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# **COVER NOTE**

From:	Secretary-General of the European Commission, signed by Mr Jordi AYET PUIGARNAU, Director
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To:	Mr Uwe CORSEPIUS, Secretary-General of the Council of the European Union
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Subject:	COMMISSION STAFF WORKING DOCUMENT REFINING THE MIP SCOREBOARD Envisaged Technical Changes to the Scoreboard and Auxiliary Indicators

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# COMMISSION STAFF WORKING DOCUMENT

# **REFINING THE MIP SCOREBOARD**

**Envisaged Technical Changes to the Scoreboard and Auxiliary Indicators** 

#### **1. BACKGROUND AND MOTIVATION**

The Macroeconomic Imbalance Procedure (MIP) was established in December 2011 and was implemented for the first time in 2012<sup>1</sup>. It aims at detecting, preventing and correcting macroeconomic imbalances that would jeopardise the functioning of the EU and euro area economies. Through a number of steps, the MIP should identify trends which could lead to 'booms and busts' and help in deciding the appropriate policy reactions to mitigate and manage these risks.

Every year the Commission adopts the Alert Mechanism Report (AMR), which is the initial screening device and the first step of the procedure, whereby the Commission identifies Member States warranting detailed scrutiny. A crucial tool in the elaboration of the AMR is the MIP scoreboard - a set of eleven early warning indicators intended to screen internal and external macroeconomic imbalances in the Member States. The scoreboard acts as a first filter in a broader process seeking to disentangle the existence and seriousness of macroeconomic imbalances in the Member States. In this process, the scoreboard is used in combination with additional indicators and all available information to ensure a non-mechanical interpretation based on sound economic judgement. Throughout 2011-12, work on defining the scoreboard indicators and thresholds was led by the Commission<sup>2</sup>. Comments from the European Parliament<sup>3</sup> and the Council<sup>4</sup> were taken into account. The Commission also benefited from the expertise and input of the EPC (and its working group LIME), and views by the ESRB. The scoreboard was completed in autumn 2012, in time for the second AMR, when the indicator on the financial sector liabilities was added<sup>5</sup>.

By focussing attention on observed and potential risks of imbalances that could significantly impede the proper functioning of the economy of a Member States, the euro area or the EU, the scoreboard has been successfully applied to identify the Member States for which more in-depth analysis appears warranted. However, it is now possible to draw on the experience of two rounds of implementation of the MIP and application of the alert mechanism making, and to consider a number of adjustments.

In line with the MIP legislation, in 2014, there will be a more complete evaluation of the first three years of implementing the  $MIP^6$ . In the context of amendments expected for 2014 it is also relevant to emphasize that new statistical standards will become applicable

Regulation (EU) No 1176/2011 of the European Parliament and of the Council of 16 November 2011 on the prevention and correction of macroeconomic imbalances (OJ L 306, 23.11. 2011, p. 25) [hereinafter MIP Regulation].

<sup>&</sup>lt;sup>2</sup> Views of the ESRB on the Envisaged Scoreboard Indicators Relevant for Financial Market Stability, 9 December 2011.

<sup>&</sup>lt;sup>3</sup> European Parliament Resolution of 15 December 2011 on the Scoreboard for the surveillance of macroeconomic imbalances: envisaged initial design, 2011/2926.

<sup>&</sup>lt;sup>4</sup> Council Conclusions on an early warning scoreboard for the surveillance of macroeconomic imbalances, 15781/2/11 REV 2.

<sup>&</sup>lt;sup>5</sup> 'Completing the Scoreboard for the MIP: Financial Sector Indicator,' SWD (2012) 389 final of 14.11.2012, available at: http://ec.europa.eu/economy\_finance/economic\_governance/documents/ alert\_mechanism\_report\_2013\_financial\_sector\_en.pdf.

<sup>&</sup>lt;sup>6</sup> See MIP Regulation, in particular Article 16. This review also applies to other acts of the '6-pack'.

with the entry into force of ESA  $2010^7$ , as well as of the latest IMF balance of payments (BOP) manual<sup>8</sup>.

At this point in time though, while maintaining the scoreboard stable and simple, only adjustments to the scoreboard that will not constitute an entire overhaul and that can be implemented easily and quickly already for the AMR of the autumn 2013 are considered. To this end, the present note looks at a number of changes that could be considered within such a mandate:

- Better data available for existing indicators;
- Improvements to the data transformations related to certain indicators;
- Updating of thresholds necessary as a consequence of the above two changes<sup>9</sup>;
- Issues that could be considered after a comparison of the statistics and indicators used in the MIP scoreboard and ESRB dashboard<sup>10</sup>.

Beyond these issues related to the scoreboard proper, the note also discusses changes to some of the auxiliary indicators that contribute to complement and qualify the reading of the scoreboard, as well as some presentational issues that could improve the transparency and communication qualities of the scoreboard.

Furthermore, a few variables have been identified in the Commission Communication 'Strengthening the Social Dimension of the Economic and Monetary Union'<sup>11</sup>, to be added to the auxiliary indicators used for the economic reading of the MIP scoreboard. This would allow a better understanding of the social dimension of risks implied by imbalances, including social developments during the adjustment. Such improved knowledge would ultimately help to identify policy measures to correct imbalances, while minimising the social consequences of the latter. These indicators are not further discussed in this technical note.

The remainder of this note reviews in detail the suggested adjustments to scoreboard indicators. Section 2 discusses suggested changes for the headline scoreboard indicators. Section 3 presents the changes proposed for the auxiliary indicators used for the economic reading of the scoreboard. Finally, Section 4 deals with some presentational aspects.

<sup>&</sup>lt;sup>7</sup> Regulation (EC) No 549/2013 (OJ L 174, 26.6 .2013, p. 1).

<sup>&</sup>lt;sup>8</sup> The 6<sup>th</sup> edition of the IMF BOP has been integrated into Union law by Regulation (EC) No 555/2012 (OJ L 166, 27.6.2012).

<sup>&</sup>lt;sup>9</sup> The same technique and period of time which is currently used for the computation of the thresholds is considered, *i.e.* a statistical approach based on the distributions of the indicators' values over the period 1995-2007. In order to exclude the effects of the crisis on the indicative thresholds, and ensure that the thresholds for the several indicators are consistent, the years beyond 2007 are not considered for this purpose.

The ESRB risk dashboard is a set of quantitative and qualitative indicators to identify and measure systemic risk in the EU financial system. It is updated and revised on a regular basis (see http://www.esrb.europa.eu/pub/pdf/dashboard/130620\_ESRB\_risk\_dashboard.pdf?3ce8dc49333a 58f430d11e92610d30a3). The MIP scoreboard differs from the ERSB risk dashboard mainly in the sense that its scope is not limited to the risks in the EU financial system but it covers risks of harmful imbalances emerging from the external and internal sides of the economy.

<sup>&</sup>lt;sup>11</sup> COM(2013) 960, 2.10.2013.

Before implementing these changes in the next AMR, the Commission will inform and seek the views of the Parliament and the Council<sup>12</sup>.

<sup>&</sup>lt;sup>12</sup> According to the MIP Regulation (Article 4(7)), the Commission should regularly assess the appropriateness of the scoreboard, including the composition of indicators, the thresholds and the methodology used, and adjust or modify them where necessary, and make those changes public. The Commission cooperates with the Parliament and the Council when adjusting the indicators or the thresholds.

#### 2. ADJUSTMENTS ENVISAGED TO THE MIP SCOREBOARD INDICATORS

This section presents and discusses adjustments that could be considered for a number of the scoreboard indicators, namely the real effective exchange rate, the private sector debt and private sector credit flows. It also raises issues on the indicators on export market shares and house prices.

# 2.1. Real Effective Exchange Rate (REER) based on harmonised index of consumer prices

The REER indicator has been based on a harmonised index of consumer prices relative to a panel of the 35 most important trading partners. Among the EU trading partners, some emergent countries have not been taken into account so far, namely, China, Brazil, Russia, South Korea and Hong-Kong. Moreover, Croatia, as new EU member will also be added to the computations. The use of 35 partners only, rather than a wider set of trading partners, was at the time of the development of the initial scoreboard related to the availability of data. Having overcome these data issues, the number of trading partners of each Member State can now be extended to 41<sup>13</sup>. This reflects better the increasing role of some emerging economies<sup>14</sup>.

This change implies that the indicator will now take into account about 76 percent of the world exports instead of only 58 percent with the current panel (Figure 1). This extension of the basket of trade competitors would especially matter for Member States having important trade links with these additional emergent countries. For instance, in 2011, exports to China account for 5, 4 and 3 percent of the exports of Germany, Finland and France respectively, while Russia amounts to 9, 11 and 17 percent of the exports of Finland, Estonia and Lithuania respectively. Brazil accounts for 2½ percent of the exports of Portugal.





Source: Eurostat

<sup>&</sup>lt;sup>13</sup> 41 countries: 27 Member States (*i.e.* without the Member State concerned) plus US, Japan, Switzerland, Norway, Canada, Australia, New Zealand, Mexico, Turkey, South Korea, China, Hong-Kong, Russia and Brazil.

<sup>&</sup>lt;sup>14</sup> As soon as quality data will be available, the Commission services will consider a further extension to the REER to other trading partners so as to include further important trading partners such as India, Taiwan and Singapore.

Given the extension in the number of trading partners, and to ensure consistency, there is a need to recalculate the thresholds. However, using the same statistical approach and the period (1995-2007), the panel of trading partners would not impact the level of the rounded thresholds<sup>15</sup>.

Definition	Previously	Percentage change over three years of the real effective exchange rate (REER) based on consumer price index (HICP/CPI), relative to 35 other industrial countries (ICs) <sup>16</sup>					
Demitton	Suggested	Percentage change over three years of the real effective exchange rate (REER) based on consumer price index (HICP/CPI), relative to 41 other industrial countries (ICs) <sup>17</sup>					
Transformation		$\frac{(REER\_HICP\_ICs)_{t} - (REER\_HICP\_ICs)_{t-3}}{(REER\_HICP\_ICs)_{t-3}} *100$					
Source		DG ECFIN					
Thresholds <sup>18</sup>	Previously	<ul> <li>Euro area Member States: +/-5%.</li> <li>Non-euro area Member States: +/-11%.</li> </ul>					
period 1995-2007)	Suggested	<ul> <li>Euro area Member States: +/-5%</li> <li>Non-euro area Member States: +/-11%</li> </ul>					

Comparing Tables A and B, it can be noted that:

(a) considering the indicators beyond the indicative threshold (*i.e.* hereafter referred as "flashes") both indicators show similar results for most years. However, for 2012, on the basis of the data currently available, the number of observations beyond the thresholds increases substantially,

(b) deviations between "flashing" observations and thresholds have widened.

These aspects reflect the better representation of emergent countries in the set of trading partners as well as their relevance for the losses of competitiveness of a number of EU Member States.

<sup>&</sup>lt;sup>15</sup> Since the thresholds have been rounded up the extension of the set of trading partners has no material impact on the thresholds. For the current scoreboard the calculated indicator was +/- 4.2 percent for the euro area Member States and +/- 10.2 percent for the non-euro area Member States, whereas for the adjusted indicator the calculated thresholds are +/-4.6 percent and +/- 10.6 percent, respectively.

<sup>&</sup>lt;sup>16</sup> 35 countries: 26 EU Member States (excluding the country for which the indicator is calculated) plus US, Japan, Switzerland, Norway, Canada, Australia, New Zealand, Mexico and Turkey.

 <sup>&</sup>lt;sup>17</sup> 41 countries: 27 EU Member States (excluding the country for which the indicator is calculated) plus US, Japan, Switzerland, Norway, Canada, Australia, New Zealand, Mexico, Turkey and South Korea, Russia, Brazil, Hong-Kong and China.
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For the REER indicator, differentiated thresholds have been adopted for euro area and non-euro area. The idea is to capture at the same time the nominal exchange rate variability for non-euro area Member States and (partly) the real appreciation in catching-up Member States. Thus, for the euro area Member States the thresholds of the series of change over three years of the REER based on HICP/CPI were computed as the upper and lower quartile of the distribution (for the euro area) over the period 1995-2007 (statistical approach). As concerns non-euro area Member States, the thresholds refer to the thresholds for the euro area Member States +/- 6 percent which is the standard deviation of the distribution (for the euro area) of the change over three years of the REER based on HICP/CPI over the period 1995-2007. For more details, see 'Scoreboard for the Surveillance of Macroeconomic Imbalances,' *European Economy-Occasional Papers*, 92.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BE	-3.9	-1.9	5.2	5.3	4.9	1.5	1.5	4.4	4.2	1.4	-0.6	-2.7
BG	11.5	15.4	14.4	10.9	8.9	11.2	12.0	20.2	18.6	10.8	3.1	-1.7
CZ	6.5	20.6	14.9	8.5	3.5	11.5	14.0	24.4	13.7	12.8	0.3	2.1
DK	-3.5	-1.1	8.1	6.8	4.2	-0.5	0.1	3.2	5.7	0.9	-1.7	-6.2
DE	-8.8	-5.8	5.0	6.4	4.8	0.1	0.6	2.4	3.2	-2.9	-3.9	-7.0
EE	2.6	3.9	9.3	7.0	6.9	6.5	9.5	15.1	13.8	6.2	0.8	-0.1
IE	-2.2	4.5	17.5	17.6	12.0	3.4	4.1	8.0	5.3	-4.9	-9.1	-11.2
EL	-5.2	-3.6	9.0	9.5	6.8	2.4	1.9	4.0	5.1	4.1	3.1	-2.2
ES	-2.1	1.0	8.8	<b>9.7</b>	7.9	4.3	4.2	6.2	5.0	0.7	-1.3	-3.5
FR	-7.7	-3.9	6.5	8.1	6.0	0.8	0.2	2.7	2.9	-1.2	-3.2	-5.9
HR	-2.0	4.7	6.4	3.6	3.7	5.4	4.4	7.3	6.0	3.3	-3.2	-5.7
IT	-5.6	-2.0	8.8	9.9	6.9	1.1	0.7	3.2	3.9	-0.9	-2.1	-4.2
CY	-3.5	0.8	8.1	8.1	6.7	1.3	0.2	3.1	3.7	1.7	-0.9	-2.9
LV	13.3	5.0	-7.1	-6.9	-4.4	4.8	11.1	24.1	23.7	8.7	-0.6	-4.6
LT	15.9	15.2	6.7	4.2	1.1	0.9	4.5	12.3	16.9	9.3	3.6	-2.5
LU	-1.6	0.1	4.5	5.8	6.6	4.0	3.3	4.0	4.0	2.0	0.8	-1.1
HU	12.2	20.5	20.1	17.7	9.2	3.0	7.9	9.2	8.0	-0.4	-3.3	0.8
MT	-0.6	1.8	5.9	7.4	5.6	4.0	3.2	7.0	5.9	0.7	-3.0	-4.8
NL	0.0	3.2	10.9	7.2	3.2	-1.1	-1.0	0.7	2.8	-0.9	-1.6	-4.6
AT	-5.0	-3.2	3.1	3.7	2.6	-0.5	-0.4	0.9	2.1	-1.3	-1.0	-2.9
PL	20.0	19.0	-4.6	-16.2	-1.5	13.6	18.7	16.1	-3.8	-0.5	-10.9	3.3
PT	-0.3	2.3	9.6	8.2	5.3	1.4	1.5	2.7	1.3	-2.2	-1.9	-2.5
RO	-1.1	14.5	-1.6	-1.4	16.3	29.3	37.5	10.6	-4.9	-10.1	-2.3	0.0
SI	-2.3	0.0	4.9	4.4	1.5	-1.0	0.8	3.8	5.4	2.3	-0.1	-2.4
SK	9.6	15.8	17.8	26.8	27.3	19.5	19.4	26.0	27.1	11.8	4.3	-1.6
FI	-4.7	-1.4	7.7	5.7	2.5	-2.5	-1.4	2.4	5.3	0.2	-1.3	-5.2
SE	-12.0	-7.6	0.3	10.3	3.9	-2.5	-2.6	-0.9	-8.3	-2.6	3.9	12.1
UK	-2.3	-2.0	-7.6	-1.6	-2.9	3.0	1.2	-10.4	-19.9	-19.7	-7.1	8.2

Table A – Percentage change (3 years) of REER based on HICP (35 trading partners). Thresholds: +/-5% - +/- 11%

Source: DG ECFIN.

Notes:

(i) The shadow cells correspond to the values of the indicator breaching the threshold;

(ii) Provisional data (September 2013). The final data will be considered for the AMR if the suggested changes are approved;

	1											
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BE	-3.8	-2.1	6.0	6.3	5.0	0.5	0.2	3.4	3.9	0.5	-1.6	-4.3
BG	11.6	12.4	13.6	11.5	8.4	9.2	9.9	18.5	18.4	9.7	1.9	-4.0
CZ	6.7	19.5	15.1	9.2	3.5	10.3	12.7	23.4	13.7	12.0	-0.6	0.4
DK	-3.4	-1.6	8.6	7.7	4.1	-1.7	-1.3	2.1	5.5	0.1	-2.5	-7.7
DE	-8.3	-6.1	5.9	7.5	4.6	-1.5	-1.5	0.9	2.9	-3.8	-4.9	-8.9
EE	3.9	0.8	8.6	7.3	5.8	3.5	6.5	12.6	13.7	4.7	-0.8	-3.4
IE	-2.2	4.3	18.3	18.4	12.1	2.7	3.1	7.3	5.0	-5.5	-9.7	-12.2
EL	-5.5	-5.4	9.0	10.4	6.4	0.3	-0.4	2.4	4.9	2.9	1.8	-4.5
ES	-1.5	1.0	9.9	10.8	7.8	3.1	2.7	5.2	4.6	-0.3	-2.6	-5.2
FR	-7.5	-4.0	7.7	9.4	6.0	-0.5	-1.5	1.5	2.6	-2.3	-4.5	-7.8
HR	-1.6	2.5	6.2	4.1	2.9	2.8	1.8	5.3	5.8	2.0	-4.5	-8.3
IT	-5.0	-2.3	9.8	11.0	6.8	-0.4	-1.2	1.8	3.6	-1.9	-3.3	-6.2
CY	-3.1	-1.5	8.1	9.7	6.9	0.2	-1.2	2.2	3.5	-0.1	-3.0	-5.8
LV	14.5	2.5	-7.5	-6.5	-5.3	1.8	7.7	20.8	23.5	6.7	-2.5	-8.5
LT	18.5	11.0	5.3	4.4	-0.2	-2.6	0.9	9.0	16.7	7.3	1.7	-6.7
LU	-1.5	0.0	5.1	6.6	6.7	3.3	2.4	3.4	3.8	1.2	0.0	-2.3
HU	12.7	19.6	20.3	18.3	9.1	1.8	6.6	8.1	7.9	-1.2	-4.2	-1.2
MT	-0.3	1.9	7.2	9.0	6.0	2.8	1.2	5.8	5.8	-0.8	-5.1	-7.7
NL	0.1	2.9	11.5	8.0	3.3	-2.1	-2.1	-0.1	2.7	-1.6	-2.5	-6.0
AT	-4.9	-3.6	3.6	4.6	2.6	-1.6	-1.8	-0.1	2.0	-2.1	-1.9	-4.7
PL	20.9	17.3	-4.6	-15.6	-1.9	11.6	16.4	14.4	-3.9	-1.4	-11.6	1.3
РТ	0.1	2.4	10.5	9.0	5.4	0.7	0.6	2.1	1.0	-3.1	-3.1	-4.0
RO	-1.2	13.6	-1.3	-0.5	16.6	28.1	35.9	9.6	-4.9	-10.8	-3.3	-1.9
SI	-2.3	-1.5	4.7	4.8	1.0	-2.8	-1.2	2.2	5.2	1.2	-1.1	-4.5
SK	9.8	15.0	18.0	27.5	27.2	18.4	18.2	25.0	27.0	10.9	3.4	-3.2
FI	-4.5	-2.8	8.1	6.8	1.7	-5.6	-4.9	-0.4	4.9	-1.3	-2.8	-8.3
SE	-11.5	-7.9	1.1	11.5	3.9	-3.8	-4.2	-2.0	-8.5	-3.4	2.9	10.1
UK	-2.1	-2.1	-6.7	-0.4	-2.8	1.8	-0.4	-11.2	-19.9	-20.5	-8.3	5.8

Table B - Percentage change (3 years) of REER based on HICP (41 trading partners). Thresholds: +/-5% - +/- 11%

Source: DG ECFIN.

Notes:

(i) The shadow cells correspond to the values of the indicator breaching the threshold;

(ii) Provisional data (September 2013). The final data will be considered for the AMR if the suggested changes are approved.

## 2.2. World Export Market Shares

The scoreboard includes an indicator of the evolution of the Member States' shares in world export markets over a five-year period. When the scoreboard was defined, the aim of considering such an indicator was to capture trend losses in export performance.

The indicator has a number of characteristics which raised some issues in the first two applications of the MIP:

(a) the current indicator compares the latest observation with the observation of 5 years before, without considering the intermediate years; as a result it is very sensitive to the starting year, and changes in the indicator may depend both on recent developments as well as the year-on-year changes of five years before. This is particularly relevant at this stage with data up to 2012, as in 2008-9 there were very large reductions in export trade flows towards of all EU Members States, even if this was partially or fully recovered afterwards;

(b) the deterioration of export performance is visible across the board. The rise of emergent countries in the world trade impacts all Member States and all advanced economies suffer from losses as the world trade structure is changing. While these changes are a fact and appear reflected in the downward trend of world export market shares of Member States, this indicator fails to provide an appropriate a context for this phenomenon – *i.e.* it does not disentangle losses in market shares that are specific to each country from those that concern all advanced economies. Moreover losses in export market shares for the advanced economies have accelerated in recent years while the threshold was calculated taking into account a longer period. These losses have been more important than those that occurred during the years for which the threshold was calculated (1995-2007); as a result, for many EU economies there have been many observations below the threshold of –6 percent (Figure 2). This means simply identifying the indicator "flashes" does not allow to properly distinguish Member States.



Figure 2. Number of threshold breaches for the Export Market Shares Indicator

Source: Eurostat

The latter issue regarding the indicator of the world export market shares in the scoreboard is more of a conceptual nature and is linked to the benchmark that has to be considered for assessing the export performance of the Member States. All advanced economies have been adversely affected by a fierce competition with the emergent countries. It is, therefore, relevant to complement the world export market share indicator with information that compares losses common to all advanced economies with those that are specific to each country. While a comparison of the Member States export market shares with other advanced economies is feasible, the world market share should not be replaced. Instead, it should be complemented with an auxiliary indicator. This is further discussed in section  $3.2^{19}$ .

No suggestion is currently put forward to address the aspect of sensitivity to the starting period of the calculation mentioned above. While the topic of export market shares will have to be revisited, for the time being it is preferable to keep the series as they stand. The Commission will continue to interpret this series by looking into its overall development, rather than simply comparing the latest observation with the threshold.

# 2.3. Private Sector Debt

As regards the indicator for private sector debt there are two issues that can be considered at this stage:

- Consolidation of debt data within the different domestic sectors and
- Including or excluding specific debt instruments for the measurement of debt.

Both issues are also relevant for the private sector credit growth indicator discussed below in section  $2.4^{20}$ .

# 2.3.1. Issues of consolidation

Excessive indebtedness, in particular, in the non-financial private sector stands as a major source of risks for the economic activity and for financial stability. High private debt increases the vulnerability of an economy to negative business cycle shocks, as well as to changes in interest rates.

Debt of the non-financial private sectors (households and non-financial corporations (NFC) can be measured in consolidated or non-consolidated terms. Consolidated data present each sector as if it were a single entity: intra-sector assets and liabilities offset each other and only those vis-à-vis other sectors are reported. Non-consolidated debt gives the total gross indebtedness of the sector, including debts between two entities of the same sector, including entities of a corporate group, notably loans granted by mother companies to subsidiaries. The issue of consolidation is highly relevant in the non-financial corporations (NFC) sector given financial loans between corporates of the same group<sup>21</sup>.

<sup>&</sup>lt;sup>19</sup> Instead of comparing with the performance of other advanced economies, one could use the EU average as benchmark. This option however is not retained since the EU export performance has been below what could be considered as an appropriately ambitious target.

<sup>&</sup>lt;sup>20</sup> It should be clarified that the private sector debt refers to non-government, non-financial sector debt, i.e. non-financial corporates, households and non-profit institutions.

<sup>&</sup>lt;sup>21</sup> Consolidation has a negligible impact on the households'. Some Member States (e.g. SE, FI, RO, FR) report both consolidated and non-consolidated data which is made available as such by

During the initial design of the Scoreboard in 2011 and 2012, the variables selected as indicators of private sector debt and private sector credit flow were defined in nonconsolidated terms. Although the use of consolidated data was then considered preferable, the choice of non-consolidated debt figures was essentially due to the fact that only non-consolidated data were available for all Member States (*e.g.* UK data were missing), and full availability was a required characteristic for all indicators in the scoreboard. For the Member States for which consolidated debt figures were available, these were included as an auxiliary indicator (without thresholds) thus qualifying the non-consolidated figures.

After technical work by Eurostat and the Member States' statistical institutes, consolidated debt data are now available for all Member States. Therefore the fundamental reason in favour of the use of non-consolidated data in the scoreboard no longer applies. Consequently, the Commission now proposes to swap the scoreboard and the auxiliary indicator for private sector debt so that the headline indicator reflects consolidated data, which is more suitable in providing an accurate picture of the total indebtedness of the private sector. Thus, the current indicator on private sector debt (based on non-consolidated data) will not be dropped, but considered as a part of the auxiliary indicators.

#### Advantages of consolidated debt data

At the time of the initial design of the Scoreboard, the Commission acknowledged that non-consolidated data presented some drawbacks, and it signaled that a re-assessment of the relative merits of consolidated versus non-consolidated data would be performed once the availability of consolidated data improves<sup>22</sup>. This section presents two sets of issues that justify the use of consolidated data as the headline scoreboard indicator of private debt and private sector credit flow, while using non-consolidated figures as an additional variable in support of the economic reading of the scoreboard. The first set of issues focuses on the conceptual advantages of consolidated debt in the analysis of macroeconomic imbalances. The second one, in turn, presents statistical issues that adversely affect the comparability of non-consolidated figures across Member States and over time.

#### Conceptual issues

Consolidated data describe a sector as a single economic entity. Consolidated debt corresponds, by and large, to the amount of funds that the sector receives from other sectors. In the MIP context this is relevant as it reflects trends that have the potential of affecting the economic activity (which is especially useful for measuring the credit boom-type of imbalances).

22

Eurostat, figures are quasi identical for the two concepts. Thus, while the use of consolidated data is mainly relevant for non-financial corporations (NFC), the total represented under the scoreboard indicators of private sector debt and credit flows do not raise taxonomic concerns and could be considered consolidated.

See the European Commission (2012), 'Scoreboard for the surveillance of macroeconomic imbalances,' *European Economy-Occasional Papers*, 92, for a description of the design of the scoreboard and technical explanations.

During the expansion phase new debt flows finance additional consumption and investment, possibly generating associated imbalances (*e.g.* reallocation of resources to certain productive sectors, asset price booms), while in the downturn phase this can have negative consequences for economic activity, if debt levels need to be reduced.

Detailed debt figures could allow capturing additional risks coming from the distribution of debt within the sector. For that purpose it would however necessary to be able to distinguish two types of intra-sector loans. In non-consolidated data all intra-group lending (*e.g.* between the mother company and its resident subsidiaries) appears identically to inter-group lending (*e.g.*, loans to associated companies that are not fully controlled subsidiaries, or loans to independent companies). When looking at contagion and stability issues, there are fundamental differences between intra-group loans and loans granted by banks to independent companies. An increase in intra sector or intra group debt may merely reflect institutional, corporate financing, accounting and tax practices, rather than an effective increase in the non-financial sector indebtedness.

Accurate data on intra-group transactions are unfortunately not available in all Member States, but they are likely to constitute a large majority of intra-sector liabilities. Since the intra-group financing practices likely differ across Member States (due to differences in tax systems, national financial markets, firm structures, etc.), there are comparability issues for non-consolidated figures.

#### Statistical issues

In addition to the conceptual issues detailed above, debt data are also affected by heterogeneities in national statistical practices for two reasons: The definition of statistical entity and practices for the collection of data. Figure 3 presents consolidated and non-consolidated NFC debt figures and the corresponding gap for the EU Member States. The gap ranges from 0 percent to 93 percent of GDP, but it is in many cases implausibly small. Some of this heterogeneity across Member States reflects actual differences in the financing of non-financial corporations, but a significant part is simply due to differences in statistical practices. This means that, in practice, the non-consolidated data are less comparable among Member States than the consolidated data, also on statistical grounds.



Figure 3: Non-consolidated and consolidated NFC debt, % of GDP, 2011

Source: Eurostat.

The method used to define the statistical unit, *i.e.* the lowest degree of granularity within a sector, strongly affects the compilation non-consolidated data. Based on Eurostat standards, the statistical unit (or institutional entity) should correspond to the concept of enterprise (a key criterion being the autonomy of decision). The enterprise is not necessarily a single legal entity: it can group several legal entities. Similarly, an enterprise should be distinguished from the concept of enterprise group. Following the EUROSTAT work in the Task Force on Data Consolidation, it appears that there are significant differences in national application of the concept of enterprise for statistical purposes. Some Member States tend to assimilate the institutional entity to the legal entity, which may lead to an overestimation of non-consolidated data, while others use the enterprise group as the institutional entity, which hence may tend to underestimate the non-consolidated data.

Consolidated data are less biased with respect to these heterogeneities, as by definition all intra-sector assets and liabilities are being offset, independently of the definition of the institutional unit for statistical purposes. With the forthcoming application of the ESA 2010 standards, several Member States will redefine the implementation of the institutional entity concept at this occasion with a view to progressively making these definitions uniform in all Member States. This will affect the non-consolidated debt figures in several Member States. For example, France is expected to redefine the institutional entity from the legal entity to the enterprise concept, which may lead to a strong reduction of the reported non-consolidated data. Moreover, the national practices in compiling consolidated and non-consolidated figures differ among Member States. In most cases, a bottom-up approach is used: the statistical office starts with aggregating consolidated debt figures and then adds an estimate of intra-sector loans. Alternatively, a top-down approach can be used by other Member States, whereby the statistical office starts with non-consolidated data and subtracts an estimate of the intra-sector loans. Some of the Member States applying the bottom-up approach may be unable to estimate intra-sector lending (*e.g.* Denmark and the Netherlands). The underestimation of non-consolidated debt figures can be in those cases severe and may lead to significant comparability problems. The fact that the gap between the two variables is so low on Figure 3 is therefore in some cases a result of the non-consolidated data being underestimated, rather than the consolidated data being overestimated. On balance, the use of consolidated figures appears as a more appropriate choice, given that it, at worst, overestimates debt figures for a minority of Member States that use the top-down approach and are unable to estimate intra-sector transactions<sup>23</sup>.

Moreover, turning to consolidated private sector debt data would also be more consistent with the public debt figures, which are consolidated.

In conclusion, the availability of consolidated private debt data for all Member States has led to a re-assessment of the relative merits of both types of data for the purposes of the MIP surveillance. Based on economic and statistical considerations, it appears that the use of consolidated data is both analytically sounder and statistically more robust. Given that the main hurdle of the use of consolidated data as headline indicator (data unavailability for some Member States) has been resolved, the replacement of the indicators seems warranted. Non-consolidated data should nevertheless continue to be used as an additional indicator for the economic reading of the scoreboard. Going forward, further analytical work and statistical progress is warranted on intra-sector liabilities cross-border lending<sup>24</sup>.

# 2.3.2. The measurement of private sector debt: pension schemes and derivatives

A second issue regarding the indicator on private sector debt is related to the differences between the definition of debt for the scoreboard with the one used by the ESRB with respect to

- (i) financial derivatives, and
- (ii) pension schemes.

The indicator on private sector debt in the scoreboard has been defined as the sum of loans and securities other than shares, including financial derivatives.

For these cases full consolidation can be considered incomplete, in particular in what regards cross-border debt; larger Member States a larger share of inter-company debt occurs within the resident economy and a larger share of debt is subject to consolidation. In contrast, for smaller Member States a larger share of loans comes from non-resident non-financial corporations, and therefore is not subject to consolidation in national accounts. Issues of cross-border consolidation will have to be considered in the future.

<sup>&</sup>lt;sup>24</sup> More in general, future work should also consider whether data on accounts payable and trade credits should be added to the private sector debt scoreboard definition. But the impact is expected to be small.

The ESRB considers, in its dashboard, a definition of the private sector debt which differs from the one in the MIP scoreboard since companies' pension reserve liabilities are included and financial derivatives are excluded. Although, there is no formal reason for using exactly the same indicator, the fact that different organisations use different variables warrants further discussion to determine what would be the most appropriate definition.

#### (i) Financial derivatives:

When designing the scoreboard, the aim of a private sector debt indicator was to assess vulnerabilities to changes in the business cycles, inflation and interest rate, as the crisis showed that excessive private sector indebtedness implies higher risks for growth, financial stability and thus greater vulnerability to economic shocks. To this end, when the scoreboard was first designed, all the loans and securities other than shares were considered. At that time, the appropriateness of the inclusion of the derivatives among the securities was not discussed in-depth.

It is now proposed to exclude the derivatives from the definition of the private sector debt since it would allow for a clearer economic interpretation of scoreboard indicator, and therefore aligning the scoreboard definition with the ESRB definition in this respect. In fact, the aim of this indicator is to capture liabilities contracted as funding sources, while derivatives are mostly used for either (short-term) hedging or speculation.

Moreover, statistical compilation practices for the recording of debt arising from derivatives show some differences and more work is needed to reach full statistical harmonisation. Therefore, removing derivatives from the definition improves the comparability of data among the EU Member States. Table D-1 presents the values of the financial derivatives (as percent of GDP). As one can note, this item only accounts for a very small part of the private sector liabilities, and their exclusion would not have any practical consequence of the MIP implementation.

(ii) Pension reserve liabilities:

Pension liabilities have not been included in the scoreboard definition of private sector debt, while they have been included in the definition of the ESRB dashboard. At this point in time it is preferable not to include pension liabilities in the scoreboard definition of the private sector debt given that such inclusion would induce problems of consistency. Comparability issues are caused by the heterogeneity of social protection systems across Member States, which makes a consistent cross-country comparison difficult, and would reduce the meaningfulness of a common threshold for all Member States. In this sense, a major limitation to comparability is that pension schemes are not always reflected in the companies' balance sheets. Taking an example, in Member States as the UK most private pension schemes are autonomous, i. e., settled by the employers but managed by an independent pension fund. Such schemes are to be classified in the financial corporations sector (S.12) as a pension fund. In other Member States however, many private pension schemes are non-autonomous, that is, managed by the employer itself and are therefore classified in the sector of the (non-financial corporation) employer S.11.

In light of the elements above, while recognising the importance of pension debt liabilities as unconditional liabilities, it is suggested however that pension liabilities remain outside the MIP private sector debt definition. Given the heterogeneity featuring pension schemes, including them would reduce the transparency of the indicator and hamper the interpretation of the threshold common to all Member States.

Definition		Private Sector Debt (PSD) as percent of GDP
Transformation	Previously	$\frac{PSD_t}{GDP_t} * 100$ with PSD = F3, F4 for S11 and S14_S15 <sup>25</sup>
Transformation	Suggested	$\frac{PSD_t}{GDP_t} *100$ with PSD = F33 <sup>26</sup> , F4 for S11 and S14_S15
Source		Eurostat data (National Accounts)
Thresholds	Previously	+160%
(over the period 1995- 2007)	Suggested	+133%

# 2.3.3. Impact on data

Table C and D below present the figures for the scoreboard private debt indicator when (i) the indicator is currently computed and, (ii) when the all changes proposed above (*i.e.* use of consolidated data and exclusion of derivatives) are implemented respectively.

When the two suggested changes (*i.e.* use of consolidated data and exclusion of financial derivatives) are applied, the values of the indicator on private debt are reduced substantially, but with large differences among Member States. By far, the main source of the change comes from moving to consolidated data.

For consistency reasons, the threshold has been recalculated (following the same statistical approach based on the distribution of the indicator's values as it is currently done)<sup>27</sup>. When both changes proposed are considered, the threshold is also, as expected, significantly reduced and passes from 160 percent of GDP to 133 percent of GDP. However, as a comparison of tables C and D shows, the number of observation above the threshold is only slightly different.

In 2010 and 2011, the number of observations in excess of the threshold is almost the same when using the previous and the new definitions and thresholds. However, for Member States (*e.g.* Denmark or Cyprus), which have been reporting consolidated data as non-consolidated ones, the revised threshold means that the observations exceed the threshold by a much larger margin than previously. Moreover for the Member States for which the consolidation matters the most the difference between the observations and the threshold may change substantially.

F3, F4 refer to securities other than shares and loans respectively. S11 and S14\_S15 refer to nonfinancial corporations and households and non-profit institutions serving households.

<sup>&</sup>lt;sup>26</sup> F33 refers to securities other than shares, excluding financial derivatives

<sup>&</sup>lt;sup>27</sup> The threshold corresponds of the upper quartile of the indicator distribution.

For example, Belgium which with the current indicator is above the threshold all over the period by a large margin (Table C), is only slightly above the threshold in recent years with the adjusted indicator (Table D). For Belgium, this issues was properly discussed in the different in-depth reviews

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BE	179	180	194	188	186	194	204	218	230	233	243	248
BG	48	48	58	74	91	100	132	155	175	170	146	
CZ	59	61	56	57	57	61	65	73	76	77	79	
DK	177	176	178	186	202	215	224	237	251	243	236	239
DE	133	136	135	131	128	124	122	124	131	127	128	116
EE	81	90	97	111	122	150	159	164	175	149	133	
IE	157	154	157	166	190	217	224	279	311	315	306	
EL	63	67	71	78	89	97	107	118	122	127	129	129
ES	132	140	148	160	177	200	215	220	227	227	218	
FR	124	124	124	127	132	137	142	150	157	159	160	
HR	55	64	70	74	82	94	104	117	128	137	134	
IT	87	89	93	<b>98</b>	103	110	118	122	128	129	129	_
CY	164	171	166	164	200	199	220	242	262	278	289	
LV	49	54	62	75	95	122	127	132	147	140	125	
LT	29	30	36	42	52	64	81	82	88	80	70	_
LU						161	205	221	373	345	326	
HU	67	71	84	86	102	110	125	155	170	154	166	148
MT				173	176	189	188	197	209	207	208	
NL	191	195	203	205	210	213	211	211	225	225	225	
AT	127	127	129	128	132	144	152	157	158	164	161	
PL	43	49	<b>48</b>	43	44	52	59	72	72	74	<b>79</b>	
PT	184	188	192	193	200	209	223	239	251	249	252	254
RO	30	34	36	36	42	68	107	115	123	76	75	
SI	64	67	71	75	85	91	106	117	126	128	128	125
SK	49	53	49	49	51	55	64	69	74	73	76	
FI	125	127	134	137	142	147	151	169	179	183	179	
SE	201	181	182	181	191	195	218	249	268	253	254	253
UK	155.3	165	165	170	17	185	189	201	204	194	188	187

Table C – Private Sector Debt (as percent of GDP), non-consolidated data and including financial derivatives Threshold: 160 percent of GDP

Notes:

(i) The shadow cells correspond to the values of the indicator breaching the threshold;

(ii) Provisional data (September 2013). The final data will be considered for the AMR if the suggested changes are approved.

Table D – Private Sector Debt (as percent of GDP), consolidated data and excluding financial derivatives Threshold: 133 percent of GDP

_	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BE	109	109	111	112	109	109	116	134	135	133	144	149
BG	29	33	42	59	75	94	130	147	153	152	136	
CZ	53	54	49	50	51	56	61	66	69	70	72	
DK			178	186	202	215	224	237	251	244	237	239
DE	128	127	127	123	121	118	114	113	116	110	108	107
EE	62	68	75	86	97	116	128	144	157	144	132	
IE	155	152	155	164	187	214	220	259	282	285	280	
EL	63	67	71	78	89	97	106	118	122	128	129	129
ES	114	121	132	143	161	185	200	206	213	213	203	
FR	106	106	106	107	112	116	120	127	135	137	139	
HR	55	64	70	74	82	94	104	117	128	137	134	
IT	83	86	90	94	100	107	114	119	125	126	126	
CY	164	171	165	164	200	199	220	237	256	273	283	
LV	47	51	60	71	91	115	119	123	143	135	117	
LT	29	30	35	40	50	62	76	78	85	76	67	
LU						135	164	192	313	281	267	
HU	63	65	77	77	91	98	111	140	149	133	145	129
MT				138	140	147	147	154	164	162	169	
NL	188	192	198	201	207	209	208	208	222	222	221	
AT	127	127	129	128	132	132	134	139	147	150	146	
PL	37	45	47	41	43	49	55	69	69	71	76	
PT	166	169	176	176	184	192	203	216	224	222	222	223
RO	27	31	33	33	39	45	58	67	73	75	71	
SI	59	60	64	68	78	84	98	108	115	117	115	113
SK	49	53	49	49	51	55	64	69	74	73	76	
FI	96	104	109	112	121	124	128	142	153	154	150	
SE	151	162	164	163	171	173	191	216	229	215	213	213
UK	150	158	158	162	173	179	181	189	195	183	179	179

Notes:

(i) The shadow cells correspond to the values of the indicator breaching the threshold;

(ii) The thresholds are calculated as before, i.e. over the period 1995-2007. However, as for nonconsolidated data, a complete data from many Member States are only available for a shorter period (data for all Member States are only available since 2006);

(iii) Provisional data (September 2013). The final data will be considered for the AMR if the suggested changes are approved.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BG	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.2	0.1	0.1	0.1	
CZ	0.3	0.7	0.4	0.4	0.1	0.1	0.1	1.8	1.1	0.6	0.8	
DK			0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
DE												
EE	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.5	0.4	
IE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.3	
EL	2.0	1.1	0.8	0.8	0.9	0.7	0.8	0.8	0.5	0.5	0.9	1.2
ES	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.9	1.0	0.9	1.0	
FR	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.1	0.0	0.0	
HR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
IT	0.8	0.5	0.5	0.5	0.3	0.2	0.3	0.4	0.4	0.4	0.4	
CY	0.2	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.1	
LV	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
LT	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	
LU						0.0	0.0	0.0	0.0	0.0	0.0	
HU	0.2	0.3	0.8	0.7	0.5	0.4	0.5	0.9	0.4	0.6	2.0	1.6
MT				0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.3	
NL	0.0	0.0	1.6	1.5	1.3	1.5	1.4	2.0	1.5	2.5	2.3	
AT	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
PL	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.7	0.4	0.3	0.6	
РТ	0.0	0.0	0.0	0.1	0.0	-0.1	-0.3	0.4	0.6	0.6	1.1	1.4
RO	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
SI	0.0	0.1	0.1	0.0	0.1	0.1	0.2	0.6	0.4	0.5	0.4	0.4
SK	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.5	0.1	0.1	0.2	
FI	0.4	0.6	1.0	1.0	1.4	0.8	0.8	2.7	2.3	2.1	3.4	
SE	1.3	1.6	2.9	2.6	1.7	1.1	1.5	4.0	1.6	1.4	1.8	2.0
UK				1.2	1.8	1.8	1.6	3.7	2.7	2.7	3.6	2.9

Table D-1 – Financial derivatives (as percent of GDP), consolidated data

Note: Provisional data (September 2013).

# 2.4. Private Sector Credit

Following the proposals for the indicator of private sector debt, the indicator for private credit flows should be computed in a consistent way with the now available consolidated data and with the exclusion of derivatives from the definition of the indicator.

Definition		Private sector credit flow (PSCF) as percent of GDP ( non-consolidated data)				
Transformation	Previously	$\frac{PSCF_t}{GDP_t} *100$ with PSCF = F3, F4 liabilities for S11 and S14_S15 <sup>28</sup>				
	Suggested	$\frac{PSCF_t}{GDP_t} *100$ with PSCF = F33 <sup>29</sup> , F4 liabilities for S11 and S14_S15				
Source		Eurostat data (National Accounts)				
Threshold	Previously	+15%				
1995-2007)	Suggested	+14%				

Tables E and F below present the values of the indicator on private sector debt as it is currently computed in the scoreboard and how it would be after the two changes (*i.e.* use of consolidated data and exclusion of derivatives) are applied respectively.

To ensure consistency the threshold has been recalculated (following the same statistical approach based on the distribution of the indicator's values as it is currently done)<sup>30</sup>. The threshold is slightly affected by the changes proposed for the credit indicator and is set at the level of 14 percent of GDP. In addition, since the values of the indicator are somewhat reduced by the proposed changes, the number of observations above the threshold is somehow reduced.

<sup>&</sup>lt;sup>28</sup> F3, F4 refer to securities other than shares and loans respectively. S11 and S14\_S15 refer to nonfinancial corporations and households; non-profit institutions serving households.

 <sup>&</sup>lt;sup>29</sup> F33 refers to securities other than shares, excluding financial derivatives.

<sup>&</sup>lt;sup>30</sup> The threshold corresponds of the upper quartile of the indicator's distribution.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BE	16	9	20	4	5	18	20	22	9	14	14	9
BG	16	6	14	19	22	20	40	41	19	0	-7	
CZ	-3	4	-3	6	3	7	9	9	1	2	3	
DK	20	13	5	19	25	25	19	18	-2	6	-2	6
DE	5	4	0	-2	-1	1	4	3	2	3	5	1
EE	20	22	21	27	27	40	32	13	3	-4	7	
IE		18	9	25	37	45	25	36	2	0	4	
EL	11	8	11	12	15	17	17	16	4	1	-3	-6
ES	19	17	17	22	28	37	27	12	-3	1	-4	
FR	10	5	4	7	9	11	13	9	-2	2	4	
HR		14	11	10	13	19	18	18	5	7	0	
IT	8	6	7	8	9	11	13	7	1	4	3	
CY	12	12	5	10	47	13	38	39	15	25	20	
LV	9	10	14	18	26	43	37	14	-6	-9	-3	
LT	2	4	8	10	15	19	27	9	-12	-6	-1	
LU						14	33	-38	176	7	3	
HU	10	15	18	13	17	18	22	29	5	-22	7	-8
MT					12	17	4	18	11	7	2	
NL	14	12	10	7	15	13	9	8	6	3	1	
AT	8	5	7	4	8	7	15	7	-4	7	4	
PL	4	1	2	2	5	10	12	12	4	4	7	
PT	22	12	9	10	14	16	24	22	7	5	1	-6
RO	7	9	8	9	12	23	34	28	8	2	2	
SI	0	9	9	10	14	14	24	18	4	2	2	-4
SK	4	8	4	3	8	9	10	12	3	3	3	
FI	2	5	9	9	8	13	15	21	-1	7	5	
SE	15	8	6	7	15	13	30	27	9	7	11	0
UK	16	19	18	19	18	21	20	12	-12	2	2	3

Table E – Private Sector Credit Flows (as percent of GDP), non-consolidated data andincluding financial derivativesThreshold: 15 percent of GDP

Notes:

(i) The shadow cells correspond to the values of the indicator breaching the threshold;

(ii) Provisional data (September 2013). The final data will be considered for the AMR if the suggested changes are approved.

Table F – Private Sector Credit Flows (as percent of GDP), consolidated data and excluding financial derivatives Threshold: 14 percent of GDP

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BE	2	5	6	7	2	5	13	22	-1	4	16	8
BG	6	8	12	19	19	29	43	35	5	3	0	
CZ	-3	4	-3	6	5	9	10	9	1	2	3	
DK	19	12	7	19	25	25	19	18	-2	6	-2	6
DE	4	1	1	-2	-1	1	2	1	-1	0	2	1
EE	14	15	14	16	23	35	30	8	-8	-3	10	
IE		18	9	25	36	44	24	20	-4	-1	4	
EL	11	8	11	12	15	17	17	17	4	0	-4	-6
ES	15	15	18	20	28	36	27	13	-2	1	-5	
FR	9	5	5	6	9	10	12	10	4	5	7	
HR	0	14	11	10	13	19	18	18	5	7	0	
IT	9	7	7	8	10	11	12	7	2	5	3	
CY	12	13	5	10	48	13	39	34	15	25	19	
LV	8	10	14	17	26	41	35	13	-7	-9	-6	
LT	2	4	8	9	15	19	23	11	-10	-6	-1	
LU	0	0	0	0	0	12	17	-26	147	-2	2	
HU	9	14	16	12	15	16	20	30	1	-21	7	-6
MT	0	0	0		9	9	3	14	9	6	4	
NL	14	12	12	9	15	13	10	8	6	6	3	
AT	8	5	7	4	8	7	9	7	3	3	3	
PL	3	1	2	2	4	9	12	12	4	3	7	
PT	19	11	11	8	14	15	21	17	5	4	-2	-5
RO	5	9	8	9	12	15	19	15	0	2	2	
SI	0	7	9	9	13	14	22	16	3	2	1	-3
SK	4	8	4	3	8	9	10	12	4	3	3	
FI	4	11	6	7	13	9	13	16	0	7	4	
SE	12	7	5	6	15	11	23	21	5	4	6	1
UK	14	16	15	13	15	16	15	9.	-7	-1	-1	3

Notes:

(i) The shadow cells correspond to the values of the indicator breaching the threshold;

(ii) The thresholds are calculated as before, i.e. over the period 1995-2007. However, as for nonconsolidated data, a complete data from many Member States are only available for a shorter period (data for all Member States are only available since 2006)

(iii) Provisional data (September 2013). The final data will be considered for the AMR if the suggested changes are approved.

# 2.5. House Prices

An issue concerning the indicator on residential house prices is related to differences between the definition of the MIP scoreboard indicator and the one used by the ESRB. Differences regarding the indicator on house prices between the MIP scoreboard and the ESRB's dashboard exist in two respects: (i) the computation of the indicator, (ii) data sources.

# (i) Computation:

In the scoreboard, the headline indicator on houses prices is currently defined as the year percentage change in the house price index (HPI) relative to a consumption deflator, while the auxiliary indicator is defined as the three - year percentage change in the nominal HPI. The HPI measures price developments of all residential properties purchased by households, independently of their final use and their previous owners. As regard the ESRB, developments in the housing market are captured by the use of HPI with two indicators: (a) annual change in nominal HPI, and (b) estimates of the over/undervaluation of HPI. The latter estimates being the result of an average of four different valuation methods: price-to-income ratio, price-to-rent ratio (in both cases overvaluation is calculated with respect to each country's long term average) and two model-based measures (whereby overvaluation is calculated with respect to equilibrium values).

# (ii) Data sources:

The MIP scoreboard indicator on residential property prices relies essentially on the harmonised HPI provided by EUROSTAT. HPI data are regularly transmitted to Eurostat by Member States according to the legal framework entered into force in February 2013<sup>31</sup>. For time series analyses, other data sources such as the ECB (in the Residential Property Price Indicator database) and the OECD are used as a complement. EUROSTAT is still working to provide longer time series for the HPI, starting possibly in the mid- 1990s. Since autumn 2012, EUROSTAT, the ECB, the OECD and the BIS are all working in a joint approach for the construction of longer House Price Index series<sup>32</sup>.

Hence, taking into consideration both the methods and the data source used for the computation, it is proposed not to change the indicator for residential property prices and to keep it as it is currently defined in the MIP scoreboard.

<sup>&</sup>lt;sup>31</sup> Commission Regulation (EU) No 93/2013 of 1 February 2013 laying down detailed rules for the implementation of Council Regulation (EC) No 2494/95 concerning harmonised indices of consumer prices, as regards establishing owner-occupied housing price indices (OJ L 33, 2.2.2013, p. 14).

<sup>&</sup>lt;sup>32</sup> As concerns the ESRB indicator, the underlying residential property prices (RPP) indices, were based on the data used to compile pilot series before the adoption of the EU Regulation on house price indices. Now, as the regulation has entered into force, the ESRB is revising its residential property prices database and will progressively switch to the EU harmonised series. Presently, only 13 Members States are covered by the ESRB data.

## 3. OTHER INDICATORS USED FOR THE ECONOMIC READING OF THE SCOREBOARD

To help the economic interpretation of scoreboard, the alert mechanism report (AMR) has shown data on a series of auxiliary indicators. These indicators cover namely the following areas: (i) macroeconomic conditions, (ii) competitiveness, (iii) labour markets, (iv) house prices, and (v) private sector indebtedness. This section suggests a number of changes in these indicators, on FDI inflows, export performance vis-à-vis the OECD, and terms of trade. More importantly, as per Commission Communication 'Strengthening the Social Dimension of the Economic and Monetary Union'<sup>33</sup>, a number of other social indicators, without thresholds has been identified.

# **3.1.** Inward FDI stocks

To help the economic interpretation of developments on the external side of the economy an indicator of FDI inflows has been considered as a part of the auxiliary indicators.

It is suggested to complement the analysis of FDI by having an indicator on inward FDI stocks in order to support specifically the analysis of the NIIP headline indicator (Table G). As a major component of the NIIP position, this indicator has been already actively used for the economic reading in the AMR and the analysis in in-depth reviews on several occasions.

<sup>&</sup>lt;sup>33</sup> COM(2013) 960, 2.10.2013.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BE		90.8	102.4	118.7	133.6	147.3	158.7	177.2	197.1	200.3	207.5	206.9
BG	21.6	23.1	27.5	36.4	50.6	67.3	83.7	89.4	97.8	98.0	95.0	95.3
CZ	40.1	45.4	43.2	43.7	47.9	49.7	55.5	56.9	61.5	63.6	62.9	67.9
DK	42.4	38.1	37.4	35.5	40.1	38.0	40.4	36.7	37.1	34.0	33.7	32.4
DE	22.5	23.7	24.6	24.0	24.7	27.4	28.3	26.9	28.3	28.3	27.6	28.1
EE	51.3	51.9	63.7	76.1	85.5	72.0	70.9	72.5	84.8	87.2	81.0	86.3
IE	129.3	133.3	125.3	101.5	85.0	66.9	73.3	75.6	107.6	136.6	122.3	156.4
EL	10.8	9.5	10.3	11.3	12.8	15.0	16.2	11.7	12.6	11.8	10.8	
ES	29.6	33.6	34.3	35.6	35.8	35.6	37.8	38.9	41.9	44.8	45.2	45.9
FR	22.4	23.8	26.3	28.5	43.9	46.8	44.9	33.6	38.2	40.4	37.2	40.8
HR												
IT	10.4	9.9	11.1	12.2	14.0	15.9	16.5	15.0	16.6	15.8	16.6	17.3
CY		42.1	46.0	49.8	53.7	72.4	78.1	69.8	75.8	75.2	88.8	88.8
LV	28.8	28.7	27.8	31.5	32.5	36.0	35.6	35.5	43.4	45.0	46.1	45.3
LT	21.8	25.2	23.9	25.7	33.0	34.8	35.8	28.4	34.5	36.3	35.8	36.3
LU		2046.0	2356.1	2541.9	2557.5	2575.7	2721.7	2911.5	3572.6	3634.8	4811.1	4142.1
HU	50.6	47.6	53.6	53.7	59.3	64.9	65.9	62.3	72.5	71.1	72.9	80.6
MT	63.7	50.6	56.8	64.1	73.8	95.4	101.1	96.5	102.9	192.1	183.8	
NL	71.7	71.7	76.1	77.6	79.2	77.7	91.1	78.0	78.0	74.4	75.2	76.2
AT	18.6	19.3	19.9	23.3	53.5	56.3	70.4	68.4	75.1	67.5	65.1	65.5
PL	21.1	22.9	25.7	28.1	30.1	34.5	36.9	38.2	39.3	45.1	44.3	45.3
РТ	30.4	30.3	33.4	32.9	34.8	41.8	46.3	41.8	47.2	48.4	50.5	53.7
RO	22.4	17.2	20.1	24.1	27.8	33.9	37.1	37.8	42.2	43.0	42.8	42.4
SI	14.2	17.0	20.0	20.5	21.4	22.0	28.2	30.2	29.6	30.4	32.3	33.2
SK	19.2	23.4	31.1	35.6	40.5	46.6	47.3	54.2	58.1	57.2	57.4	59.2
FI	19.6	22.6	27.3	27.7	29.5	32.3	34.6	32.3	34.3	36.3	36.2	35.4
SE	41.8	43.0	44.9	49.1	49.4	53.0	60.3	68.0	76.1	69.8	67.7	<b>68.7</b>
UK	35.6	31.9	31.3	31.9	39.1	43.3	43.5	46.4	46.5	53.4	50.5	53.7

Table G – Inward FDI stocks (as percent of GDP)

Note: Provisional data. The final data will be considered for the AMR if the suggested inclusion is approved.

# **3.2.** Export performance compared with advanced countries

As elaborated above (see section 2.2), the rise of emergent countries in the world trade impacts all EU members and all advanced economies suffer losses as the world trade structure is changing. The indicator on world market shares does not disentangle losses in market shares that are specific to each country and those that concern all advanced economies. To better understand the causes behind the losses in export market shares, a new auxiliary indicator is suggested: it compared the export performance of each country with the export performance of a group of advanced countries (Table H)<sup>34</sup>.

Definition	<b>Percentage change over five years in export (EXP) market shares (goods and services, values) within advanced countries (AC)</b>
Transformation	$\frac{\left(\frac{EXP_{c}}{EXP_{AC}}\right)_{t} - \left(\frac{EXP_{c}}{EXP_{AC}}\right)_{t-5} *100}{\left(\frac{EXP_{c}}{EXP_{AC}}\right)_{t-5}} *100$
Source	Eurostat data (Balance of Payments statistics)

Comparing this indicator on the export performance across industrialised countries (based on national accounts data) with the current scoreboard indicator of world export market shares (based on Balance of Payment data) has to be done with caution due to the difference of data source. However, one can note that the performance indicator against peers provides a picture of the performance of Member States which is much more favourable (Figure 4). Negative performances appear for most Member States in 2006 onwards, and UK, records negative performance since 2001. Eastern Members States display positive export performance in line with their catching-up profile.

Figure 4. Export Performance Benchmark compared with world and advanced economies (2012 data)



Source: Eurostat

<sup>34</sup> The group of advanced economies is defined here conventionally as the OECD countries. For the moment, national account data are used for this purpose. Once Balance of Payment data would be available, it would be used for the computation of the indicator on export performance.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BE	-10.6	-1.3	0.8	4.4	7.9	1.9	0.6	-0.4	-1.3	-4.3	-1.2	-8.0
BG	14.5	14.1	1.6	20.0	18.8	71.3	69.4	59.9	38.0	76.2	28.8	15.8
CZ	19.3	35.6	31.2	46.9	54.8	41.0	40.1	37.8	27.6	18.9	16.6	5.9
DK	-3.0	10.3	13.4	6.2	12.3	7.8	1.9	4.2	5.0	-5.9	-8.1	-10.0
DE	-3.3	7.4	8.4	13.5	20.0	15.3	12.6	7.4	4.7	2.5	0.7	-4.5
EE	52.1	27.0	27.2	47.9	48.8	40.1	46.1	32.2	11.4	5.1	22.3	16.9
IE	63.6	58.8	34.7	22.3	14.8	-3.8	-7.1	-11.4	3.0	-4.4	-3.3	-6.8
EL	18.7	6.0	15.3	13.6	13.7	7.2	17.3	9.9	-7.7	-11.5	-11.8	-21.0
ES	5.6	10.5	13.2	11.3	13.8	6.9	6.3	-3.3	1.2	-1.9	1.3	-4.4
FR	-7.8	-3.8	-6.9	-5.2	-2.6	-8.3	-10.7	-12.5	-10.3	-12.3	-9.7	-11.8
HR	6.5	14.8	27.9	41.3	40.1	22.1	19.0	7.4	1.9	-7.1	-10.1	-16.8
IT	-13.7	-8.3	-6.4	0.9	3.4	-2.1	1.1	-5.4	-9.7	-10.9	-10.1	-15.2
CY	2.0	2.8	2.6	1.3	5.7	-6.6	1.1	-1.9	-0.5	-11.3	-10.1	-14.9
LV	18.1	17.4	17.7	40.8	57.0	48.8	65.1	62.5	45.8	24.6	34.5	22.1
LT	28.2	26.9	46.5	87.5	93.6	68.0	45.8	58.3	34.5	25.3	37.4	43.4
LU	15.7	25.9	26.2	23.6	27.5	39.4	46.2	32.7	24.1	17.0	6.5	-7.7
HU	50.7	44.5	35.2	40.3	39.1	31.6	35.7	31.3	20.1	15.1	6.7	-8.1
MT	-0.9	14.2	4.7	-7.4	-15.2	5.1	1.5	6.0	20.4	30.2	14.8	8.6
NL	-3.3	1.8	4.9	5.7	8.9	4.6	6.3	4.3	6.1	3.4	3.5	-0.8
AT	-1.1	9.9	9.5	13.8	22.3	13.5	12.4	6.7	0.8	-5.8	-3.8	-12.0
PL	31.4	36.3	25.9	58.6	60.5	53.1	57.9	56.9	40.9	32.6	24.1	11.3
PT	-8.4	0.9	1.7	2.8	3.3	5.4	5.1	-2.6	-0.7	1.8	0.3	-5.8
RO	23.0	43.0	68.5	83.6	76.5	68.5	59.0	60.8	45.6	33.9	35.9	15.6
SI	-4.6	8.0	10.1	26.1	37.8	31.3	32.7	25.9	16.7	5.6	3.4	-11.3
SK	21.6	28.1	49.1	70.3	68.6	75.6	92.8	66.2	54.0	44.8	34.5	15.1
FI	-3.2	2.0	-1.0	0.8	1.8	4.4	5.8	6.7	-6.6	-12.1	-16.5	-24.8
SE	-11.8	-7.2	-2.4	1.0	3.3	10.8	10.8	1.6	-7.8	-3.8	-2.9	-8.8
UK	-1.1	-5.0	-3.9	-3.5	0.2	1.9	-6.9	-12.1	-11.5	-15.8	-18.8	-13.1

Table  ${\bf H}$  – Percentage change (over five year) of export performance compared with advanced countries

*Note*: Provisional data (September 2013). The final data will be considered for the AMR if the suggested addition is approved.

# **3.3.** Terms of trade

Amongst the current auxiliary indicators, there is an indicator on world export market shares in volume (for goods and services)<sup>35</sup> aiming at supporting the scoreboard indicator on world export market shares. However, export market shares in volume which exclude price effects from export flows, lead to volatile aggregates difficult to interpret. Moreover, the indicator depends on the year which is used a base year. Also one may dispute the meaningfulness of the indicator when assessing competitiveness.

In order to complement the headline indicator on export market shares, it is proposed to add an indicator on the evolution of the terms of trade (*i.e.* ratio of prices exports to prices on imports)<sup>36</sup>. The indicator on terms of trade will be used to qualify export performance by providing information in terms of the return of domestic exports.

Concerning its computation, the indicator on terms of trade is computed following the same methodology used for the current scoreboard indicator on export market shares (*i.e.* percentage change over five years). Table I – below – presents the values of the proposed auxiliary indicator on terms of trade.

Definition	Percentage change over five years in terms of trade (TE)
Transformation	$\frac{TE_{t,c} - TE_{t-5,c}}{TE_{t-5,c}} * 100$
Source	AMECO

<sup>&</sup>lt;sup>35</sup> Note that for the first AMR, due to data availability issues, the indicator on world export market share in volume (provided by UN COMTRADE) only considered goods. For the second AMR, we changed the data source and we used WEO IMF series for having an indicator on world export market share in volume considering both goods and services.

<sup>&</sup>lt;sup>36</sup> The terms of trade indicate the ratio of the change of export prices of goods and services to the change of import prices of goods and services. They are equal to the ratio of the price index for exports of goods and services to the price index for imports of goods and services. However, it has to be taken into account that the terms of trade are based on National Accounts data which means that this indicator do not fully match Balance of Payment data.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BE	-2.6	-1.1	-2.1	-1.8	-0.2	-1.0	-1.9	-4.1	0.1	-1.1	-1.7	-2.3
BG	10.4	13.2	7.1	7.5	1.7	6.3	7.0	4.8	5.1	8.1	3.5	2.3
CZ	0.1	3.8	0.0	1.0	2.2	-2.2	-3.9	-5.1	-3.4	-3.0	-2.2	-3.5
DK	1.3	2.2	3.2	4.4	5.5	5.2	3.6	4.1	2.3	3.9	1.7	1.8
DE	-3.7	0.2	-0.6	-1.2	1.5	0.1	-1.7	-4.1	-0.6	-0.8	-1.7	-2.8
EE	8.7	7.4	9.6	11.6	10.6	10.7	10.7	6.8	4.9	1.4	-3.7	-7.0
IE	-0.2	0.5	-0.6	-1.2	0.2	-1.7	-4.1	-5.4	-3.2	-4.1	-5.7	-5.1
EL	-0.9	-0.2	1.4	1.4	3.8	2.8	1.4	-1.6	-2.5	-1.4	-2.3	-3.8
ES	0.3	3.5	2.8	2.5	6.3	4.4	2.1	-1.0	3.6	0.9	-2.4	-5.2
FR	-0.6	1.0	-0.5	-1.7	-0.3	-2.0	-2.5	-3.2	0.4	0.3	-0.4	-2.3
HR	5.8	3.6	3.8	8.0	7.6	8.3	7.7	6.6	5.2	5.6	4.5	2.4
IT	-2.9	-0.8	-1.9	-2.6	0.7	-3.3	-3.9	-7.7	-1.7	-2.4	-2.5	-4.7
CY	2.6	1.0	0.1	2.2	0.9	0.1	4.0	2.4	-0.1	1.3	-0.2	-2.1
LV	0.8	5.7	3.1	1.6	3.8	1.2	7.3	2.7	1.2	1.9	6.4	-0.8
LT	10.6	6.5	9.8	14.4	9.3	6.5	7.3	10.5	-2.8	-3.0	-1.0	-2.6
LU	-5.4	-1.0	4.3	0.9	3.5	6.5	6.0	1.1	2.6	5.1	4.7	4.8
HU	0.8	0.1	-1.2	-0.7	-0.2	-2.2	-3.1	-3.5	-2.7	-1.0	-1.1	-2.3
MT	0.8	2.1	6.6	3.1	1.9	3.5	2.8	-0.8	-0.4	-1.9	-0.9	-1.5
NL	2.7	2.7	2.3	1.8	2.4	0.7	-0.6	-0.6	0.1	-1.3	-0.8	-1.4
AT	-2.2	-0.1	0.3	0.1	0.8	-0.1	-2.3	-3.8	-1.9	-2.3	-3.7	-3.0
PL	-6.3	-5.6	-7.8	-3.6	3.3	3.2	5.7	4.3	4.4	1.9	0.1	-2.9
РТ	2.1	3.0	0.4	-1.4	0.2	0.4	-0.5	-3.2	2.0	2.8	-0.3	-1.0
RO	15.0	12.8	9.1	11.7	11.2	17.5	26.9	28.3	25.0	22.5	18.4	10.5
SI	-0.2	1.3	1.4	0.1	1.3	-0.8	-1.8	-4.0	0.6	-1.3	-2.5	-4.3
SK	2.4	-2.1	0.0	1.0	-1.9	-2.2	-3.3	-4.4	-5.1	-5.5	-5.5	-5.2
FI	-4.7	-3.1	-6.2	-5.4	-5.2	-9.7	-10.0	-10.5	-7.4	-5.9	-4.6	-6.5
SE	-6.2	-7.5	-6.8	-5.7	-5.8	-4.8	-1.8	-2.3	-0.5	0.6	0.1	-1.7
UK	4.6	3.4	3.6	2.7	2.0	0.6	-0.7	-3.0	-3.9	-2.6	-4.3	-3.9

Table I – Percentage change (over five years) of terms of trade

Source: AMECO

*Note*: Provisional data (September 2013). The final data will be considered for the AMR if the suggested inclusion is approved.

## 4. **PRESENTATIONAL ASPECTS**

Several indicators appear in the scoreboard as moving averages spanning over several years. This concerns in particular the current account balance<sup>37</sup>, the real effective exchange rate<sup>38</sup>, world export market shares<sup>39</sup>, unit labour costs<sup>40</sup>, and unemployment rate<sup>41</sup>.

In order to facilitate the economic reading of the scoreboard, it is suggested to include in the scoreboard table for each indicator defined as an average over time of time the latest annual observation. The indicative threshold would keep referring to the scoreboard indicator proper defined as moving averages. Tables J illustrate how the scoreboard would look like<sup>42</sup>. This improves the reading and transparency of the scoreboard given that processes of accumulation and winding-down imbalances extend over several years.

<sup>&</sup>lt;sup>37</sup> Three year backward moving average of the current account balance expressed in % of GDP.

<sup>&</sup>lt;sup>38</sup> Percentage change (three years) of real effective exchange rate with HICP deflators relative to 35 other industrial countries.

<sup>&</sup>lt;sup>39</sup> Percentage change (five years) in world export market shares.

<sup>&</sup>lt;sup>40</sup> Percentage change (three years) in unit labour costs.

<sup>&</sup>lt;sup>41</sup> Percentage change (three years) in unemployment.

<sup>&</sup>lt;sup>42</sup> For 2012, the figures presented are all provisional figures.

September 2013)
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Provisiona
oard 2011 (
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Table J-1

	Exter	mal imbali	ances and o	competitiv	reness					Internal	imbalances			
3 7 3	Net terna- ional west-	Real El Exchan (HICP de	ffective ge Rate eflators)	Export Sha	Market ares	Nomin	al ULC	% y-o-y change in	Private Sector	Private Sector Debt	General Government	Unemplo	oyment ie	% y-o-y change in total
-	ment	%	p.m.:	%	p.m.:	%	p.m.:	deflated	Credit Flow	as % of GDP,	Debt as % of		m.:	financia
	Position	Change	% Y-0-	Change	% Y-0-	Change	% Y-0-	house	as % of GDP,		GDP	3 year	leve	sector
	as % of	(3	٨	(5	^	(3	٨	prices	consolidated	consolidated		average	year	liabilitie
	GDP	years)	change.	years)	change.	years)	change						2011	
	35%	±5% & +11%		ж <del>у</del> -		+9% &		жу+ 10%	15%	135%	76U%	10%		16.5%
+	65.7	-0.5	0.6	-10.2	-2.1	6.2	2.7	-0.1	15.9	144	86	7.8	7.2	4.7
	-85.6	3.1	1.0	17.0	10.8	20.3	3.0	-9.0	-0.1	136	16	9.4	11.3	5.6
	-49.3	0.3	2.0	6.8	0.1	3.3	0.4	0.0	2.7	72	41	6.9	6.7	3.8
	24.5	-1.7	-0.7	-17.0	-4.1	4.7	0.1	-4.9	-2.2	237	46	7.0	7.6	4.7
	32.6	-3.9	-0.7	-7.0	-11	5.9	1.4	1.4	1.8	108	81	6.9	5.9	2.1
	-57.8	0.8	1.0	10.9	16.3	-6.2	-1.4	3.3	9.4	132	9	14.4	12.5	-4.4
	-96.0	-9.1	-11	-12.3	-5.7	-12.8	-3.3	-15.2	4.0	280	106	13.3	14.7	-0.6
	-86.1	3.1	0.6	-18.8	-4.6	4.1	-1.8	-5.1	-3.7	129	171	13.2	17.7	-3.4
	-91.7	-1.3	0.2	-7.8	0.3	-2.1	-1.4	-10.0	-4.7	203	69	19.9	21.7	3.7
-	-15.9	-3.2	-0.7	-11.4	-3.0	6.0	12	3.8	6.8	139	86	9.6	9.6	7.3
~	NA	-4.5	-2.7	-18.0	-5.8	6.0	0.7	NA	0.0	134	09	11.5	13.5	2.9
-	-20.6	-2.1	0.0	-18.4	-1.9	4.4	1.0	-2.0	3.0	126	121	8.2	8.4	3.8
	-71.3	-0.9	0.1	-16.5	-5.0	8.8	3.2	-8.5	1.91	283	71	6.6	7.9	-0.2
~	-73.3	-0.6	0.8	23.4	9.4	-15.0	2.1	4.9	-5.6	117	42	18.1	16.2	-4.5
	-52.6	3.6	0.5	25.0	13.4	-8.4	-0.1	2.4	-0.7	67	39	15.6	15.3	8.9
	107.8	0.8	0.7	-10.2	4.6	12.5	3.3	51	2.3	267	18	4.8	4.8	11.3
-	-105.9	-3.3	-0.4	-2.7	-3.1	3.7	1.8	-4.1	7.5	146	81	10.7	10.9	-2.6
~	5.7	-3.0	-0.8	10.7	-3.3	5.8	1	-2.3	4.2	169	4	9.9	<u>.</u>	1.4
-	<u>, 45</u>	-1.6	-0.4	-8.4	-3.2	5.8	2	4.0	2.7	172	8	4.2	4.4	7.7
4	-23	-10	0.4	-12.8	-18	5.9	1.0	-8.0	3.2	146	72	4.4	4.2	-0.3
σ	-63.5	-10.9	-2.2	12.7	-0.7	4.3	0.5	-5.7	<del>6</del> .8	76	56	9.2	9.7	4.4
0	-105.0	-1.9	0.7	-8.8	0.7	0.9	-0.7	-3.6	-1.6	222	108	11.9	12.9	-0.7
5	-62.5	-2.4	2.8	23.2	6.3	12.9	0.9	-18.9	2.3	71	33	7.2	7.4	4.3
0	-41.2	-0.3	-0.8	-6.2	-0.7	8.3	-0.6	1.0	0.5	115	47	7.1	8.2	-1.3
-	-64.4	4.3	1.0	21.9	4.3	4.4	-0.4	-5.6	3.3	76	43	13.4	13.6	1.2
ŝ	13.1	-1.3	-0.1	-23.5	-5.0	9.1	1.8	-0.3	4.1	150	49	8.1	7.8	30.8
0	-8.3	3.9	4.1	-11.8	-0.5	1.2	-0.6	1.0	6.2	213	88	8.1	7.8	3.6
m	-17.3	-71	60	-743	-17	8		-54	67 77	179	85	7.8	80	8.5

-	r																											
Financial sector leverage (debt to equity)	641.1	413.9	623.6	349.9	526.6	373.4	158.4	3022.9	928.4	460.7	401.8	1171.6	2564.8	704.3	633.4	50.0	561.9	362.3	230.9	377.8	377.1	536.9	662.0	639.4	1078.8	616.3	304.6	1215.5
Private Sector Debt as % GDP, NCO data	243.5	146.0	78.6	237.3	117.1	132.9	309.5	130.0	218.1	160.4	134.1	128.6	289.4	125.1	70.1	326.3	167.7	209.9	224.6	160.7	79.5	253.6	71.8	128.3	76.3	178.8	256.4	191.9
Residential Constructi on as % GDP	<b>0</b> 8	2.4	3.9	4.7	5.6	3.5	2.5	4.7	6.4	6.1	8	5.5	5.0	1.7	1.8	3.4	1.8	2.5	4.7	4.5	2.6	3.1	09	3.0	2.3	6.8	3.7	3.4
% Change (3 years) in Nominal house Prices	6.8	-33.3	-5.5	-11.0	5.4	-28.0	-38.7	-3.7	-15.3	4.0	g	40	-17.7	-38.7	-30.8	6.4	-10.7	-4.6	<i>L. L</i> -	g	g	-2.0	g	-6.9	-17.5	11.2	13.8	-2.1
% Change (10 /ears) in effective ULC vs. EA (17)	20.4	72.6	21.8	29.4	5.5	64.4	17.1	31.1	25.3	21.9	37.2	29.0	34.4	92.7	33.6	35.7	44.3	26.7	20.1	13.6	5.5	19.5	128.7	38.9	28.8	22.1	8.4	26.7
% Change (10 years) in Nominal ULC	2.9				-14.6	40.4	-1.4	11.0	6.1	4.5		10.4	11.4			15.7		1.7	3.5	-2.5		12		8.1	61.0	4.0		
% y-o-y growth of Employ- ment	1.3	-3.4	0.3	-0.4	1.4	6.7	-1.8	-5.6	-1.6	0.8	-2.3	0.3	0.4	-8.4	19	2.6	0.8	2.8	0.6	1.7	0.6	-1.9	-13	-1.4	15	13	2.3	0.5
% y-o-y growth of Labour Productivi ty	0.4	5.4	1.9	1.4	1.6	12	4.0	-1.6	2.2	1.3	2.4	0.2	0.1	14.8	3.8	-12	1.2	-0.9	0.4	1.4	3.5	0.0	3.3	2.2	1.4	12	1.4	0.6
% change (5 years) in terms of trade	-1.7	3.5	-2.2	17	-1.7	-3.7	-5.7	-2.3	-2.4	-0.4	4.5	-2.5	-0.2	6.4	-1.0	4.7	-11	<del>0</del> .0-	-0.8	-3.7	0.1	-0.3	18.4	-2.5	-5.5	-4.6	0.1	-4.3
% y-o-y % y-o-y change in export market shares, i shares, i volume	-1.8	6.7	3.5	5.7	19	17.7	-0.9	-5.6	17	-0.6	-4.2	0.0	-15	6.8	8.2	-0.4	3.9	-5.1	-1.7	13	1.8	2.8	4.4	11	6.7	-3.1	13.4	-1.3
% change % change (5 years) in export performa nce vs. OECD countries	-1.2	28.8	16.6	-8.1	0.7	22.3	-3.3	-11.8	1.3	-9.7	-10.1	-10.1	-10.1	34.5	37.4	6.5	6.7	14.8	3.5	-3.8	24.1	0.3	35.9	3.4	34.5	-16.5	-2.9	-18.8
% % (3 (3 years) years) n REER vs. EA (17)	1.3				<del>0</del> .0-	3.2	-6.5	4.5	0.4	-0.4		0.9	0.7			2.0		1.9	0.0	12		-0.5		0.4	5.0	2.2		
Net Trade Balance of energy products as % GDP	-3.7	-0.6	-1.4	0.7	-19.8	g	g	-2.7	-8.5	-12.7	g	-13.9	g	-0.2	-0.5	g	-1.4	0.0	-4.6	-2.8	g	g	-0.7	-0.5	-1.0	-1.4	-1.6	-2.2
Inward FDI stocks as % GDP	207.5	95.0	62.9	33.7	27.5	81.0	119.6	8	45.3	36.9	8	16.6	88.8	46.1	35.8	4811.1	72.9	181.7	75.5	65.5	44.3	50.5	42.8	32.4	57.4	36.4	67.7	49.9
Inward FDI Iows as % GDP	20.1	3.4	11	3.8	13	12	5.1	0.4	1.8	15	2.4	1.6	9.5	5.1	3.4	645.3	4.2	4.5	2.1	2.7	3.7	4.7	1.4	2.0	2.2	1.0	1.7	2.1
Net external debt as f % GDP	-127.5	35.0	<u>0.9</u>	15.7	-2.8	6.5	-331.7	8	92.0	29.2	8	49.5	37.9	46.4	32.3	-3022.2	52.7	-158.1	38.6	24.8	35.7	86.0	40.1	37.0	21.7	29.8	61.5	44.1
Net lending / borrowin g as % GDP, 802 data	-1.3	1.4	-23	5.9	6.2	6.3	0.9	-8.6	-3.2	-19	-0.8	-3.0	-3.1	0.0	-13	6.8	3.1	0.8	10.0	12	-2.9	-5.8	-3.9	-0.3	-0.8	-1.4	6.9	-11
Gross domestic expenditu re on R&D as % GDP	2.0	0.6	1.9	3.1	2.8	2.4	1.7	g	13	22	0.8	1.3	0.5	0.7	0.9	1.4	12	0.7	2.0	2.8	0.8	15	0.5	2.5	0.7	3.8	3.4	1.8
Gross fixed capital formatio n as % GDP	20.7	21.5	24.1	17.2	18.1	21.7	10.6	15.1	21.1	20.0	19.2	19.4	16.3	21.3	17.8	19.0	17.9	14.8	17.8	21.2	20.3	17.9	26.0	18.5	23.1	19.4	18.4	14.4
% y-o-y growth of real 1 GDP	1.8	1.8	1.9	11	3.0	8.3	22	-7.1	0.4	2.0	0.0	0.4	0.5	5.5	5.9	1.7	1.6	1.8	0.9	2.8	4.5	-1.6	2.2	0.6	3.2	2.7	3.7	1.1
Year 2011	BE	86	۵	M	В	H	ш	Ħ	8	Ħ	Ħ	E	2	2	5	3	£	M	Z	AT	z	F	8	5	×	æ	SE	ž

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Table J-2 – Auxiliary indicators 2011 (Provisional data – September 2013)

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		% y-o-y change	in total financial sector	labilities		16.5%	4.3	8	5.7•	5.0	4.4	11.1•	0.26*	-3.4	-3.41*	3.86*	-0.33*	g	8	4.39*	-0.63*	-2.92•	-7.5	3.48*	8	-1.13•	7.06*	-3.6	g	-0.8	3.64*	6.91*	6.5	43
		yment	p.m.: level year	2012		•	7.6	12.3	7.0	7.5	5.5	10.2	14.7	24.3	25.0	10.3	15.9	10.7	11.9	14.9	13.3	5.1	10.9	6.4	5.3	4.3	10.1	15.9	7.0	8.9	14.0	7.7	8.0	7.9
		Unemplo	3 year average			10%	<i>L.T</i>	11.3	7.0	7.5	6.2	13.2	14.4	18.2	22.3	9.9	13.7	9.2	8.7	17.0	15.5	4.8	11.0	6.6	4.7	4.3	9.8	13.6	7.2	8.1	14.1	8.0	8.1	7.9
mbalances		General	Government Debt as % of GDP			60%	8.66	18.5	45.9	45.6	81.2	10.1	117.4	156.9	84.2	90.2	g	127.0	85.8	40.7	40.6	20.8	79.2	71.6	71.3	74.1	55.6	123.7	37.8	54.1	52.1	53.6	38.1	88.8
Internal i		Private	Sector Debt as % of GDP,I consolodated			135%	149.3	g	g	238.8	107.5	g	g	129.1	g	g	đ	g	g	B	g	g	129.6	g	g	g	ø	223.4	g	113.1	g	8	213.1	178.9
		Private	sector Credit Flow as % of GDP, consolidated			14%	8.2	g	g	6.1	1.5	g	g	-6.6	ø	g	g	g	g	ø	g	g	-6.4	g	g	g	g	-5.4	g	-2.8	g	g	6.0	2.7
		% y-o-y change	in deflated house	prices		+6%	-0.4	-5.3	-3.6	-5.1	0.4	3.7	-12.8	g	-16.7	-2.3	g	-5.5	-2.4	-0.5	-3.4	2.8	-8.4	0.2	-8.8	g	-0.8	-9.1	-9.2	-8.6	-6.1	-0.5	-0.2	-0.9
		nal ULC	p.m.: %	cnange		•	3.8	0.2	3.1	1.6	2.9	5.6	-0.7	-6.2	-3.3	2.0	1.3	2.1	-0.1	2.8	2.0	3.2	4.9	3.5	2.8	3.0	1.4	-3.7	6.4	0.7	0.1	4.4	3.2	2.9
		Nomi	% Change (3 years)		<b>-9% 8</b>	+12%	6.1	9.0	3.2	0.9	3.0	-2.3	-10.7	-8.0	-6.6	4.2	0.8	3.0	4.2	-6.0	-5.2	8.3	5.8	4.9	3.3	4.0	3.2	-5.7	4.8	0.4	-1.2	4.8	0.3	6.1
eness		rket Shares	p.m.: %	cnange			5.5	-5.2	-4.2	-4.8	-4.1	-3.3	-2.7	-7.7	-4.4	-5.5	-7.2	-4.5	-9.0	5.1	6.2	-4.6	-6.8	-2.7	-2.8	-5.4	-3.3	-4.7	-8.0	-6.7	1.7	<i>L1</i> -	-5.0	-15
competitiv		Export Ma	% Change (5 years)			-6%	-15.4	5.1	-3.8	-18.8	-12.7	6.8	-15.8	-27.0	-14.2	-14.1	-24.5	-23.4	-26.3	12.0	30.0	-19.4	-16.6	3.3	-11.6	-20.5	0.6	-15.5	4.9	-19.5	4.7	-31.3	-16.9	-18.8
balances and	ffective	Rate (HICP itors)	p.m.: %	cnange		•	-2.3	-2.0	-2.8	-2.8	-3.2	-0.6	-4.3	-3.9	-2.3	-3.2	-2.6	-1.8	-1.9	-1.4	-2.0	-1.4	-2.3	-2.1	-1.8	-1.7	-2.3	-15	-6.0	-1.2	0.0	-2.7	-0.8	4.3
xternal imt	Real E	Exchange defla	% Change (3 years)		±5% &	±11%	-4.3	-4.0	0.4	-7.7	-8.9	-3.4	-12.2	-4.5	-5.2	-7.8	-8.3	-6.2	-5.8	-8.5	-6.7	-2.3	-1.2	<i>L.L</i> -	-6.0	-4.7	13	-4.0	-1.9	-4.5	-3.2	-8.3	10.1	5.8
m	Net	Interna. tional	Invest- ment Position	as % of GDP		-35%	65.4	-80.8	-49.7	32.9	40.0	-55.3	-108.2	-114.5	-91.4	-21.1	g	-24.8	-87.7	-65.1	-52.2	144.1	-102.2	25.0	54.1	0.5	-66.3	-116.7	-64.5	-44.7	-63.8	12.4	-15.5	-9.1
	Account	as % of P	p.m.: level year	2012		•	-1.6	-1.3	-2.5	5.3	7.0	-15	5.0	-3.1	-1.1	-2.2	0.0	-0.7	-6.5	-1.7	-0.5	5.7	1.7	0.2	10.1	1.8	-3.5	-15	-4.0	2.3	2.3	-1.8	6.9	-3.8
	Current ,	Balance GD	3 year average			-4/+6%	-0.3	<del>-</del> 0.9	-3.0	5.6	6.5	1.2	2.4	ĽĿ-	-3.1	-1.9	-0.5	-2.4	-6.6	-0.3	-1.4	7.0	1.2	-15	9.4	2.2	-4.5	-6.4	-4.3	0.6	-1.2	-0.6	6.9	-2.8
			Year 2012			Thresholds	BE	88	ъ	ă	В	Ш	ш	H	ន	R	Ħ	F	5	Z	5	З	Ĥ	M	۶	AT	4	F	8	SI	sk	Ŧ	SE	ž

Financial sector leverage (debt to equity)	641.1	413.9	623.6	349.9	526.6	373.4	158.4	3022.9	928.4	460.7	401.8	1171.6	2564.8	704.3	633.4	50.0	561.9	362.3	230.9	377.8	377.1	536.9	662.0	639.4	1078.8	616.3	304.6	1215.5
Private Sector Debt as % GDP, NCO data	247.8	B	ø	238.9	116.3	B	B	130.3	ø	ø	8	<mark>8</mark>	B	B	ø	ø	150.1	B	<mark>8</mark>	B	B	255.6	ø	125.2	8	ø	254.8	190.2
Residential Constructio n as % GDP	<mark>8</mark>	ø	3.7	4.3	5.7	3.8	2.0	3.4	5.6	g	ø	5.2	3.8	2.2	1.7	g	g	2.2	4.2	4.5	gg	2.4	ø	2.6	2.2	6.7	3.4	3.3
% Change (3 years) in Nominal house Prices	9.7	-16.8	-3.2	-1.7	6.7	23.0	-33.2	g	-22.7	10.3	8	-3.1	-11.9	0.3	-1.5	14.1	-9.1	1.7	-9.8	8	g	-8.3	-26.0	-4.2	-8.0	12.2	11.8	8.0
% Change (10 years) in Effective ULC vs. EA (17)	22.0	70.5	18.5	27.2	7.7	67.3	15.4	11.6	17.5	20.9	31.7	27.6	28.1	100.8	32.1	37.0	39.3	28.3	17.8	16.6	9.1	11.5	144.0	31.9	23.7	26.5	11.3	29.4
% Change (10 years) in Nominal ULC	5.3				-11.4	40.7	-3.3	-6.9	0.7	4.2		9.5	9.6			18.5		5.5	-0.1	0.8		-4.1		6.5	53.1	7.3		
% y-o-y growth of Employ-	0.2	-4.3	1.1	1.2	11	2.8	-0.6	-8.3	-4.2	0.0	-3.9	-0.2	-4.1	2.9	1.8	2.2	1.7	2.2	-0.2	1.3	0.2	-4.2	1.3	-1.3	-1.0	0.0	0.7	1.2
% y-o-y growth of Labour Productivit Y	-0.4	5.4	-1.7	-0.1	-0.4	1.0	0.8	2.1	3.2	0.1	2.0	-1.3	1.7	2.9	2.0	-1.9	-1.8	-1.1	-1.0	-0.4	5.5	1.0	-0.8	11	2.0	-0.8	0.0	-1.0
% change (5 years) in terms of trade	-2.3	2.3	-3.5	1.8	-2.8	-7.0	-5.1	-3.8	-5.2	-2.3	2.4	-4.7	-2.1	-0.8	-2.6	4.8	-2.3	-15	-1.4	-3.0	-2.9	-1.0	10.5	-4.3	-5.2	-6.5	-1.7	-3.9
% y-o-y change in export market shares, volume	-3.6	-2.8	2.8	-8.8	1.1	3.1	0.3	-2.9	0.5	-0.1	-2.1	-02	-0.2	4.6	8.6	-5.8	0.0	2.6	0.8	-0.8	-0.1	-5.1	-5.7	-2.3	6.1	3.9	-8.4	-2.9
% change (5 years) in export performan ce vs. OECD countries	-8.0	15.8	5.9	-10.0	-4.5	16.9	-6.8	-21.0	-4.4	-11.8	-16.8	-15.2	-14.9	22.1	43.4	-7.7	-8.1	8.6	-0.8	-12.0	11.3	-5.8	15.6	-11.3	15.1	-24.8	-8.8	-13.1
% Change (3 years) in REER vs. EA vs. EA (17)	1.9				-1.2	5.2	-5.1	2.0	0.8	-0.5		1.3	2.0			2.8		1.0	-0.3	1.3		0.9		0.3	1.9	1.6		
Net Trade Balance of energy products is % GDP	8	B	ø	ø	B	ø	ø	g	ø	ø	ø	B	B	ø	ø	ø	ø	ø	ø	B	ø	ø	ø	8	8	B	8	8
FDI FDI stocks as % GDP a	206.9	95.3	67.9	32.9	27.9	86.3	156.4	g	45.9	40.8	g	17.6	88.8	45.3	36.3	4142.1	80.6	181.4	76.2	65.5	45.3	53.7	42.4	33.1	59.2	35.4	68.7	53.7
Inward FDI flows as % GDP	2.9	3.7	5.4	0.4	0.2	6.8	13.9	1.2	2.0	1.9	2.2	0.5	5.5	3.5	2.0	270.0	10.4	11	0.0	1.6	0.6	4.2	1.4	0.3	3.1	-0.7	2.7	2.5
Net external debt as % GDP	-120.8	29.8	-1.3	14.1	-9.3	-2.0	-399.7	g	88.5	35.0	g	55.6	34.9	38.1	33.5	-2496.9	56.8	-177.1	31.1	26.3	35.9	99.2	39.0	41.1	22.3	39.7	59.2	31.7
Net lending / borrowin g as % GDP, <u>Bo</u> C data	-15	0.0	-1.1	5.4	7.0	2.0	3.8	-1.9	-0.5	-2.2	0.0	-0.5	-6.4	1.3	1.7	5.2	4.4	19	10.0	1.7	-1.3	0.8	-2.6	2.2	4.2	-1.7	6.8	-3.5
Gross domestic expenditur e on R&D as % GDP	8	B	8	ø	B	ø	BQ	g	g	g	ø	ø	BQ	ø	g	g	8	8	ø	B	ø	g	g	8	ø	B	B	8
Gross fixed capital formatio n as % GDP	20.7	21.4	23.6	17.1	17.6	25.0	10.7	13.1	19.1	19.8	18.4	18.2	12.8	23.5	16.7	20.2	17.2	14.3	17.0	21.4	19.4	15.8	26.7	17.4	21.5	19.6	18.8	14.4
% y-o-y growth of real GDP	-0.2	0.8	-1.3	-0.4	0.7	3.2	0.2	-6.4	-1.4	0.0	-2.0	-2.4	-2.4	5.6	3.7	0.3	-1.7	1.0	-1.2	0.9	1.9	-3.2	0.7	-2.3	2.0	-0.8	0.7	0.2
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