

# "Metodologie per il calcolo del prodotto potenziale e delle regole del debito e della spesa, previste dal nuovo sistema di governance europea"

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#### **OUTLINE OF THE PRESENTATION**

## Roadmap of the workshop

- Reform of the Stability and Growth Pact (Six Pack) and transposition to the national framework
- Structural deficits and Medium Term Objectives (MTO)
  - Performance of the structural deficit estimates
- Expenditure rule, investment clause and significant deviation
- Debt Rule and Minimum Linear Structural Adjustment (MLSA)

### The new fiscal framework at the EU level...

- Better coordination of national policies, and swifter sanctions
  - → Strenghetned both Preventive and Corrective arms
- Six Pack (November 2011): Reg.1177/2011 & 1175/2011 amending Reg. 1467/97 on the excessive deficit procedure (Debt Rule) and Reg.1466/97 on the strengthening of the surveillance of budgetary positions (MTO and Expenditure Rule)
- Two Pack (May 2013): Reg. 473/2013 & 472/2013 Monitoring draft budgetary plans and ensuring the correction of EDP; strengthening economic and budgetary surveillance of MS with serious difficulties on financial stability



### The new fiscal framework at national level...

- In April 2012, Costitutional Amendment (L. Cost. 1/2012) introduced the principle of structural balance in constitution.
- In July 2012, the Italian Parliament ratified the Fiscal Compact
- December 2012, Law no 243/2012: a) detailed the balanced budget provision of the Constitutional amendment: b) created a Fiscal Council (the so called Parliamentary Budget Office): c) introduced in the Italian framework all the provisions of the SGP.
- For more details → Codes of Conduct



### **Structural deficits**

- Definition → Cyclically adjusted, General Government balance net of one-off measures.
- Why? → General Government balance (in % of GDP) in nominal terms is subject to transitory (mainly cyclical) and permanent (istitutional) factors.
- For counterciclycal policies, policy-makers should be able to disentagle business cycle influences on the budget.
- Nominal terms targets may entail the risk that that stabilization policies may turn out as being procyclical.

### **Structural deficits**

The structural balance is given by

$$SB_t = CAB_t - one offs_t$$
 [1]

The CAB (% GDP) is the cyclically adjusted budget derived by subtracting from the headline general government balance as a ratio to GDP(b) its cyclical component:

$$CAB_{t} = b_{t} - \varepsilon \cdot OG_{t}$$
 [2]

- The budgetary sensitivity  $\varepsilon$  is the change in the general government balance as a percent of GDP associated with an additional percentage point of output gap. For Italy  $\varepsilon$  = 0.5.
- The cyclical component is given by the product of ε and the Output Gap (OG).



### **Structural deficits - Estimation of Output gaps**

- The OG is the discrepancy between the level GDP and its potential (% of the latter).
- Production function to estimate potential output, a approach (commonly agreed at EU level)

$$Y_{t} = L_{t}^{\alpha} \cdot K_{t}^{1-\alpha} \cdot TFP_{t} \quad [3]$$

- Cobb-Douglas-type PF with constant return to scale on capital (K) and labour (L). TFP is total factor productivity, i.e. the contribution of technical progress to growth.α is the output elasticity w.r.t labour coincident to the wage share.
- Potential output is obtained by replacing in [3] K, L and TFP corresponding to their full or potential utilisation.



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### **Structural deficits - Estimation of Output gaps**

 Potential labour (LP) obtained smoothing exogenous variables over the historical sample and a medium-term extension (usually 6y).

$$LP_{t} = PARTS_{t} * POPW_{t} * HOURST_{t} * (1 - NAWRU_{t})$$
 [4]

- PARTS is the trend component of the participation rate → HP filter.
- POPW is the working-age population → Eurostat 2010 population projections.
- HOURST is the trend of average hours worked per employee
   → HP filter.
- NAWRU is the non-accelerating wage rate of unemployment.



### **Structural deficits - Estimation of Output gaps**

 NAWRU is derived by applying an unobserved component model by a Kalman filter

$$u = u^{n} + u^{c}$$

$$u^{n} = u_{t-1}^{n} + \lambda_{t-1} + a_{1}$$

$$\lambda_{t} = \lambda_{t-1} + a_{2}$$

$$u^{c} = \widehat{\rho_{1}} u_{t-1}^{c} + \widehat{\rho_{2}} u_{t-2}^{c} + a_{3}$$

$$\Delta^{2} w_{t} = \alpha (u_{t}^{c} + \beta u_{t-1}^{c} + \gamma u_{t-2}^{c} + \delta_{t}) + a_{4}$$

The trend component is a random walk with drift (the drift term follows a r.w.). The cyclical component is obtained via a Phillips curve with the change in wage inflation, cyclical unemployment & other exogenous variables (labour productivity, terms of trade and wage share).



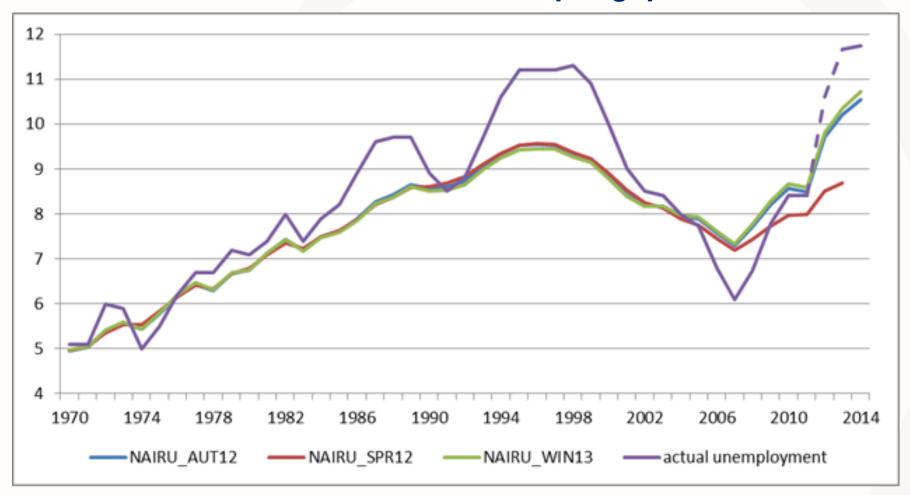
## **Structural deficits - Estimation of Output gaps**

PARAMETERS NAIRU				
	Spring 2012	Autumn 2012/ Winter 2013	Agg. DEF 2012	Baseline
LB Trend innov var $(\sigma^2_1)$	0	0	0	0
LB Trend slope var $(\sigma^2_2)$	0.025	0	0.025	0.015
LB Cycle innov var (σ²₃)	0	0	0	0
LB Innovation var 2nd eq. $(\sigma^2_4)$	0	0	0	0
UB Trend innov var $(\sigma^2_1)$	0.045	0.08	0.03	0.08
UB Trend slope var $(\sigma_2^2)$	0.05	0.02	0.03	0.02
UB Cycle innov var (σ²3)	0.355	0.13	0.307	0.15
UB Innovation var 2nd eq. $(\sigma^2_4)$	0.000842	0.000827	0.00034	0.000827
Exogenous 2nd eq.	0	0	0	0





### **Structural deficits - Estimation of Output gaps**

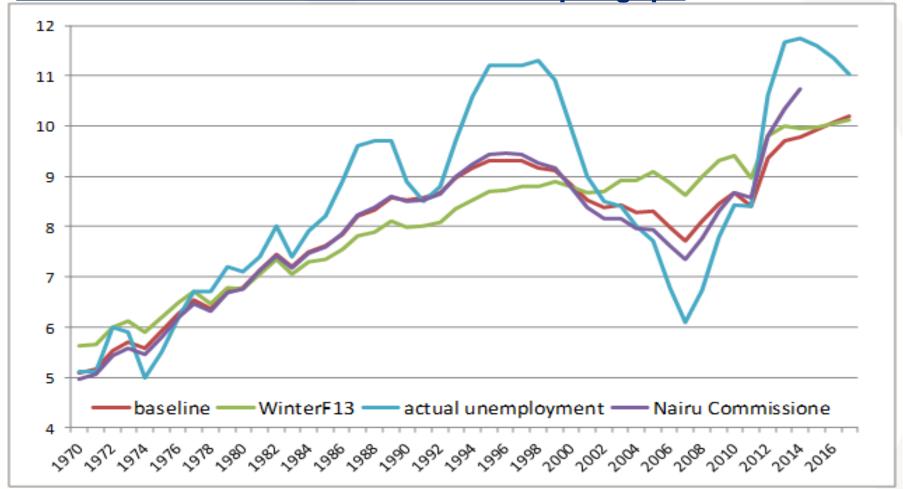


NAWRU revisions according to EU Commission Forecasts





### **Structural deficits - Estimation of Output gaps**



NAWRU estimated by MEF with EU Commission parameters





## **Structural deficits - Estimation of Output gaps**

 Technical progress (TFP) is assumed to be propagated in a neutral way through qualitative improvements both in labour and capital inputs.

$$TFP_{t} = (E_{L}^{\alpha} E_{K}^{1-\alpha})(U_{L}^{\alpha} U_{K}^{1-\alpha})$$

 TFP sums up both the level of efficiency of labour and capital inputs and their degree of utilisation.

## **Structural deficits - Estimation of Output gaps**

- The long-run component of TFP is obtained by a bivariate Kalman Filter (KF) exploiting the link between the TFP cycle and the degree of capacity utilisation.
- Capacity utilization is measured using two indicators: the Capacity Utilization Indicator (CUI), (for manufacturing only) and the Business Survey Capacity Indicator (BS) collected for manufacturing, construction and services as part of the European Commission's Business and Consumer Survey Programme.
- TFP can be obtained by applying either a Maximum Likelihood or Bayesian model
- Priors given by the Commission





### **Structural deficits - Estimation of Output gaps**

 Potential capital stock, measured by the perpetual inventory method, corresponds to its actual value

The full utilisation of the existing stock is assumed.

■ The capital is extrapolated in the out-of-sample period according to a given profile of productive investment (estimated through an AR(2) process) and assuming a constant depreciation rate.

### Structural deficits - Estimation of Output gaps

 Once potential labour, capital stock and long-run TFP are derived, the level of potential output is obtained by substitution in eq. [3]

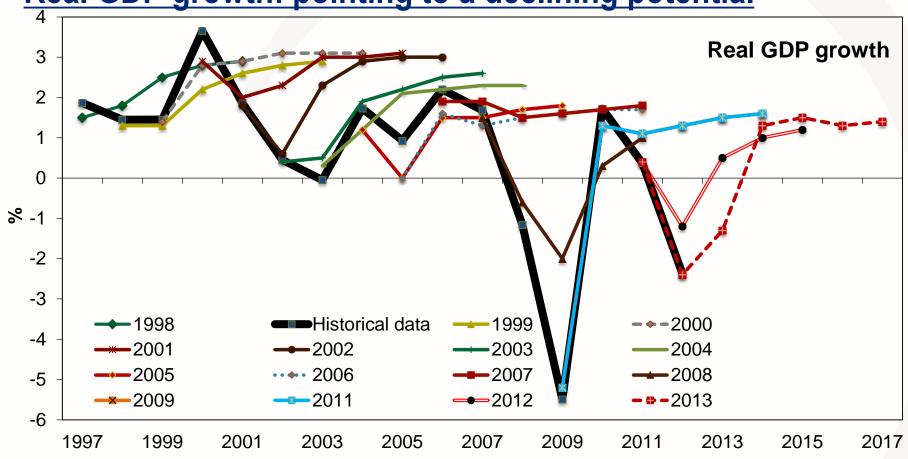
$$Y_t^{pot} = LP_t^{\alpha} K_t^{1-\alpha} TF P_t^*$$

 The determination of potential output allows deriving the value of the output gap (measures as the discrepancy between the actual level of GDP and its potential in percent of this one)

$$OG_{t} = \left[ \left( \frac{Y_{t}}{Y_{t}^{Pot}} \right) - 1 \right] \cdot 100$$
 [5]

#### PERFORMANCE OF STRUCTURAL DEFICIT ESTIMATES

### Real GDP growth: pointing to a declining potential



Source: AMECO database for historical data; Italy's Stability Programme

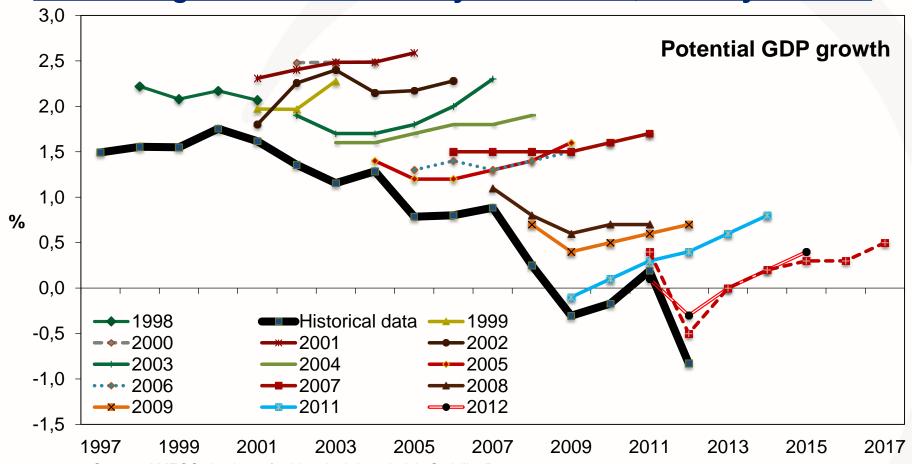
Note: In the 1998-2007 period, the Stability Programme was released in December; in 2008 and 2009, the document was published in February and January respectively; in the period 2011-2013, the document was released in April.





#### PERFORMANCE OF STRUCTURAL DEFICIT ESTIMATES

### Potential growth: consistently overstated, stready decline



Source: AMECO database for historical data; Italy's Stability Programme

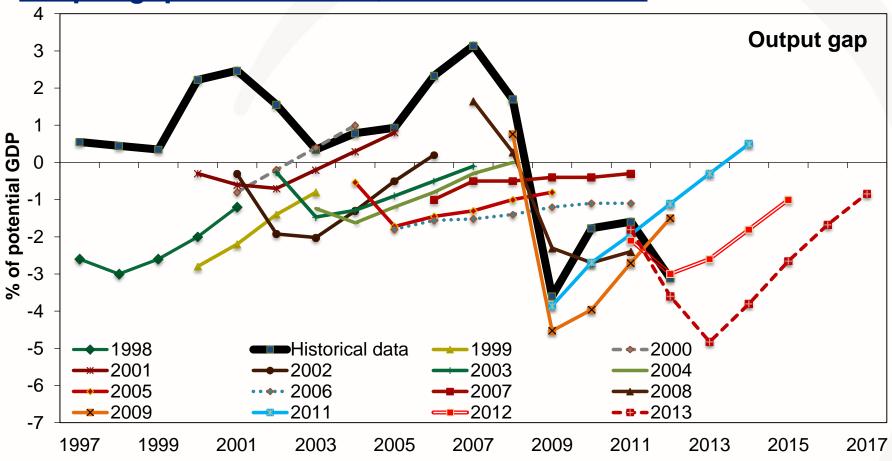
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#### PERFORMANCE OF STRUCTURAL DEFICIT ESTIMATES

### Output gap: understated, at least until 2009



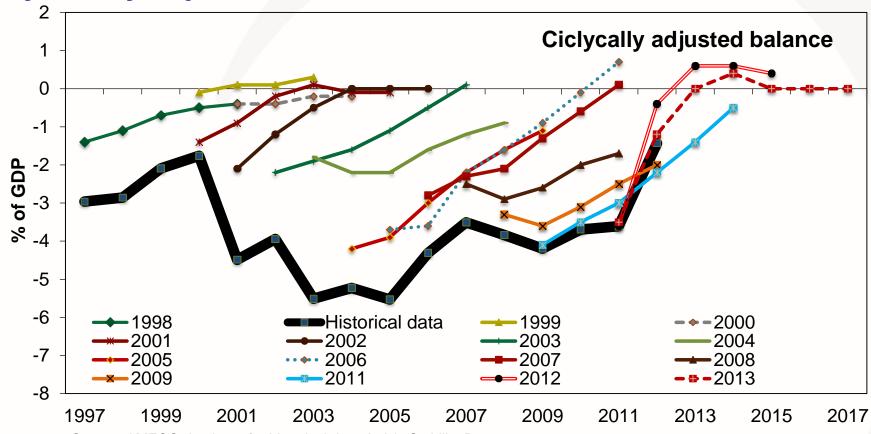
Source: AMECO database for historical data; Italy's Stability Programme

Note: In the 1998-2007 period, the Stability Programme was released in December; in 2008 and 2009, the document was published in February and January respectively; in the period 2011-2013, the document was released in April.





### Cyclically adjusted balance: as a result, CAB overstated



Source: AMECO database for historical data; Italy's Stability Programme

Note 1: In the 1998-2007 period, the Stability Programme was released in December; in 2008 and 2009, the document was published in February and January respectively; in the period 2011-2013, the document was released in April. Note 2: In the 1998-2002, the ciclycally adjusted balance doesn't includes the one-off measures; in the 2003-2012, the one-off measures are included in the ciclycally adjusted balance.



## The Medium term budgetary objective (MTO)

- MTO is a country-specific indicator defined in cyclically adjusted terms, net of one-off and other temporary measures composed of 3 elements:
- The debt-stabilising balance for a debt ratio equal to the (60% of GDP) reference value (dependent on long-term potential growth),
- A supplementary debt reduction for Member State with a debt ratio above 60% of GDP;
- A fraction of the adjustment needed to cover the present value of the future increase in age-related government expenditure.



## The Medium term budgetary objective (MTO)

MTO is given by:

$$MTO = \max(MTO^{ILD}, MTO^{MB}, MTO^{Euro/ERM 2})$$

■ The components MTO<sup>MB</sup> and MTO<sup>Euro/ERM2</sup> refer, respectively, to the mininimum benchmark and to a strutural deficit not lower than 1% of GDP, while the component MTO<sup>ILD</sup> relates to implicit and explicit liabilities where:

$$MTO^{ILD} = \underbrace{Balance_{debt-stabilizing(60\% of GDP)}}_{(i)} + \underbrace{0.33*AgeingCosts}_{(ii)} + \underbrace{Effort_{debt-reduction}}_{(iii)}$$





## The Medium term budgetary objective (MTO)

- Member States far away from the MTO should converge toward it by reducing the structural deficit by 0.5 pp per year.
- After the crisis, this mechanism has been reinforced.
- The presumption is to use the unexpected extra revenues windfalls for deficit and debt reduction while keeping expenditure on a stable sustainable path over the cycle.
- The Commission and the Council will assess the growth path of government expenditure against a reference medium term rate of potential GDP growth → expenditure rule

## The Medium term budgetary objective (MTO) – LAW 243/12

Italy's BBR - correction mechanism

t-1 t t+1 t+2 t+3

# Original adjustment path

ΔSB 0.5 0.5 0.5 SB -1.5 -1.0 -0.5 0.0

# Adjustment path after -0.5 deviation in t-1

OPTION A: target maintained (no memory)

ΔSB 0.0 0.75 0.75 0.5 SB -2.0 -1.25 -0.5 0.0

# OPTION B: adjustment maintained (memory)

ΔSB 0.0 0.5 0.5 0.5 0.5 SB -2.0 -1.5 -1.0 -0.5 0.0



### The rationale

- Observation of before crisis unsustainable trends of the expenditures
- Circumvent uncertainty surrounding the structural budget balance

### The rationale

Expenditure Benchmark strengthens automatic stabilisation

- Expenditure on a sustainable path
- Revenues are allowed to fluctuate with the economic cycle

Expenditure Benchmark strengthens the effectiveness and transparency

- Budgetary aggregates are observable and under the control of the government
- the relationship between the result of the assessment and the measures to be taken is more direct



#### **EXPENDITURE BENCHMARK**

### The reference rates: MS at MTO

Reg 1466/97: 'The growth path of government expenditure does not exceed a **reference medium-term rate of potential GDP growth**'

### **Member State at MTO**



 $\sum_{t=5}^{t+4} g_t$  where g represents the real potential growth rate of GDP

(revised every 3 years by the Commission )

Backward-looking components

t-5 to t-1

Forward-looking components (OGWG methodology for t+1 to t+4)

t to t+4

### in terms of guidance

Net expenditure should grow in line with medium-term potential growth

% government expenditure in GDP constant in the absence of revenue measures

Structural balance **constant** over time

Remains at MTO





### The reference rates: MS not at MTO

Reg 1466/97: 'The growth path of government expenditure does not exceed a **reference mediumterm rate of potential GDP growth**'

#### Member State not at MTO

$$I_t = r_t - C_t$$

C<sub>t</sub> is the convergence margin to ensure an annual adjustment of 0.5pp of GDP toward the MTO

$$\begin{cases} \frac{E_t - E_{t-1}}{E_{t-1}} = r_t - C_t \\ b_t^S - b_{t-1}^S = \mathbf{0.5pp} \end{cases}$$

$$C_t \cong \frac{50}{P_t} \text{ with } P_t = \frac{E_t}{Y_t} * 100$$

### in terms of guidance

Net expenditure should grow at a rate **below** medium-term potential growth



% government expenditure in GDP **decreases** in the absence of revenue measures

Structural balance strengthens

Gap with the MTO closes over time



## The expenditure aggregate

Reg. 1466/97: The expenditure aggregate shall exclude interest expenditure, expenditure on EU programmes fully matched by EU funds revenue and non-discretionary changes in unemployment benefit expenditure.

Six-Pack: Potentially very high **variability of investment** expenditure should be taken into account

....the growth path of government expenditure, taken in conjunction with the effect of measures being taken or planned on the revenue side...

The excess expenditure growth over the medium term reference shall not be counted as a breach of the benchmark to the extent that it is fully offset by **revenue increases mandated by law** 

$$E_t^{net} = G_t - U_t^c - I_t - EU_t - GFKF_t + \frac{1}{4} \sum_{i=0}^{3} GFKF_{t-i} - DRM_t - RML_t$$
 KEY: net effect of discretionary measures



### Nominal to real terms

Computation of the net expenditure growth rate in year t :

in nominal terms

$$e_t = \frac{E_t - DRM_t - E_{t-1}}{E_{t-1}}$$

in real terms

$$e_t^d = \frac{(1+e_t)}{(1+\pi_t)} - 1$$

The annual growth rate of the GDP deflator

Ex ante assessment: COM Spring forecast

In-year assessment & ex post assessment

COM Spring forecast + Com Autumn forecast
2

To express the deviation from the EB in GDP pp

$$Dev_t = \frac{\left(r_t - e_t^d\right) \cdot E_{t-1}}{Y_t}$$

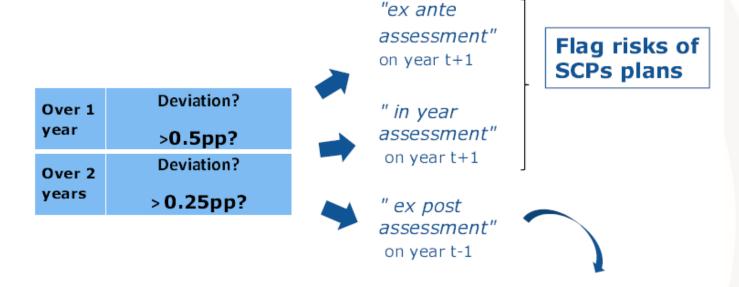


## <u>Italian Draft Budgetary Plan vs Autumn Forecasts 2013</u>

Part 1. Data in national currency	2013	2014	2013	2014
Modified expenditure aggregate	710.8	716.4	707.0	712.1
Change in the modified expenditure aggregate	3.8	5.6	1.1	5.1
Incremental impact of discretionary revenue measures	-1.6	3.2	5.9	0.5
Incremental impact of mandated revenue increases	0.0	0.0	0.0	0.0
Change in the modified expenditure growth net of	5.3	2.4	-4.8	4.6
discretionary measures				
Part 2. Growth rates	2013	2014	2013	2014
Public expenditure growth* (nominal)	0.75	0.34	-0.68	0.65
CDD 4-9(0/ -1)	1.88	1.91	1.88	1.48
GDP deflator (% change)				
Public expenditure growth* (real)	-1.10	-1.54	-2.51	-0.82
	-1.10	-1.54	-2.51	-0.82
	2013	-1.54	2013	-0.82
Public expenditure growth* (real)				
Public expenditure growth* (real)  Part 3. Assessment	2013	2014	2013	2014
Public expenditure growth* (real)  Part 3. Assessment  max (MTO / min MTO)	2013	2014 0.00	2013 0.00	<b>2014</b> 0.00
Public expenditure growth* (real)  Part 3. Assessment  max (MTO / min MTO)  Structural balance (recalculated)	2013 0.00 -0.81	2014 0.00 -0.66	2013 0.00 -0.82	2014 0.00 -0.70
Public expenditure growth* (real)  Part 3. Assessment  max (MTO / min MTO)  Structural balance (recalculated)  At MTO (Y/N)?	2013 0.00 -0.81 N	2014 0.00 -0.66 N	2013 0.00 -0.82 N	2014 0.00 -0.70 N
Part 3. Assessment  max (MTO / min MTO)  Structural balance (recalculated)  At MTO (Y/N)?  Applicable reference rate (growth rate real)	2013 0.00 -0.81 N	2014 0.00 -0.66 N -1.07	2013 0.00 -0.82 N -0.81	2014 0.00 -0.70 N -1.07
Part 3. Assessment  max (MTO / min MTO)  Structural balance (recalculated)  At MTO (Y/N)?  Applicable reference rate (growth rate real)  Public expenditure growth* (real growth rate)	2013 0.00 -0.81 N -0.81 -1.10	2014 0.00 -0.66 N -1.07 -1.54	2013 0.00 -0.82 N -0.81 -2.51	2014 0.00 -0.70 N -1.07 -0.82
Part 3. Assessment  max (MTO / min MTO) Structural balance (recalculated) At MTO (Y/N)? Applicable reference rate (growth rate real) Public expenditure growth* (real growth rate) Deviation (real growth differential - negative is ok)	2013 0.00 -0.81 N -0.81 -1.10 -0.29	2014 0.00 -0.66 N -1.07 -1.54 -0.46	2013 0.00 -0.82 N -0.81 -2.51 -1.70	2014 0.00 -0.70 N -1.07 -0.82 0.25



### Assessment: ex ante and ex post



### **ASSESSMENT**

using Commission data

warning to MS of possible deviations & BEGINNING of the non-compliance procedure





### **Conclusions**

- The idea behind the expenditure benchmark is to ensure that any plans for increases in expenditure are properly financed, without leading to a weakening of the underlying fiscal position.
- It is not aimed at constraining the size of the government, as it explicitly allows for a discretionary revenue offset.
- Different indicator with respect to the structural balance (MTO) but with similar surveillance purposes

### **Investment clause: main features**

Preventive arm: temporary deviations from the structural deficit path towards the MTO, or the MTO provided that:

- 1. Growth remains negative or well below its potential (=large negative OG, below the Representative OG, which is the gap in a normal cyclical fluctuation);
- 2. Respect of the 3% of deficit ceiling and public debt rule;
- Deviation is linked to national expenditure on projects cofunded by EU (positive, direct and long-term budgetary effect);
- 4. No substitution between MS and EU-funded investments If conditions are no more in place, compensation is needed.



#### **INVESTMENT CLAUSE**

### **STEPS**

1<sup>st</sup> year: deduction of the level of co-financed investment from the fiscal effort (change in structural balance); recalculation of a new adjustment path towards the MTO in line with the principles set for the calendar of convergence.

2<sup>nd</sup> and following years until the MTO is reached: deduction of the change in co-financing investment (if positive) from the required fiscal effort – deviations are allowed as long as the eligibility conditions are met.

## The assessment of effective action following Article 126(7)

A MS should be considered to have taken 'effective action' if it has acted in compliance with the recommendation or notice, regarding both the implementation of the measures required therein and budgetary execution.

In case the observed budget balance proves to be lower than recommended or if the improvement of the cyclically-adjusted balance net of one-off and other temporary measures falls significantly short of the adjustment underlying the target, a careful analysis of the reasons for the shortfall would be made.



### The assessment of effective action following Article 126(7)

Three budgetary aggregates are compared:

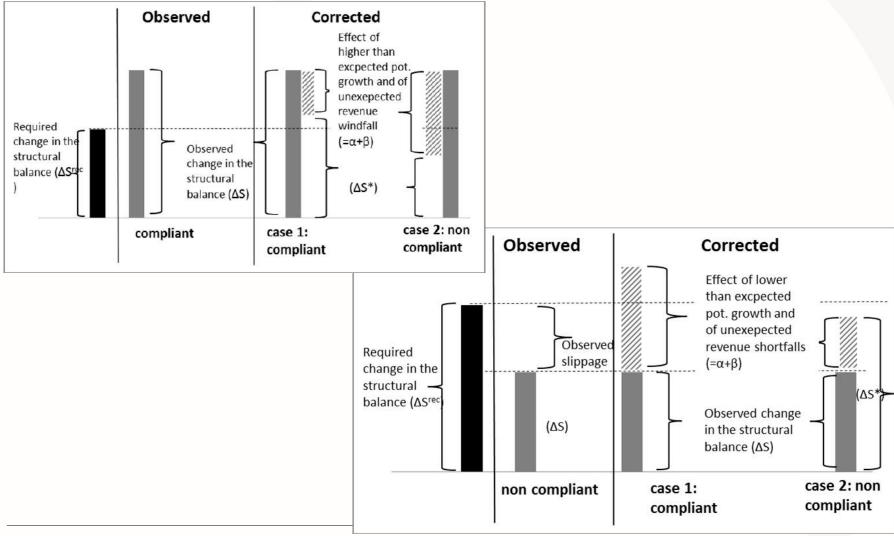
- The "recommended fiscal effort" (ΔSrec) –Article 126(7);
- The "observed fiscal effort" ( $\Delta S$ );
- The "adjusted fiscal effort" (ΔS\*), where the adjustment incorporates: (i) the impact of revisions in potential output growth (α); (ii) the impact of revisions on the composition of economic growth or of other windfalls/shortfalls on revenue (β); and (iii) the possible impact of other unexpected events (γ).

$$\Delta S^* = \Delta S - (\alpha + \beta + \gamma)$$



#### **EFFECTIVE ACTION**

## The assessment of effective action following Article 126(7)







### **EFFECTIVE ACTION**

# **Calculations of the parameters**

	Pot. growth assumptions underlying the July recommendation (%)	Pot. growth (2012 COM AF) (%) (2)	Forecast error (%) (3)=(2)-(1)	Structural expenditure (% of pot. GDP) (2012 COM forecast) (4)	Correction coefficient  a (% of nominal pot. GDP)  (5)=[(3) x (4)]/100
2012	-0.8	-1.0	-0.2	40.1	-0.1
2013	-0.9	-1.3	-0.3	38.9	-0.1
2014	-0.9	-1.3	-0.3	40.1	-0.1

CAB methodology revenue elasticity e*=1.09	Change in current revenues (yoy) (EUR bn)		Discretionary revenues measures (EUR bn)		Nominal growth assumptions (%)		Current revenues in t-1 (EUR bn)		Revenue gap (EUR bn)	Correction coefficient β	
	July reco. (1)	2012AF (1')	July reco. (2)	2012 AF (2')	July reco.	2012 AF (3')	July reco. (4)	2012 AF (4')	$(5) = [(1')-(2')- \epsilon*x (3') x (4')]- [(1)-(2)- \epsilon*x (3) x (4)]$	=(5) expressed in % of nominal pot. GDP	
2012	5.5	-0.8	9.3	18.0	-1.0	-1.2	378.4	380.3	-14.3	-1.3	
2013	-2.0	8.2	-1.8	10.7	0.3	0.4	383.9	379.5	-2.7	-0.2	
2014	-0.2	-0.6	-4.7	-6.7	2.5	2.3	381.9	387.7	2.5	+0.2	





### The debt criterion: outline

- 1. A quick background
- 2. How is the compliance with the debt criterion assessed?
  - the steady-state
  - and the transition period
- Debt-based EDP
- 4. A concrete example

http://ec.europa.eu/economy\_finance/publications/occasional\_paper/2013/op151\_en.htm



## The debt criterion: a quick background

- ■Two criteria enshrined in the corrective arm of the Treaty (art. 126):
  - Deficit: 3% of GDP
  - ➤ Debt: 60% of GDP or sufficiently diminishing and approaching 60% at a satisfactory pace
- Debt requirements operationalised with the 2011 reform of the SGP (6-pack)
  - Definition of sufficiently diminishing = respect of the debt reduction benchmark
  - ➤ Debt reduction benchmark = reduction of 5% per year on average over 3 years of the gap to 60% (taking the cycle into account or respect in the next two years)
  - ➤ Transition period for 3 years after the correction of the excessive deficit: no full implementation of the rule but sufficient progress to be made



## Judging compliance in steady state

- 1. Government debt: not > 60% of GDP or <u>sufficiently diminishing</u> and approaching the reference value at a satisfactory pace:
- 2. Sufficiently diminishing = respect of the debt reduction benchmark  $bb_t = 60\% + 0.95/3 (b_{t-1} 60\%) + 0.95^2/3 (b_{t-2} 60\%) + 0.95^3/3 (b_{t-3} 60\%)$

Distance with respect to the 60% of GDP reference value has declined over 3 preceding years at an average rate of 1/20th per year.



If the debt is below/at the benchmark (bb<sub>t</sub>): debt criterion met

3. Otherwise, <u>forward looking assessment and correction for the cycle</u>

Forward looking: Based on unchanged policy, would the debt benchmark be met in

Forward looking: Based on unchanged policy, would the debt benchmark be met in two years' time?

The cycle: If it weren't for the effect of the cycle, would the debt criterion be met now?



## The building bricks of the debt criterion

The backward-looking benchmark:

$$bb_t = 60\% + 0.95/3 (b_{t-1} - 60\%) + 0.95^2/3 (b_{t-2} - 60\%) + 0.95^3/3 (b_{t-3} - 60\%)$$

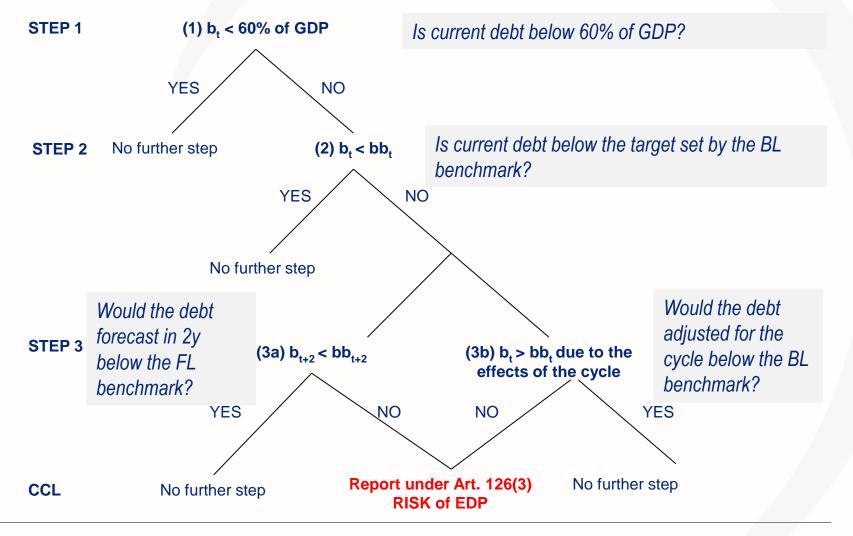
The forward-looking benchmark as estimated by the Commission under the 'no-policy-change' assumption:

$$b_{t+2} > bb_{t+2} = 60\% + 0.95/3 (b_{t+1} - 60\%) + 0.95^2/3 (b_t - 60\%) + 0.95^3/3 (b_{t-1} - 60\%)$$

Debt ratio adjusted for the cycle: Subtract cyclical component of the balance from debt, in the numerator + Use potential growth in the denominator over the time period considered

$$\left(\frac{B_t}{Y_t}\right)^{3-years-adjusted} = \left(\frac{B_t + \sum\limits_{j=0}^2 \left(C_{t-j}\right)}{Y_{t-3} \prod\limits_{k=0}^2 (1+y^{pot}_{t-k})(1+p_{t-k})}\right) \quad \text{If the output gap is positive, the adjusted debt level will be larger than the observed debt and viceversa.}$$

## The decision tree leading to the opening of an EDP







## The debt criterion: the transition period

- Who is concerned? MS debt > 60% of GDP + was in EDP on 8.11.2011 and exited from EDP afterwards
- Why? to ensure that MS had time to adapt their agreed fiscal consolidation path to the adjustment needed to comply with the debt reduction benchmark
- How? The debt requirement is judged according to whether the MS makes sufficient progress towards compliance
- Sufficient progress toward compliance (Code of Conduct) = Mimimum Linear Structural Adjustment ensuring that –if followed- the MS will comply with the debt rule at the end of the transition period

## The Minimum Linear Structural Adjustment (MLSA)

- Minimum: the adjustment is the less demanding one for the MS (after taking into account the effect of the cycle and forward-looking dimension of the debt criterion)
- Linear: the adjustment is (ex-ante) constant over the transition period and proportional to the size of the gap to the debt benchmark
- Structural: the adjustment is defined in terms of structural balance
- Simultaneous respect of two conditions:
  - 1. The annual structural adjustment should not deviate by more than ½% of GDP from the required MLSA
  - 2. The remaining annual structural adjustment should not exceed \( \frac{3}{4} \)% of GDP

## **Calculating the MLSA**

The goal is to solve the following equation for adj:

$$G_3(adj) = \min(b_3 - bb_3; b_5 - bb_5; b_3^{3-year-adjusted} - bb_3) = 0$$

Where:

$$b_t = \left(\frac{b_{t-1}}{1 + g_t} - (s_{t-1} + adj) - cb_t - o_t + sfa_t\right)$$

- $b_5$ , is the debt-to-GDP ratio 2 years after the end of transition
- $b_3^{3-year-adjusted}$  is the debt-to-GDP ratio at year 3 of the transition period adjusted for the cycle
- $bb_3$  is the backward-looking benchmark
- $bb_5$  is the forward-looking benchmark





## Calculating the MLSA: which data are needed?

General government debt
Net Lending
One-offs measures
Cyclical balance
Stock-Flow adjustment

Nominal Growth
GDP deflator growth
Output Gap
Nominal GDP
Potential growth

Forecast horizon SCP t+4

Forecast horizon COM t+2: no policy change from t+3





## Judging compliance in the transition period

- Compliance is judged both ex ante and ex post
- **Ex-ante**: for each year of the transition period, on the basis of the Stability/Convergence programmes (and COM forecast)
- The consolidation path set out in the S/CP is compared to the required MLSA
- **Ex-post**: it applies to MS once the first year of the transition period has occurred. It is based on fiscal notification (outturn structural balance) for the previous year
- The actual structural adjustment implemented by the MS is compared to the required MLSA
- A negative assessment of the progress made towards compliance triggers to the preparation of a Commission report, based on Article 126(3) of the TFEU



### **Debt-based EDP**

- The relevant factors are taken into account in the Art. 126(3) report whatever the magnitude of the breach of the debt criterion
- For a country with debt above 60% of GDP: the relevant factors are only considered if the breach of the deficit criterion is small and temporary
- Assessment of relevant factors done qualitatively, after that the quantitative benchmark/MLSA have already indicated the need for the Art. 126(3) report:
  - Medium-term economic position
  - Medium-term budgetary position
  - Medium-term government debt position (including stock-flow adjustment)
  - Other factors: including financial solidarity operations (bilateral loans to Greece, EFSF disbursements, capital contributions to ESM) and financial stabilisation operations.



### **Debt-based EDP**

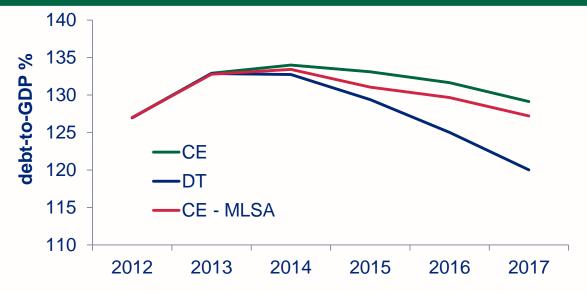
- Once consideration has been taken of all the relevant factors, the Art.
   126(3) report concludes whether the data indicate that the MS should be placed in EDP
- Report sent to the EFC: to formulate an opinion
- Commission prepares:
  - > a recommendation for a Council decision on the existence of an excessive deficit
  - ➤ a recommendation for a Council recommendation under Art. 126(7) on the provisions to take to correct the excessive deficit
- The recommendation embeds a fiscal trajectory ensuring that, if followed, the debt complies with at least the forward looking element of the debt reduction benchmark at the end of the recommendation period.

## A first case of assessment by the EU Commission

- In both 2013 and 2014, Italy is in the transition period for the assessment of compliance with the debt criterion.
- Based on an overall assessment of the Draft Budgetary Plan, Italy is making sufficient progress towards compliance with the debt criterion in 2013.
- In 2014, however, Italy is not making sufficient progress towards compliance with the debt criterion as the structural adjustment foreseen by Commission Forecast falls short of the required adjustment by more than ¼% of GDP.

### **But National forecasts are different**

		СОМ				NdA			
	2013	2014	2015		2013	2014	2015		
MLSA of which:	0.6	0.7	1.2		0.0	-0.2	-0.6		
i) Estimated fiscal adjustment	0.6	0.1	-0.3		0.7	0.3	0.3		
ii) Further adjustment	0.1	0.5	1.5		-0.6	-0.5	-0.9		

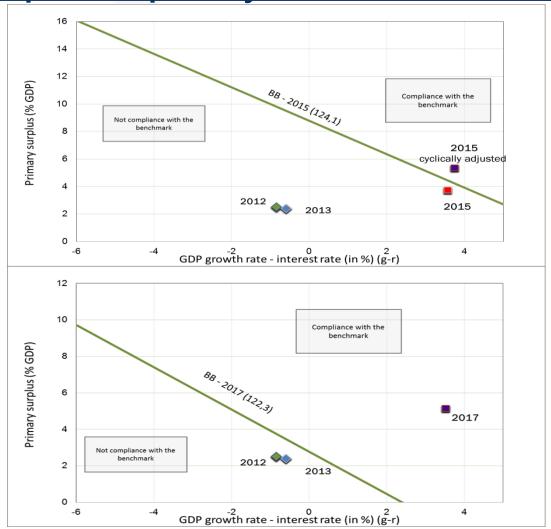


According to the latest macroeconomic and fiscal forecasts (NdA2013), reaching and maintaining the balanced structural balance from 2015 on is sufficient to ensure compliance with the debt rule in 2015.





## Debt rule compliance: primary balance vs snow ball

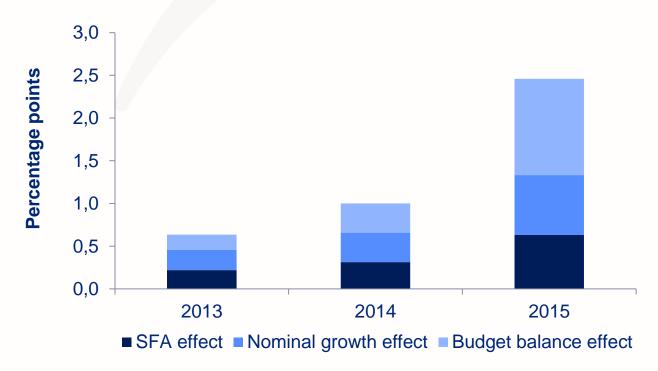








## Some explanations of the difference in estimations



Autumn Forecast stops at 2015, and out of sample extrapolation to 2017 is based on relatively simple assumptions based on the concept of "unchanged policy".

Most of the differences in the estimated MLSA are due to the constant level of the structural balance for the years 2016-2017 at the 2015 level (-1,0 per cent of GDP).





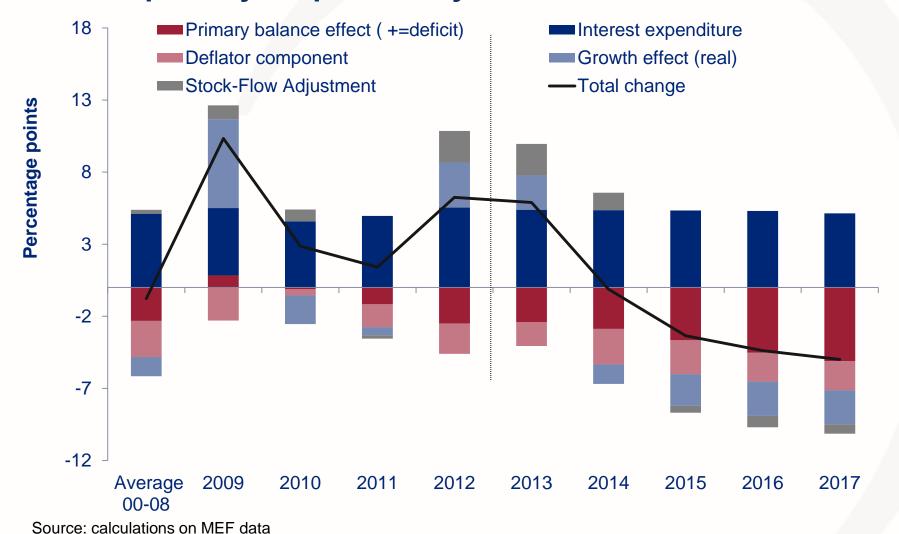
# **Underlying macro and fiscal factors**

		2011	2012	2013	2014	2015	2016	2017
Real GDP	COMM	0.5	-2.5	-1.8	0.7	1.2	1.2	1.4
growth rate	MEF	0.5	-2.5	-1.8	1.0	1.7	1.9	1.9
growthrate	Differenza	0.0	0.0	0.0	-0.3	-0.5	-0.6	-0.5
Growth	COMM	1.4	1.7	1.3	1.4	1.4	1.6	1.8
rate of	MEF	1.4	1.7	1.3	1.9	1.8	1.6	1.7
Deflator	Differenza	0.0	0.0	0.0	-0.5	-0.4	0.0	0.1
Nominal	COMM	1.8	-0.8	0.2	2.3	2.5	2.6	3.1
GDP	MEF	1.8	-0.8	-0.6	3.0	3.5	3.5	3.6
growth rate	Differenza	0.0	0.0	0.8	-0.7	-1.1	-0.9	-0.6
Budget	COMM	-3.8	-3.0	-3.0	-2.7	-2.5	-1.9	-1.4
balance	MEF	-3.8	-3.0	-3.0	-2.5	-1.6	-0.8	-0.1
Dalalice	Differenza	0.0	0.0	0.0	-0.2	-0.9	-1.1	-1.3
Structural	COMM	-3.6	-1.4	-0.8	-0.7	-1.0	-1.0	-1.0
balance	MEF	-3.6	-1.2	-0.5	-0.3	0.0	0.0	0.0
Dalatice	Differenza	0.0	-0.2	-0.3	-0.4	-1.0	-0.9	-0.9
Stock Flow	COMM	-0.3	2.2	2.3	1.1	0.1	0.0	0.0
Adj	MEF	-0.2	2.2	2.2	1.2	-0.4	-0.8	-0.7
Auj	Differenza	-0.1	0.0	0.2	-0.1	0.5	0.8	0.7
	COMM	-1.5	-3.2	-4.5	-3.7	-2.6	-1.7	-0.9
<b>Output Gap</b>	MEF	-1.6	-3.5	-5.0	-4.1	-2.8	-1.4	-0.1
	Differenza	0.1	0.3	0.5	0.4	0.2	-0.3	-0.7
	COMM	120.8	127.0	132.9	134.0	133.1	131.7	129.1
Debt/PIL	MEF	120.7	127.0	132.9	132.7	129.4	125.0	120.0
	Differenza	0.1	0.0	0.0	1.3	3.7	6.7	9.1



### **DEBT SUSTAINABILITY FOR ITALY OVER THE SHORT TERM**

## Sizeable primary surplus is key to reduce the debt/GDP ratio

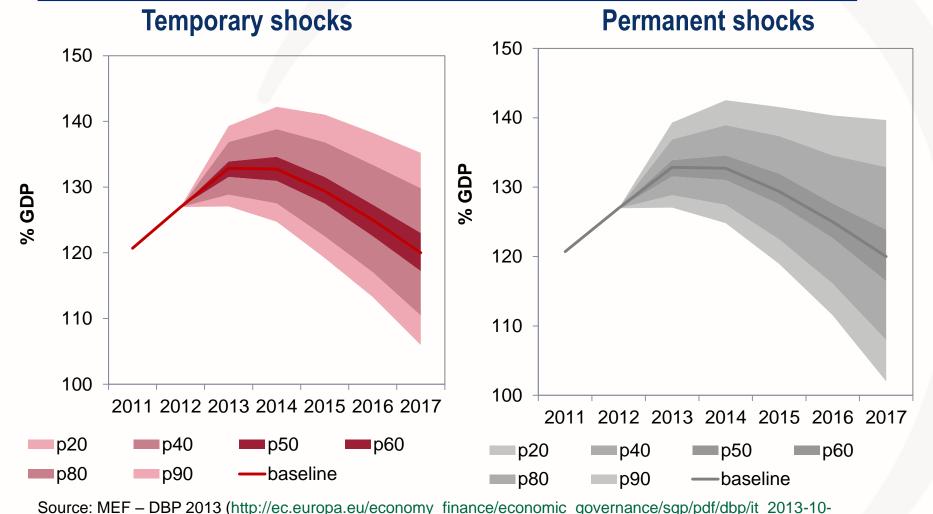






### **DEBT SUSTAINABILITY FOR ITALY OVER THE MEDIUM TERM**

### Debt/GDP trend robust to GDP and interest rates shocks



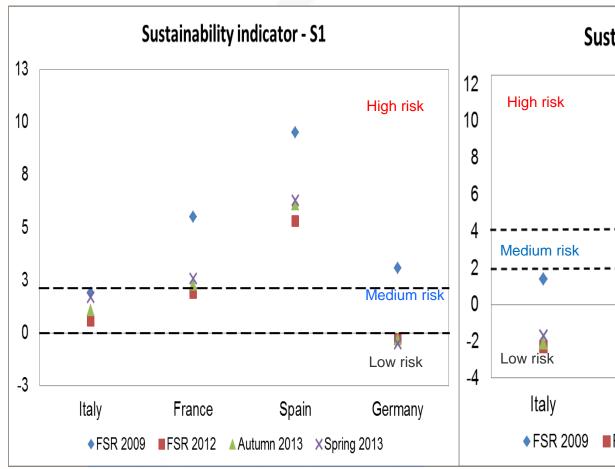


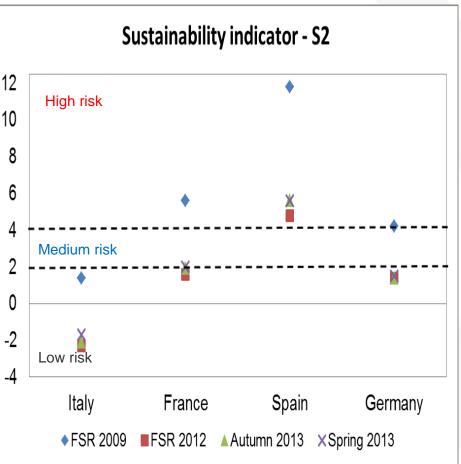


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#### **DEBT SUSTAINABILITY FOR ITALY OVERALL ASSESSMENT**

## Sustainability indicators show good performance





Source: Fiscal Sustainability Report (FSR 2009; 2012); European Commission



