capital stock is declining. This trend has now been continuing since 2012. In the first half of 2016, its level fell to 1.7% of GDP. Only in Latvia and Greece did capital stock decrease faster. There is no indication of an upwards trend.



Net lending or net borrowing of the total economy (NTE): Until 2011, Portugal was a net capital importer. Since 2012, the country has exported capital. As capital stock is also shrinking, this is not a positive trend. In fact, capital is flowing out of the country that is urgently needed to maintain capital stock.



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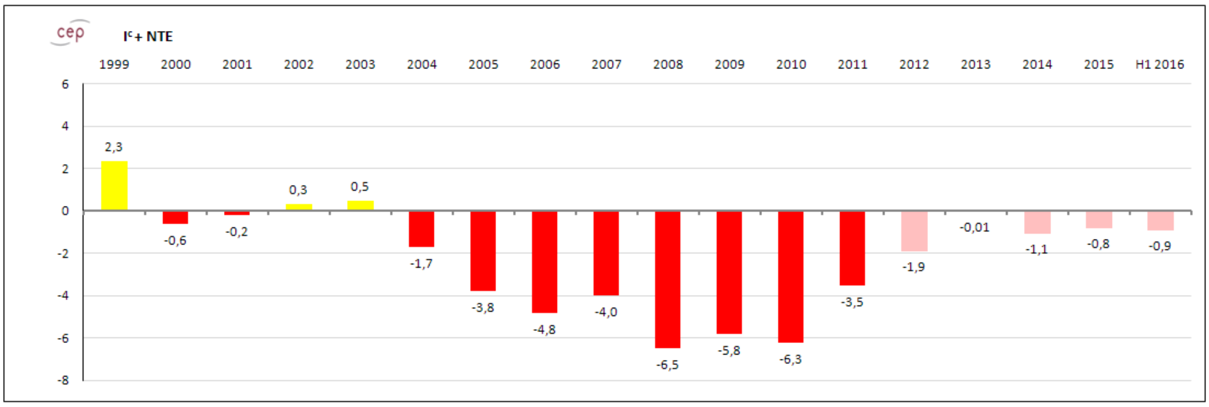
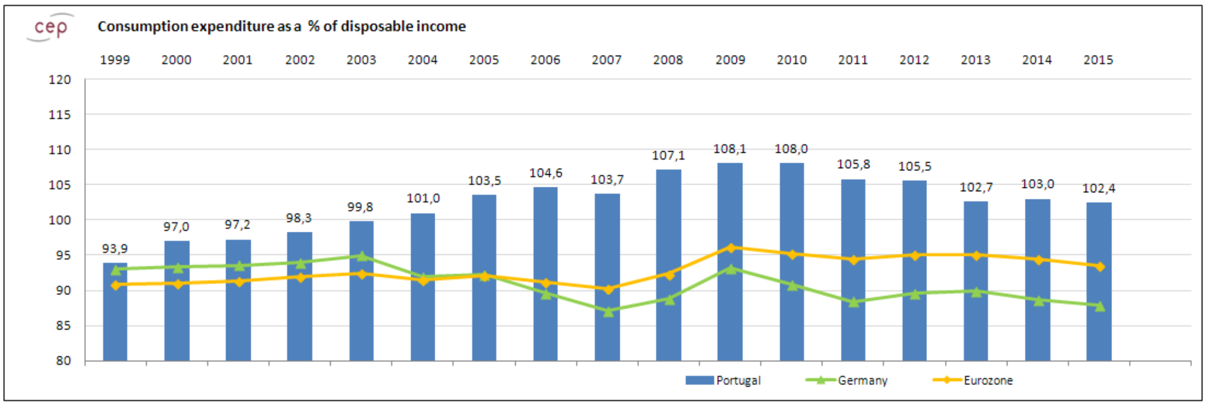
I^c + NTE: The sum of I^c and NTE has been negative since 2004. This is due to the Portuguese population's excessive propensity to consume.



Consumption rate: Since the introduction of the Euro, Portugal's consumption has been above the eurozone average and since 2004 continuously over 100% of available income. In 2015 it was 102.4%.[13] This is the third highest figure for all the surveyed countries.



Result: Portuguese creditworthiness has been declining since 2004.

Cause: This falling Portuguese creditworthiness has two causes. Firstly, Portuguese capital stock has shrunk since 2012. This is shown by a negative I^c value. Secondly, the country is consuming far beyond its means.

Recommended action: Investment conditions must be improved in order to increase creditworthiness. Only then will domestic and foreign companies be willing to invest. At the same time, the consumption rate must fall and the savings increase. That is the only way for investment to be financed from domestic savings.

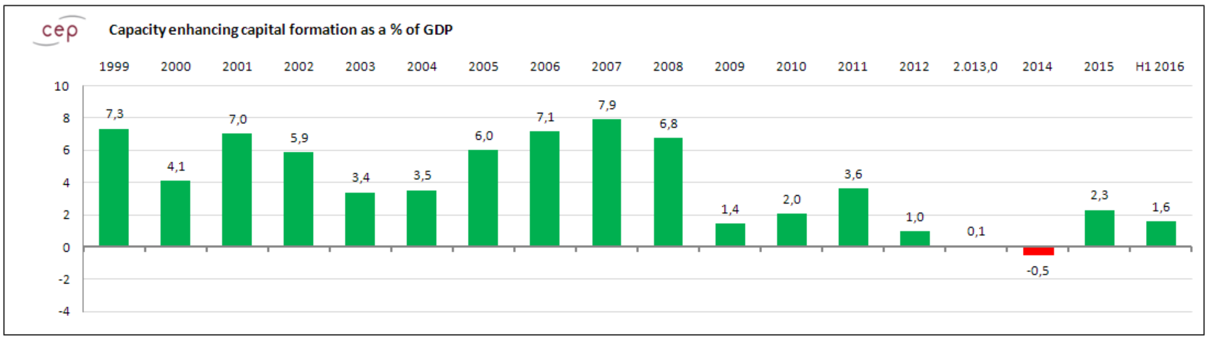
[13] The consumption data for the first half of 2016 were not available when the Analysis went to print.

4.7 Slovakia

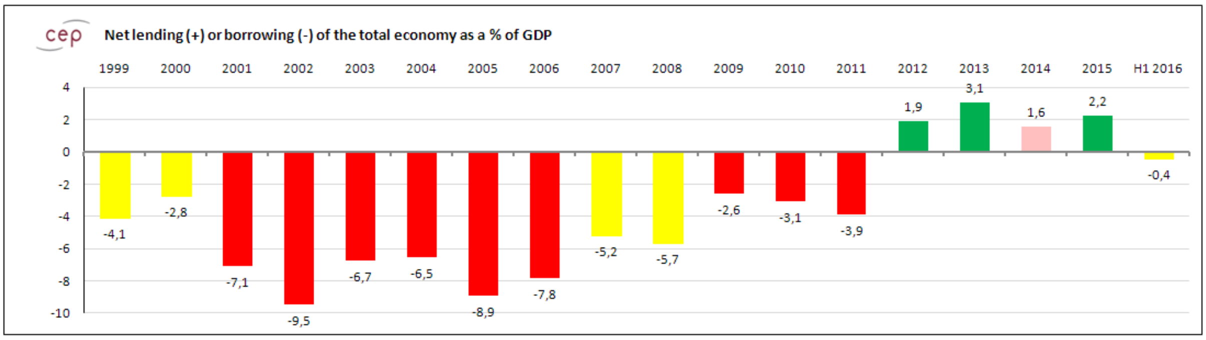
Summary: Slovakian creditworthiness trends have fluctuated greatly in previous years. Since the introduction of the euro in 2009, it fell most years but is also increased in 2012, 2013 and 2015. A clear statement on Slovakian creditworthiness trends is not possible for 2016.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	H1 2016
Risk category	2	2	3	3	4	4	4	4	2	2	3	3	4	1	1	3	1	2
I^c	7,3	4,1	7,0	5,9	3,4	3,5	6,0	7,1	7,9	6,8	1,4	2,0	3,6	1,0	0,1	-0,5	2,3	1,6
NTE	-4,1	-2,8	-7,1	-9,5	-6,7	-6,5	-8,9	-7,8	-5,2	-5,7	-2,6	-3,1	-3,9	1,9	3,1	1,6	2,2	-0,4
I^c + NTE	3,2	1,3	-0,1	-3,6	-3,3	-3,0	-2,9	-0,7	2,7	1,1	-1,2	-1,1	-0,3	2,9	3,2	1,1	4,5	1,2

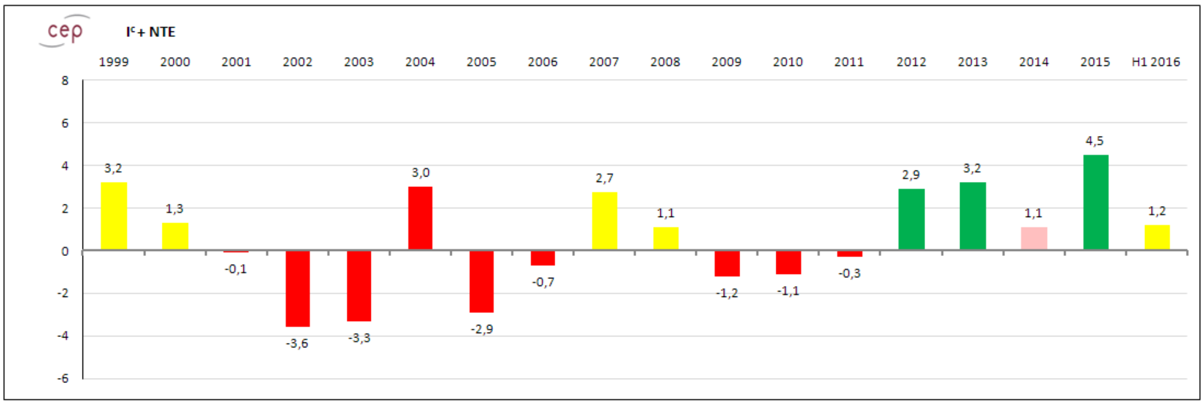
Capacity enhancing capital formation (I^c): In 2009, capacity enhancing capital formation underwent a massive collapse and has not yet recovered. It was even negative in 2014. Currently, capital stock is growing once more.



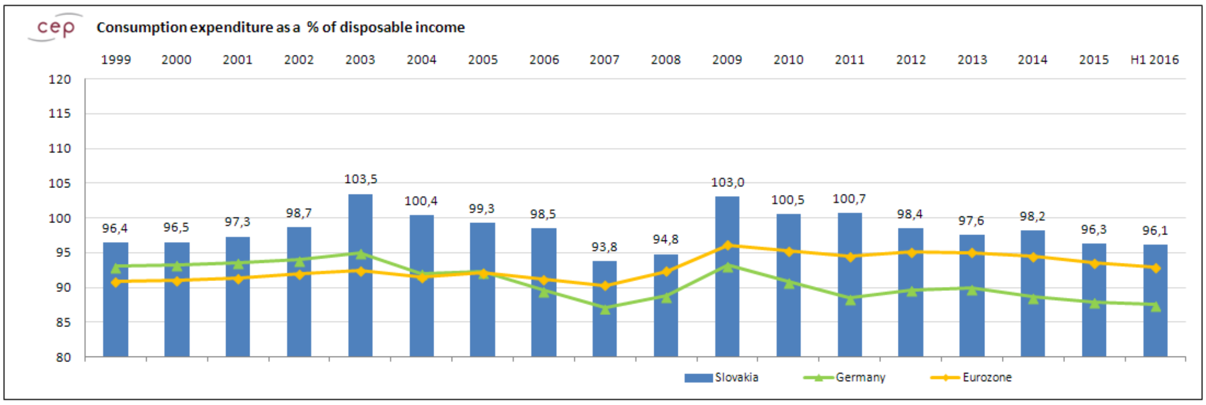
Net lending or net borrowing of the total economy (NTE): In the first three years after the introduction of the euro in 2009, Slovakia was a net importer of capital. This changed round between 2012 and 2015 but in 2016 the country again became a net importer of capital. In the first half of the year, net capital imports were 0.4% of Slovakian GDP.



I^c + NTE: The sum of I^c and NTE was negative in the first three years after introduction of the euro in 2009. In this period, Slovakia took on foreign debt in order to finance consumption. Since 2012, I^c + NTE has been positive. In the first half of 2016, however, it fell starkly to its present level of 1.2% of GDP. This is primarily due to the fall in the figure for NTE.



Consumption rate: When the euro was introduced in 2009, the Slovakian consumption rate was significantly higher than the critical 100% threshold. It has fallen almost continuously since then. It is currently at 96.1% of available income.



Result: Slovakia's creditworthiness trend was unclear in the first half of 2016 after it increased in 2015.

Cause: This trend is due, firstly, to a fall in capacity enhancing capital formation. Secondly, the NTE has fallen significantly from +2.2% of GDP to -0.4%. Looking at the economy as a whole, Slovakia has therefore financed part of its capacity enhancing capital formation from external loans.

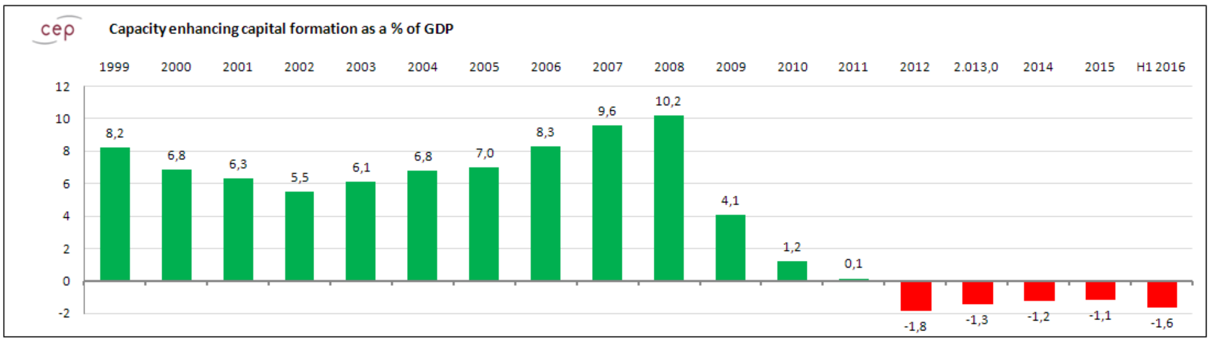
Recommended action: In order to increase Slovakia's creditworthiness, net investment must once again be financed entirely from domestic savings. For this, there must be a larger drop in the level of consumption.

4.8 Slovenia

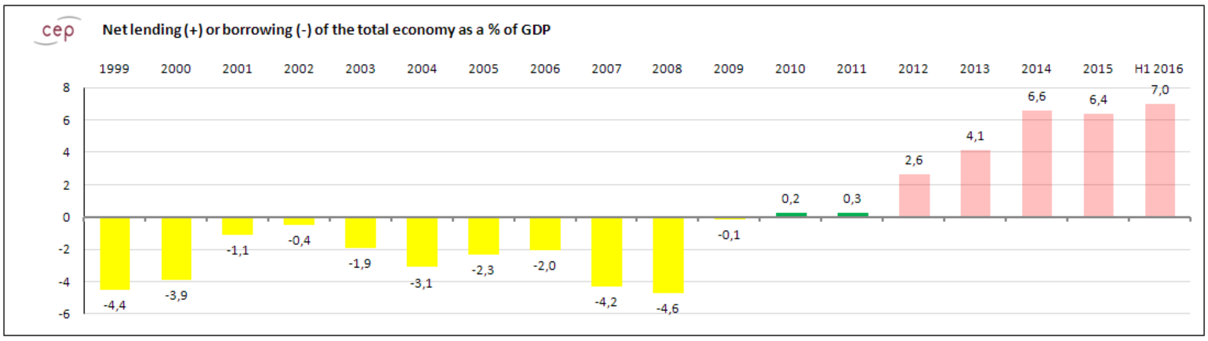
Summary: Slovenia's creditworthiness has been declining since 2012. This trend continued in the first half of 2016.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	H1 2016
Risk category	2	2	2	2	2	2	2	2	2	2	2	1	1	3	3	4	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	-1,8	-1,3	-1,2	-1,1	-1,6
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	4,1	6,6	6,4	7,0
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	0,8	2,8	5,4	5,3	5,4

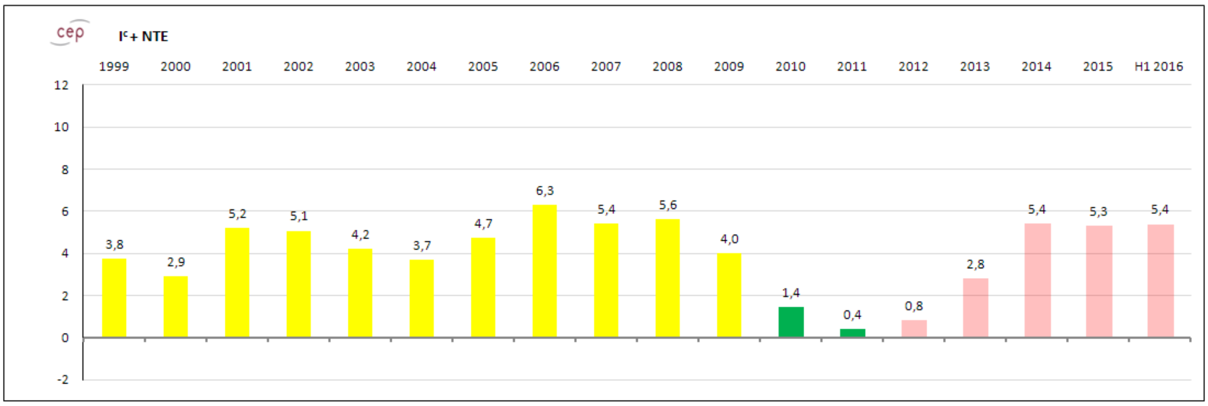
Capacity enhancing capital formation (I^c): As of 2009, capacity enhancing capital formation fell starkly and has remained negative since 2012. Since then, Slovenia's capital stock has shrunk. In the first half of 2016, it fell by 1.6% of GDP, a figure that has only been exceeded in 2012. The fall in capital stock is not due to a lack of public investment but solely the lack of private investment. This shows that the conditions in Slovenia are not attractive enough for investors to invest at least sufficiently to maintain capital stock.



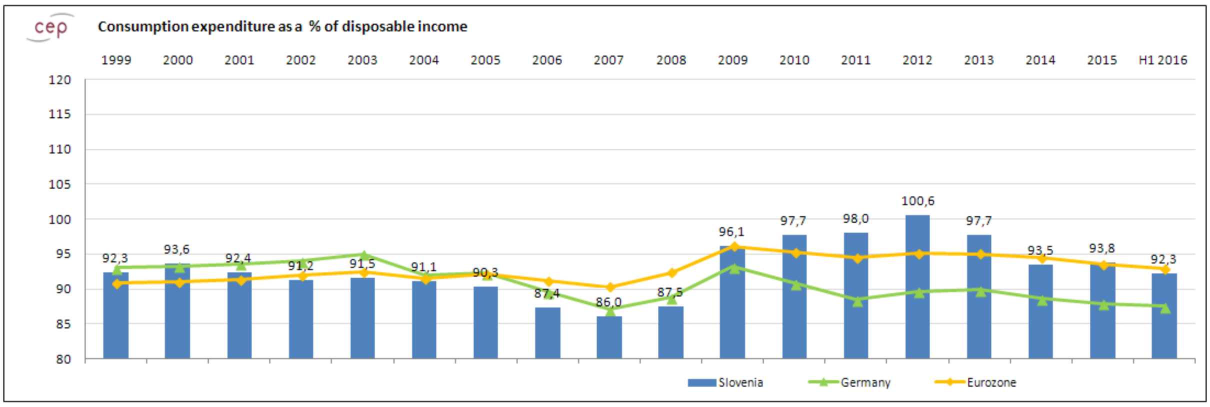
Net lending or net borrowing of the total economy (NTE): In the first two years after introduction of the euro in 2007, Slovenia imported a large amount of capital which it used for investment. This changed between 2009 and 2011. Slovenia has been a net exporter of capital since 2012 - and the trend is rising. Capital is flowing out of the country. This money is needed urgently in order to at least maintain Slovenia's capital stock. In the first half of 2016 alone, capital amounting on balance to 7.0% of GDP was taken out of Slovenia.



I^c + NTE: The sum of I^c and NTE has been positive since 1999. This was initially due to high investments. Since 2012 however it has been caused by the fact that capital required for investment is leaving Slovenia.



Consumption rate: In the first few years following introduction of the euro in 2007, Slovenia's consumption has risen steadily. In 2012, it exceeded the critical threshold of 100% of available income. In the mean time it has gone back down to 92.3% and in 2016 it was around the eurozone average of 92.9%.



Result: Slovenian creditworthiness has been declining continuously since 2012. This trend continued in the first half of 2016. There is no indication of an upwards trend.

Cause: The country's capital stock is shrinking due to poor investment conditions. By contrast with other problem countries, the rate of consumption is not a cause of the crisis.

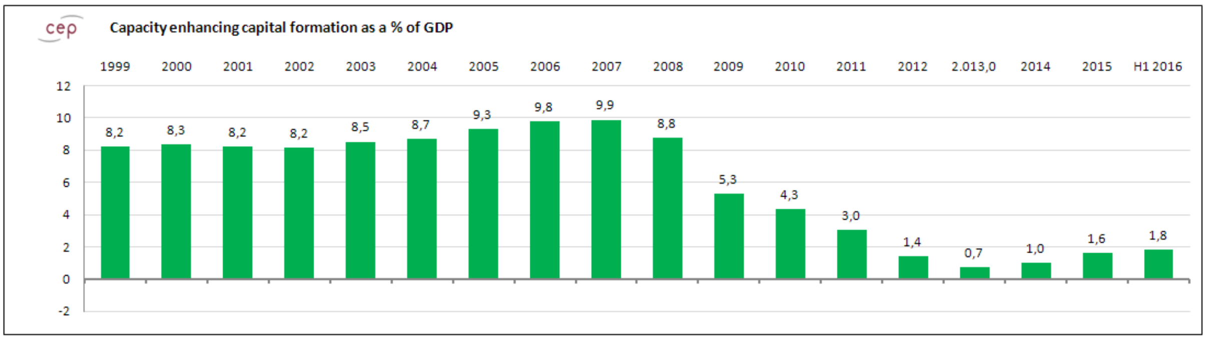
Recommended action: In order to stop the decline in creditworthiness, Slovenia must become more attractive to investors.

4.9 Spain

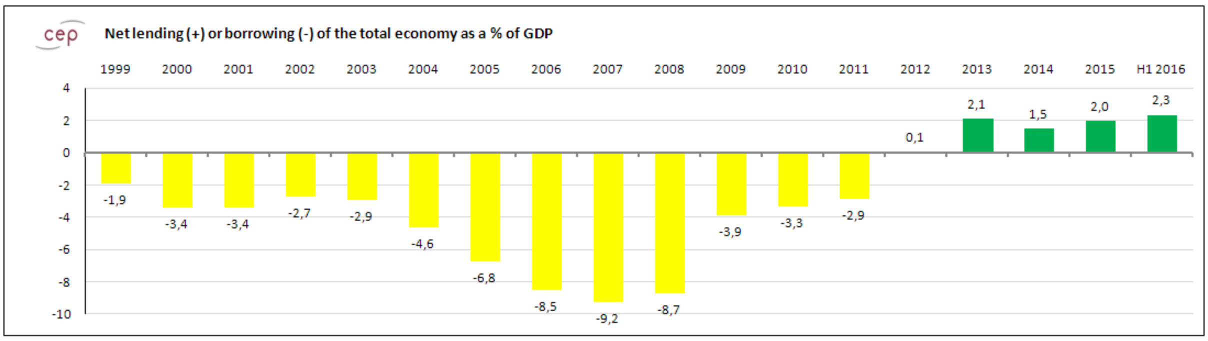
Summary: Spain's creditworthiness has continuously improved since 2012. This trend gained further momentum in the first half of 2016. As a result of the bursting of a property bubble, Spain required financial aid to support its banks between 2012 and 2014. The cepDefault-Index deliberately only shows risks such as those which arise 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. The Index did not therefore show a clear fall in creditworthiness in any year.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	H1 2016
Risk category	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1
I^c	8,2	8,3	8,2	8,2	8,5	8,7	9,3	9,8	9,9	8,8	5,3	4,3	3,0	1,4	0,7	1,0	1,6	1,8
NTE	-1,9	-3,4	-3,4	-2,7	-2,9	-4,6	-6,8	-8,5	-9,2	-8,7	-3,9	-3,3	-2,9	0,1	2,1	1,5	2,0	2,3
I^c + NTE	6,3	4,9	4,8	5,5	5,6	4,1	2,5	1,3	0,7	0,1	1,4	1,0	0,1	1,5	2,8	2,5	3,6	4,1

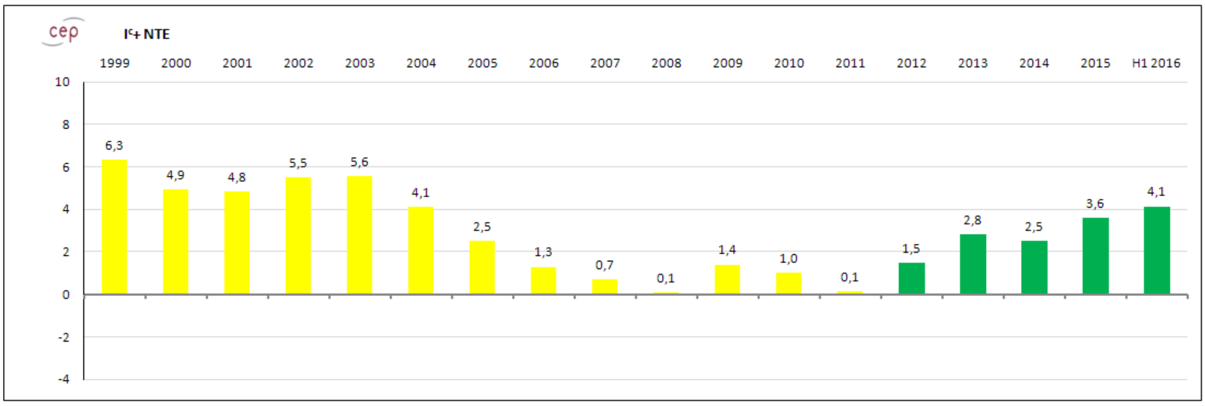
Capacity enhancing capital formation (I^c): Capacity enhancing capital formation reached its lowest point in 2013. Since then it has been rising slowly but surely. This positive trend continued in the first half of 2016.



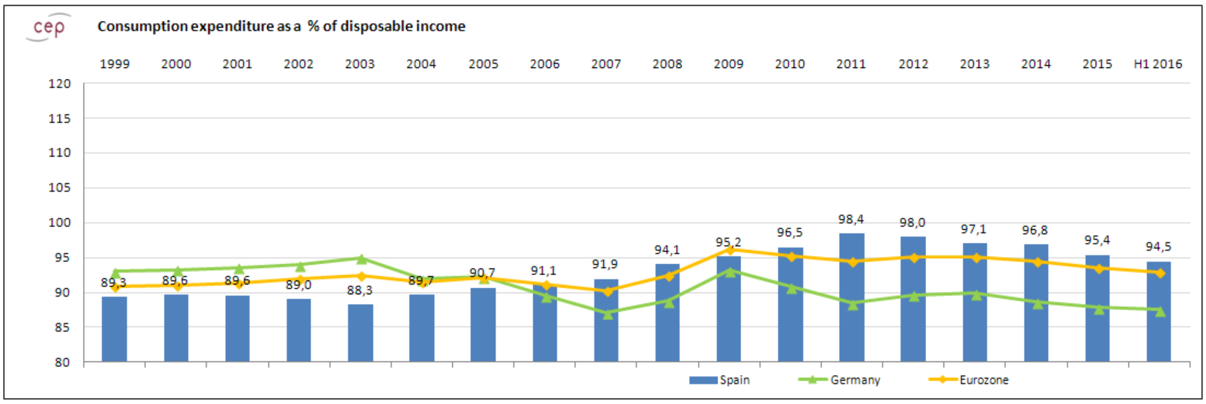
Net lending or net borrowing of the total economy (NTE): Having been a net capital importer until 2011, Spain has on balance been exporting capital since 2012. In the first half of 2016, the surplus was 2.3% of GDP.



I^c + NTE: Although the sum of I^c + NTE has fallen starkly since 2003, even after the outbreak of the crisis, it remained in the low positive values. Since then, the index value has increased strongly once again to its present figure of 4.1% of GDP in the first half of 2016. The increase in creditworthiness thus gained further momentum in the first half of 2016.



Consumption rate: Spain's consumption rate, which has never exceeded the critical threshold of 100% of available income, has been falling since 2011. In the first half of 2016 it was still at 94.5%.



Result: Spanish creditworthiness has been increasing steadily since 2012 and the increase has gained momentum each year.

Cause: The consistent implementation of structural reforms since 2012, including the increase in international competitiveness, is now starting to have an impact. In the first half of 2016, at least, even the political crisis which left Spain with only a caretaker government without a majority in Parliament, has left no visible marks.

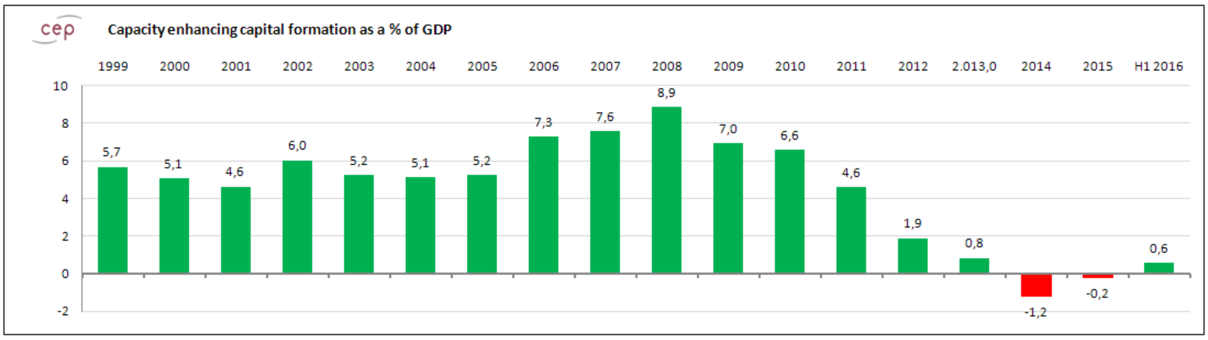
Recommended action: The Spanish Government should rapidly reduce the still high public deficit. In addition, it should continue on the path of economic reform.

4.10 Cyprus

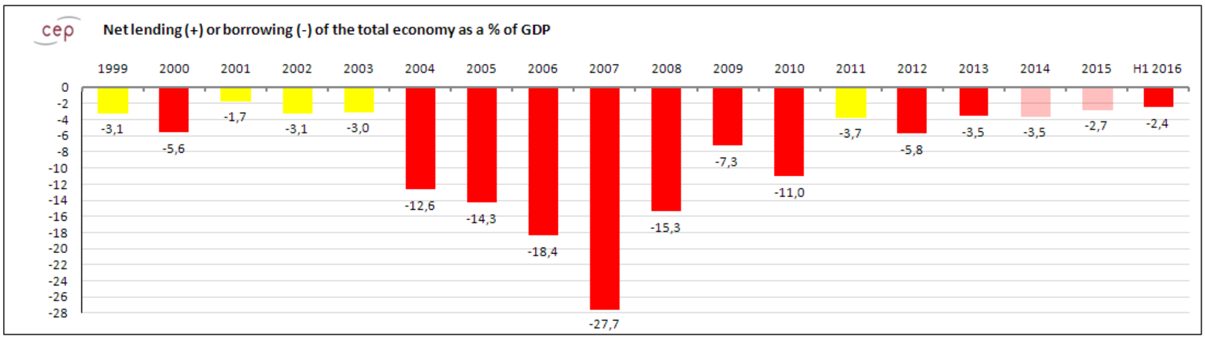
Summary: With the exception of one year, creditworthiness in Cyprus has been declining since 2004. The decline in creditworthiness also continued in the first half of 2016.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	H1 2016
Risk category	2	3	2	2	2	3	3	4	4	4	4	4	2	3	3	4	4	4
I^c	5,7	5,1	4,6	6,0	5,2	5,1	5,2	7,3	7,6	8,9	7,0	6,6	4,6	1,9	0,8	-1,2	-0,2	0,6
NTE	-3,1	-5,6	-1,7	-3,1	-3,0	-12,6	-14,3	-18,4	-27,7	-15,3	-7,3	-11,0	-3,7	-5,8	-3,5	-3,5	-2,7	-2,4
I^c + NTE	2,6	-0,5	2,9	2,9	2,2	-7,5	-9,1	-11,1	-20,1	-6,4	-0,3	-4,4	0,9	-3,9	-2,7	-4,7	-2,9	-1,8

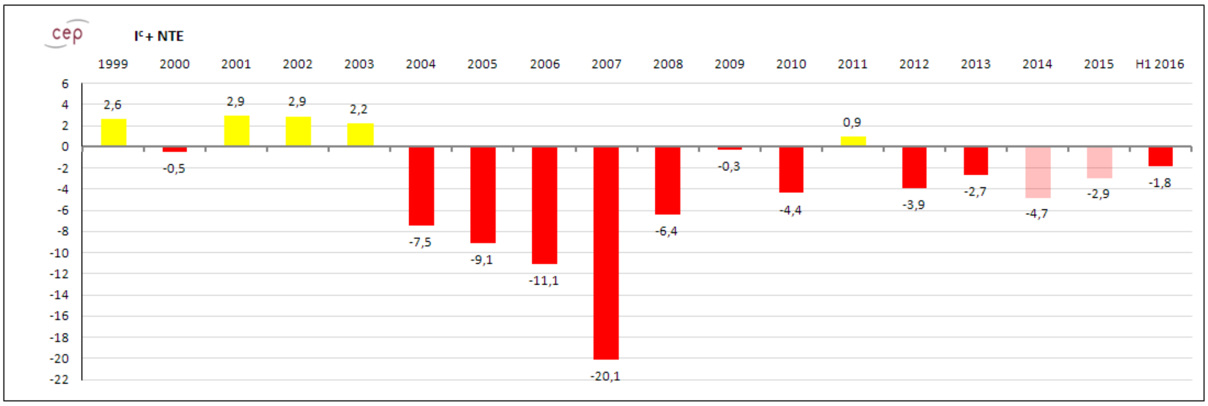
Capacity enhancing capital formation (I^c): After shrinking for two years in a row, Cyprus' capital stock grew again in the first half of 2016.



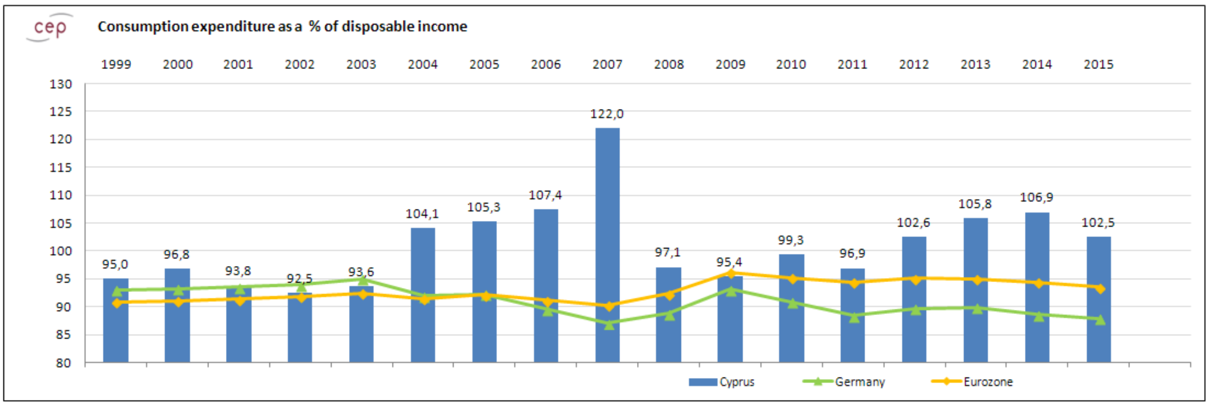
Net lending or net borrowing of the total economy (NTE): Since 1999, Cyprus been consistently reliant on foreign capital imports in order to finance its investments. In addition, foreign capital has been imported to finance domestic consumption. Nevertheless, net capital imports fell slightly in the first half of 2016 2.4% of GDP. This is the lowest level since 2001.



I^c + NTE: With the exception of 2011, the sum of I^c and NTE has been negative since 2004. In all those years, therefore, capital was imported to finance domestic consumption. In 2014 and 2015, a negative I^c + NTE value made the situation worse: There was too little investment even just to maintain Cyprus' capital stock.



Consumption rate: As was already the case between 2004 and 2007, the Cypriot population has consumed more than 100% of its available income since 2012. In 2015 the consumption rate was 102.5%.[14] After Greece, this is the second highest figure of all the surveyed countries. The high consumption rate means that, on balance, foreign capital was required not only to finance investment but also to finance domestic consumption. Nevertheless, the consumption rate fell slightly in 2015.



Result: As was the case between 2004 and 2010, Cypriot creditworthiness has been falling continuously since 2012.

Cause: The main reason for the erosion of Cyprus' creditworthiness is the high consumption rate. Since 2012, Cyprus has, on balance, required external loans to finance domestic consumption. The situation was exacerbated in 2014 and 2015 by a fall in capital stock.

Recommended action: Although Cypriot creditworthiness has been in decline for years, the country does not currently need any more financial aid. In order to maintain this situation, further reforms are urgently required. In particular, the excessive consumption rate must be brought down. This is the only way to ensure that more capital is available for financing investment.

14 The consumption data for the first half of 2016 were not available when the Analysis went to print.

5 Other eurozone countries and the eurozone as a whole

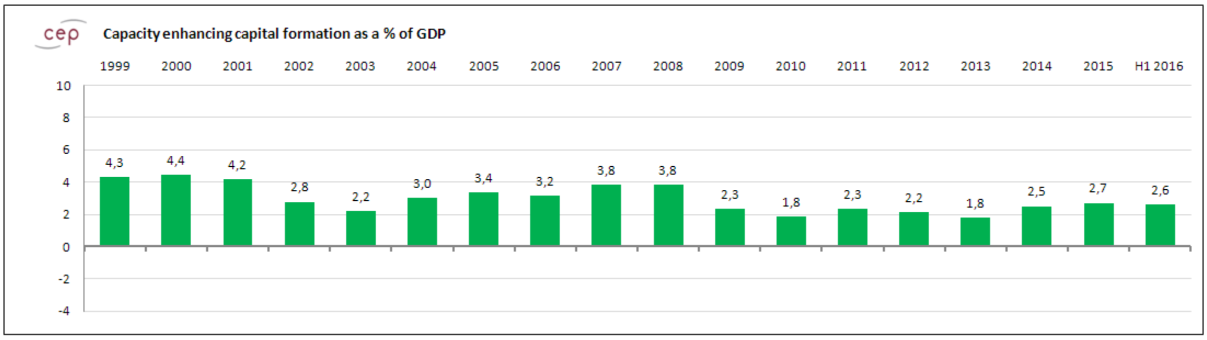
5.1 Belgium

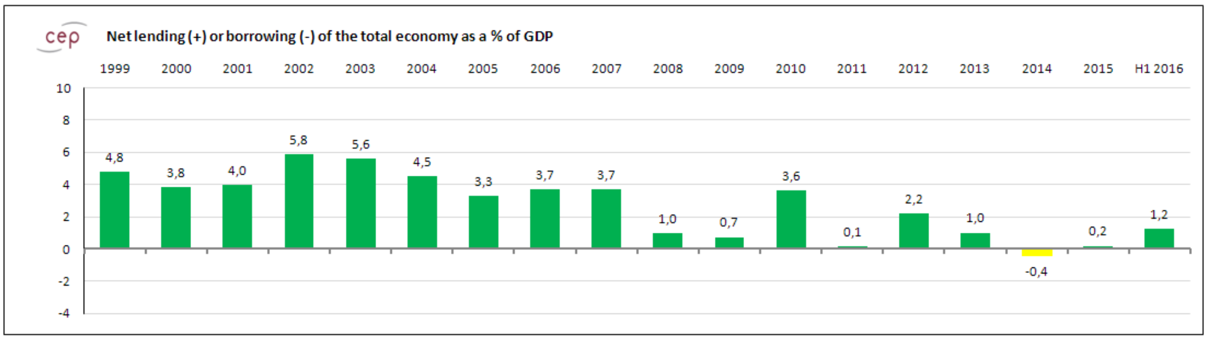
Trend according to the cepDefault-Index

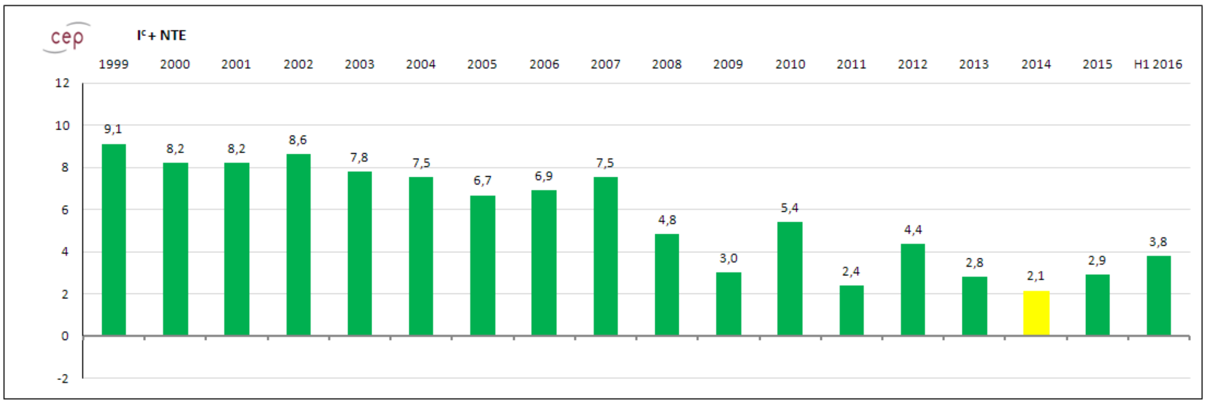
Green = improvement in creditworthiness.
Amber = uncertain trend in creditworthiness.
Red-amber = erosion of creditworthiness.
Red = erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	H1 2016
Risk category	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1
I^c	4,3	4,4	4,2	2,8	2,2	3,0	3,4	3,2	3,8	3,8	2,3	1,8	2,3	2,2	1,8	2,5	2,7	2,6
NTE	4,8	3,8	4,0	5,8	5,6	4,5	3,3	3,7	3,7	1,0	0,7	3,6	0,1	2,2	1,0	-0,4	0,2	1,2
I^c + NTE	9,1	8,2	8,2	8,6	7,8	7,5	6,7	6,9	7,5	4,8	3,0	5,4	2,4	4,4	2,8	2,1	2,9	3,8

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.
Positive I^c generates additional value added which can be used to pay off external loans. 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 these factors prevails. 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.







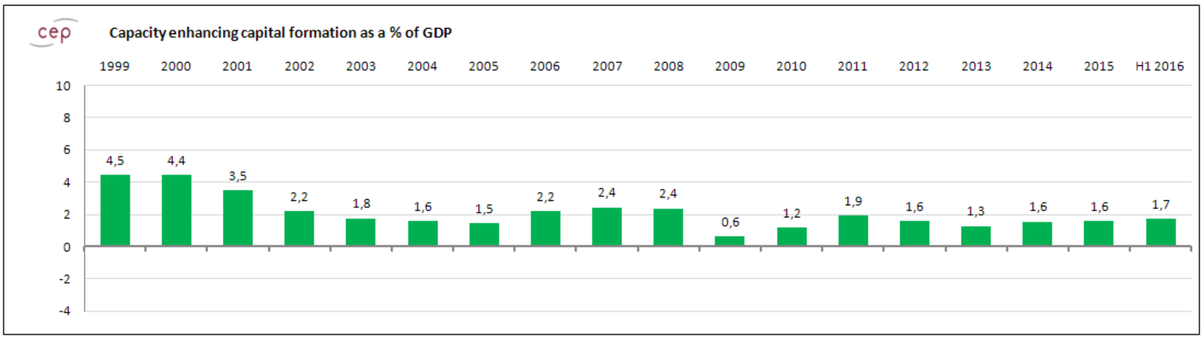
5.2 Germany

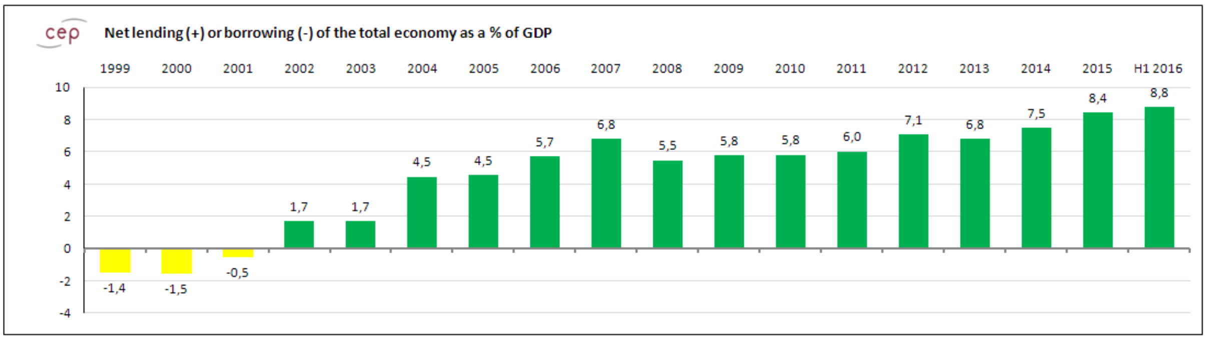
Trend according to the cepDefault-Index

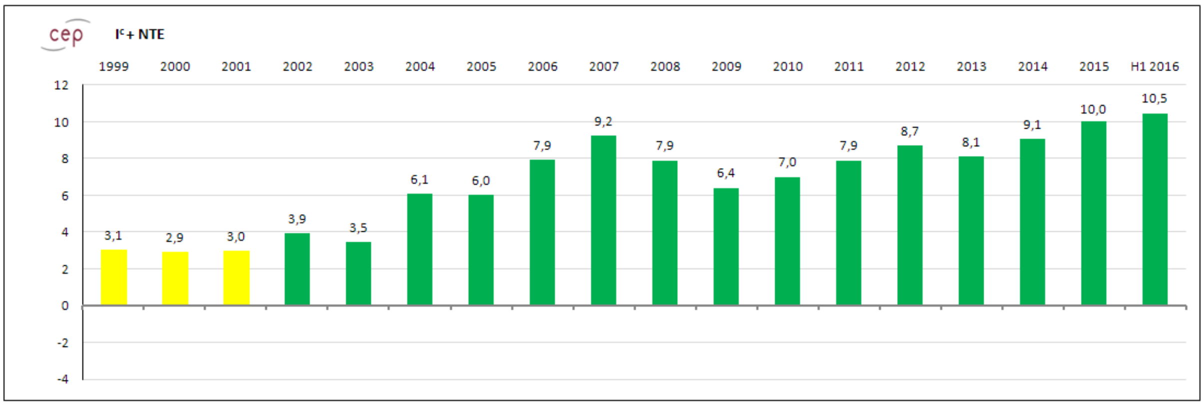
Green = improvement in creditworthiness.
Amber = uncertain trend in creditworthiness.
Red-amber = erosion of creditworthiness.
Red = erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	H1 2016
Risk category	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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	1,7
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	7,1	6,8	7,5	8,4	8,8
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	8,7	8,1	9,1	10,0	10,5

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.
Positive I^c generates additional value added which can be used to pay off external loans. 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 these factors prevails. 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.







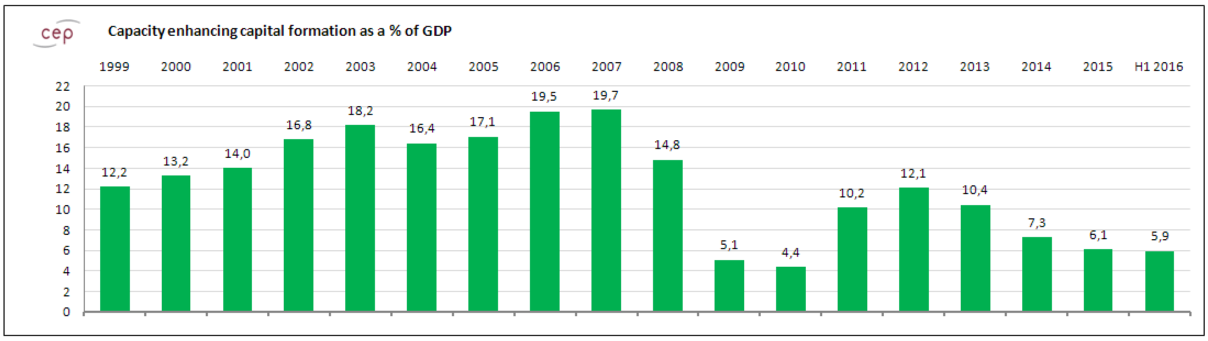
5.3 Estonia

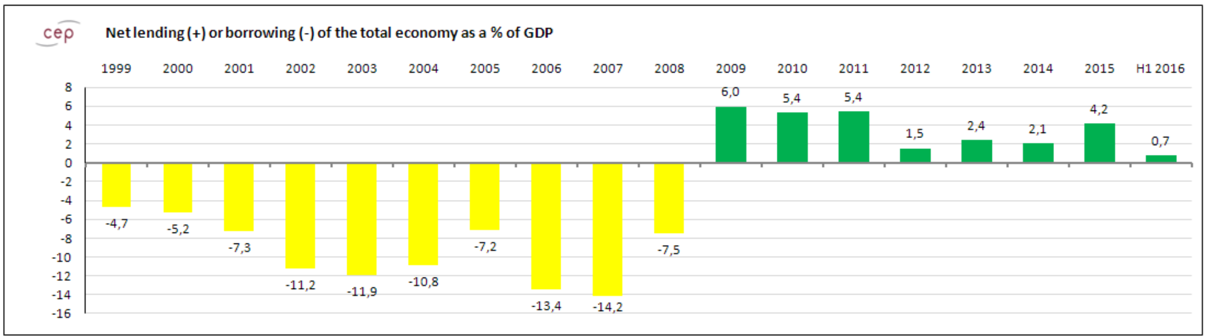
Trend according to the cepDefault-Index

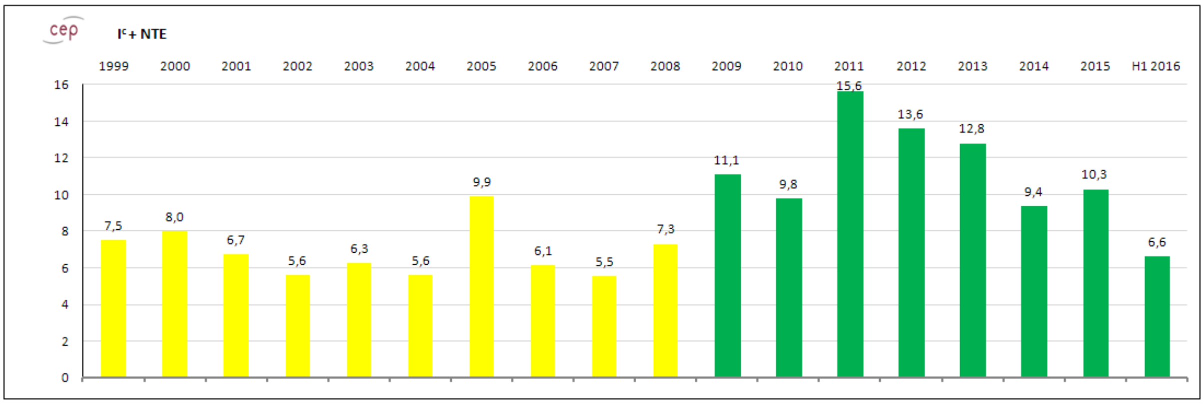
Green = improvement in creditworthiness.
Amber = uncertain trend in creditworthiness.
Red-amber = erosion of creditworthiness.
Red = erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	H1 2016
Risk category	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1
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	12,1	10,4	7,3	6,1	5,9
NTE	-4,7	-5,2	-7,3	-11,2	-11,9	-10,8	-7,2	-13,4	-14,2	-7,5	6,0	5,4	5,4	1,5	2,4	2,1	4,2	0,7
I^c + NTE	7,5	8,0	6,7	5,6	6,3	5,6	9,9	6,1	5,5	7,3	11,1	9,8	15,6	13,6	12,8	9,4	10,3	6,6

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 added which can be used to pay off external loans. 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 these factors prevails. 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.







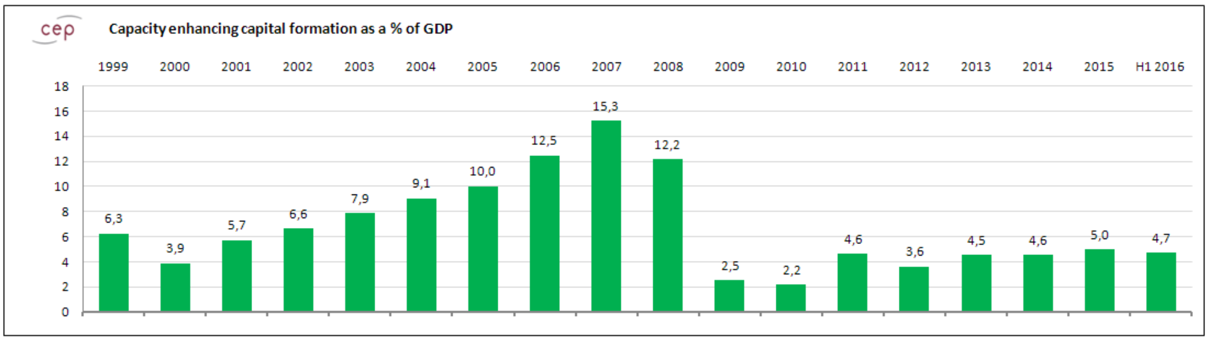
5.4 Lithuania

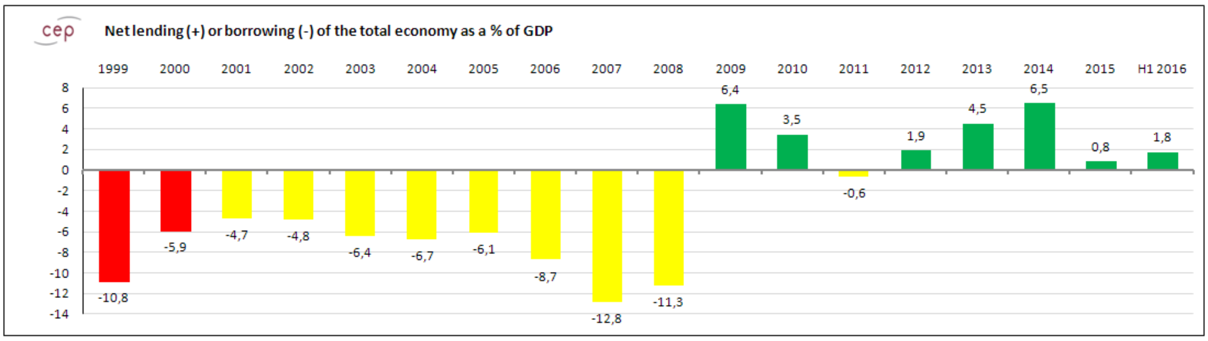
Trend according to the cepDefault-Index

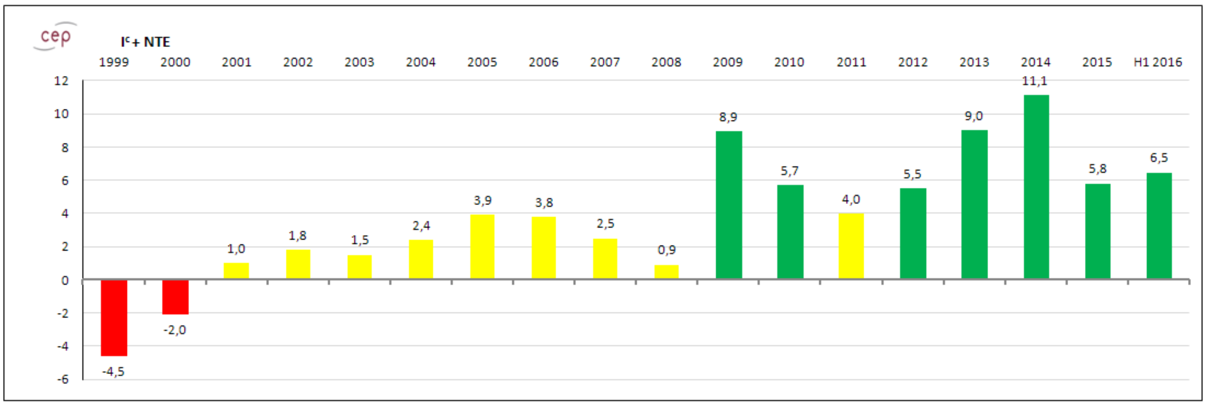
Green = improvement in creditworthiness.
Amber = uncertain trend in creditworthiness.
Red-amber = erosion of creditworthiness.
Red = erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	H1 2016
Risk category	3	3	2	2	2	2	2	2	2	2	1	1	2	1	1	1	1	1
I^c	6,3	3,9	5,7	6,6	7,9	9,1	10,0	12,5	15,3	12,2	2,5	2,2	4,6	3,6	4,5	4,6	5,0	4,7
NTE	-10,8	-5,9	-4,7	-4,8	-6,4	-6,7	-6,1	-8,7	-12,8	-11,3	6,4	3,5	-0,6	1,9	4,5	6,5	0,8	1,8
I^c + NTE	-4,5	-2,0	1,0	1,8	1,5	2,4	3,9	3,8	2,5	0,9	8,9	5,7	4,0	5,5	9,0	11,1	5,8	6,5

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.
Positive I^c generates additional value added which can be used to pay off external loans. 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 these factors prevails. 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.







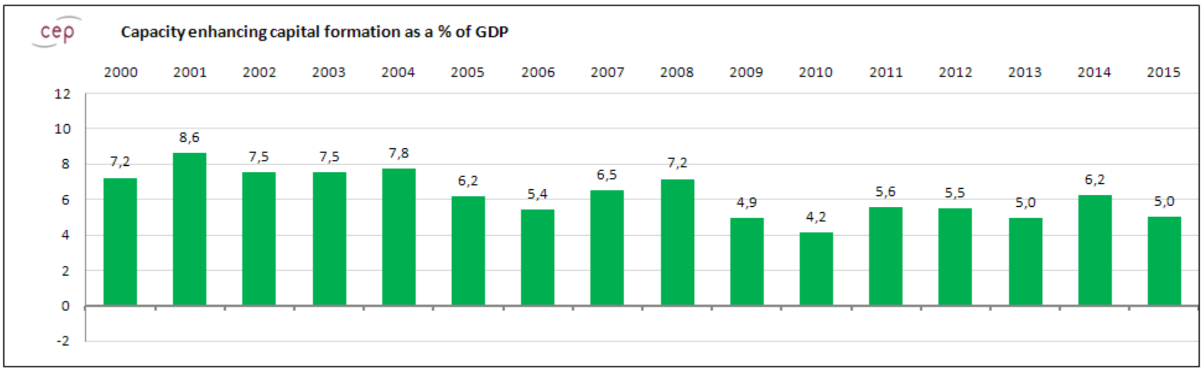
5.5 Luxembourg

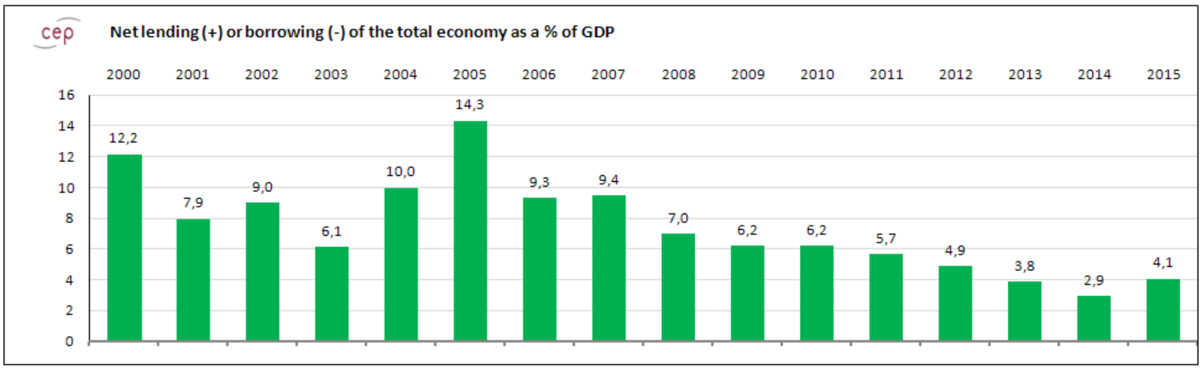
Trend according to the cepDefault-Index

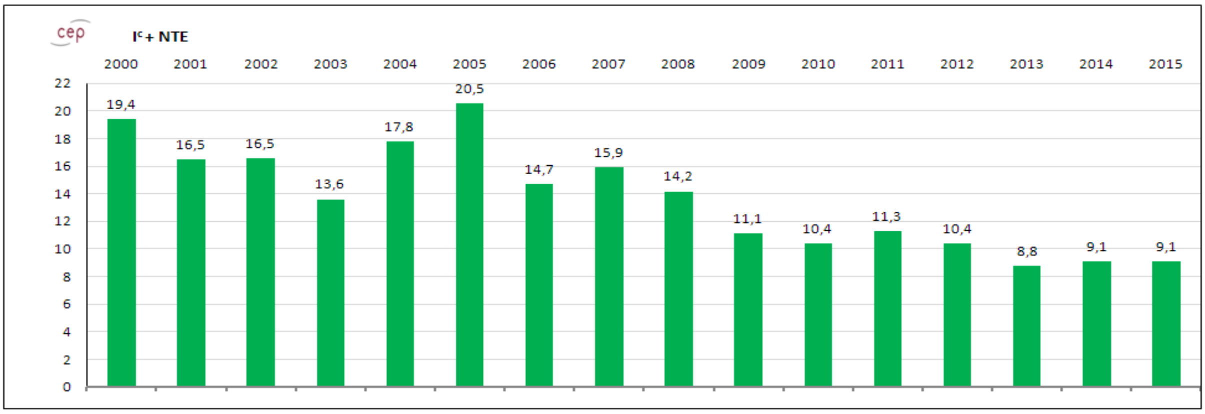
Green = improvement in creditworthiness.
Amber = uncertain trend in creditworthiness.
Red-amber = erosion of creditworthiness.
Red = erosion of creditworthiness is firmly established.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Risk category	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
I^c	7,2	8,6	7,5	7,5	7,8	6,2	5,4	6,5	7,2	4,9	4,2	5,6	5,5	5,0	6,2	5,0
NTE	12,2	7,9	9,0	6,1	10,0	14,3	9,3	9,4	7,0	6,2	6,2	5,7	4,9	3,8	2,9	4,1
I^c + NTE	19,4	16,5	16,5	13,6	17,8	20,5	14,7	15,9	14,2	11,1	10,4	11,3	10,4	8,8	9,1	9,1

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.
Positive I^c generates additional value added which can be used to pay off external loans. 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 these factors prevails. 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.







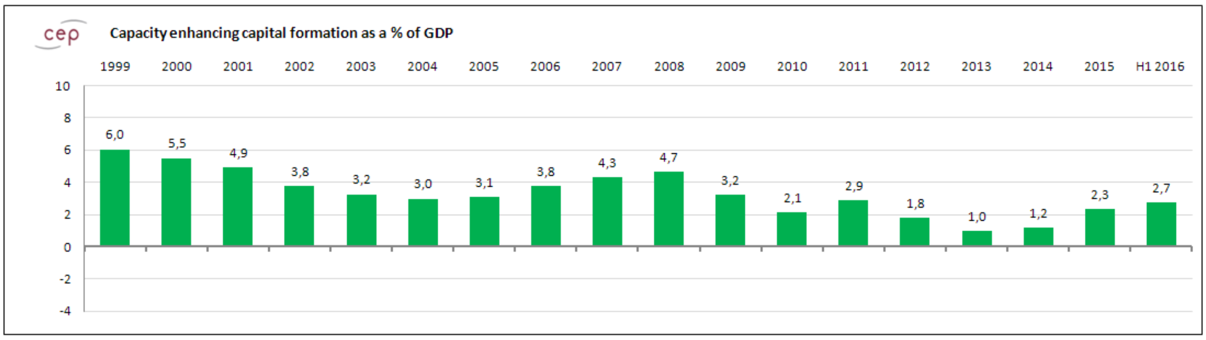
5.6 Netherlands

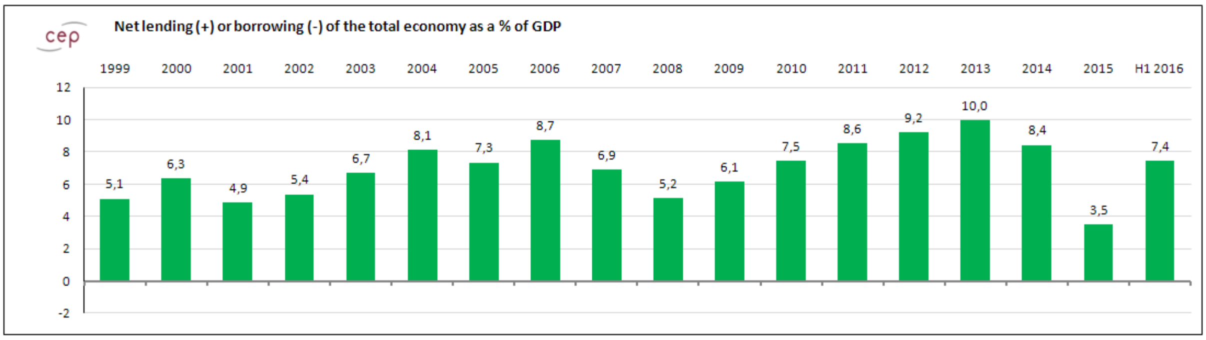
Trend according to the cepDefault-Index

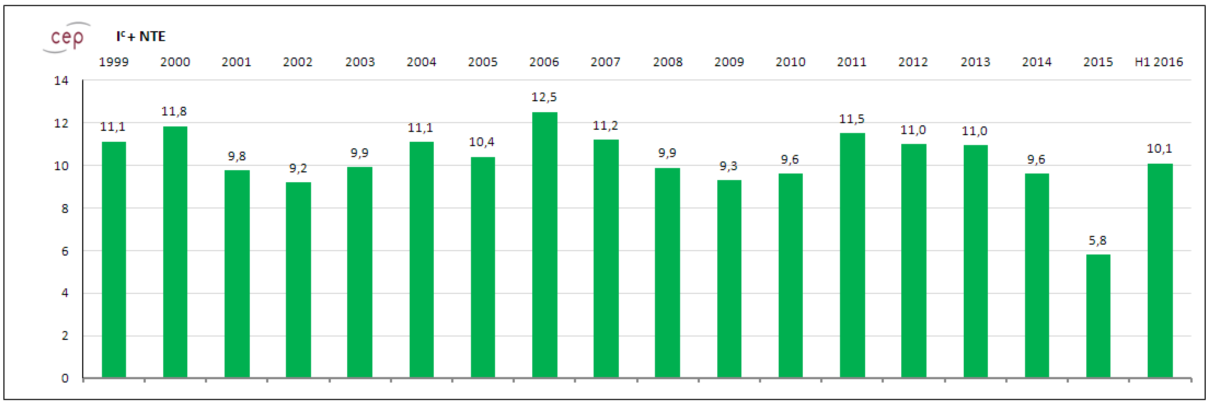
Green = improvement in creditworthiness.
Amber = uncertain trend in creditworthiness.
Red-amber = erosion of creditworthiness.
Red = erosion of creditworthiness is firmly established.

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	H1 2016
Risk category	1	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	1,2	2,3	2,7
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	10,0	8,4	3,5	7,4
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	11,0	9,6	5,8	10,1

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.
Positive I^c generates additional value added which can be used to pay off external loans. 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 these factors prevails. 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.







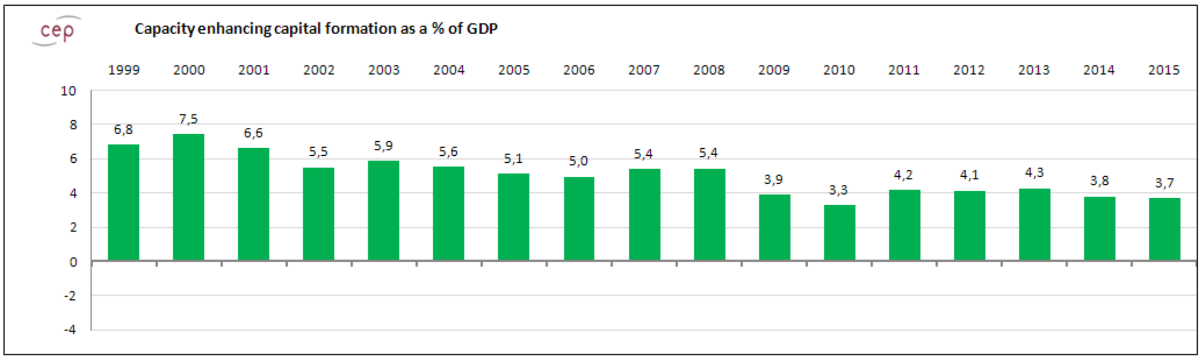
5.7 Austria

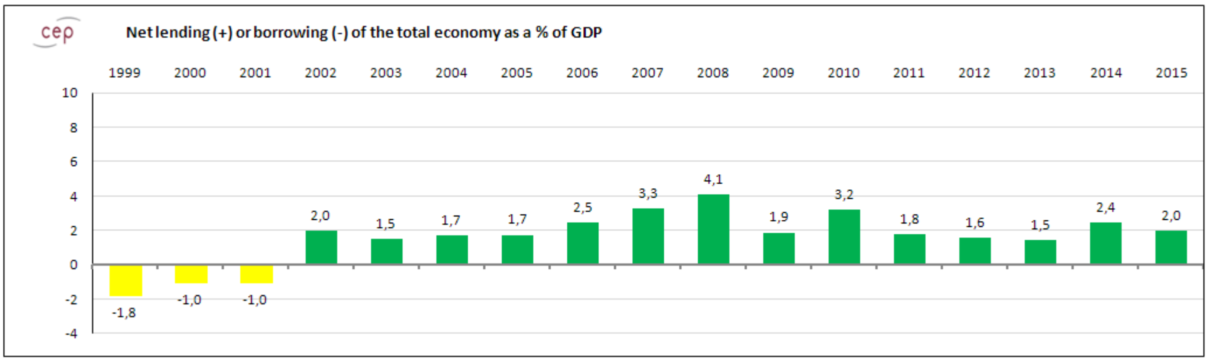
Trend according to the cepDefault-Index

Green = improvement in creditworthiness.
Amber = uncertain trend in creditworthiness.
Red-amber = 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	2015
Risk category	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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	4,3	3,8	3,7
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	1,6	1,5	2,4	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	5,7	5,8	6,2	5,7

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.
Positive I^c generates additional value added which can be used to pay off external loans. 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 these factors prevails. 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 Eurozone as a whole

Trend according to the cepDefault-Index[15]

Green = improvement in creditworthiness.
Amber = uncertain trend in creditworthiness.
Red-amber = 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	2015	H1 2016
Risk category	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1
I^c	5,2	4,9	4,2	4,0	4,1	4,2	4,6	5,0	4,6	2,6	2,3	2,4	1,7	1,2	1,2	1,3	1,5
NTE	-0,1	0,1	0,8	0,5	1,3	0,5	0,4	0,3	-0,6	0,5	0,6	0,7	2,0	2,6	2,6	3,2	3,6
I^c + NTE	5,1	5,0	5,0	4,5	5,4	4,7	5,0	5,3	4,0	3,1	2,9	3,1	3,7	3,8	3,8	4,5	5,1

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).
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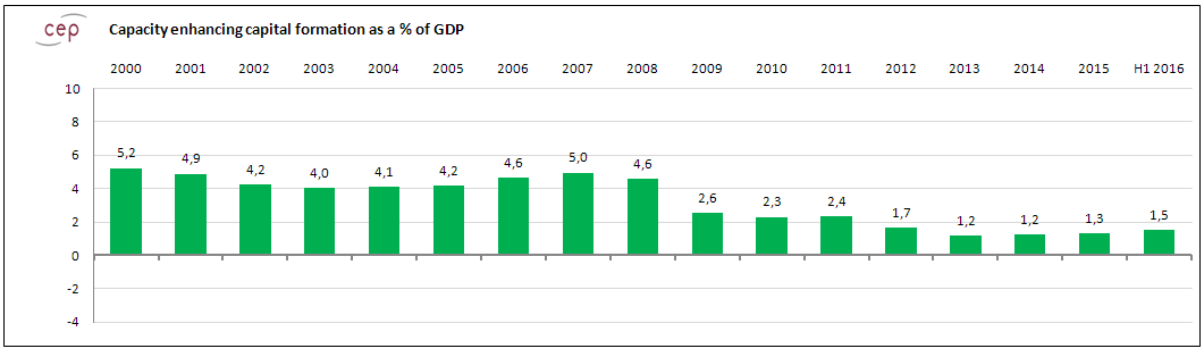

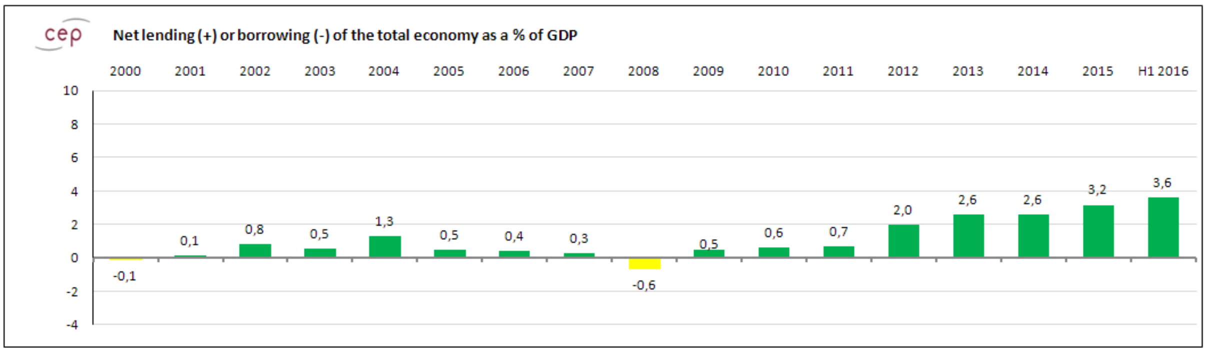

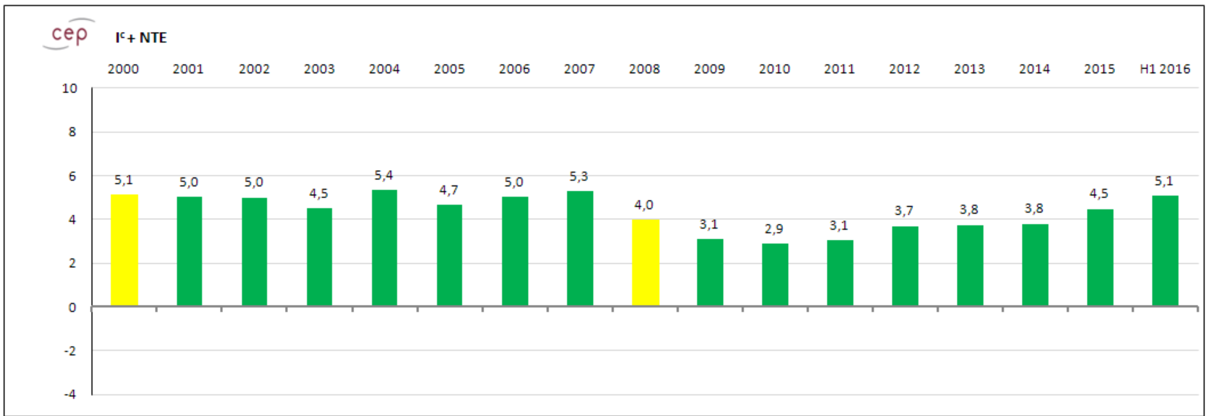

15 The figures for the eurozone for the first half of 2016 were calculated without Luxembourg and Austria.

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