Part II

Recent developments in the fiscal surveillance framework

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KEY FINDINGS

This part provides an overview of recent developments in the fiscal surveillance framework.

We show the new estimates of the so-called semi-elasticities used in fiscal surveillance.

- The elasticities provide an important input to fiscal surveillance, since they are needed to calculate the cyclical adjustment of the budget balance and the minimum medium-term budgetary objectives (MTO).

- The revised semi-elasticities will be used in fiscal surveillance as of spring 2019. Overall, the impact of this update is small.

We clarify how to identify and deal with revenue windfalls in the preventive arm of the Stability and Growth Pact (SGP).

- Revenue windfalls are typically not an appropriate financing source for spending increases. The preventive arm of the SGP provides that significant revenue windfalls should be taken into account in fiscal surveillance for Member States overachieving their MTO.

- This Chapter presents the Commission's case-by-case approach to identify "significant revenue windfalls" in fiscal surveillance.

We present the main findings of the Commission's review of the flexibility under the SGP.

- The design of the SGP strikes a good balance between the possibility of flexibility and the need to ensure fiscal sustainability.

- The design of the matrix of requirements ensures a modulation of the required fiscal adjustment over the economic cycle. The eligibility criteria effectively limit access to the structural reform and investment clauses, but do not discourage Member States from implementing structural reforms and promoting public investment.

We present the Commission's proposal for a European Investment Stabilisation Function (EISF).

- In the event of a large asymmetric shock, the EISF would provide back-to-back loans guaranteed by the EU budget to Member States complying with eligibility criteria based on sound financial and macroeconomic policies.

- Simulations of the proposal using data from the last few decades show that the proposed mechanism would have benefitted to all Member States at different points in time.

1. INTRODUCTION

This part provides an overview of the recent developments of the fiscal surveillance framework.

Chapter II.2. shows the update of the semi-elasticities used in fiscal surveillance. The fiscal semi-elasticities are instrumental to the implementation of the Stability and Growth Pact (SGP). They are needed to compute the structural and cyclically adjusted balances, but also to appoint the medium-term budgetary objectives (MTO). They are updated regularly following a calendar and a methodology agreed with Member States. This Chapter presents the latest update, which the Economic Policy Committee (EPC) endorsed in autumn 2018. It will be used as spring 2019 in fiscal surveillance.

Chapter II.3. clarifies how to identify and deal with revenue windfalls in fiscal surveillance in the preventive arm of the SGP. The reform of the six-pack introduced a reference in Regulation (EC) No 1466/97 – the preventive arm regulation of the SGP – to the role that significant revenue windfalls could have for Member States' overachieving their MTO. This Chapter describes the Commission's case-by-case approach on how to identify significant revenue windfalls, which it presented to the Alternates of the Economic and Financial Committee (EFC-A) in October 2018.

Chapter II.4. summarises the main findings of the Commission's review of the flexibility under the SGP. In 2016, the ECOFIN Council endorsed new guidance on the use of flexibility in the SGP. The main objective was to use the flexibility within the SGP when applying the rules without modifying the existing legislation. The Council requested the Commission to review the new approach. This Chapter presents the main findings of the Commission review, which was published in May 2018.

Finally, Chapter II.5. presents the Commission proposal for a European Investment Stabilisation Function (EISF). This proposal was adopted in May 2018 to steer the discussion on a common fiscal capacity. This Chapter describes the proposal, its main properties and some insights from a counterfactual simulation of its functioning. The Chapter does not cover other ideas for a common fiscal capacity and the progress made since then in the dialogue with the Member States.

2. UPDATE OF THE SEMI-ELASTICITIES USED IN THE CONTEXT OF FISCAL SURVEILLANCE

2.1. INTRODUCTION

Fiscal elasticities measure the sensitivity of public spending and revenue to the economic cycle. For instance, the revenue semi-elasticity measures by how many percentage points the revenue to GDP ratio changes with a 1% increase in GDP. Combining the revenue and expenditure semi-elasticities one gets the budget balance semi-elasticity, which measures by how many GDP percentage points the public surplus/deficit changes with a 1% increase in GDP.

Fiscal elasticities are instrumental to the implementation of the Stability and Growth Pact (SGP). ([21]) In particular, the semi-elasticity of the governments' budget balance is required for the estimation of the cyclically-adjusted budget balance (CAB). The CAB corrects the budget balance for fluctuations caused by the business cycle, which are largely outside the control of the Member States' governments.

The revision of the semi-elasticities follows an institutional cycle involving the Member States (Table II.2.1). First, every nine years (i.e. three MTO cycles), the *individual output elasticities* of the revenue and expenditure components of the government budget balance are re-estimated. The next update of this type will be completed by end-2024. The revised estimates will be used in fiscal surveillance as of spring 2025, thus determining the fiscal requirements for 2026, 2027 and 2028. Second, the *weights* used to combine these elasticities into an aggregate semi-elasticity of the government balance to output are updated every six years (i.e. two MTO cycles). The present update is of this type and has been endorsed by the Member States (in the context of the Economic Policy Committee). It will be used in the calculation the structural and cyclically adjusted balance as of 2019 and in setting the next MTO in spring 2019. For sake of consistency, the new elasticity will also be used as of spring 2019 to compute the structural balance. The next update of this type will coincide with the revisions of the individual revenue and spending elasticities and should be completed by end-2024. These updates are conducted in cooperation with Member States and overseen by the members of the Output Gap Working Group (OGWG).

([21]) Larch and Turrini (2010).

Table II.2.1: **Timeline of the revisions of the semi-elasticities**

	2013 MTO cycle (2014-16)	2016 MTO cycle (2017-19)	2019 MTO cycle (2020-22)	2022 MTO cycle (2023-25)	2025 MTO cycle (2026-28)
	Update:	Update:	Update:	No update	Update:
New weights	✓		✓		✓
New individual elasticities		✓			✓

Note: The MTO cycle is identified by the year t, when the Member State appoints their new MTO, which is applied to determine the fiscal requirements applying the three following year (t+1, t+2 and t+3). These three years of application are shown in bracket.
Source: Commission services.

This Chapter presents the findings of the present update of the semi-elasticities of the budget balances of Member States, focusing on the weights used in the calculation. ([22]) The fiscal semi-elasticities are computed from the individual elasticities and weights of revenue and expenditure categories that together compose the government budget balance. The present revision focuses exclusively on the weights of revenue and expenditure categories, which are now taken as averages over the period 2008-2017 (compared to 2002-2011 previously). ([23]) Another potentially sizeable source of revision is the implementation of ESA 2010, which took place since the last update of the weights. The update will not affect individual elasticities, which are unchanged with respect to their last update in 2015. ([24])

Overall, the present revision has a limited impact on the estimated semi-elasticities. In the EU28, the average semi-elasticity of the budget balance remains unchanged at 0.50. Comparing the new estimates with the previous values, ([25]) the semi-elasticities are revised downward for 18 Member States and, in the great majority of cases, the change is lower than 0.04 in absolute terms.

([22]) Mourre et al. (2019).
([23]) Mourre et al. (2013) for the previous update of this kind.
([24]) Mourre et al. (2014), European Commission (2014) and Price et al. (2014).
([25]) Mourre et al. (2014).

The remainder of this Chapter is structured as follows. Section II.2.2. recalls the methodology applied to compute the updated semi-elasticities and details the treatment of the data. Section II.2.3. presents the results of this update and shows that the effect on fiscal surveillance will be minor. Section II.2.4. concludes.

2.2. APPROACH AND DATA

2.2.1. Recalling the standard methodology ([26])

The cyclical correction of the aggregate headline balance is built on the cyclical correction of its individual revenue and expenditure components. Four revenue categories (personal income taxes, corporate income taxes, indirect taxes, social security contributions, denoted $R_{1<i<4}$) and one spending category (unemployment-related expenditures, denoted G_u) are found to be sensitive to the economic cycle. Non-tax revenues (sales and capital transfers other than capital taxes) and other expenditures are assumed to be non-cyclical. For each Member State, the elasticities of total revenues (η_R) and total expenditures (η_G) are calculated as a weighted average of the elasticities of their components ($\eta_{R,i}$ and $\eta_{G,u}$). These aggregate elasticities can then be converted into the semi-elasticities ε_R and ε_G as follows:

$$\varepsilon = \varepsilon_R - \varepsilon_G = (\eta_R - 1)\frac{R}{Y} - (\eta_G - 1)\frac{G}{Y}$$

$$\text{with } \eta_R = \sum_{i=1}^{4} \eta_{R,i}\frac{R_i}{R} \text{ and } \eta_G = \eta_{G,u}\frac{G_u}{G} \qquad (2.1)$$

with Y being nominal GDP.

In line with the mandate agreed with the Member States, the present update only affects the weights used to aggregate the elasticities of the revenue and expenditure components into the headline budget balance semi-elasticity. The following weighting parameters are updated in order to derive the new budgetary semi-elasticities:

- The revenue and expenditure structure:
  - the share of the five individual revenue categories in % of total general government revenues (R_i/R),
  - the share of the unemployment-related expenditure in % of total general government expenditures (G_U/G).
- The aggregate revenue and expenditure ratios:
  - the weight of total general government revenues in % of GDP (R/Y),
  - the weight of total general government expenditures in % of GDP (G/Y).

2.2.2. Sources and data

We update the weights using macroeconomic and fiscal data from the Commission 2018 spring forecast (Table II.2.2). Fiscal data are those notified by Member States, as part of their excessive deficit procedure notification (EDP). While the calculations presented here are based on nominal data in national currency, we cross checked them with calculations based on data in percentage of GDP and in euro.

Two adjustments are necessary to compute the weights of the revenue categories. First, the sum of current taxes on income and wealth paid by corporations, households and NPISH ([27]) is not equal to total current taxes on income and wealth collected by the government (because of direct taxes received from or paid to the rest of the world). We redistribute the missing direct taxes in proportion to payments by corporations and households to ensure that the PIT and CIT amounts add up to the direct taxes received by the government. Second, capital taxes, which represent a relatively small amount, are used to compute total tax revenue and receive the average weighted elasticities of the four other tax categories. The individual elasticities calculated by the OECD do not specify the elasticity of capital taxes (included in capital transfers received by the government). As the elasticity of capital taxes is unlikely to be 0, the revenue generated by them is spread across personal income tax, corporate income tax, social security contributions, indirect taxes in proportion to their size.

([26]) See Box II.2.1 for details about the mathematical derivations.

([27]) Non-profit institutions serving households.

Table II.2.2: **List of variables**

Description	ESA (Eurostat) code
GDP at current prices	B1g
General government revenue	
Total revenue; general government - ESA 2010	TR of S13
Current taxes on income and wealth (direct taxes); general government - ESA 2010	D5r (r for received) by S13
Current taxes on income and wealth; households and NPISH	D5 paid by S14 and S15
Current taxes on income and wealth; corporations	D5 paid by S11 and S12
Taxes linked to imports and production (indirect taxes); general government - ESA 2010	D2r S13
Net social contributions received; general government - ESA 2010	D61r S13
Capital transfers received; general government - ESA 2010	D9r S13
Capital taxes; general government - ESA 2010	D91r S13
Other current revenue including sales; general government - ESA 2010	P11+P12+P131+D39+D4+D7 of S13
General government expenditure	
General government; total expenditure	COFOG 01 to 10
General government; social protection; unemployment; total expenditure	COFOG 10.5
Total expenditure; general government - ESA 2010	TE

Source: Commission services.

On the expenditure side, the share of unemployment related expenditures is taken from the functions of government (COFOG) classification of expenditures. ([28]) Total government expenditures in COFOG are almost always equal to the baseline ESA estimates for total expenditures. However, to avoid small inconsistencies between the classifications, the ratio of unemployment-related expenditures to the total in the COFOG classification is applied to the ESA total in order to compute the government's unemployment-related expenditures. ([29])

While data availability has improved since the last revision of the weights, some country-specific adjustments were needed to fill gaps in the data. The previous update encountered many data gaps, which were filled using other data sources or assumptions, especially for non-OECD EU countries. They are very limited now. To estimate the missing data points of several variables for the time period under consideration (all 2017 data points for total government expenditure according to COFOG; several data points for CIT, PIT, unemployment-related expenditures in the early 2000s), we apply a constant ratio to a total (e.g. total revenues, total expenditures) with respect to the previous or following year's value. To estimate the missing PIT and CIT series for Malta, we take their average annual weights in total income tax from the other 9 Member States that acceded to the EU in 2004.

The semi-elasticities of revenue and expenditure are rounded to the third decimal with the semi-elasticity of the budget balance being the difference of those two rounded estimates. This allows for the exact replication of the Commission's calculation of the CAB based on the last column in Table II.2.5 (without replicating our update of the semi-elasticities). This simplification does not come at the expense of precision, since the estimates of the "true" semi-elasticities, like all unobservable variables, are surrounded with some uncertainty.

2.3. RESULTS

2.3.1. The updated value of the fiscal semi-elasticities

Economic fluctuations affect revenue and expenditure categories in different ways. The individual elasticities of individual revenue and expenditure categories to output are presented in

([28]) COFOG classification is tailored to the description of government spending and identifies the main broad objectives of public intervention.

([29]) To ensure the consistency of unemployment-related expenditures across Member States and respond to an issue raised by Denmark during past updates (including the 2013 one), we use the OECD database on Labour Market Programmes ("Public expenditure and participant stocks on LMP") and use the variable "Full unemployment benefits" instead of Ameco's COFOG variable. This is because the elasticity of unemployment-related expenditures was estimated based on the OECD data and those present a large discrepancy with the COFOG data for Denmark.

Table II.2.3. Depending on the tax base or the tax design, revenues can increase more or less than proportionally to output. The elasticities of cyclical revenues are: greater than 1 for personal income tax and corporate tax; less than 1 for social security contributions (except for Estonia, Ireland and Lithuania); and, by assumption, equal to 1 for indirect taxes (except for Italy) and to 0 for non-tax revenues. ([30]) The elasticity of unemployment related expenditures is (very) negative, as benefits increase sizeably in economic downturns, but its weight in total expenditures is no larger than 6%. Other expenditures are assumed to be acyclical and have an elasticity of 0. ([31])

The average semi-elasticity of the budget balance is equal to 0.5 and ranges from around 0.3 (Bulgaria) to 0.6% (France) (Table II.2.5). Due to disparities between Member States, the cyclical component of the budget balance corresponding to a one-percent output gap would be around 0.6% of (potential) GDP in France compared to around 0.3% of (potential) GDP in Bulgaria. Overall, the semi-elasticities of the budget balance are smaller in Central and Eastern European Countries (see also Graph II.2.1).

On the revenue side, the semi-elasticities are close to zero. This stems from the fact that revenue is almost as cyclical as GDP and, therefore, the revenue-to-GDP ratio remains broadly stable throughout the business cycle. The semi-elasticity of revenue ranges from -0.08 (Bulgaria) to 0.09 (United-Kingdom). It is positive for Estonia, Ireland, Spain, Italy, Cyprus, Malta, Netherlands, Poland and the United-Kingdom, which indicates that the tax system in those countries is overall (slightly) progressive, i.e. the revenue to GDP ratio increases (slightly) following an increase in GDP. In France, the tax system is almost neutral while, in the remaining Member States the tax system is (slightly) regressive.

The expenditure semi-elasticity is on average equal to -0.50, ranging from -0.37 (Romania) to -0.64 (Finland). Expenditure semi-elasticities contribute to a larger extent than revenue semi-elasticities to disparities between Member States. Their values broadly correspond to the share of total expenditures to GDP as, for the most part, expenditures are assumed to be a-cyclical. ([32]) This explains why Central and Eastern European Countries, which have on average lower expenditure-to-GDP ratios, have lower semi-elasticities of both expenditures and the budget balance.

2.3.2. By how much were the semi-elasticities revised?

The updated semi-elasticities of the budget balance are fairly close to the 2014 estimates (Table II.2.6 and Graph II.2.1). Overall, the revisions to the total semi-elasticities are negative in 18 cases out of 28. On average, they are equal to -0.01 and the standard deviation of the revisions is equal to 0.03, which remains small compared to the average semi-elasticity (0.50). The semi-elasticities changed by 0.04 in absolute terms in Estonia, Greece, Czech Republic, Hungary, Netherlands, Sweden and United-Kingdom, by 0.05 in Germany and 0.06 in Spain. For the other Member States, the revisions are lower.

On the expenditure side, there are downward revisions in 15 cases out of 28. These downward revisions are associated with increases in the shares of public expenditures to GDP, primarily due to the fact that the sample period is centred around the years of the financial crisis. The new national accounts system (ESA 2010) generally has a positive contribution to the revision of the expenditure semi-elasticities. On the budget balance semi-elasticities, the contributions from the expenditure side will, therefore, be reversed, i.e. downward for the ESA revision and upward for the new time window.

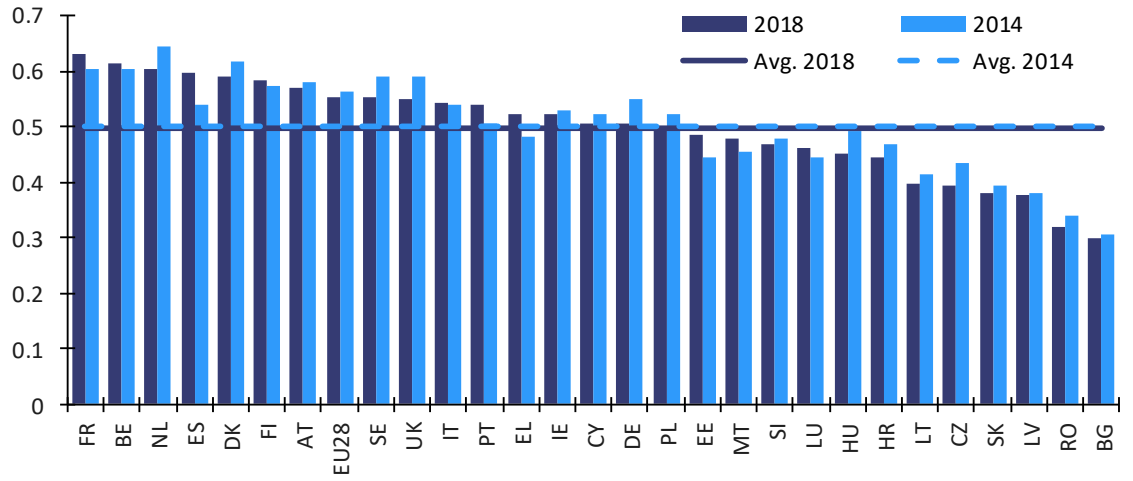
On the revenue side, all but five revisions are downward. These revisions are slightly smaller than those on the expenditure side. They are linked to the shift in time period and the new national accounts system (ESA 2010), contributing both negatively in the majority of cases.

([30]) The elasticity of non-tax revenue is set at 0. Attempts in the past to identify a cyclical pattern proved to be inconclusive (Price, et al. 2014).

([31]) In this respect, it should be recalled that attempts to identify the cyclicality of other expenditures, such as income-based transfers, were inconclusive.

([32]) We recall here that $\varepsilon = \varepsilon_R - \varepsilon_G$ and $\varepsilon_G = \left(\eta_{G,u}\frac{G_u}{G} - 1\right)\frac{G}{Y}$

Graph II.2.1: **Revised budget balance semi-elasticities**



Note: EU28 estimates correspond to the case of the EU treated as a single entity. It differs from the EU average, which is the simple average across Member States.
Source: Commission 2018 spring forecast and 2014 spring forecast, Mourre et al. (2014) and Commission services.

The shift of the time window for the weights and the data update equally contributed to the – fairly moderate – revisions. The minor data updates correspond to the changeover to ESA 2010 and the availability of new data for some Member States, instead of the reliance to sensible assumption (which has been proven reasonable in retrospect).

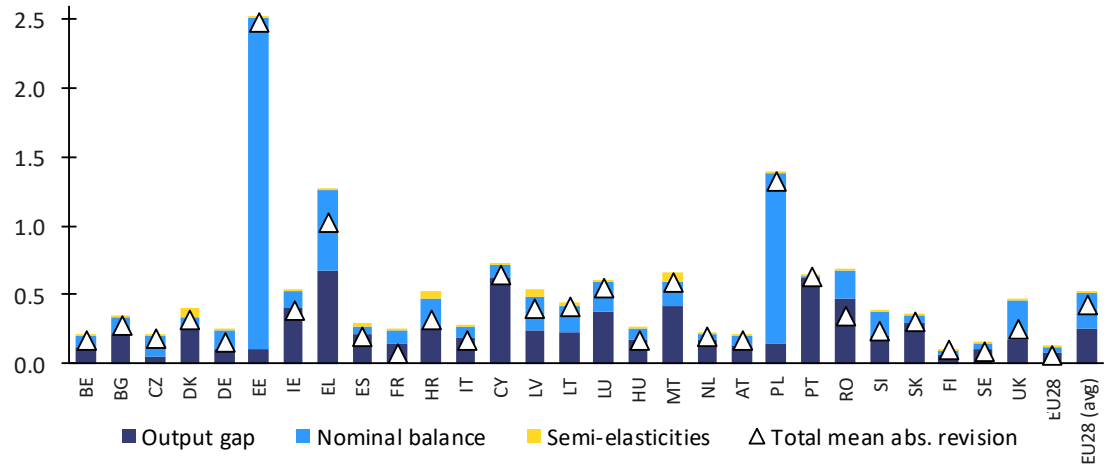
Incidentally, smoothing out the effect of the financial crisis and its aftermath would only marginally lower the revised semi-elasticities. We do so in two ways. First, we exclude capital transfers from total expenditure in order to remove one-off capital transfers (bank recapitalisations) that might have occurred during the financial crisis. Excluding capital transfers from public expenditures would automatically decrease the semi-elasticities compared to the proposed update. The effect on the semi-elasticity is on average a difference of only -0.01 and ranges between 0 and -0.03. Second, we calculate the semi-elasticities using the full 2002-17 time window in order to lower the weight of the crisis in our sample. This gives rise to negative revisions for most Member States, which are also -0.01 on average and range from 0.02 to -0.04. The decrease in the semi-elasticities would be the largest for the three countries where the weights are the most time varying (-0.04 for Estonia and Spain, -0.03 for Ireland). In the case of Estonia or Spain, this would mitigate the upward revision of the semi-elasticity. For Ireland, it would mean a larger downward revision of the semi-elasticity.

2.3.3. Impact on the cyclically-adjusted budget balance

The revision of the fiscal elasticities has only a minor impact on Member States' cyclically-adjusted balances (Graph II.2.2). The large annual revisions of Estonia, Poland and (to some extent) Greece are outliers caused by large revisions in the headline balance. Apart from these cases, the CAB revisions are caused primarily by output gap revisions, with semi-elasticity revisions having a marginal effect. ([33]) In particular, for Spain and Germany, the two Member States with the largest revisions of their semi-elasticities, the effect on the CAB revision remains small. For other Member States (Malta, Latvia, Croatia, Denmark) the effect of the semi-elasticity revision can be more pronounced, even though the revision of the semi-elasticities itself is not large, as it is amplified by the magnitude of the Member States' output gaps.

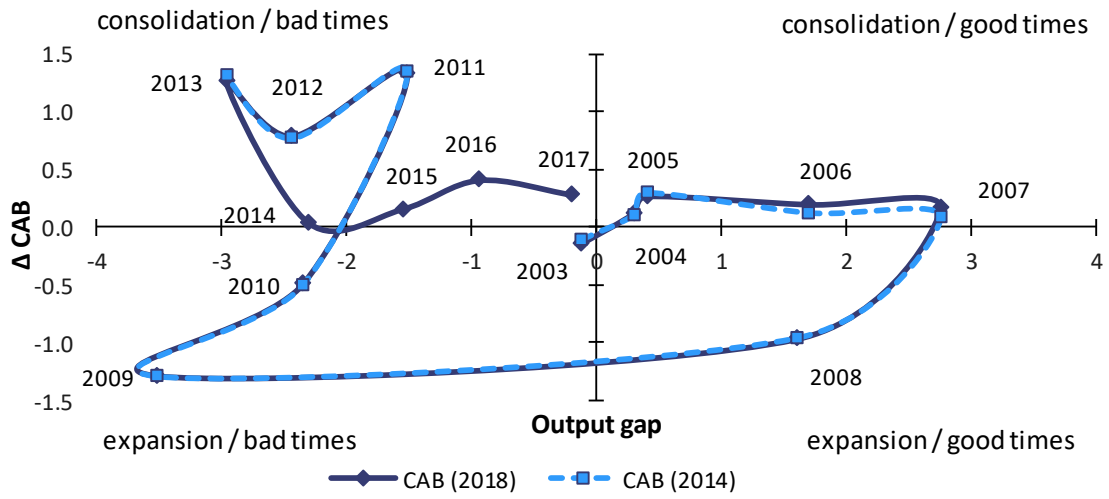
([33]) Mean absolute contributions to the revision do not add up to the mean absolute revision as the different sources of revisions do not cancel each other out in absolute terms.

Graph II.2.2: **Absolute mean contribution to cyclically-adjusted balance revision across Member States (2002-13)**



Note: EU28 calculations are based on elasticities and weights of the EU28 while the EU28 (avg.) is the arithmetic average of the 28 countries.
Source: Commission 2018 spring forecast and 2014 spring forecast, Mourre et al. (2014) and Commission services.

Graph II.2.3: **Fiscal stance over the business cycle in the EU**



Source: Commission 2018 spring forecast and 2014 spring forecast, Mourre et al. (2014) and Commission services.

For the EU28, our assessment of the fiscal stance between 2003 and 2013 is unchanged (Graph II.2.3). Changes in the cyclically adjusted balance are a key measure of the fiscal effort analysed in perspective of the position in the economic cycle (output gap). For the EU as a whole, the CAB is equal to the aggregation of the 28 CAB of the Member States. The revisions of the semi-elasticities do not generate sizeable revisions, the more sizeable revisions of the nominal balances and (most importantly) output gaps broadly cancel out across Member States. In all, over the period common with the previous update (2003-2013), the revisions of the aggregate CAB are minor.

2.4. CONCLUSIONS

Fiscal elasticities are crucial for the implementation of fiscal surveillance. Budget balance semi-elasticities measure by how many GDP percentage points the public surplus/deficit changes with a 1 percent increase in GDP. They provide an important input to the fiscal surveillance process, since they are needed to compute the minimum medium-term budgetary objective and the cyclical adjustment of the budget balance.

This Chapter presents the findings of the periodic update of the fiscal elasticities, which will be used in fiscal surveillance over the next six years. The update of the semi-elasticities will be used for calculating the structural balance as of 2019, setting the MTO in 2019 and the fiscal requirements in 2020-2022. In line with the institutional calendar, the update consists in applying new weights in the aggregation of individual expenditure and revenue components' elasticities. The next revision will be conducted in 2024 and will require an update of both the weights and the underlying individual elasticities.

Overall, the revisions of the semi-elasticities are small. The revisions of the semi-elasticities are small despite the change in the system of national accounts (ESA 2010). The revisions are negligible on average across Member States and do not change our assessment of recent fiscal developments in the EU as a whole.

Table II.2.3: **Elasticities of individual revenue and expenditure categories**

Country	Revenue					Expenditure	
	Income tax	Corporate tax	Social security contributions	Indirect tax	Non-tax revenue	Unemp.-related expenditure	Other expenditure
	(A)	*(B)*	*(C)*	*(D)*	*(E)*	*(F)*	*(G)*
BE	1.31	2.48	0.71	1.00	0.00	-3.70	0.00
BG	1.15	2.13	0.61	1.00	0.00	-3.91	0.00
CZ	1.65	1.78	0.86	1.00	0.00	-2.45	0.00
DK	1.00	3.15	0.41	1.00	0.00	-4.97	0.00
DE	1.87	1.91	0.60	1.00	0.00	-3.30	0.00
EE	1.58	1.78	1.40	1.00	0.00	-5.18	0.00
IE	1.58	1.25	1.04	1.00	0.00	-5.45	0.00
EL	2.22	1.90	0.58	1.00	0.00	-3.15	0.00
ES	1.84	1.56	0.72	1.00	0.00	-5.83	0.00
FR	1.86	2.76	0.63	1.00	0.00	-3.23	0.00
HR	1.71	2.29	0.70	1.00	0.00	-2.39	0.00
IT	1.46	3.07	0.58	1.10	0.00	-2.29	0.00
CY	2.28	2.26	0.91	1.00	0.00	-3.08	0.00
LV	1.50	1.99	0.81	1.00	0.00	-3.94	0.00
LT	1.79	1.67	1.04	1.00	0.00	-5.60	0.00
LU	1.34	2.36	0.39	1.00	0.00	-3.06	0.00
HU	1.73	2.21	0.76	1.00	0.00	-1.25	0.00
MT	2.07	2.11	0.71	1.00	0.00	-1.96	0.00
NL	2.37	3.13	0.62	1.00	0.00	-5.76	0.00
AT	1.66	2.74	0.65	1.00	0.00	-4.71	0.00
PL	1.88	2.92	0.97	1.00	0.00	-6.18	0.00
PT	1.97	1.33	0.79	1.00	0.00	-6.04	0.00
RO	1.29	2.02	0.62	1.00	0.00	-3.91	0.00
SI	1.63	3.76	0.66	1.00	0.00	-2.81	0.00
SK	1.93	1.58	0.89	1.00	0.00	-2.98	0.00
FI	1.41	2.03	0.77	1.00	0.00	-3.66	0.00
SE	1.32	1.56	0.71	1.00	0.00	-4.42	0.00
UK	1.68	3.92	0.60	1.00	0.00	-4.21	0.00
EU28	1.68	2.27	0.74	1.00	0.00	-3.91	0.00

Source: Price et al. (2014), Mourre et al. (2014).

Table II.2.4: **Shares of revenue categories (% of total revenues) and expenditure categories (% of total expenditure)**

Country	Revenue					Expenditure	
	Income tax	Corporate tax	Social security contrib.	Indirect tax	Non-tax revenue	Unemp.-related expenditure	Other expenditure
	(H)	*(I)*	*(J)*	*(K)*	*(L)*	*(M)*	*(N)*
BE	25.95	6.42	32.72	25.82	9.10	4.15	95.85
BG	8.70	6.18	21.04	42.32	21.76	0.24	99.76
CZ	9.93	8.18	36.62	29.45	15.82	0.65	99.35
DK	50.28	4.82	2.14	30.32	12.44	2.07	97.93
DE	21.33	5.53	37.49	24.50	11.15	4.55	95.45
EE	14.28	3.95	29.77	34.94	17.06	2.91	97.09
IE	29.13	8.48	17.02	32.26	13.11	4.52	95.48
EL	13.11	7.95	29.91	32.00	17.02	1.38	98.62
ES	21.10	5.97	34.23	28.90	9.80	5.69	94.31
FR	18.73	4.87	35.98	29.93	10.48	3.34	96.66
HR	11.09	4.12	27.30	42.58	14.91	1.05	98.95
IT	26.21	5.08	28.54	31.14	9.04	2.00	98.00
CY	9.58	16.65	21.01	38.36	14.40	1.94	98.06
LV	17.07	4.68	24.29	35.04	18.92	1.38	98.62
LT	11.80	4.36	34.27	33.59	15.99	1.47	98.53
LU	19.46	13.43	28.14	28.44	10.53	3.59	96.41
HU	12.81	3.85	28.44	38.67	16.23	1.07	98.93
MT	22.44	11.24	17.41	33.80	15.11	1.13	98.87
NL	19.84	5.82	33.80	25.97	14.57	3.56	96.44
AT	22.56	4.49	30.62	29.25	13.07	2.64	97.36
PL	12.35	5.82	33.19	34.31	14.33	1.58	98.42
PT	15.60	7.43	27.59	32.70	16.68	2.45	97.55
RO	10.85	7.90	27.56	36.50	17.20	0.49	99.51
SI	13.81	3.75	33.92	32.84	15.68	1.39	98.61
SK	9.09	8.06	34.89	27.68	20.28	0.52	99.48
FI	25.35	5.03	23.43	25.84	20.35	4.22	95.78
SE	30.44	5.48	6.59	43.83	13.65	2.69	97.31
UK	30.29	7.44	20.19	32.44	9.65	0.62	99.38
EU28	23.00	5.79	30.07	29.72	11.42	3.06	96.94
EU28 (avg.)	19.18	6.65	27.18	32.52	14.47	2.29	97.71

Note: EU28 calculations are based on elasticities and weights of the EU28, while EU28 (avg.) is the arithmetic average of the 28 Member States.
Source: Commission services.

Table II.2.5: **Decomposition of fiscal semi-elasticities**

Country	Elasticities				Weights (% of GDP) of		Semi-elasticity		
	Revenues	Expen-diture	Revenue-to-GDP ratio	Expenditure-to-GDP ratio	Total revenue	Total expenditure	Revenue	Expen-diture	Budget balance
	(a)	*(b)*	*(c) = a - 1*	*(d) = b - 1*	*(e)*	*(f)*	*(g) = c * e*	*(h) = d * f*	*(i) = g - h*
BE	0.99	-0.15	-0.01	-1.15	50.74	53.84	-0.006	-0.621	0.615
BG	0.78	-0.01	-0.22	-1.01	35.73	37.14	-0.077	-0.375	0.298
CZ	0.92	-0.02	-0.08	-1.02	40.09	42.08	-0.033	-0.428	0.395
DK	0.97	-0.10	-0.03	-1.10	54.04	54.93	-0.017	-0.606	0.589
DE	0.97	-0.15	-0.03	-1.15	44.26	44.77	-0.011	-0.515	0.504
EE	1.06	-0.15	0.06	-1.15	39.72	40.10	0.025	-0.461	0.486
IE	1.06	-0.25	0.06	-1.25	31.60	40.21	0.021	-0.501	0.522
EL	0.93	-0.04	-0.07	-1.04	45.45	53.11	-0.030	-0.554	0.524
ES	1.02	-0.33	0.02	-1.33	37.32	44.39	0.006	-0.591	0.597
FR	1.01	-0.11	0.01	-1.11	51.99	56.50	0.004	-0.626	0.630
HR	0.90	-0.03	-0.10	-1.03	43.09	47.31	-0.042	-0.485	0.443
IT	1.05	-0.05	0.05	-1.05	46.76	49.96	0.022	-0.522	0.544
CY	1.17	-0.06	0.17	-1.06	38.10	41.48	0.064	-0.440	0.504
LV	0.90	-0.05	-0.10	-1.05	36.30	39.50	-0.038	-0.416	0.378
LT	0.98	-0.08	-0.02	-1.08	34.25	37.63	-0.008	-0.407	0.399
LU	0.97	-0.11	-0.03	-1.11	43.67	42.71	-0.012	-0.474	0.462
HU	0.91	-0.01	-0.09	-1.01	45.67	48.79	-0.041	-0.494	0.453
MT	1.16	-0.02	0.16	-1.02	39.05	40.66	0.063	-0.416	0.479
NL	1.12	-0.21	0.12	-1.21	43.37	45.73	0.054	-0.551	0.605
AT	0.99	-0.12	-0.01	-1.12	48.96	51.37	-0.006	-0.577	0.571
PL	1.07	-0.10	0.07	-1.10	38.95	43.07	0.026	-0.473	0.499
PT	0.95	-0.15	-0.05	-1.15	42.75	48.66	-0.021	-0.559	0.538
RO	0.83	-0.02	-0.17	-1.02	32.73	36.80	-0.054	-0.375	0.321
SI	0.92	-0.04	-0.08	-1.04	43.68	48.53	-0.036	-0.504	0.468
SK	0.89	-0.02	-0.11	-1.02	37.75	41.52	-0.041	-0.422	0.381
FI	0.90	-0.15	-0.10	-1.15	53.57	55.08	-0.054	-0.636	0.582
SE	0.97	-0.12	-0.03	-1.12	50.62	50.66	-0.014	-0.567	0.553
UK	1.24	-0.03	0.24	-1.03	38.41	44.44	0.094	-0.456	0.550
EU28	1.04	-0.12	0.04	-1.12	44.40	47.94	0.017	-0.537	0.554
EU28 (avg.)	0.99	-0.10	-0.01	-1.10	42.45	45.75	-0.006	-0.502	0.496

Note: This table shows how the semi-elasticities are derived from the individual elasticities and weights (Table II.2.3 and Table II.2.4). The parameters (a) and (b) are derived from Table II.2.2 and Table II.2.3; (a) = (A * H + B * I + C * J + D * K + E * L) / 100; (b) = (F * M)/ 100. The calculations here are made using the exact value of weights coming from Table 2 (where figures are only shown down to the third decimal, but are not rounded). The final value of the semi-elasticities (column g, h and i) are rounded to the third decimal and then used to compute the cyclically-adjusted budget balance.
Source: Commission services.

Table II.2.6: **Comparison of fiscal semi-elasticities 2014 and 2018**

Country	Revenue		Expenditure		Budget balance	
	2014	2018	2014	2018	2014	2018
BE	0.015	-0.006	-0.591	-0.621	0.605	0.615
BG	-0.084	-0.077	-0.391	-0.375	0.308	0.298
CZ	-0.012	-0.033	-0.446	-0.428	0.433	0.395
DK	-0.001	-0.017	-0.620	-0.606	0.619	0.589
DE	-0.009	-0.011	-0.560	-0.515	0.551	0.504
EE	0.037	0.025	-0.406	-0.461	0.443	0.486
IE	0.019	0.021	-0.508	-0.501	0.528	0.522
EL	-0.023	-0.030	-0.506	-0.554	0.483	0.524
ES	0.011	0.006	-0.528	-0.591	0.539	0.597
FR	0.002	0.004	-0.601	-0.626	0.603	0.630
HR	-0.011	-0.042	-0.479	-0.485	0.467	0.443
IT	0.038	0.022	-0.501	-0.522	0.539	0.544
CY	0.071	0.064	-0.452	-0.440	0.523	0.504
LV	-0.028	-0.038	-0.408	-0.416	0.380	0.378
LT	0.022	-0.008	-0.391	-0.407	0.413	0.399
LU	0.003	-0.012	-0.442	-0.474	0.445	0.462
HU	-0.019	-0.041	-0.511	-0.494	0.492	0.453
MT	0.007	0.063	-0.449	-0.416	0.456	0.479
NL	0.066	0.054	-0.579	-0.551	0.646	0.605
AT	0.012	-0.006	-0.569	-0.577	0.580	0.571
PL	0.027	0.026	-0.494	-0.473	0.521	0.499
PT	-0.019	-0.021	-0.525	-0.559	0.506	0.538
RO	-0.045	-0.054	-0.384	-0.375	0.339	0.321
SI	-0.006	-0.036	-0.483	-0.504	0.477	0.468
SK	-0.005	-0.041	-0.398	-0.422	0.393	0.381
FI	-0.030	-0.054	-0.604	-0.636	0.574	0.582
SE	-0.020	-0.014	-0.609	-0.567	0.590	0.553
UK	0.120	0.094	-0.471	-0.456	0.591	0.550
EU28	0.024	0.017	-0.539	-0.537	0.563	0.554
EU28 (avg.)	0.005	-0.006	-0.497	-0.502	0.502	0.496

Note: EU28 calculations are based on elasticities and weights of the EU28 while the EU28 (avg.) is the arithmetic average of the 28 Member States. The 2014 columns refer to Mourre et al. (2014) estimates, while the 2018 columns refer to the re-estimations presented in this paper.
Source: Commission 2018 spring forecast, Mourre et al. (2014) and Commission services.

Box II.2.1: Semi-elasticities and the cyclically-adjusted balance, a mathematical summary

In what follows, *R*, *G*, *B*, *Y*, *OG* and *CAB* refer to public revenue, public expenditure, government headline balance, GDP, output gap and the cyclically-adjusted balance, respectively.

The subscript t refers to the time period t, the superscript p refers to the level of a variable if the economy was at its potential. Revenue categories are indexed with the subscript i ($R_{1<i<4}$). Only one spending category is isolated: unemployment related expenditure (G_u). Elasticities to output are denoted η while semi-elasticities to output are denoted ε.

From the headline balance to the cyclically-adjusted balance

The cyclically-adjusted budget balance is computed as the difference between the actual balance-to-GDP ratio and an estimated cyclical component.

$$CAB_t = \frac{(R_t - G_t)}{Y_t} - \varepsilon\, OG_t \tag{2.2}$$

This formula can be derived from the definition of the *CAB*:

$$CAB_t = \frac{B_t^p}{Y_t^p} = \frac{\left(R_t^p - G_t^p\right)}{Y_t^p} = \frac{R_t}{Y_t^p}\frac{R_t^p}{R_t} - \frac{G_t}{Y_t^p}\frac{G_t^p}{G_t} \tag{2.3}$$

The revenue and expenditure elasticities allow us to link the deviation of R and G from potential to the deviation of output from its potential: ([1])

$$\frac{R_t^p}{R_t} = \left(\frac{Y_t^p}{Y_t}\right)^{\eta_{R,t}} \; and \; \frac{G_t^p}{G_t} = \left(\frac{Y_t^p}{Y_t}\right)^{\eta_{G,t}} \tag{2.4}$$

Replacing equation (2.4) in equation (2.3) yields:

$$\begin{aligned} CAB_t &= \frac{R_t}{Y_t^p}\left(\frac{Y_t^p}{Y_t}\right)^{\eta_R,t} - \frac{G_t}{Y_t^p}\left(\frac{Y_t^p}{Y_t}\right)^{\eta_{G,t}} = \frac{R_t}{Y_t}\left(\frac{Y_t^p}{Y_t}\right)^{\eta_{R,t}-1} - \frac{G_t}{Y_t}\left(\frac{Y_t^p}{Y_t}\right)^{\eta_{G,t}-1} \\ CAB_t &= \frac{R_t}{Y_t}(1+OG_t)^{1-\eta_{R,t}} - \frac{G_t}{Y_t}(1+OG_t)^{1-\eta_{G,t}} \end{aligned} \tag{2.5}$$

It is then possible to approximate equation (2.5) with a first order development around OG=0:

$$\begin{aligned} CAB_t = \frac{R_t}{Y_t} - \frac{G_t}{Y_t} + \left[\left(1-\eta_{R,t}\right)\frac{R_t}{Y_t} - \left(1-\eta_{G,t}\right)\frac{G_t}{Y_t}\right]OG_t &= \frac{R_t - G_t}{Y_t} - \left(\varepsilon_{R,t} - \varepsilon_{G,t}\right)OG_t \\ &= \frac{B_t}{Y_t} - \varepsilon_t * OG_t \end{aligned} \tag{2.6}$$

This equation takes the same form as equation (2.2), with semi-elasticities of revenue and expenditure ($\varepsilon_R, \varepsilon_G$) that are not *a priori* constant, both because of the time varying shares of revenue and expenditure to GDP and the underlying elasticities. For practical reasons, semi-elasticities are computed based on constant weights and elasticities, which constitutes an additional simplification. Under this assumption, Equation (2.4) is no longer

([1]) This formula is the result of a first order Taylor development of R and G (in logs) around their potentials. Note that elasticities are not assumed to be constant in time since we only compare two states of the economy within the same period.

(Continued on the next page)

Box (continued)

In all, one can therefore see equation (2.2) as the results of one assumption (constant elasticities of the revenue and expenditure components), two first order approximations (see equations (2.4) and (2.6)) and a simplification (constant weights of total revenue and expenditure in GDP and of their components).

From elasticity to semi-elasticity

The budgetary semi-elasticity (ε) measures the sensitivity of an economic variable as a share of GDP (e.g. revenue) to the economic cycle. It measures by how many percentage points the revenue to GDP ratio changes for a 1% increase in GDP.

$$\varepsilon_R = \frac{d\left(\frac{R}{Y}\right)}{\frac{dY}{Y}} \tag{2.7}$$

By comparison to the semi-elasticity, the elasticity captures the relative variation of one variable to the relative variation of another variable, i.e. measures by how many percent revenues changes for a 1% increase in GDP:

$$\eta_R = \frac{dR/R}{dY/Y} \tag{2.8}$$

The same definition and relation between the elasticity and semi-elasticity apply to the expenditure side of the headline budget balance and to the subcomponents.

There is a direct link between the elasticities and semi-elasticities of revenues and expenditure to GDP:

$$\varepsilon_R = \frac{d\left(\frac{R}{Y}\right)}{\frac{dY}{Y}} = \frac{\frac{dR}{Y} - \frac{dY}{Y^2}R}{\frac{dY}{Y}} = \frac{\frac{R}{Y}\left(\frac{dR}{R} - \frac{dY}{Y}\right)}{\frac{dY}{Y}} = \frac{R}{Y}(\eta_R - 1) \Rightarrow \eta = \varepsilon_R \frac{Y}{R} + 1 \tag{2.9}$$

The term 1 between the two concepts corresponds to the elasticity of the denominator (GDP) of the revenue-to-GDP ratio to itself. The fraction $\frac{R}{Y}$ corrects for the different reference (changes in the revenue-to-GDP ratio for the semi elasticity, changes in revenue as a fraction of total revenue for the elasticity).

Aggregation of elasticities

The aggregate elasticities are the weighted average of their components' elasticities. Taking the revenue elasticities as an example, one can write:

$$\eta_R = \frac{dR/R}{dY/Y} = \frac{\sum_{i=1}^{n} dR_i}{\frac{R}{dY/Y}} = \sum_{i=1}^{n} \frac{\frac{dR_i}{R_i}}{dY/Y} \frac{R_i}{R} = \sum_{i=1}^{n} \eta_{R,i} \frac{R_i}{R} \tag{2.10}$$

Five individual revenue categories η_{Ri} (personal income taxes, corporate income taxes, indirect taxes, social security contributions, non-tax revenue) and one spending category η_{GU} (unemployment-related expenditure) are found to be sensitive to the economic cycle (their elasticity is not zero). One can therefore write the aggregate revenue and expenditure elasticities as:

$$\eta_R = \sum_{i=1}^{5} \eta_{R,i} \frac{R_i}{R} \; and \; \eta_G = \eta_{G,u} \frac{G_u}{G} \tag{2.11}$$

3. ROLE OF REVENUE WINDFALLS IN FISCAL SURVEILLANCE

This Chapter presents the role of revenue windfalls in fiscal surveillance under the preventive arm of the SGP. The reform of the six-pack introduced a reference in Regulation (EC) No 1466/97, the preventive arm regulation of the SGP, to the role that significant revenue windfalls could have for Member States' overachieving their medium-term objective (MTO). In October 2018, the Commission presented its case-by-case approach on how to identify significant revenue windfalls in the forthcoming fiscal surveillance rounds to the Alternates of the Economic and Financial Committee.

What are revenue windfalls?

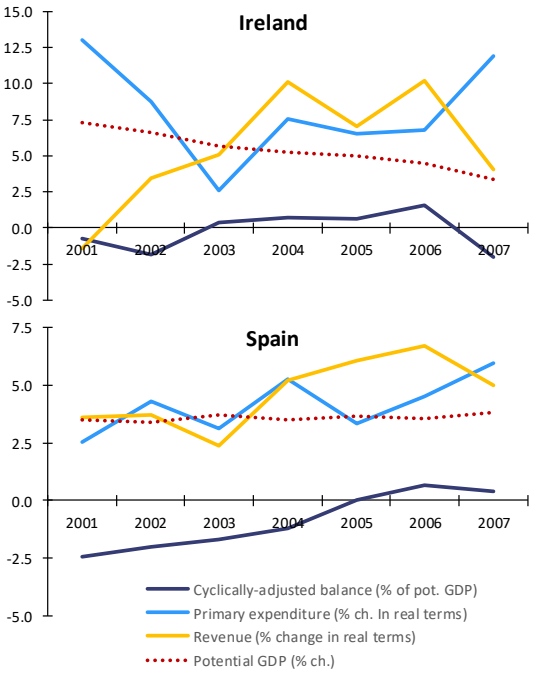
Revenue windfalls are revenue increases that exceed the revenue growth that could be expected based on cyclical conditions or discretionary fiscal policy measures taken. They stem for example from developments in asset markets, wage developments that are decoupled from GDP growth, leads and lags in tax collection, consumption shifting or fluctuations of commodity prices. To the extent that revenue windfalls do not constitute a permanent increase in government revenue, they are not an appropriate financing source for spending increases. Because of their relevance in fiscal surveillance, this Chapter will primarily look at the possibility of revenue windfalls.

How do revenue windfalls affect the key fiscal surveillance indicators?

The structural balance can be distorted by revenue windfalls. Because revenue windfalls are not directly linked to cyclical developments, they are not filtered out in the cyclical adjustment of the budget balance and thus improve the structural balance. Therefore, structural balance developments might not reveal unsustainable expenditure developments when they are offset by revenue windfalls. The structural balance might thus give a too rosy picture of the underlying budgetary position. This was for instance the case in Ireland and Spain in the pre-crisis period, where sizeable expenditure increases were offset by revenue windfalls stemming from asset bubbles, which turned out unsustainable once the bubbles burst (Graph II.3.1).

Unlike the structural balance, the expenditure benchmark is not distorted by revenue windfalls, as it assesses only expenditure developments net of the impact of discretionary revenue measures. Therefore, the expenditure benchmark might provide a better indication of the underlying fiscal position (Graph II.3.1).

Graph II.3.1: **Developments of key fiscal surveillance indicators in Ireland and Spain before the Great Recession**



Note: The graph is based on current estimates of potential GDP. In real time, potential growth estimates where higher and therefore also the estimated cyclically-adjusted balance.
Source: Commission 2018 autumn forecast.

How sizeable are revenue windfalls?

It is challenging to measure revenue windfalls or shortfalls. In the following, they are approximated as the difference between the actual growth of revenues and the revenue growth expected according to nominal GDP growth with an elasticity of 1, corrected for the impact of discretionary revenue measures. ([34])

([34]) Such an approximation is only the starting point of a more disaggregated analysis, for example based on individual tax elasticities (which requires data on discretionary revenue measures by item) and corrected for "fiscal drag". See for example Morris et al. (2009).

While the overall pattern of revenue windfalls and shortfalls seems rather erratic in recent years, shortfalls have been more frequent than windfalls (Table II.3.1). A possible explanation for the shortfalls in some Member States is the relatively low wage growth since the crisis. The growth of the tax base was therefore lower than nominal GDP growth. In addition, the period considered is a phase of economic recovery and some revenues (for example personal income taxation and corporative income taxation) might react with a lag to this growth acceleration depending on the economic cycle, growth drivers (e.g. external vs. domestic demand) and specific features of the tax system.

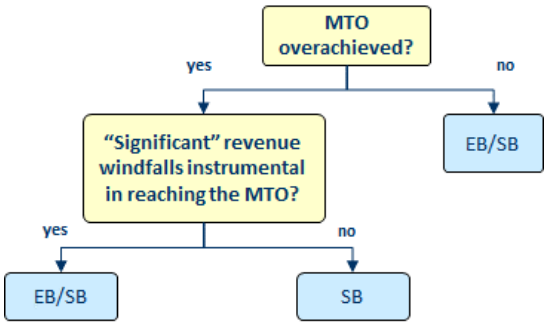
Looking at cumulated figures indicates somewhat more cases of sizeable revenue windfalls. For the majority of countries, revenue windfalls and shortfalls cancel out over the medium term, which underlines the residual character of the measure. The occurrence of systematic revenue windfalls is therefore assessed from a multi-annual perspective, i.e. cumulated over several years. Based on such a multi-annual horizon, as illustrated in Table II.3.1, the three Baltic countries benefitted from sizeable revenue windfalls between 2014 and 2016, reflecting strong wage growth and thus dynamic tax revenues, which were to some extent followed by shortfalls in subsequent years.

Revenue windfalls are difficult to forecast or to identify in real time. Often they come as a surprise and emerge only in ex-post estimates. Indeed, there seem to be only few cases where forecast revenue growth in 2019 or 2020 exceeds economic growth. This reflects the fact that revenue projections are based on a no-policy-change assumption usually based on standard elasticities for the increase in tax revenues based on the corresponding increase in the different tax bases (and generally elasticity close to 1 for the increase in overall revenues relative to nominal GDP growth).

How are revenue windfalls treated in the EU's fiscal surveillance framework?

Regulation (EC) No 1466/97 refers to the possibility of significant revenue windfalls for Member States who over-achieved the MTO (Graph II.3.2). In line with Regulation (EC) No 1466/97, for Member States that are found to have exceeded their MTO on the basis of the structural balance pillar, a deviation from the expenditure benchmark is in general left out of consideration when assessing compliance with the preventive arm requirements. However, the six-pack also introduced an explicit reference to the possibility of windfalls. More specifically, Art 6(3) provides that "[t]he deviation of expenditure developments shall not be considered significant if the Member State concerned has overachieved the medium-term budgetary objective, taking into account the possibility of significant revenue windfalls and the budgetary plans laid out in the [stability/ convergence] programme do not jeopardise that objective over the programme period". ([35]) The Code of Conduct of the SGP ([36]) specifies that "for a Member State that has overachieved the MTO, the occurrence of [a deviation of the expenditure benchmark] is not considered in the assessment of the existence of a significant deviation, unless significant revenue windfalls are assessed to jeopardise the MTO over the programme period." ([37]) The latter is a different concept of

Graph II.3.2: **Assessment of compliance with the preventive arm of the SGP: Which fiscal surveillance indicators to use in case of revenue windfalls?**



Note: The figure visualises the key elements of Article 6(3) of Reg. 1466/97 and the Code of Conduct of the SGP. "EB" refers to expenditure benchmark, "SB" to structural balance.
Source: Commission services.

([35]) Article 6(3) (for stability programmes) and Article 10(3) (for convergence programmes) of Regulation (EC) No 1466/97.
([36]) In the 2017 update of the Code of Conduct of the Stability and Growth Pact that condition is rephrased as "a Member State that has overachieved the MTO could temporarily let annual expenditure growth exceed a reference medium-term rate of potential GDP growth as long as, taking into account the possibility of significant revenue windfalls, the MTO is respected throughout the programme period." (Economic and Financial Committee, 2017).
([37]) In its opinion of 29 November 2016 on "Improving the predictability and transparency of the SGP: a stronger

Table II.3.1: **Estimated revenue windfalls and shortfalls (% of GDP)**

	2013	2014	2015	2016	2017	*2018*	*2019*	*2020*	cumul 13-16	cumul 14-17	*cumul 15-18*	*cumul 16-19*	*cumul 17-20*
BE	0.4	-0.4	-0.6	-0.6	0.1	*-0.2*	*0.0*	*0.1*	-1.1	-1.4	*-1.2*	*-0.6*	*0.1*
DE	0.6	0.1	-0.1	0.4	0.3	*0.4*	*-0.1*	*0.1*	1.0	0.7	*1.1*	*1.0*	*0.7*
EE	-0.1	1.0	1.1	-0.2	-0.3	*0.3*	*-0.3*	*-0.0*	1.8	1.5	*0.9*	*-0.5*	*-0.3*
IE (*)	-0.4	-1.0	-6.3	-0.1	-0.5	*-1.1*	*-0.4*	*-0.4*	-7.8	-8.0	*-8.0*	*-2.1*	*-2.5*
EL	0.0	-2.3	1.4	0.1	-1.6	*0.3*	*-1.5*	*-0.6*	-0.7	-2.4	*0.2*	*-2.7*	*-3.5*
ES	-0.7	0.2	0.2	-0.6	0.2	*0.4*	*0.2*	*0.0*	-0.9	-0.0	*0.2*	*0.2*	*0.8*
FR	-0.3	-0.2	-0.2	0.1	0.2	*0.1*	*0.0*	*-0.0*	-0.6	-0.1	*0.1*	*0.4*	*0.2*
IT	-0.2	-0.6	-0.5	-0.7	-0.3	*0.1*	*-0.1*	*-0.2*	-2.1	-2.2	*-1.5*	*-1.1*	*-0.6*
CY	-1.3	1.4	-0.4	-0.4	1.2	*0.5*	*-0.2*	*-0.3*	-0.7	1.8	*0.9*	*1.1*	*1.3*
LV	0.1	0.2	0.2	0.8	-0.2	*-0.4*	*-0.0*	*0.1*	1.3	1.0	*0.4*	*0.2*	*-0.5*
LT	-0.1	0.6	1.3	0.7	-1.3	*0.7*	*0.4*	*-0.3*	2.5	1.4	*1.4*	*0.5*	*-0.5*
LU	-0.1	-1.0	0.2	0.1	2.3	*0.7*	*0.5*	*0.2*	-0.8	1.6	*3.2*	*3.5*	*3.6*
MT	0.7	-1.1	-1.5	0.1	0.7	*-0.2*	*0.2*	*-0.1*	-1.8	-1.8	*-0.9*	*0.7*	*0.6*
NL	-0.6	-0.6	-0.9	1.2	-0.3	*-0.2*	*-0.5*	*0.6*	-1.0	-0.6	*-0.2*	*0.2*	*-0.4*
AT	0.4	-0.2	0.1	-0.1	-0.1	*0.1*	*-0.0*	*-0.1*	0.1	-0.3	*0.0*	*-0.1*	*-0.1*
PT	-0.5	-0.1	-0.9	-1.1	0.4	*0.4*	*0.4*	*-0.0*	-2.5	-1.6	*-1.2*	*0.1*	*1.2*
SI	-1.4	-1.6	-0.1	0.2	-0.4	*-0.7*	*-0.7*	*-1.2*	-2.9	-1.9	*-1.0*	*-1.6*	*-2.9*
SK	0.9	0.3	0.9	-0.4	0.3	*-0.3*	*-0.5*	*-0.4*	1.7	1.1	*0.5*	*-0.9*	*-0.8*
FI	-0.1	-0.4	-0.8	-0.5	-0.3	*-0.8*	*-0.2*	*-0.5*	-1.9	-2.1	*-2.4*	*-1.8*	*-1.8*
EA19	-0.0	-0.2	-0.4	0.0	0.0	*0.2*	*-0.1*	*-0.0*	-0.6	-0.6	*-0.2*	*0.1*	*0.1*
BG	2.0	0.5	-0.8	0.0	0.3	*0.1*	*-0.1*	*-0.1*	1.7	-0.0	*-0.4*	*0.3*	*0.2*
CZ	0.4	-1.1	-0.4	0.4	-0.1	*0.9*	*-0.3*	*-0.2*	-0.6	-1.1	*0.9*	*1.0*	*0.4*
DK	-2.1	1.1	-1.5	1.5	-0.2	*-0.9*	*-0.0*	*-0.2*	-0.9	1.0	*-1.1*	*0.4*	*-1.3*
HR	-0.9	-0.8	1.7	0.8	0.3	*-1.2*	*-0.2*	*-0.2*	0.7	1.9	*1.5*	*-0.4*	*-1.4*
HU	-1.5	-1.0	0.3	1.0	0.6	*-0.4*	*-0.2*	*-0.0*	-1.2	0.9	*1.5*	*1.0*	*-0.0*
PL	-0.5	-0.4	-0.1	0.0	0.1	*0.5*	*0.0*	*0.2*	-1.0	-0.4	*0.5*	*0.6*	*0.8*
RO	-0.2	0.4	1.5	0.1	-0.2	*0.4*	*-0.0*	*0.0*	1.7	1.7	*1.7*	*0.2*	*0.1*
SE	0.3	-0.6	-0.1	-0.5	-0.2	*-0.6*	*-0.3*	*-0.2*	-0.8	-1.4	*-1.4*	*-1.6*	*-1.3*
UK	0.8	-0.9	0.2	0.1	0.8	*-0.0*	*-0.3*	*0.1*	0.2	0.2	*1.0*	*0.5*	*0.5*

Note: Revenue windfalls/shortfalls are estimated here as the difference between the actual growth of revenues and the revenue growth expected according to nominal GDP growth with an elasticity of 1, corrected for discretionary revenue measures and fluctuations in EU funds (which are matched by corresponding EU funded expenditure). Positive values (in black) point to revenue windfalls, while negative values point to revenue shortfalls. (f)=forecast years. (*) The 2015 estimate for Ireland is distorted by a level shift in GDP following operations of some multinationals.
Source: Commission 2018 autumn forecast.

"significance" than the one used to define a "significant" deviation from the MTO or the adjustment path towards it.

How are "significant" revenue windfalls identified in practice?

Regulation (EC) No 1466/97 does not lay down a specific threshold to consider revenue windfalls significant. For surveillance purposes, only cases where revenue windfalls explain the entire overachievement of the MTO, such that a reversal of these windfalls in the coming years would indeed put at risk the MTO achievement, should be identified.

Given the high volatility of windfalls on an annual basis and the difficulty to identify windfalls in real time, a mechanical approach to identify significant revenue windfalls is not warranted. Instead, the Commission applies economic judgement in the assessment of windfalls, on a case-by-case. Such an assessment is not only based on the windfalls within a single year, but covers a multi-annual time horizon. Indeed, the aim is to identify cases where expenditure increases are financed by an accumulation of windfalls over several years.

focus on the expenditure benchmark in the preventive arm", the Economic and Financial Committee formulated the condition to assess the expenditure benchmark slightly differently, stating: "In assessing compliance with the requirements and in line with Council Regulation (EC) No 1466/97, a deviation from the expenditure benchmark is in general left out of consideration if the Member State is found to have exceeded its MTO on the basis of the structural balance pillar. However, in line with Council Regulation (EC) No 1466/97, an assessment of compliance with the expenditure benchmark is performed in the specific situation where the Member State is found to have exceeded the MTO solely thanks to significant revenue windfalls."

In practice, the nature of such windfalls and their significance are assessed based on country-specific elements from a medium-term perspective.

- In particular, it is necessary to assess the potential drivers of long-lasting patterns of revenue windfalls. The identification of macro-economic imbalances (for example as part of the in-depth reviews under the macroeconomic imbalances procedure) might give a useful identification. Such imbalances with an impact on revenue developments could for instance include the existence of bubbles in asset markets (e.g. housing market, financial markets) and/or wage developments that are not consistent with the competitiveness position.
- In addition, the design of the tax system might explain revenue developments that diverge from GDP developments.
- On the other hand, if higher-than-one elasticities are just a catching up phenomenon that follows a period of revenue shortfalls –as might have been recently the case given the curbing impact of the crisis on actual tax elasticities and the intrinsic volatility of revenue developments– those *apparent* windfalls are not be considered "significant", independently of their size.

What are the implications for fiscal surveillance?

If the windfalls are not assessed to be significant or not essential to achieve the MTO (meaning that their reversal would not jeopardise the MTO achievement), the structural balance trumps the expenditure benchmark in line with the general treatment of Member States that over-achieve their MTO. Indeed, in such a case, Regulation (EC) No 1466/97 explicitly provides that a possible deviation of the expenditure benchmark would not be taken into account. However, an assessment of expenditure developments might still be useful as part of a risk analysis, even in cases where it is not strictly required by the surveillance framework.

On the other hand, if the revenue windfalls are considered significant and are instrumental to the achievement of the MTO (meaning that their reversal would jeopardise the MTO achievement), it is assessed if net expenditure growth is not exceeding medium-term potential growth. Such assessment would consider that the MTO over-achievement is explained by significant revenue windfalls that have inflated over the years the current level of revenues. In those cases, due account is given to the expenditure benchmark to assess compliance with the preventive arm to avoid ignoring unsustainable expenditure trends.

The Commission has recently applied such a case-by-case approach for a number of Member States benefiting from revenue windfalls. Following sizeable revenue windfalls in Cyprus and Malta observed in 2017 coupled with dynamic expenditure growth, the Council adopted the Commission's recommendation that called upon these countries to monitor expenditure developments carefully in the short and medium term, especially in light of possible future risks to the robustness of revenues. ([38])

Conclusions

To sum up, revenue windfalls are factored into country-specific surveillance, with a view to avoid repeating the errors of the past. The six-pack introduced an explicit reference in Article 6(3) of Regulation No 1466/97 to the possibility of windfalls. In particular, if the over-achievement is due to significant revenue windfalls that risk to jeopardise the MTO achievement in the medium term, deviations from the expenditure benchmark are still taken into account as part of the overall assessment under the preventive arm. In order to identify such cases, an assessment of revenue developments takes place when the over-achievement could solely be the result of such windfalls. However, it is difficult to identify windfalls in real time. Therefore, the nature and size of buoyant revenue growth is assessed based on an economic analysis of country-specific elements and covers a multi-annual time horizon. Besides for surveillance purposes, an assessment of revenue windfalls is also useful as part of a fiscal risk assessment. An early identification of buoyant revenue growth as a windfall would act as a warning against spending these revenues and could avoid unsustainable expenditure patterns.

([38]) See for example the opinion on the 2018 and 2019 Draft Budgetary Plans and the assessment of the 2018 Stability Programmes of Malta and Cyprus.

4. REVIEW OF THE FLEXIBILITY UNDER THE SGP

4.1. INTRODUCTION

In 2016, the ECOFIN Council endorsed new guidance on the use of flexibility in the Stability and Growth Pact (SGP). Building on the Commission Communication on "making the best use of the flexibility within the SGP" from 2015, a commonly agreed position on flexibility in the SGP (hereafter commonly agreed position) was endorsed by the ECOFIN Council in February 2016. ([39]) The main objective was to use the flexibility within the SGP when applying the rules without modifying the existing legislation. The Council requested the Commission to review the new approach. The Commission published a review of the new approach as requested by the Council in time in May 2018. ([40])

The new approach introduced the following two types of flexibility in applying the rules.

- *Flexibility for cyclical conditions:* A matrix of requirements (hereafter matrix) was introduced, which specifies the required fiscal adjustment depending on the business cycle and public debt, while ensuring the annual benchmark adjustment of 0.5% of GDP. The matrix envisages a lower (higher) fiscal adjustment in a situation of bad (good) economic times or low (high) public debt (Table II.4.1).
- *Flexibility for structural reforms and investment*: The structural reform and investment clause were introduced to promote structural reforms and public investment through a temporary and limited relaxation of the required fiscal adjustment (technically, a temporary deviation from the Medium-Term Objective or the adjustment path towards it) corresponding to their short-term budgetary impact and conditional on certain eligibility conditions. ([41])

This Chapter presents the main findings of the Commission staff review on the use of flexibility within the SGP. It is structured as follows: Section II.4.2. focuses on the findings of the effectiveness of the flexibility for cyclical conditions. Section II.4.3. presents the results of the review on the application of the structural reform and investment clauses. Finally, Section II.4.4. summarises the main findings.

4.2. REVIEW OF THE FLEXIBILITY FOR CYCLICAL CONDITIONS

What was the mandate of the review?

The Council asked the Commission to assess three elements of the flexibility for cyclical conditions. The Commission examined whether the flexibility for cyclical conditions (i) promoted counter-cyclical fiscal policies by modulating the fiscal effort along the economic cycle and the debt level of Member State, (ii) contributed to the achievement of sound budgetary position over the medium term and (iii) ensured a reduction in government debt at a satisfactory pace (see Chapter 2.2. of the commonly agreed position). ([42]) The review concentrates on the effectiveness of the design of the matrix rather than its enforcement, which corresponds to a much broader issue of compliance with the preventive arm of the SGP.

How was the review conducted?

The review follows an analytical, evidence-based and backward-looking approach, which concentrates on the design of the matrix. It covers Member States in the preventive arm of the SGP, excluding years when they (over-)achieved their medium-term budgetary objective (MTO) or were subject to the excessive deficit procedure (EDP). The review covers not only the period since introduction of the matrix in 2015, but also a longer period to assess its impact over several economic cycles. It uses data in real time from Commission forecast vintages from 2000 to 2017 at two crucial points in time of the EU surveillance process: (i) when the requirements are set for the first time, i.e. based on forecast data from spring for the year ahead ("ex-ante requirement") and (ii) when the fiscal outcomes are assessed for the last time in terms of compliance, i.e. based on outturn data from spring for the previous year ("ex-post requirement").

([39]) Council of the European Union (2015).
([40]) European Commission (2018a).
([41]) For more information on how the flexibility clause for cyclical conditions as well as the structural reform and investment clauses were implemented see European Commission (2018b), p. 37-44.

([42]) For the assessment of ensuring a reduction in government debt at a satisfactory pace see European Commission (2018a).

Table II.4.1: **Matrix of the required annual fiscal adjustment under the preventive arm of the Stability and Growth Pact**

Economic situation		Required annual fiscal adjustment (pp. of GDP)	
		Debt ≤ 60% and low/medium sustainability risk*	Debt > 60% or high sustainability risk
Exceptionally bad times	Real growth < 0 or output gap < -4	No adjustment needed	
Very bad times	-4 ≤ OG < -3	0	0.25
Bad times	-3 ≤ OG < -1.5	0 if actual growth < potential, 0.25 if actual growth > potential	0.25 if actual growth < potential, 0.5 if actual growth > potential
Normal times	-1.5 ≤ OG < 1.5	0.5	> 0.5
Good times	OG ≥ 1.5	> 0.5 if actual growth < potential, ≥ 0.75 if actual growth > potential	≥ 0.75 if actual growth < potential, ≥ 1 if actual growth > potential

* Regulation (EC) 1466/97 does not specify an appropriate annual adjustment for Member States outside the euro area and ERM2 with debt below 60% of GDP and at most moderate risks of debt sustainability. Currently, this would be the case of Bulgaria, Czech Republic, Poland, Romania and Sweden. While those Member States should pursue greater improvements in good times and more limited in bad times, the Regulation does not quantify the adjustment. OG refers to output gap.
Source: European Commission (2018b), p. 38.

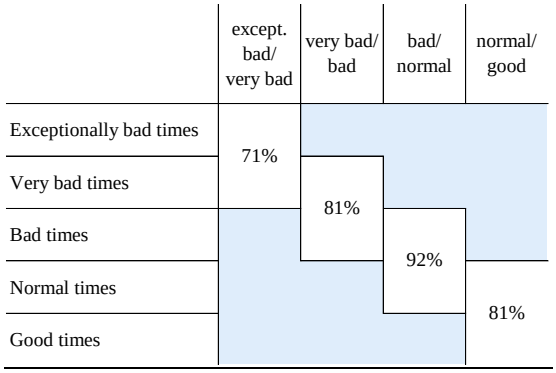
Has the matrix promoted counter-cyclical fiscal policies?

The review finds that the design of the matrix modulates the required fiscal adjustment around the benchmark requirement of 0.5%. If the matrix had been applied since 2000 the most frequent requirements (78% of the sample) would have been 0.5% (the benchmark requirement) and 0.6% of GDP (Graph II.4.1a). In more than 20% of cases, the matrix would have allowed for a more pronounced modulation of requirements (Graph II.4.1a). Member States with public debt-to-GDP ratios exceeding 60% would have received on average requirements exceeding 0.5% of GDP (Graph II.4.1b). In almost 20% of the cases the matrix would have prescribed a significantly higher or lower requirement. Hence, the matrix would have mitigated pro-cyclicality by promoting the stabilisation of the economy in bad times and contributing to building up fiscal buffers in good times.

Does the matrix represent a good balance between cyclical modulation and predictability?

Our analysis shows that the use of less but broader categories to measure the economic situation in the matrix would have greater costs (loss of cyclical modulation) than benefits (improving predictability of matrix categories). The matrix contains five categories measuring the economic situation (Table II.4.1, left hand side). Merging two matrix categories can have costs and benefits. On the one hand, costs can occur due to a loss of cyclical modulation in setting the requirements. On the other hand, benefits can emerge from improving the predictability of the matrix categories between forecast and outturn data (i.e. reducing the forecast error). We quantify the costs and benefits of merging two matrix categories with a cost indicator. ([43]) That indicator

Table II.4.2: **Cost indicator of merging two matrix categories**



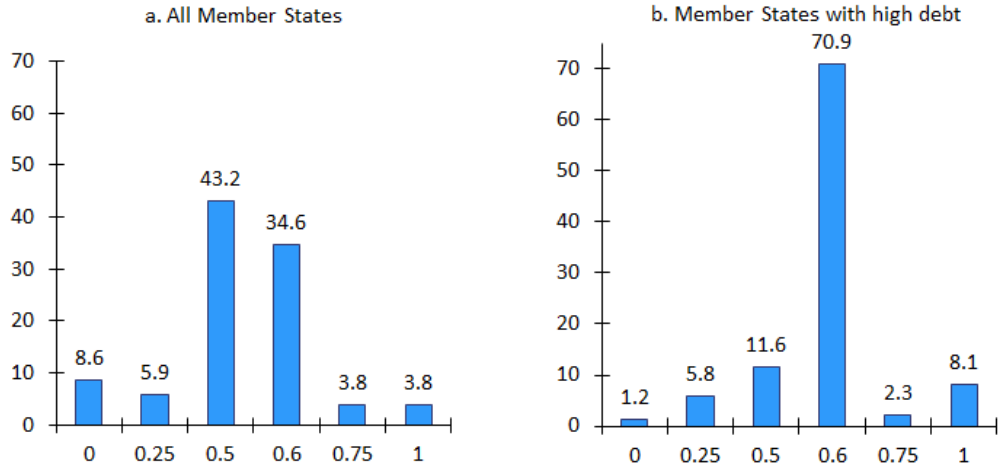
Source: Commission services.

([43]) The cost indicator (κ) of merging two adjacent matrix categories is defined as follows:

$$\kappa = 100 - 100 * \frac{shift_{i \to i+1}^{SFt-1|t} + shift_{i+1 \to i}^{SFt-1|t}}{obs_i^{SFt+1|t} + obs_{i+1}^{SFt+1|t}}$$

where i corresponds to the respective matrix category, i.e. exceptionally bad times (i=1), good times (i=5), SF t-1|t stands for the ex-ante forecast, while SF t+1|t refers to the ex-post outcome. "shift" refers to the number of cases when the matrix category shifted upwards/downwards by one matrix category between the ex-ante forecast and the ex-

Graph II.4.1: **Distribution of pure matrix requirements (in %)**



Note: The figures show frequency distributions of the fiscal adjustment requirements stemming from an application of the "pure matrix", i.e. an application of the matrix irrespective of the distance to the MTO. The required fiscal adjustment refers to the ex-ante requirement requested in spring for the year ahead using Commission spring forecast vintages from 2000 to 2017. The sample covers Member States under the preventive arm of the SGP, i.e. it excludes Member States in EDP. High debt refers to public debt-to-GDP ratios exceeding 60% of GDP.
Source: Commission services.

measures what percentage of cases the merging of two categories would have implied a loss of cyclical modulation. It varies between 100% (i.e. merging two categories has only costs and no benefits since it does not improve the predictability of the matrix categories) and 0% (i.e. merging two categories has only benefits and no costs, since it does not lead to a loss of cyclical modulation). Our findings show that irrespective of which of the two matrix categories analysed are merged, the costs of merging clearly exceed the benefits (Table II.4.2). We therefore conclude that the matrix categories constitute a good balance between cyclical modulation and predictability of requirements over forecast vintages.

Has the matrix contributed to sound budgetary positions over the medium term?

For the EU28 on average, the matrix would have led to a fiscal adjustment requirement close to the benchmark of 0.5% requested in Regulation (EC) 1466/97 (Graph II.4.2). The application of the pure matrix would have resulted in an average fiscal requirement of 0.5% (using forecast vintages since 2000) and 0.53% (since 2015). The higher requirement since 2015 can be explained by both more positive cyclical economic conditions and higher debt-to-GDP ratios compared to the previous period.

post outcome; "obs" refers to the number of observations in category i according to the ex post outcome.

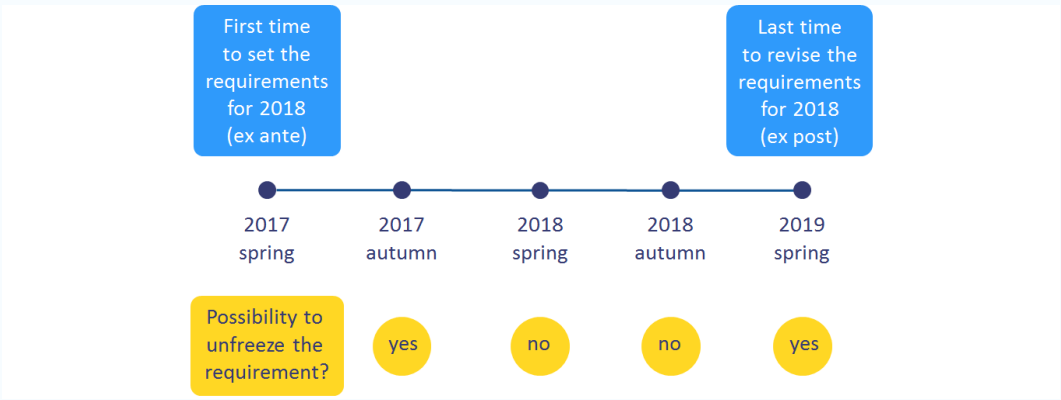
Additional provisions of the fiscal surveillance framework lead on average to a smaller fiscal adjustment requirement (Graph II.4.2). In practice, Member States are often requested to implement an adjustment lower than the one following from a strict application of the matrix (i.e. what we call the "pure matrix" scenario). In particular, the SGP does not oblige Member States to consolidate beyond their MTO. Taking this into account reduces the average matrix requirement by roughly 0.1 pp. (see "Matrix not exceeding MTO"). In addition, considering the so-called "freezing principle" (Box II.4.1) decreases the average requirement further by around 0.1 pp. Finally, taking into account further elements designed to promote structural reforms and investment (structural reforms, public investment and pension clause) and to react to unforeseen developments (unusual event clause) lowers the requirement to around 0.32 (since 2000) and 0.4 (since 2015) on average (Graph II.4.2). ([44])

([44]) Some of these elements (not exceeding MTO, freezing principle, pension clause and unusual event clause) do not come from the commonly agreed position on flexibility. Beyond the scope of this review, the Commission departed from the matrix-based approach in the following few cases, in which there was a justification, namely for Romania in 2015 (to incentivise the absorption of EU funds) and for Slovenia in 2017 (due to uncertainty of the output gap estimates). In addition, the Commission applied its discretion in the cases of Italy and Slovenia in 2018 in light of their particular cyclical conditions.

Box II.4.1: Freezing principle and unfreezing modalities

Member States' compliance with the preventive arm of the SGP for a given year is assessed five times over an entire surveillance cycle (Graph 1). The first assessment is conducted in spring for the year ahead (ex-ante assessment); the time when the fiscal requirement is set. Subsequently, the compliance is assessed in autumn of the preceding year, in spring and autumn during that year (in-year assessment) and finally in spring of the next year, based on outturn data (ex-post assessment). ([1]) It is this final assessment that can trigger the SDP, which for euro-area Member States can also lead to sanctions.

Graph 1: **Assessing Member States' compliance with the preventive arm of the SGP: An illustration for the 2018 surveillance cycle**



Source: Commission services.

The fiscal requirements against which Member States are assessed remain as a rule stable during a surveillance cycle. The key objective of stable requirements is to provide guidance to Member States about the required adjustment and to ensure predictability of the assessment of compliance. For this reason, the specifications on the Significant Deviation Procedure (SDP) introduced the so-called "freezing" of the required adjustment under the preventive arm of the SGP. This freezing means that, as a rule, the requirements in terms of the change in the structural balance and the expenditure benchmark for year t are set on the basis of the Commission's spring forecast of year *t-1* and kept unchanged afterwards.

However, in two particular situations the required fiscal adjustment is reset ("unfrozen") during a surveillance cycle. Freezing the fiscal requirements comes at a price in terms of adaptability to changing economic circumstances. For instance, if economic conditions worsen the required adjustment can turn out to be too large. In order to avoid such unwarranted consequences, it was agreed to reset, or "unfreeze", the requirement in two particular situations.

- *Very bad or exceptionally bad times*: The required fiscal adjustment is lowered in line with the matrix requirement if a Member States enters in "exceptionally bad times" (defined as negative real GDP growth or an output gap below -4%) or "very bad times" (defined as an output gap between -3 and -4%). This type of unfreezing should avoid pro-cyclical fiscal policy in particularly unfavourable economic conditions.

- *Overachievement of the MTO*: The required fiscal adjustment is lowered if the forecasts/data show that the distance to the MTO at the start of the relevant year is smaller than the frozen requirement or that the Member State already achieved its MTO. This type of unfreezing is relevant for countries close to their MTO and should avoid an adjustment that would lead to overachievement of the MTO.

([1]) Between 2013 and 2017, the Member States' compliance was even assessed seven times, including in winter for the given year and in winter for the previous year.

(Continued on the next page)

Box (continued)

The possibility to unfreeze the requirement has been limited since 2017. Up to 2017, such unfreezing of the initial requirement could take place at every assessment round. Since 2018, however, unfreezing can only take place ex ante (based on the autumn forecast preceding the relevant year) or ex-post (based on the spring forecast following the relevant year), while the requirement remains frozen during the in-year assessment (Graph 1).

Overall, the unfreezing is applied asymmetrically and can only lead to a lower fiscal requirement (Graph II.4.2). Where the most recent forecast/data would imply a higher required effort than the one implied by the freezing, the frozen requirement remains valid. The drawback is that in some cases the loosening of the requirement turns out not to be fully justified ex post, thereby unduly protracting the period of convergence to the MTO.

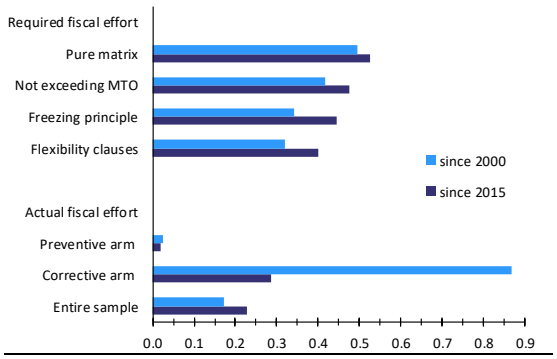
The current application of the freezing principle ensures a good balance between predictability and adaptability. The first type of unfreezing, catering for an unexpected and severe downturn, was carried out only once since 2015, given the return of most Member States to normal or good economic times in recent years. However, it might well be justified at the next downturn. The second type of unfreezing, catering for a change in the starting position with respect to the MTO, has been considerably more common in recent years, with 26 cases between 2015 and 2017. In all cases, the lowering of the requirement was ex post at least partially justified, i.e. the initial requirement would indeed have led to an "overachievement" of the MTO. However, in two thirds of those cases, while the initial requirement was too high, the revised requirement turned out to be too low in hindsight, meaning that ex post it proved insufficient to reach the MTO. If the revised modalities with fewer possibilities for unfreezing at intermediate assessment rounds had applied as of 2015, the number of cases where the downward revision of the requirement was too high would have been significantly smaller.

How does the required adjustment compare with the actual fiscal effort?

The actual fiscal effort of Member States falls short of the required one (Graph II.4.2). Comparing the requested fiscal adjustment with the actual implemented fiscal effort – as measured by the change in the structural balance – points to a sizeable gap with the required fiscal effort.

The gap should be interpreted with caution. First, the matrix did not exist before 2015. It should also be recalled that the actual fiscal effort refers only to the Member States in the preventive arm of the SGP, i.e. excluding years when Member States (over-)achieved their MTO and/or were under the corrective arm of the SGP, the EDP. The average effort for the EU28 and for Member States in the corrective arm of the SGP is significantly higher (see last two rows of Graph II.4.2).

Graph II.4.2: **Requested vs. actual fiscal effort (EU Member States)**



Note: The calculations are updated compared with European Commission (2018a) and now also include data from the Commission 2018 spring forecast. "Pure matrix" and "not exceeding MTO" are computed based on the ex-ante assessment derived from Commission spring forecasts for the year ahead. The remaining elements are based on the ex-post assessment, which is derived from Commission spring assessments for the previous year. The freezing principle includes the unfreezing from two situations (i.e. in case of very bad or exceptionally bad times or over-overachievement of the MTO (Box II.4.1). The freezing based on the first condition only (i.e. very bad or exceptionally bad times) amounts to 0.41 (since 2000) and 0.52 (since 2015). The flexibility clauses include the structural reforms, investment, pension and unusual events clause. The data refer to unweighted averages for the EU28 (changing composition) using Commission forecast vintages from spring 2000 to spring 2018.
Source: Commission services.

4.3. REVIEW OF THE STRUCTURAL REFORM CLAUSE AND INVESTMENT CLAUSE

What was the mandate of the review?

The Council asked the Commission to assess four elements of the flexibility for structural reforms and public investment. The Commission was asked to examine: i) the achievement by the Member States of their MTOs, thereby creating the necessary room to accommodate economic downturns; ii) to what extent the projects eligible for the investment clause were co-funded by the EU; iii) whether the investment clause led to new investments and iv) the implications of the continuation of the investment clause (see Section 5 of the commonly agreed position). The review concentrates on the effectiveness of the design of the clauses and examines the fulfilment of eligibility conditions in cases where flexibility was granted.

Why are the flexibility clauses only granted subject to eligibility conditions?

The eligibility criteria should ensure fiscal sustainability, while not discouraging Member States from implementing structural reforms and promoting additional public investment. The commonly agreed position tries to achieve the right balance between using the flexibility within the SGP in applying the rules and ensuring fiscal sustainability. A key component in ensuring the right balance is the eligibility criteria for accessing the clauses. They need to be sufficiently tight to ensure that the use of the clauses does not jeopardise Member States' sustainability of public finances. At the same time, they should not render access to the clauses practically impossible.

How were the eligibility criteria defined?

There are common eligibility criteria for both the structural reform clause and the investment clause as well as some specific ones for each clause. Several criteria should be fulfilled to be eligible for the clauses. There are common criteria, which hold for both clauses: Member States should respect a safety margin with respect to the MTO so that their headline deficit does not exceed 3% of GDP and the MTO must be reached within four years. In addition, clause-specific conditions exist. In the case of the investment clause, the Member State must experience bad economic times. ([45]) The eligible investment must be, to a large extent, co-financed by the Union, ([46]) while total public investment should not decline. In the case of the structural reform clause, the reforms must have positive long-term budgetary effects, including by raising potential growth, and must be either fully implemented or well-specified (including credible timelines) in a medium-term structural reform plan submitted by Member States.

How was the review conducted?

First, the Commission examined how demanding the key eligibility criteria were in practice. So far only few Member States have made use of the clauses. Nevertheless, the review has retroactively examined eligibility across all Member States ([47]) to see how many Member States would have been eligible for the use of the clauses from its application in 2015 until 2018. The Commission focused on the key eligibility criteria (Table II.4.3). ([48]) Eligibility for the use of the clauses in year *t* is assessed on the basis of the information available in spring of year *t-1*, when a Member State should, as a rule, apply for the clause in their Stability and Convergence Programme (SCP). ([49]) The review assessed whether a Member State met the eligibility criteria in spring for use of the clause in the following year.

([45]) In the following the term "bad economic times" captures years of negative real GDP growth or an output gap below -1.5% of GDP. Using the terminology of the matrix, this refers to bad, very bad and exceptionally bad times.

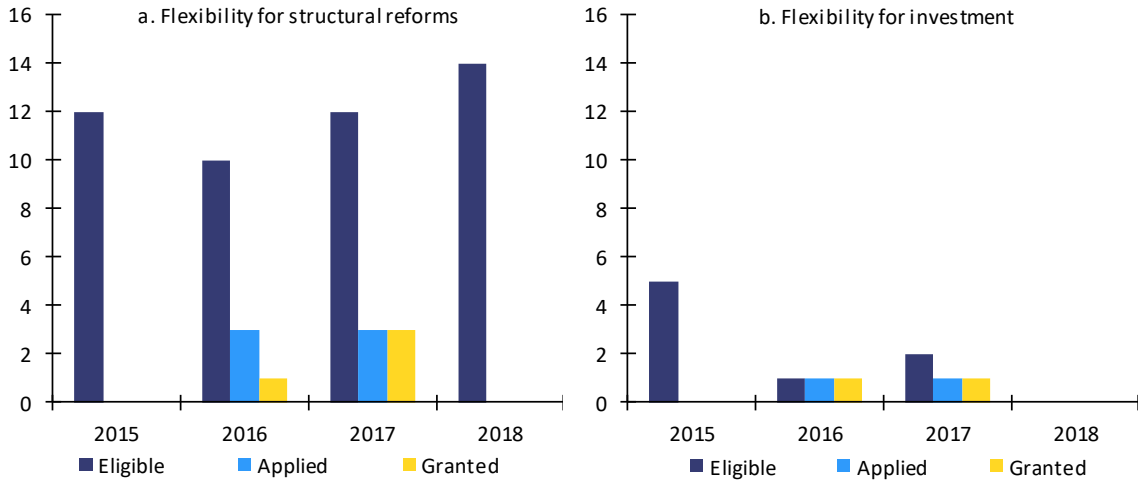
([46]) The following EU funds, instruments and policies are taken into account: European Structural and Investment Funds including Youth Employment Initiative, Trans-European Networks, Connecting Europe Facility, European Fund for Strategic Investments.

([47]) The review excluded Greece, which was subject to an Eurozone/IMF macroeconomic adjustment programme between 2010 and 2018 and hence exempt from the obligation to set the MTO.

([48]) These are: a) preserving an appropriate safety margin over the four years; b) achievement of the MTO within four years; and only for the investment clause c) bad economic times. The other eligibility criteria become relevant only when Member States formally apply for the use of the clauses and submit the information needed to assess them. For that reason, their fulfilment is examined only in the cases where the clauses were actually applied (see following paragraph).

([49]) Member States may request to benefit from the clauses in year *t+1* also by 15 October of year *t* in their Draft Budgetary Plans (euro-area Member States) or through an *ad hoc* application (non-euro-area Member States).

Graph II.4.3: **Eligibility for the clauses (number of Member States)**



Source: Commission services.

Second, the Commission examined the actual application of the clauses. The review examined the fulfilment of the following eligibility criteria for the structural reform clause: i) full implementation (or good specification including credible timelines) and ii) positive long-term budgetary effects, including by raising potential growth; and for the investment clause: i) the extent of co-funding by the EU of the eligible projects and ii) the generation of new investments.

Table II.4.3: **Eligibility criteria under review**

Eligibility criteria	How was it checked by the Commission?
a) Appropriate safety margin is continuously preserved [1]	The structural balance respects the minimum benchmark [2], i.e.: $SB_t \geq$ minimum $benchmark_t$ [3]
b) Achievement of the MTO within four years	The maximum initial distance of the structural balance of a Member State to the MTO is 1.5% of GDP, i.e.: SB_{t-1}-$MTO_{t-1} \geq$-1.5%
c) Only for the investment clause: bad economic times	Real GDP growth t < 0 or output $gap_t \leq$ -1.5%

Notes: [1] The respect of the minimum benchmark is assessed only at the time of the assessment of the application for the use of the clause. That approach is justified by the fact that the clauses are not retracted once granted, if compliance with the minimum benchmark is altered due to future revisions of the minimum benchmark. [2] Minimum benchmark is a level of structural balance which ensures the respect of the 3% reference value under normal cyclical conditions. The minimum benchmark is country specific, estimated by the European Commission for each Member State taking into account their past output volatility and budgetary sensitivity to output fluctuations. [3] The horizon of the spring forecast of year t-1 does not span beyond year t. Therefore, the respect of the minimum benchmark is assessed only for the year t.
Source: Commission services.

How demanding were the eligibility criteria?

More Member States were eligible for the structural reform clause than for the investment clause (Graph II.4.3). ([50]) Considerably more Member States would have been eligible for the use of the structural reform clause (twelve Member States on average between 2015 and 2018) than the investment clause (two Member States on average). Six Member State have always been eligible over the period assessed, while nine Member States have never been eligible for use of the structural reform clause.

The respect of the minimum benchmark was more a demanding criterion than the distance to the MTO, but in most cases neither of the two eligibility conditions was met. Over the years considered (2015-2018), the respect of the minimum benchmark was met less frequently than the maximum distance to the MTO of 1.5% of GDP. While the annual update of the minimum benchmarks has led to marginally stricter benchmarks over time (by 0.3 pp. of GDP over 2015-2018), the update itself stood in the way of eligibility only once. In contrast with that, in more than half of the cases the ineligibility followed from neither the minimum benchmark, nor the distance to the MTO having been respected.

([50]) It is important to highlight that the Graph II.4.3 does not consider cases where these eligibility criteria could be met as a result of the constrained judgement approach.

Indeed, the actual fiscal effort of Member States in the preventive arm of SGP fell repeatedly short of requested adjustment (Graph II.4.2), making the respect of both criteria harder to achieve. By contrast, the condition that the deviation must not lead to a headline deficit above 3% of GDP did not imply an additional constraint to accessing the clauses.

The specific eligibility criterion for the investment clause has become harder to fulfil over time, since economic conditions improved. With respect to the specific eligibility criterion for the investment clause to be in bad economic times, all Member States have experienced positive real GDP growth rates since 2015 and around half of them showed an output gap below -1.5% in 2015. However, as economic conditions improved and output gaps started to close, only Greece still appears to be in bad times, for the purposes of the investment clause, in 2018.

How was the structural reform clause applied?

Only four Member States benefitted from the structural reform clause, while 18 would have been eligible. Lithuania has been eligible for the structural reform clause over the entire period, but it benefitted from it only in 2017. The other three Member States that benefitted from the clause are Italy in 2016 as well as Latvia and Finland in 2017. The four Member States that applied for the structural reform clause were granted flexibility lowering their fiscal requirement by 0.5 pp. of GDP.

The four Member States that benefitted from the structural reform clause met the objective to implement major structural reform with positive long-term budgetary effects to some extent. Regarding the structural reform clause, while some reforms have been implemented in the Member States that were granted the clause, implementation of other reforms is still ongoing. In some cases the implementation has stretched beyond the timelines upon which the flexibility was granted. The Commission assessed the estimated positive impact on growth and the long-term sustainability of public finances as plausible at the time of granting the clause in all four instances. In some cases though, the Commission had to do without an independent evaluation of the estimated impact on the long-term budgetary effects, an obligatory complement of the request for flexibility.

How was the investment clause applied?

While the review confirms that the projects eligible for the investment clause were co-funded by the Union, results are more mixed as to whether it fostered additional investments. Italy and Finland ([51]) applied for the investment clause in 2016 and 2017. Italy, which also benefitted from the structural reform clause, applied for flexibility by 0.25% of GDP, but eventually made use only of 0.21% of GDP. Italy's total public investment declined in 2016 compared to 2015 on the account of the sharp fall in the amount of investment financed though Union funds. Public investment financed nationally increased, but not in volume of the allowed deviation, suggesting that the flexibility was partly used for other purposes than boosting investment. Finland was granted a temporary deviation of 0.1% of GDP under the investment clause in 2017. The outturn data for 2017, however, showed a decline in public investment in 2017 compared to the previous year, while public investment financed nationally remained stable.

4.4. CONCLUSIONS

This Chapter presents the main findings of the Commission staff review on the design of flexibility within the SGP. The ECOFIN Council asked the Commission to review the flexibility in the SGP, which was used in applying the rules since 2015.

The main findings of the Commission review on the flexibility for cyclical conditions can be summarised as follows: The design of the matrix ensures a modulation of the required fiscal adjustment over the economic cycle. The design of the matrix also supports the achievement of the MTO inasmuch as it leads to an average requirement close to the benchmark of 0.5% of GDP. By ensuring the achievement of the MTO, it

([51]) In the case of Finland, the Commission applied "constrained judgement" to the estimate of the output gaps and on that basis concluded on its eligibility for the clauses.

helps debt reduction at a satisfactory pace. ([52]) However, the actual budgetary adjustment falls short of the required one.

In terms of the review on the flexibility of the structural reform and investment clause, the Commission review concludes: The eligibility criteria rendered the structural reform clause accessible to two-thirds of Member States, while the specific eligibility criteria made the investment clause more difficult to access. Where granted, the flexibility witnessed partial implementation of major structural reforms and a mixed pattern of public investments.

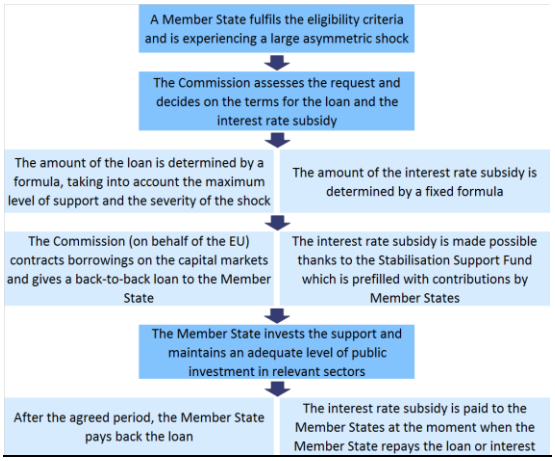
Some caveats remain. In particular, the short time period since application of the two elements of flexibility limit the scope of the review.

([52]) For the assessment of ensuring a reduction in government debt at a satisfactory pace see Part I.2 of European Commission (2018a).

5. COMMISSION PROPOSAL FOR A COMMON STABILISATION TOOL

General discussions on the choice and design of a common fiscal policy instrument for the EU are ongoing. ([53]) In this context, this Chapter recalls the Commission's proposal from May 2018 for a European Investment Stabilisation Function (EISF) (Graph II.5.1). Other (non-mutually exclusive) options concern the creation of a euro area budget with some stabilisation properties or focus on unemployment benefits (possibly in addition to public investment) but are not detailed here.

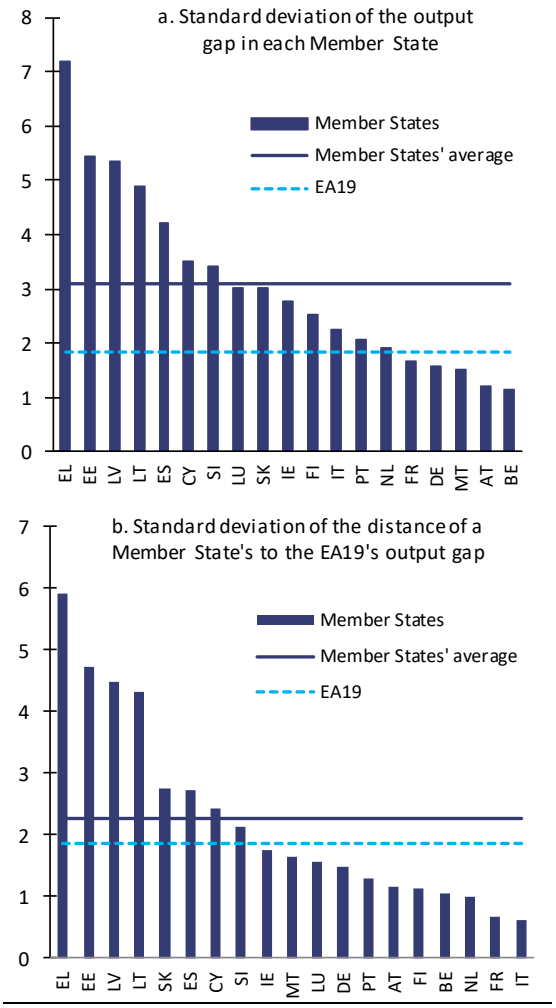
Graph II.5.1: **Commission proposal for a common fiscal policy instrument**



Source: European Commission (2018d).

The crisis has revived the debate about such common fiscal policy instruments. The European Stability Mechanism (ESM) and the process completing the Banking Union are reinforcing the integration of the economies of the Member States. However, national governments, have to ensure the bulk of the stabilisation of economic fluctuations (Graph II.5.2a). Automatic stabilizers are the first instrument to cope with economic fluctuations but can be overwhelmed by large asymmetric shocks in Member States who can no longer use national monetary policies. The single monetary policy itself can be overburdened (especially when interest rates are already low) and is not meant or

Graph II.5.2: **Volatility of the economic fluctuations in the EA19**



Source: Commission services.

equipped to respond to country specific shocks (country specific fluctuations can be as large as several percent of GDP, Graph II.5.2b). In this context, the economies of the Member States can be overly impacted by large asymmetric shocks, a situation which can spill over to the rest of the European Economic and Monetary Union (EMU). Therefore, there is a need for a common fiscal policy instrument in the EMU.

([53]) Arnold et al. (2018), Bénassy-Quéré et al. (2018), Carnot et al. (2017), Claveres and Stráský (2018), Dullien et al. (2017), see also the references listed in the Impact assessment of the Commission proposal (European Commission, 2018c).

Table II.5.1: **Comparison of activation triggers proposed in the literature**

Carnot et al. (2017)	Dullien et al. (2017)	Arnold et al. (2018)	Claveres and Stráský (2018)	Bénassy-Quéré et al. (2018)
Double condition: –unemployment level above the 10–15 years moving average –unemployment rising, possibly above a threshold	**Level of unemployment rate** exceeding average level of past 5 years, by 0.2 pp. for national compartment, by 2.0 pps. for stormy day fund	**Level of unemployment rate** above 7-year moving average (in pp. or in %)	**Double condition:** –unemployment level above the 10-year moving average –unemployment rising	**Change in unemployment rate**, employment or wage bill above/below a threshold (e.g. 2 pps. for unemployment)

Source: European Commission (2018c).

As part of the next multiannual financial framework (MFF), the Commission has proposed to create a European Investment Stabilisation Function. ([54]) This proposal is part of the Commission's aim of deepening the EMU. In economic downturns, it can be easier to cut back on public investment than other current expenditures, even though public investment can be crucial to maintain the growth potential of an economy. Therefore, the Commission proposal is designed to help Member States maintain public investment when large asymmetric shocks occur. In addition, the Commission proposal is targeted at euro area and ERM II countries because other Member States can use their national monetary policies to accommodate the shocks.

The EU budget would guarantee EUR 30 bn of back-to-back loans to Member States over the MFF period (seven years). Doing so, the Member State receiving a loan can benefit from the low interest rate at which the EU can borrow. In addition, the Commission proposed to complement these loans with subsidies covering the interest payments. These subsidies would be financed by contributions of the Member States to a dedicated stabilisation support fund.

To avoid adverse incentives for non-prudent fiscal policies, strict eligibility criteria are proposed. To be eligible for support, a Member State should be compliant over two years with decisions and recommendations in the context of the Stability and Growth Pact and the Macroeconomic Imbalances Procedure. *Ex post*, the Commission would also verify that the Member State has maintained its public investment at the average of the previous five years and used the equivalent of the back-to-back loan to invest in eligible public investment. In addition, the small interest rate subsidy aside, this Fund would be financially balanced by design, as it provides loans.

The Commission proposes that the EISF would offer loans to a Member State when its unemployment is high and rising. A consensus has emerged in the literature to use the unemployment as the trigger for a common fiscal instrument. Disparities in the details remain in recent proposals (Table II.5.1) which are discussed in depth in the impact assessment of the Commission proposal. ([55]) In the present proposal, if the quarterly unemployment rate in a Member State is above its 15-year average and increasing by more than 1 pp. over one year, the Commission would propose a loan to this Member State. The

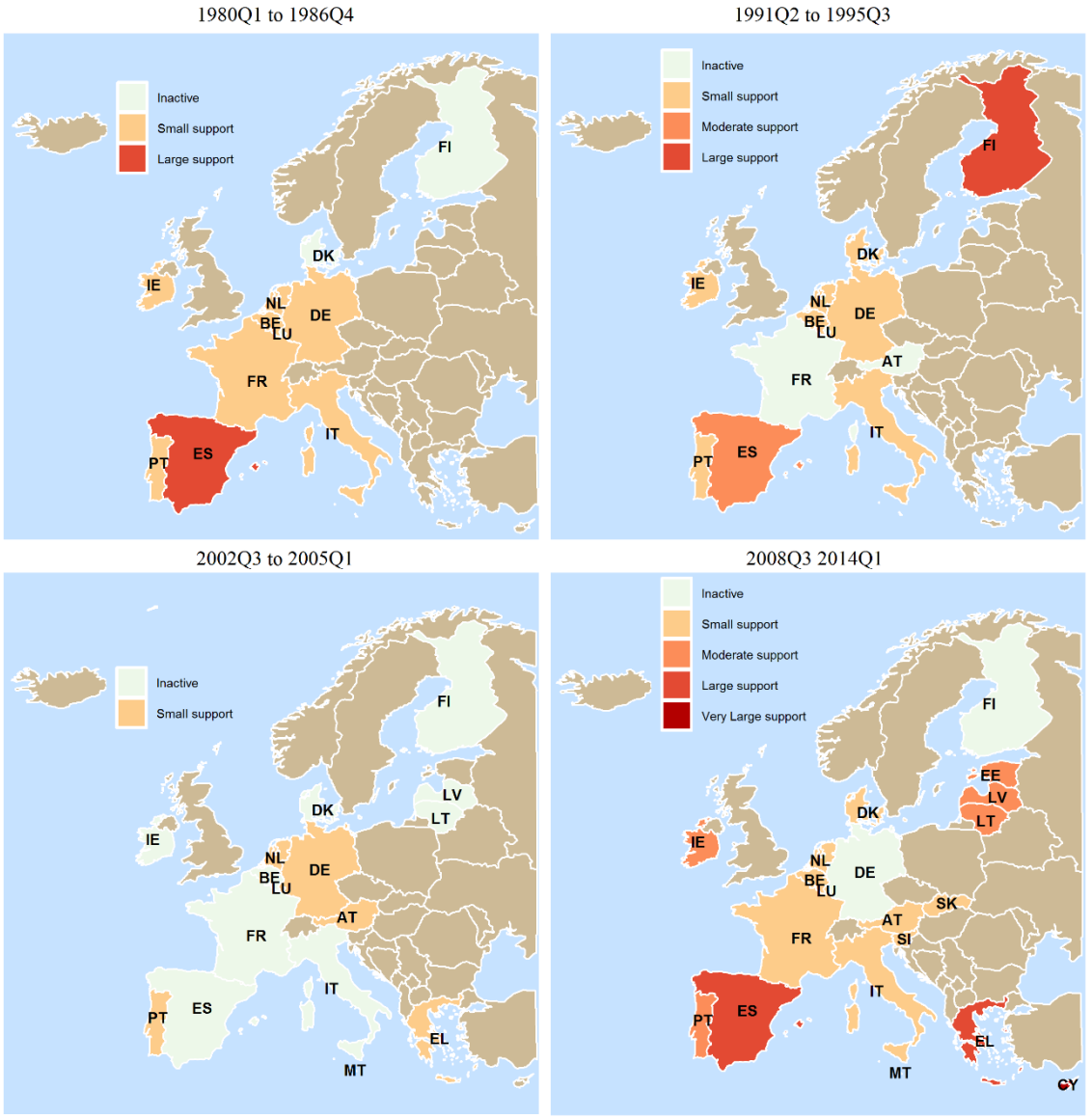
([54]) The proposal to establish a European Investment Stabilisation Function (2018d, 2018e) was adopted on 31 May 2018 together with a proposal to establish a Reform Support Programme (European Commission, 2018f). On 14 December 2018, the Euro Summit mandated the Eurogroup to "work on the design, modalities of implementation and timing of a budgetary instrument for convergence and competitiveness for the euro area, and ERM II Member States on a voluntary basis. It will be part of the EU budget, coherent with other EU policies, and subject to criteria and strategic guidance from the euro area Member States. We will determine its size in the context of the MFF. The features of the budgetary instrument will be agreed in June 2019. The instrument will be adopted in accordance with the legislative procedure, as foreseen by the Treaties, on the basis of the relevant Commission proposal to be amended if necessary" (Euro Summit, 2018).

([55]) European Commission (2018c).

amount of the loan would be proportionate to the unemployment increase and would be of at most 0.34% of its GDP (when the increase in the unemployment rate is larger than 2.5 pps.). With this design, and according to recent simulations, loans would have been offered on average once every ten years to each Member State in the past 30 years; a frequency which reflects the objective of offering support against large asymmetric shocks rather than normal economic fluctuations.

All Member States would have benefited from such a mechanism at some point in the past, if it had been in place over the last decades (Graph II.5.3). Since 1980 the proposed mechanism would have been activated in four periods. In all four periods, the supported Member States and the intensity of the support would have differed. In the mid-nineties, Finland and Spain would have benefited the most from support while many other Member States, less affected, would have received a small support. In the early 2000s, the euro area underwent a moderate downturn and Portugal, Greece, Germany and its neighbours would have benefited from the stabilisation function. In the recent crisis, more countries are included in the sample. Simulations highlight the most crisis-hit Member States (Cyprus, Greece, Italy, Spain, Portugal, Ireland, but also the three Baltics) as the main beneficiaries of support. In addition, loans would have been offered at different times. These simulations exemplify how the Commission proposal targets large asymmetric shocks which are too large to be accommodated by national fiscal policies alone and too country-specific to be dealt with by our common monetary policy.

Graph II.5.3: **Support simulations between 1985 and 2017**



Note: Based on simulation for the EA19 and ERMII since 1980. "Inactive" means that the double trigger condition was not fulfilled in any of the quarters by the Member State. A "small", "moderate", "large" and "maximum" support corresponds to respectively less than 25%, 50% and 75% and more than 75% of the maximum support on average over the period. In practice no Member State would have received on average more than 75% of the maximum support (except Cyprus for which simulations are possible only since 2012), but some would have received this maximum over a fraction of the period. See also European Commission (2018c).
Source: Commission services.

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