

Why have the public debt ratio targets set in the public finance programming laws not been met?

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Executive Summary

In 2023, France will have its fifth public finance programming law (PFPL), which will set out a path for debt reduction by 2027. While these programming laws represent a step forward in the medium-term management of public finances, it has to be said that the public debt ratio targets set out in them have so far not been achieved. While each of the previous PFPL forecast a fall in the public debt ratio relative to its level at the start of the period, the weight of public debt has increased significantly compared with 2009, the first year covered by the first PFPL.

It is therefore useful to draw lessons from the medium-term projections carried out to date in France. The purpose of this note is to identify the sources of the observed gaps between the public debt ratio targets set out in three public finance programming laws (2012-2017, 2014-2019 and 2018-2022) and their outcome.

To this end, the note distinguishes the impact of macroeconomic factors, assessed through the difference between the apparent interest rate and the rate of growth of nominal GDP, the ratios of primary public expenditure and public revenue to GDP, and the impact of stock-flow adjustments.

Despite an interest expenditure that was systematically more contained than expected, the target for the public debt ratio set at the end of the programming period was always exceeded, due to nominal GDP growth that fell short of expectations and a target for the ratio of primary public spending excluding tax credits that was constantly missed, with the ratio of public revenue net of tax credits to GDP and stock-flow adjustments playing a role that was sometimes upward, sometimes downward.

Compliance with the objectives set out in the medium-term fiscal-structural plan, which has already revised upwards the debt and expenditure ratio objectives for the horizon of the current PFPL and is once again based on an effective growth scenario considered optimistic by the High Council and a significant reduction in the expenditure ratio, will therefore require a clear break with the past, particularly in terms of method.

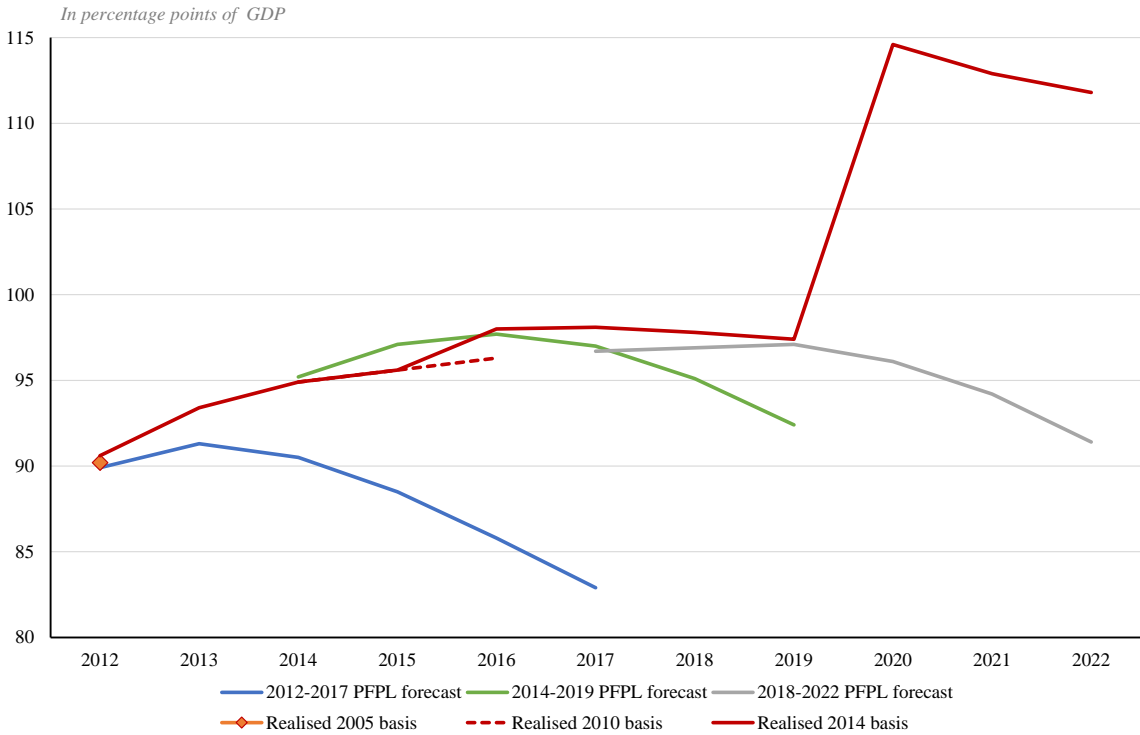
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In 2023, France adopted its fifth public finance programming law (PFPL), which sets out a path for debt reduction by 2027.

While the programming laws represent a step forward in the medium-term management of public finances, it has to be said that the public debt ratio targets set out in them have not been achieved. While each of the previous programming laws forecast a fall in the public debt ratio relative to its level at the start of the period, it has risen sharply in comparison with 2009, the first year covered by the first LPFP.

It is therefore useful to draw lessons from the medium-term projections made to date in France. The purpose of this note is to identify the sources of the discrepancies between the public debt ratio targets set out in three public finance programming law (2012-2017, 2014-2019 and 2018-2022) and their actual outcome.

Figure 1: public debt ratio forecast in the PFPL and realised (2014 base)



Sources: PFPL 2012-2017, PFPL 2014-2019, PFPL 2018-2022, INSEE

I. The methodology used to analyse the differences between the public debt trajectory set out in the PFPL and the actual outcome

a. Public finance programming laws: a gradually expanding legal framework

The Public Finance Programming Laws (PFPL) were introduced into article 34 of the Constitution as part of the revision of 23 July 2008 on the modernisation of institutions². They set out the multiannual guidelines for public finances over a period of at least three years, with the aim of balancing the accounts of all public administrations, i.e. the central government, local government and social security funds.

The Organic Law of 17 December 2012 on the programming and governance of public finances, which transposes the Treaty on Stability, Coordination and Governance (TSCG) into national law, has extended the role of the PFPL. It stipulates that the medium-term objective (MTO) for general government provided for in the TSCG must be set in the PFPL and that a multi-year trajectory for the public balance consistent with the achievement of this objective must be defined in the PFPL.

The framework for public finance programming laws was further specified by the Organic Law of 28 December 2021, which also incorporated the organic provisions relating to PFPLs into the Organic Law of 1 August 2001 on finance laws.

The High Council of Public Finance (HCFP) is responsible for assessing the consistency of the draft budget bills (PLF) and draft social security financing bills (PLFSS) with the multi-year structural balance guidelines set out in the PFPL. The HCFP is required to identify any 'significant divergences' between the implementation of the previous year and these multiannual guidelines in the budget settlement bill. If such a discrepancy is identified, the Government must present corrective measures in the next draft budget bill³.

Since the creation of this type of law in 2008, five programming laws have been adopted: 2009-2012, 2012-2017, 2014-2019, 2018-2022 and 2023-2027. This note excludes from the analysis:

- the first PFPL, drawn up just before the collapse of Lehman Brothers and immediately made obsolete by the financial crisis that followed;
- the PFPL 2023-2027, which has just been adopted and for which only the first year of implementation is available⁴.

² "The multi-annual guidelines for public finances are defined by programming laws. They shall be consistent with the objective of balancing the general government accounts".

³ In its Opinion No. 2014-2 on the 2013 Settlement Bill, the HCFP noted a significant difference between the structural balance path specified in the PFPL in force at the time and the structural balance recorded in 2013; rather than presenting measures to bring the structural balance path back into line with that of the PFPL, the Government opted to present a new draft PFPL the following autumn.

⁴ For an assessment of the difference between the structural balance achieved in 2023 and that forecast in the public finance programming law, readers may refer to opinion no. HCFP-2024-1 relating to the draft settlement bill for 2023.

b. Changes in the national accounts bases complicate the comparison between forecast and actual outcome in the absence of updated PFPL trajectories

The various concepts defined or used in the PFPL (growth, compulsory levies, expenditure, public balance, etc.) are part of the national accounting framework, which is defined by the European System of National and Regional Accounts (ESA). This accounting framework is regularly redefined and clarified at the European level, to give a better picture of reality, for harmonisation purposes or to take better account of new issues. These changes of base occur on average every five years and lead to revisions of data, including old data.

These revisions complicate the comparison between forecasts and actual outcomes if the two are not produced on the same base (i.e. using the same accounting standards). For example, the changeover to the 2010 base, which took place when the national accounts were published in May 2014, led to an upward revision of GDP to a level of 2.4% in 2010⁵, resulting in a fall in the ratio of public spending (denominator effect), partially offset by a new accounting method for tax credits and research and development activities, which in turn raised the level of public spending.

These changes in base have varying consequences for the analysis of PFPL:

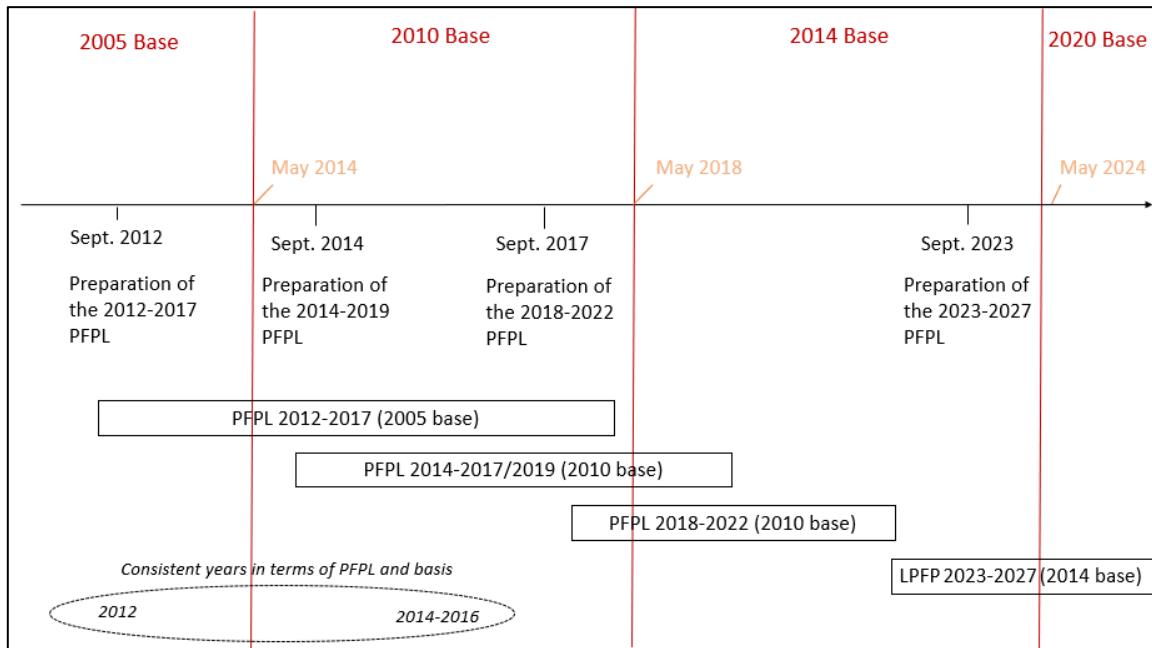
- For the 2012-2017 PFPL, which was drawn up on a 2005 base, only 2012 is available on a 2005 base. The year 2013 was published directly in 2010 base when the 2013 national accounts were published in May 2014⁶;
- The 2014-2019 PFPL was drawn up just after the changeover to the 2010 base: as the next change of base did not take place until the publication of the 2017 national accounts (in May 2018), the figures for 2014 to 2016 are available in 2010 base. For these years, the PFPL and its implementation are therefore perfectly comparable;
- The 2018-2022 PFPL was drawn up in September 2017 using the 2010 base, that is 6 months before the changeover to the 2014 base. There is therefore no year covered by the PFPL that is available in 2010 base.

The chart below presents the three PFPL studied in this note and summarises the base used for each PFPL and for each year carried out.

⁵ <https://www.insee.fr/fr/statistiques/fichier/2832834/base-2010.pdf>

⁶ At the end of March 2014, INSEE published an initial assessment of the general government national accounts for 2013 on a 2005 base, although the public deficit and debt data already incorporate revisions to accounting methods and sources.

Chart 1: timeline of PFPL and changes in base



Source: authors.

Reading note: the 2012-2017 PFPL was drawn up in September 2012 on a 2005 base. The change of base (from 2005 to 2010) was made in May 2014, so 2012 is the only year covered by the PFPL 2012-2017 that is available in the national accounts in 2005 base, that is, in the same base as the PFPL.

There were several ways of comparing the PFPL trajectories and their implementation:

- reconstruct either the national accounts for the final years of the PFPL, i.e. the years for which data is not available in the base used by the PFPL, or the PFPL trajectories in the subsequent base. This work could only have been done by national accountants with both the basic data underlying the national accounts and detailed knowledge of the concepts in each of the base;
- analyse only the 4 years between 2012 and 2022 for which the data exists in the same base as the PFPL (2012, 2014, 2015, 2016) (see box);
- compare the trajectories with the accounts available in an identical base.

This last option has been chosen, by retaining the 2014 base, which provides results for all the years of the programming laws and is the closest to those in which they were expressed. This choice is also justified by an examination of trends, which are less affected than levels by changes in the base.

Box: national accounts base changes affect the analysis

Appendix 2 also provides a comparison of forecast and actual data, where these exist in the same national account base. It highlights the effect that changes in the base can have on the diagnosis: the influence of the factors at the origin of deviations in the debt ratio is sometimes affected by these methodological changes.

As mentioned above, the HCFP must assess the consistency of the draft budget and social security financing bills with the multi-year structural balance guidelines set out in the PFPL. It must also identify whether there are any ‘significant discrepancies’ between the implementation of the previous year and these multi-year guidelines in the settlement law. In order to carry out this task, a comparable base must be available. When the base is changed, it would therefore be useful for the HCFP to have at its disposal either the objectives of the PFPL ‘translated’ into the new base, or the national accounts maintained, for the year, in the PFPL base, or the key factors between the different bases.

c. An economic breakdown of changes in the public debt ratio

This note proposes to break down the change in public debt into four components, the actual outcome of which will then be compared with the PFPL forecasts.

The dynamics of public debt can be written as follows:

$$D_{t+1} = D_t + Int_{t+1} - SP_{t+1} + FC_{t+1}$$

With D the public debt, Int the interest expenditure, SP the primary balance⁷ and FC stock-flow adjustments⁸.

If we relate this to the GDP noted Y , we obtain:

$$\frac{D_{t+1}}{Y_{t+1}} = \frac{D_t + Int_{t+1} - SP_{t+1} + FC_{t+1}}{Y_{t+1}}$$

$$\frac{D_{t+1}}{Y_{t+1}} = \frac{D_t}{Y_t} * \frac{Y_t}{Y_{t+1}} + r_{t+1} * \frac{D_t}{Y_{t+1}} - \frac{SP_{t+1}}{Y_{t+1}} + \frac{FC_{t+1}}{Y_{t+1}}$$

$$\frac{D_{t+1}}{Y_{t+1}} \approx \frac{D_t}{Y_t} * (1 + r_{t+1} - g_{t+1}) - \frac{SP_{t+1}}{Y_{t+1}} + \frac{FC_{t+1}}{Y_{t+1}}$$

$$d_{t+1} = d_t + (r_{t+1} - g_{t+1}) * d_t - sp_{t+1} + fc_{t+1}$$

⁷ Public balance excluding interest expenditure.

⁸ Transactions that need to be financed without increasing the public deficit in national accounting terms (such as the acquisition of stakes by the State in companies) or, in the opposite direction, that increase general government resources without reducing the deficit (such as privatisations).

where d is the ratio of debt to GDP, r is the apparent interest rate⁹ on public debt, g is the rate of growth of nominal GDP, sp is the ratio of the primary balance to GDP and fc the stock-flow adjustments relative to GDP.

We note that $d_{t+1} - d_t = (r_{t+1} - g_{t+1}) * d_t - sp_{t+1} + fc_{t+1}$

$$\Leftrightarrow d_t - d_{t-1} = (r_t - g_t) * d_{t-1} - rec_t + dép_t + fc_t$$

Changes in the public debt ratio can be broken down between the difference between the apparent interest rate on the debt r and the rate of growth of nominal GDP g , the primary balance in relation to GDP sp , itself equal to the balance between the ratio of public revenue rec and that of primary public expenditure $dép$, and the stock-flow adjustments also in relation to GDP fc .

Four different terms are thus examined in this note in order to understand changes in the public debt ratio ($d_t - d_{t-1}$):

- the influence of macroeconomic factors, via the term $(r_t - g_t) * d_{t-1}$;
- the public revenue ratio;
- the public primary expenditure ratio;
- stock-flow adjustments.

II. Apparent interest rate always below forecast, as is average nominal GDP growth

In this first part, we look at the influence of macroeconomic factors, by analysing the term “ $(r_t - g_t) * d_{t-1}$ ”.

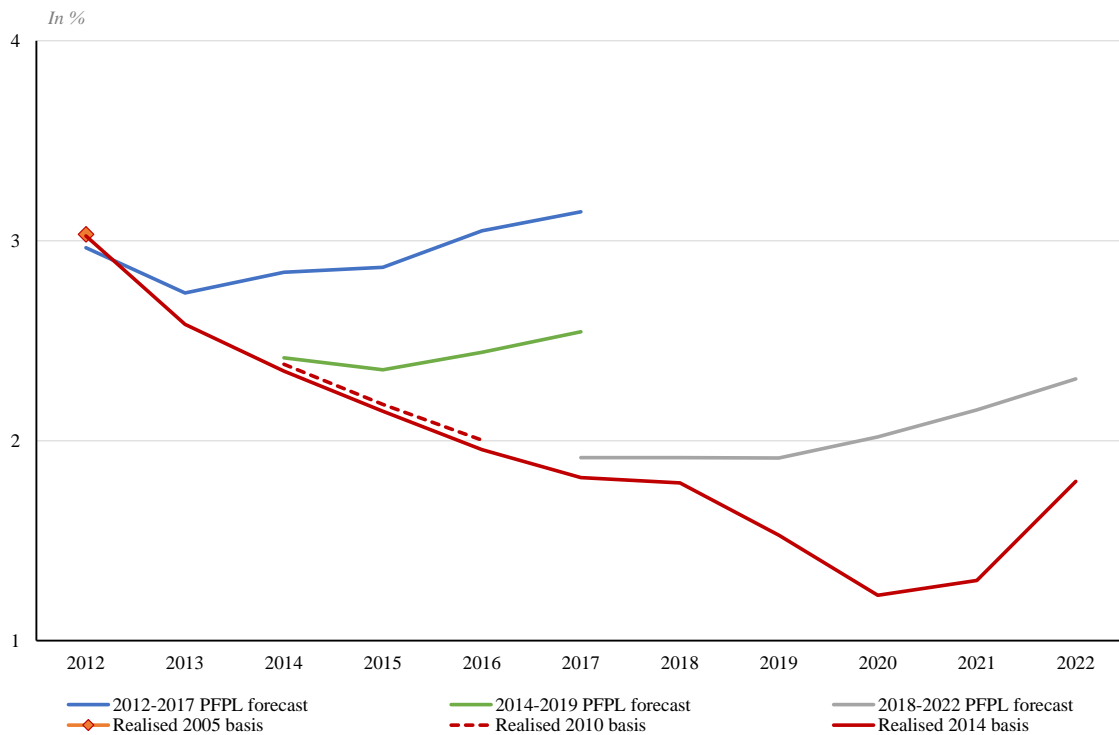
a. Apparent interest rate still below forecasts

The interest rate profile adopted in the three PFPL studied is identical each time: a gradual increase is forecast, consistent with the gradual improvement in economic growth that is systematically expected (see b.).

From 2012 to 2022, however, the apparent interest rate has always been lower than expected (see Figure 1). The persistence of low inflation until 2021 led the European Central Bank to lead an expansionary monetary policy, combining low key rates with an increase in its balance sheet. Against this backdrop, and given the abundance of savings, interest rates remained low and only began to rise again in 2022 under the impact of inflationary pressures resulting from the end of the health crisis and then the war in Ukraine.

⁹ This is the average interest rate on outstanding debt (interest expense divided by the amount of debt in the previous year).

Figure 2: apparent interest rate forecast in the PFPL and realised (2014 base)

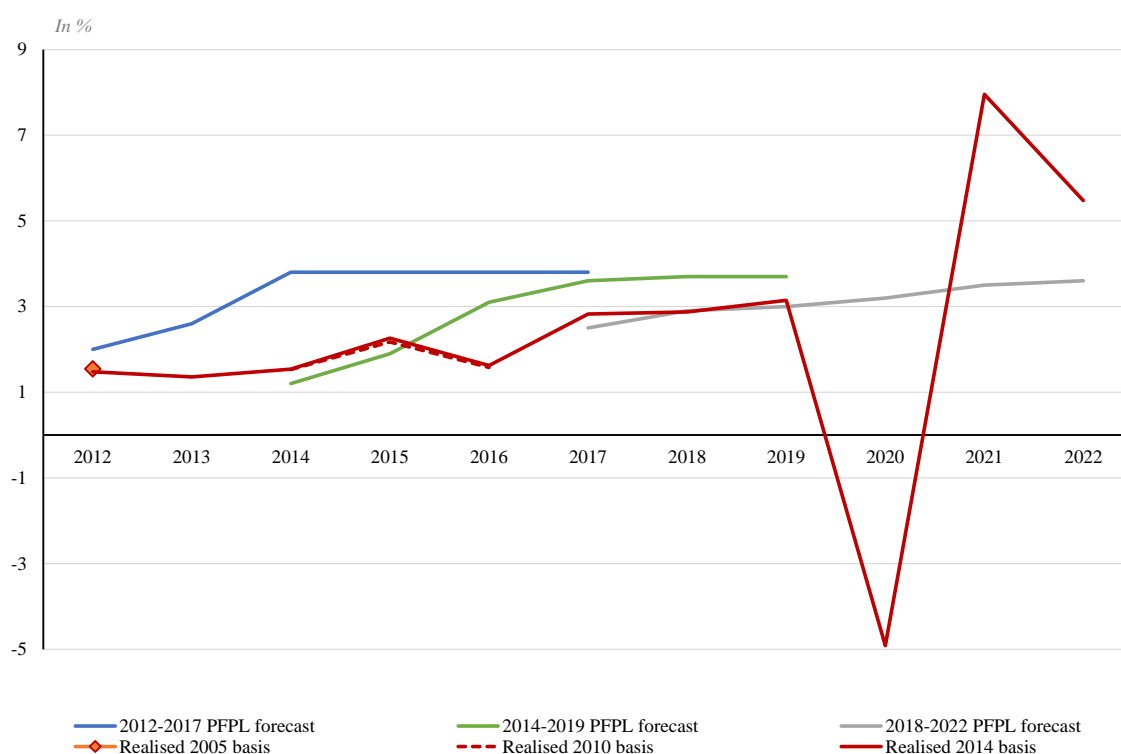


Sources: PFPL 2012-2017, PFPL 2014-2019, PFPL 2018-2022, INSEE

b. Nominal GDP growth always forecast to rise gradually, and on average to be over-optimistic

From the first year of the programme, all the PFPL forecast a gradual increase in nominal GDP growth over the period covered. Unsurprisingly, the actual path is much bumpier, with surprises on the upside (for example, in 2014 and 2015 compared with the forecasts in the 2014-2019 PFPL, or in 2021 and 2022 compared with the 2018-2022 PFPL in particular), as well as on the downside (see Figure 2).

Figure 3: nominal GDP growth forecast in the PFPL and realised (2014 base)



Sources: PFPL 2012-2017, PFPL 2014-2019, PFPL 2018-2022, INSEE

These differences between the forecasts for nominal GDP growth and the actual outcome are the result of differences, which sometimes offset each other, regarding:

- Real GDP growth. Whatever the PFPL, projected real GDP growth follows the same profile: a gradual increase takes it to a value above¹⁰ that of potential growth, allowing the partial (as in the 2012-2017 and 2014-2019 PFPLs) or total (as in the 2018-2022 PFPL) closure of an output gap estimated to be very wide at the start of the period;
- the GDP deflator. The PFPLs covering the periods 2012-2017 and 2014-2019 set inflation forecasts (and therefore forecasts for the GDP deflator) that were very rarely met, due to the persistent weakness of price trends. This was also the case at the start of the 2018-2022 PFPL, before the health crisis led to a surge in inflation well beyond what had been forecast.

On average, over the periods studied (see Table 1), nominal GDP growth forecast was systematically too high. Real GDP growth was overestimated in the 2012-2017 and 2018-2022 PFPLs. It was in line with the actual outcome from 2014 to 2019. The rise in the GDP deflator was lower than forecast in the first two PFPLs (2012-2017 and 2014-2019), but higher than forecast in the 2018-2022 PFPL due to the health crisis in 2020 and high inflation in 2022.

¹⁰ Or maintain it in the case of the PFPL 2018-2022.

Table 1: average growth in nominal GDP, real GDP and GDP deflator forecast in the PFPL and realised (2014 base)

	PFPL 2012-2017	PFPL 2014-2019	PFPL 2018-2022	Over the entire period *
Nominal GDP				
Growth forecast in the PFPL	3.3	2.9	3.2	3.1
Actual growth	1.8	2.4	2.8	2.3
GDP in volume				
Growth forecast in the PFPL	1.5	1.5	1.7	1.6
Actual growth	1.1	1.5	0.9	1.1
GDP deflator				
Growth forecast in the PFPL	1.8	1.4	1.5	1.5
Actual growth	0.8	0.8	1.9	1.3

Sources: PFPL 2012-2017 for forecasts from 2012 to 2017, PFPL 2014-2019 for forecasts from 2014 to 2019, PFPL 2018-2022 for forecasts from 2018 to 2022, INSEE

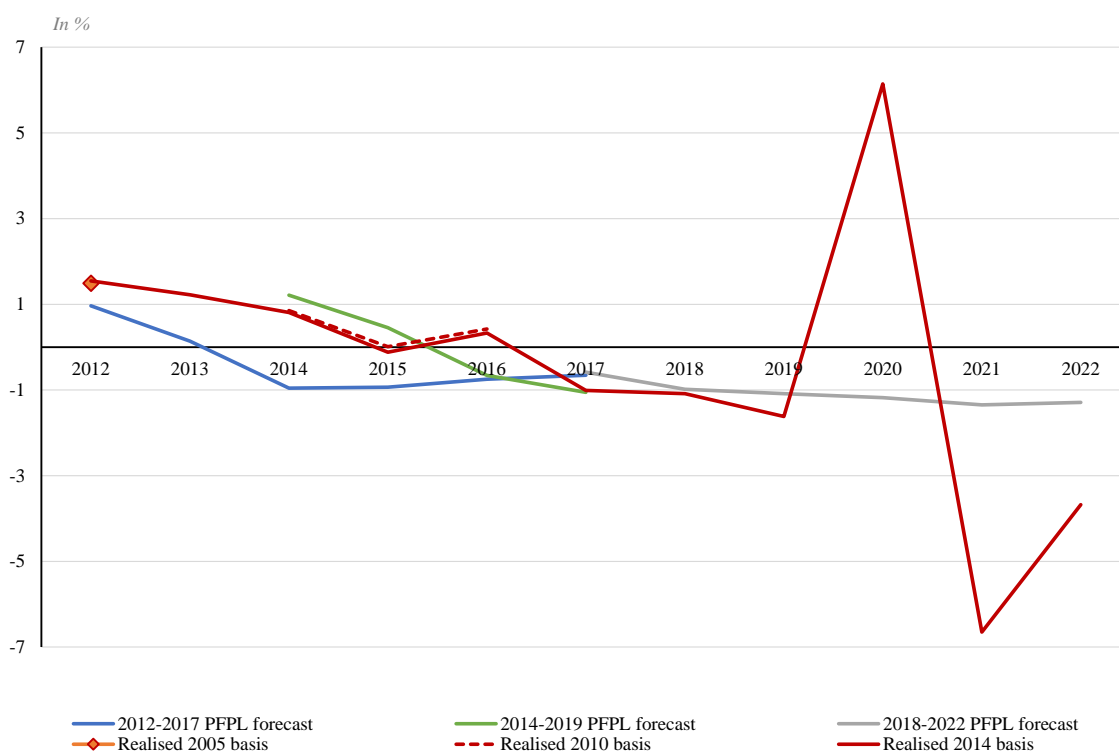
*N.B.: * the average over the entire period forecast in the PFPL is the average of the annual growth rates forecast in the PFPLs.*

c. Macroeconomic factors expected to be neutral or conducive to a reduction in the public debt ratio, but whose influence is variable

The breakdown of the change in public debt presented above shows that the difference between the apparent interest rate on the debt r and the growth rate of GDP at g can affect the change in public debt, with a negative difference leading, all other things being equal, to a reduction in the public debt ratio. In this way, a weaker spread than expected in the PFPL is a positive surprise for public finances.

The $(r - g)$ path defined in the 2012-2017 PFPL was exceeded in 2012 and 2013. Over the period, macroeconomic factors played a more negative role than expected in the 2012-2017 PFPL, with the GDP deflator growing less strongly than anticipated. From 2014 to 2017, the period covered by the 2014-2019 PFPL, the realised $(r - g)$ turned out to be less unfavourable than expected for the debt ratio in 2014 and 2015, before becoming more penalising in 2016, depending on the surprises observed in nominal GDP growth. Note that $(r - g)$ temporarily moved into negative territory in 2015, then from 2017 to 2019, during which period $(r - g)$ was more negative than forecast by the 2018-2022 PFPL and therefore more favourable to a reduction in the debt ratio. While the PFPL forecast that $(r - g)$ would remain negative throughout the forecast period, at around -1%, the health crisis led to an $(r - g)$ that was much more unfavourable than forecast for the public debt ratio in 2020, given the fall in the real GDP growth rate, and to an $(r - g)$ that was much more favourable to a reduction in the public debt ratio in 2021 and 2022, due to the rebound in activity and then the inflationary shock and its effects on the GDP deflator in 2022.

Figure 4: ($r - g$) gap between PFPL forecast and realised (2014 base)



Sources: PFPL 2012-2017, PFPL 2014-2019, PFPL 2018-2022, INSEE

On average, for each of the PFPLs studied (2012 to 2017, 2014 to 2017¹¹ or 2014 to 2019 and 2018 to 2022), the apparent interest rate has always been lower than expected, as has nominal GDP growth. The gap between the apparent interest rate and nominal GDP growth ($r - g$) was less favourable than expected from 2012 to 2017, in line with expectations from 2014 to 2017 and from 2014 to 2019, and slightly more conducive to a reduction in public debt from 2018 to 2022.

Table 2: apparent interest rates and average nominal GDP growth forecast in the PFPL and realised (2014 base) in %.

	2012-2017	2014-2017*	2014-2019**	2018-2022	Over the entire period ***
Apparent interest rate (r)					
Forecast in PFPL	2.9	2.4	2.5	2.1	2.5
Actual	2.3	2.1	1.9	1.5	2.0
Nominal GDP growth rate (g)					
Forecast in PFPL	3.3	2.4	2.9	3.2	3.1
Actual	1.8	2.1	2.4	2.8	2.4
($r - g$)					
Forecast in PFPL	-0.4	0.0	-0.4	-1.2	-0.6
Actual	0.5	0.0	-0.4	-1.4	-0.4

¹¹ And not 2019, given the data available.

Sources: PFPL 2012-2017 for forecasts from 2012 to 2017, PFPL 2014-2019 for forecasts from 2014 to 2019, PFPL 2018-2022 for forecasts from 2018 to 2022, INSEE

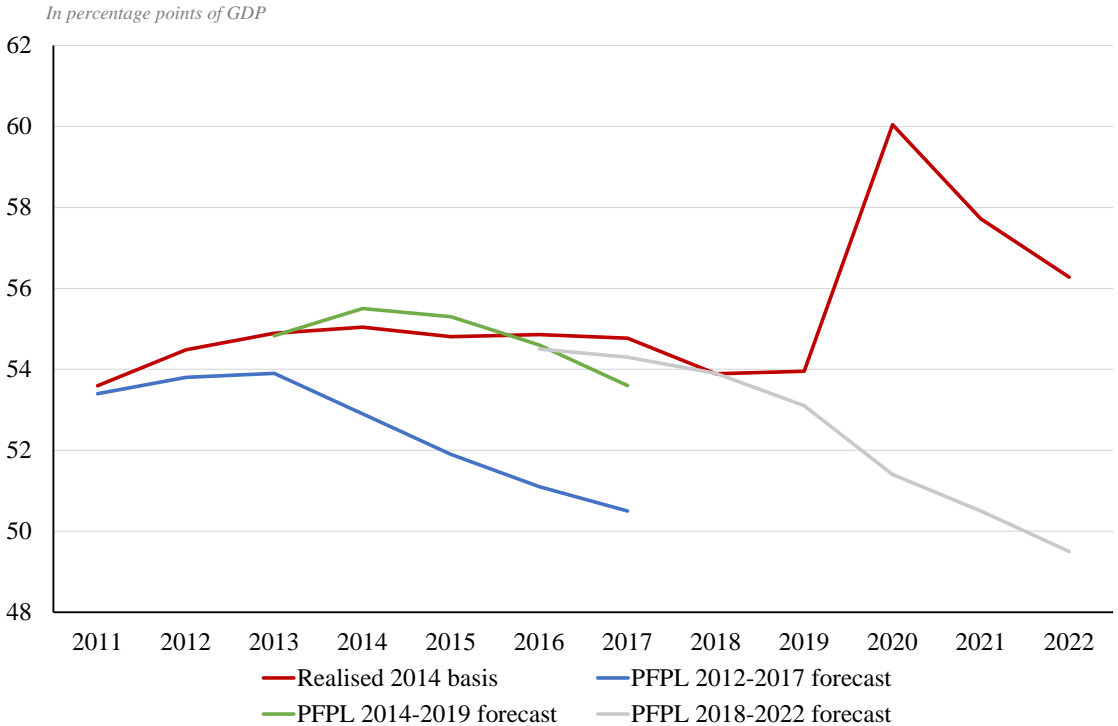
N.B.: * interest expense forecasts are only available up to 2017 in the 2014-2019 PFPL; ** assuming a forecast debt expenditure that is stable in GDP percentage points relative to its 2017 level and a forecast zero effect from stock-flow adjustments in 2018 and 2019; *** the forecast average over the whole period is the average of the annual growth rates forecast in the PFPLs.

These first observations show that, despite an apparent interest rate that was always lower than expected over the studied period, the influence of macroeconomic factors was irregular over the period, sometimes more favourable than expected to a reduction in the public debt ratio, but sometimes less so, and in total contributed little to the differences in the public debt ratio between the PFPLs and the results observed¹².

III. Primary public balance targets set at the end of the PFPL generally not met, due to the primary public spending ratio

- a. Primary expenditure as a percentage of GDP is almost always underestimated in the PFPL

Figure 5: planned and realised paths (2014 base) for the primary public spending ratio including tax credits



Sources: PFPL 2012-2017, PFPL 2014-2019, PFPL 2018-2022, INSEE

¹² It has also been observed, over a longer period (1971-2022), that growth rates and debt-financing interest rates have approximately neutralised each other over the long term, with the rise in the debt ratio mainly reflecting the accumulation of primary deficits. See Auclert, A., Philippon, T., & Ragot, X., Quelle trajectoire pour les finances publiques françaises? Les notes du conseil d'analyse économique, n°82, July 2024.

A first overview of the trajectories of the primary public expenditure ratio in the PFPLs shows that there is a systematic desire to reduce this ratio, but also that the objective is systematically missed, with varying gaps between forecasts and actual figures:

- the 2012-2017 PFPL forecast a primary public spending ratio 4.3 percentage points below actual;
- this PFPL was quickly replaced by the 2014-2019 PFPL, which only committed to a primary public spending ratio until 2017 that was ultimately 1.2 percentage point lower than actual, having kept to the forecast path until 2016 (only 0.2 percentage point below target). However, the PFPL assumed that, beyond 2017, the effort to reduce the deficit would be stepped up (-1 percentage point forecast in 2018 and 2019), which would imply either a sharp increase in taxes and social security contributions, which was not announced and which would have marked a clear break with the previous years of the programme, or, more likely, an accentuation of the decline in the expenditure ratio recorded in previous years. The 2018 and 2019 targets were not met;
- the 2018-2022 PFPL also have remained on track until 2019, before the various crises (health and then inflation), which led to a difference of 6.8 percentage points of GDP between forecast and realised levels.

The changes in the 2010 and 2014 base complicate the analysis of these differences between forecasts and actual outcomes, but the revisions made to the level of expenditure and that of GDP, in the same direction, have left the initial public expenditure ratio virtually unchanged:

- The change in the 2010¹³ base had a very limited effect on the ratio of public spending to GDP for 2010¹⁴. The effect of the upward revision of GDP, essentially associated with the integration of R&D expenditure in investment, was offset by the new treatment of tax credits and non-market R&D, which increased public spending;
- The change of base in 2014, which is specific to France, has recast the estimates of certain items in the national accounts using changes in the statistical sources available to the national accounts¹⁵. Its effect on public spending ratios has remained contained.

The change in the treatment of tax credits associated with the transition to the 2010 base nonetheless affects subsequent trends: therefore, the analysis will focus on the deviation in the cumulative evolution of the expenditure ratio excluding tax credits.

¹³ Source: Insee, Les comptes des administrations publiques en 2013, Insee première, mai 2014. Les comptes des administrations publiques en 2013 - Insee Première - 1500

¹⁴ <https://www.insee.fr/fr/statistiques/fichier/2832834/base-2010.pdf>

¹⁵ <https://www.insee.fr/fr/metadonnees/source/fichier/comptes-nationaux-base-2014.pdf>

Table 3: expected and realised evolution (on a 2014 base) of the share of primary public expenditure excluding tax credits in GDP, in percentage points of GDP

	2012-2017	2014-2017*	2018-2022	Over the entire period **
Evolution forecast in the PFPL	-3.3	-2.2	-3.2	-4.8
Evolution realised	-0.3	-0.5	3.4	2.0

Sources: PFPL 2012-2017 for the forecasts from 2012 to 2017, PFPL 2014-2019 for the forecasts from 2014 to 2017, PFPL 2018-2022 for the forecasts from 2018 to 2022, INSEE

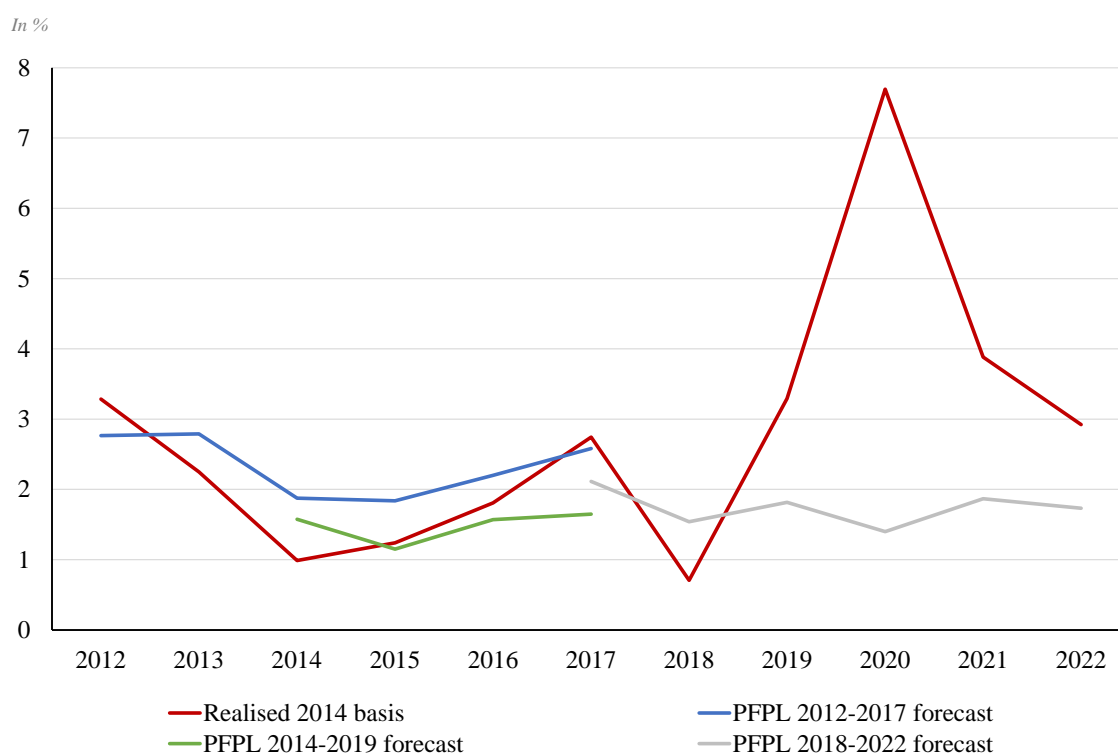
Note: * the forecasts for primary public expenditure are only available up to 2017 in the PFPL 2014-2019; ** the evolution over the entire period is the difference between the share of primary public expenditure in GDP in 2022 and that in 2012.

Reading note: from 2018 to 2022, a decrease of 3.2 percentage points in the ratio of primary public expenditure excluding tax credits was forecast in the PFPL 2018-2022. However, it ultimately increased by 3.4 percentage points on a 2014 base.

The analysis of the causes of these gaps shows that they stem from the nominal GDP, while the nominal expenditure is on average in line with the objectives of the PFPL.

The projected trajectories for the evolution of primary public expenditure excluding tax credits, as outlined in the PFPL, have generally been respected, except in 2012, 2017, and from 2019 onwards (see Figure 5).

Figure 6: expected and realised evolution (2014 base) of nominal primary public spending excluding tax credits

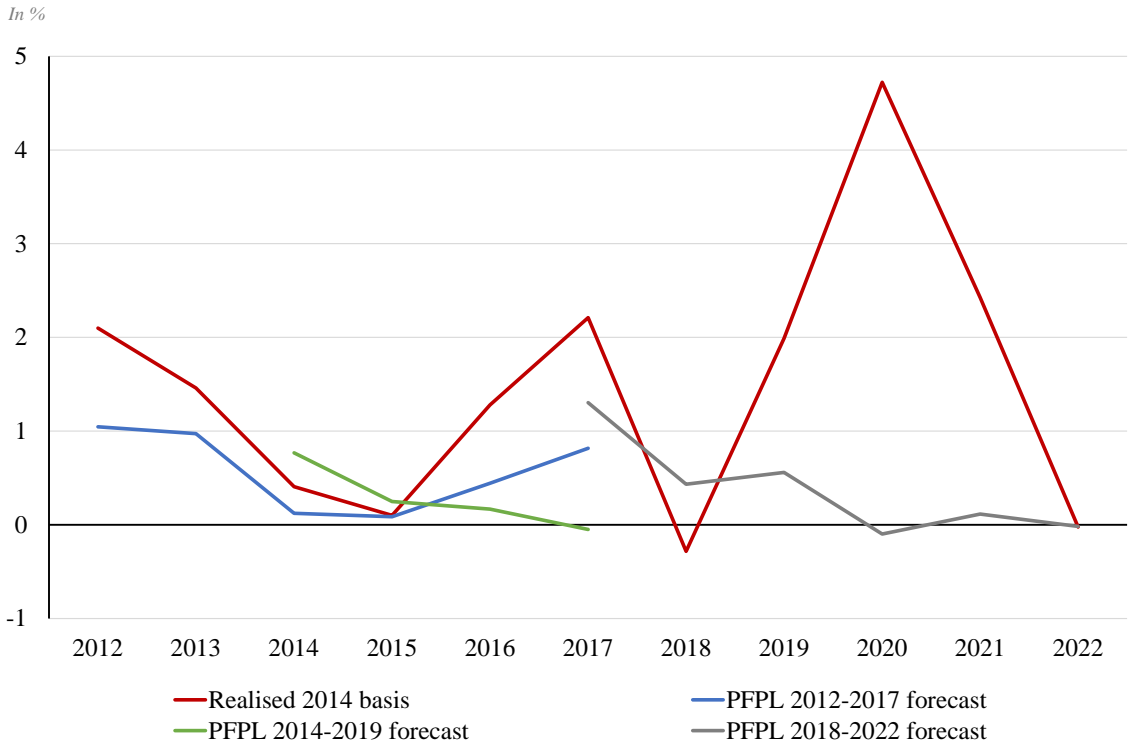


Sources: PFPL 2012-2017, PFPL 2014-2019, PFPL 2018-2022, INSEE

The gap in the primary expenditure ratio between successive PFPLs and the observed expenditure ratio is therefore primarily due to a lower nominal GDP at the denominator of the ratio.

However, it would be wrong to attribute the sole responsibility for the rise in the ratio of primary expenditure to GDP to the assumptions for nominal GDP growth (volume and prices). On the one hand, inflation mechanically reduces certain items of expenditure (via the automatic indexation of certain social benefits) and enables savings to be made on the purchase of goods and services, so that maintaining nominal expenditure means that the savings made by these indexation mechanisms and lower prices for general government purchases have been ‘recycled’. As a result, real spending has grown significantly faster than forecast in the PFPL, with 2018 being the only exception (see Figure 6). On the other hand, some expenditure may be sensitive to growth and, therefore, adjustments were possible during the course of the PFPL. In particular, the triggering of the correction mechanism by the High Council of Public Finance in its opinion on the 2013 Settlement Bill in May 2014 could have led the Government not to adopt a new public finance programming law, but to take account of this significant deviation in the next draft budget bill and to propose corrective measures aimed at returning to the structural balance path of the initial programming law.

Figure 7: forecast and realised change (2014 base) in primary public spending excluding tax credits in volume (deflated by GDP price)



Sources: PFPL 2012-2017, PFPL 2014-2019, PFPL 2018-2022, INSEE

Keeping to a nominal spending target does not therefore seem to be a guarantee of control over public finances, which may lead us to question the effectiveness of the new European budgetary governance framework, based on the publication of a medium-term

structural-fiscal plan, in which the Member State's budgetary trajectory is expressed in terms of growth in net nominal primary expenditure¹⁶.

Table 4: planned and realised average change (2014 base) in primary public spending (including and excluding tax credits) in nominal and real terms (deflated by the price of GDP) in %

	2012-2017	2014-2017*	2018-2022	Over the entire period **
Nominal public primary expenditure including TC				
Evolution forecast in the PFPL	2.3	1.9	1.3	1.9
Evolution realised	2.2	2	3.4	2.7
Public primary expenditure including TC in volume				
Change forecast in the PFPL	0.6	0.7	-0.1	0.4
Evolution realised	1.4	1.3	1.5	1.4
Nominal public primary expenditure excluding TC				
Change forecast in the PFPL	2.3	1.5	1.7	1.9
Evolution realised	2.0	1.7	3.7	2.8
Public primary expenditure excluding TC in volume				
Change forecast in the PFPL	0.6	0.3	0.2	0.4
Evolution realised	1.3	1	1.8	1.5
Public spending deflator (GDP prices)				
Change forecast in the PFPL	1.8	1.2	1.5	1.5
Evolution realised	0.8	0.7	1.9	1.3

Sources: 2012-2017 PFPL for forecasts from 2012 to 2017, 2014-2019 PFPL for forecasts from 2014 to 2017, 2018-2022 PFPL for forecasts from 2018 to 2022, INSEE

*N.B.: * primary public spending forecasts are only available up to 2017 in the 2014-2019 PFPL; ** the average forecast in the PFPL over the entire period is the average of the annual growth rates forecast in the PFPLs.*

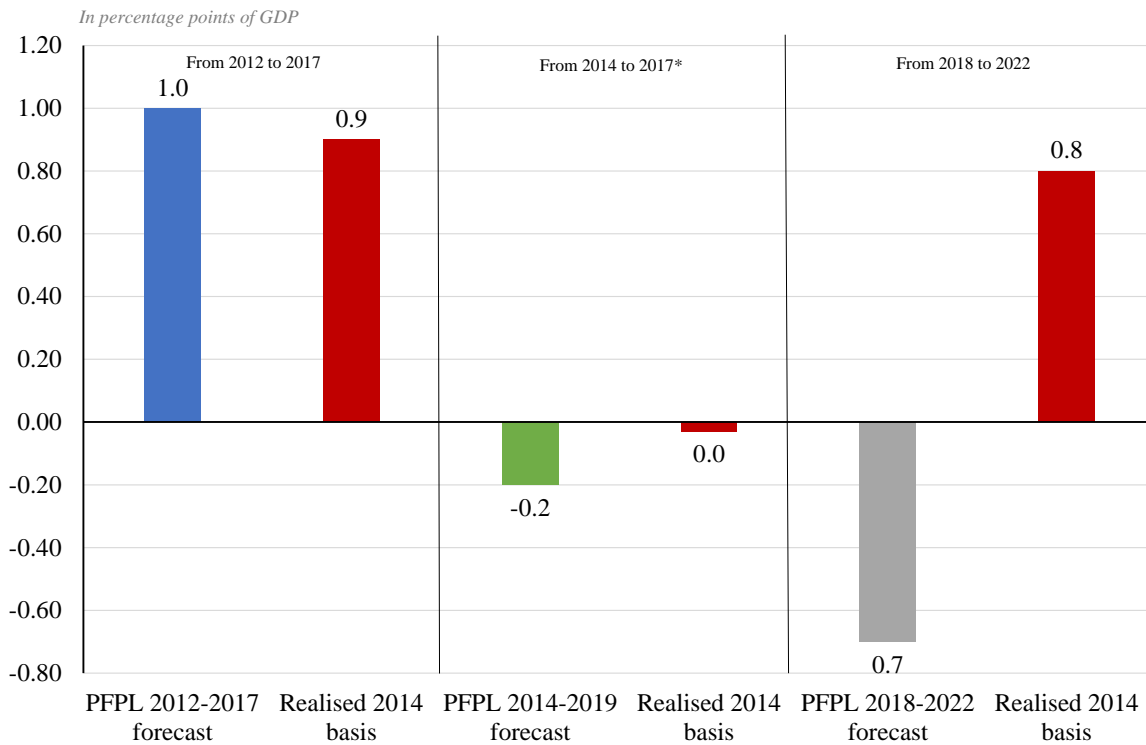
¹⁶ Net of new revenue measures, cyclical unemployment expenditure, expenditure linked to EU programmes corresponding entirely to revenue from European funds, expenditure co-financed by the European Union and temporary measures and one-offs.

b. Public revenue as a percentage of GDP up by the same or more than expected in the PFPL

Over the periods covered by the PFPLs studied, the ratio of public revenue net of tax credits to GDP increased overall in line with or more strongly than expected¹⁷.

- The 2012-2017 PFPL forecast a 1.0 percentage point increase in this ratio over the period. In the end, it rose by 0.9 point, in line with expectations;
- The 2014-2019 PFPL forecast a fall in the ratio of public revenue net of tax credits of 0.2 percentage point of GDP between 2014 and 2017¹⁸, whereas the ratio finally stabilised;
- Finally, while the 2018-2022 PFPL forecast a 0.7 percentage point decline in the ratio between 2018 and 2022, it actually rose by 0.8 percentage point over the period.

Figure 8: expected and realised change (2014 base) in the ratio of government revenue net of tax credits to GDP



Sources: PFPL 2012-2017, PFPL 2014-2019 (*public revenue forecasts unavailable from 2017, the presidential election year), PFPL 2018-2022, INSEE

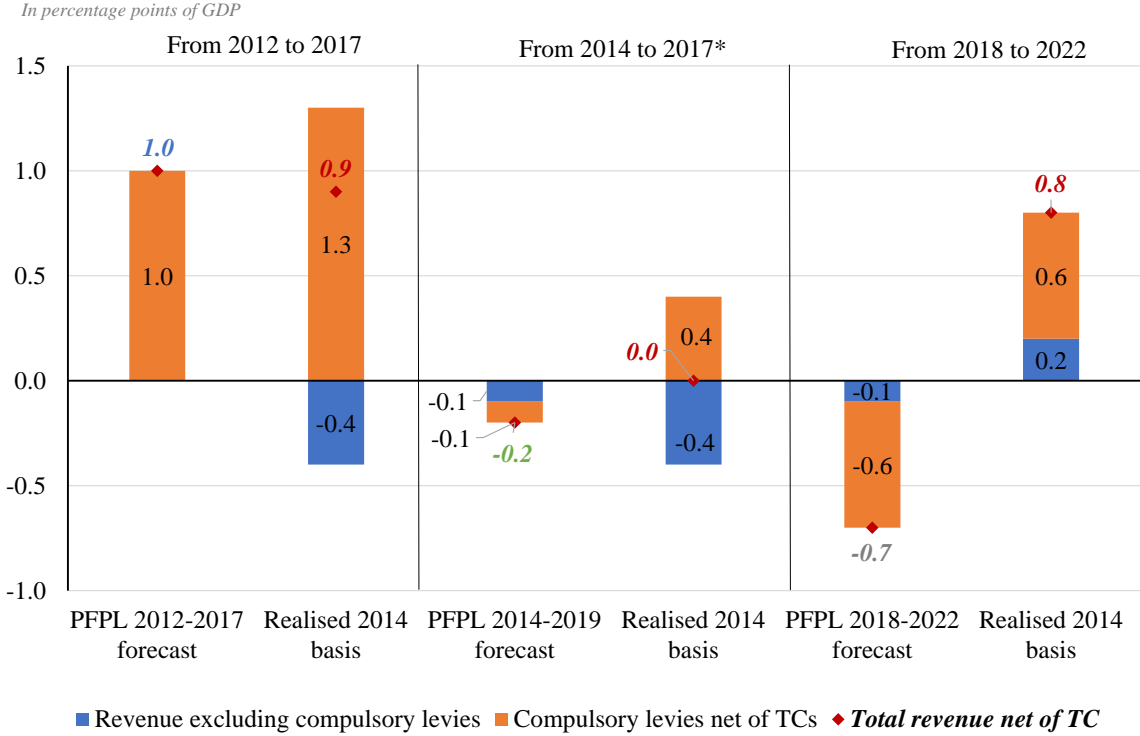
Figure 8 breaks down the changes in public revenue net of tax credits expected in the PFPL and those actually achieved (shown in the previous figure), distinguishing between compulsory levies (CL) net of tax credits and revenue excluding compulsory levies. It shows that the most significant surprises relate to the compulsory levies, with a 0.4 percentage point increase in the compulsory levies ratio from 2014 to 2017, compared with an expected

¹⁷ It is the change in the ratio of public revenue to GDP that is compared in this section, and not its level as such, which is more affected by successive base changes. To be consistent with the section on expenditure, the revenues considered are net of tax credits.

¹⁸ Public revenue forecasts unavailable from 2017, a presidential election year.

0.1 percentage point decline, and a 0.6 percentage point increase in the compulsory levies ratio from 2018 to 2022, compared with an expected 0.6 percentage point decline.

Figure 9: breakdown of expected and realised changes (2014 base) in the ratio of public revenue net of tax credits to GDP between CL net of tax credits and revenue excluding CL



Sources: PFPL 2012-2017, PFPL 2014-2019 (*public revenue forecasts unavailable from 2017, the presidential election year), PFPL 2018-2022, INSEE

Reading note: the 2018-2022 PFPL forecast a 0.7 percentage point drop in the ratio of public revenue net of TC from 2018 to 2022, due to a 0.6 percentage point drop in the compulsory levies rate and a 0.1 percentage point drop in revenue excluding compulsory levies in GDP percentage points. The compulsory levies rate finally increased by 0.6 percentage point between 2018 and 2022 and revenue excluding compulsory levies increased by 0.2 percentage point of GDP according to the national accounts in 2014 base.

The growth in compulsory levies is due to the effect of new measures and their spontaneous evolution.

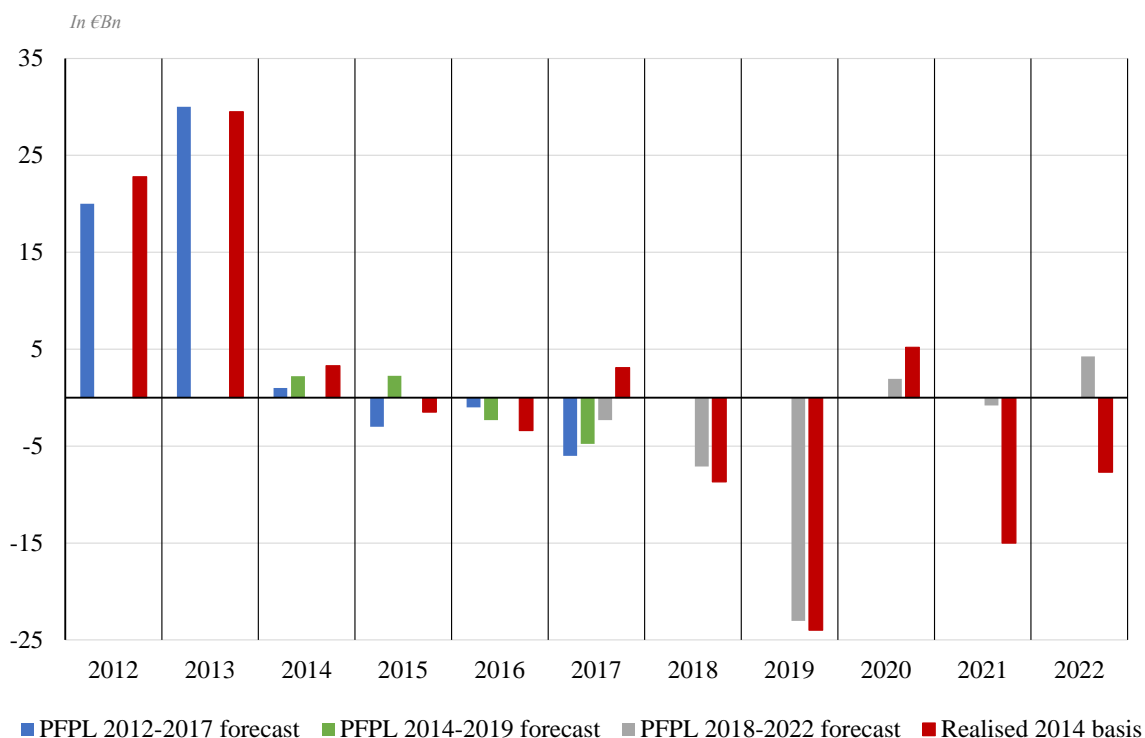
New measures are “new social and fiscal measures decided or implemented by public administrations, voted by Parliament or adopted by regulation, which lead to changes in compulsory levies (including the impact of tax credits)”¹⁹.

¹⁹ Source: Law no. 2023-1195 of 18 December 2023 on public finance programming for the years 2023 to 2027.

A comparison of new measures²⁰ planned and implemented reveals several distinct periods:

- the high level of new revenue measures forecast in the PFPL was respected or even exceeded from 2012 to 2014;
- from 2015 to 2016, the new measures implemented were more negative than expected in the 2014-2019 PFPL. However, the differences remain limited;
- the differences between targets and actual figures become greater over the period covered by the PFPL 2018-2022. The conversion of the tax credit for competitiveness and jobs into a reduction in social security contributions makes it more difficult to interpret the new measures for 2019 and 2020 (mainly). Because of this change, new measures are reduced by around €20 billion in 2019 and increased by just over €14 billion in 2020. Corrected from this effect, new measures were more negative than expected in 2019, due to the measures taken following the social unrest at the end of 2018, such as the de-taxation of overtime (€1.1bn) or the cancellation of the increase in the generalised social contribution for low-income pensioners (€1.6bn). They were also much more negative than expected in 2021, as the cuts in taxes on production in particular (-€9bn net of the return effect on corporation tax) were stepped up as part of the recovery plan following the health crisis. Lastly, they were again more negative than expected in 2022, mainly due to the reduction in the tax on the final consumption of electricity to its lowest level in order to limit the increase in regulated electricity sales tariffs.

Figure 10: expected and implemented new measures in compulsory levies (2014 base)



Sources: PFPL 2012-2017, PFPL 2014-2019, PFPL 2018-2022, INSEE

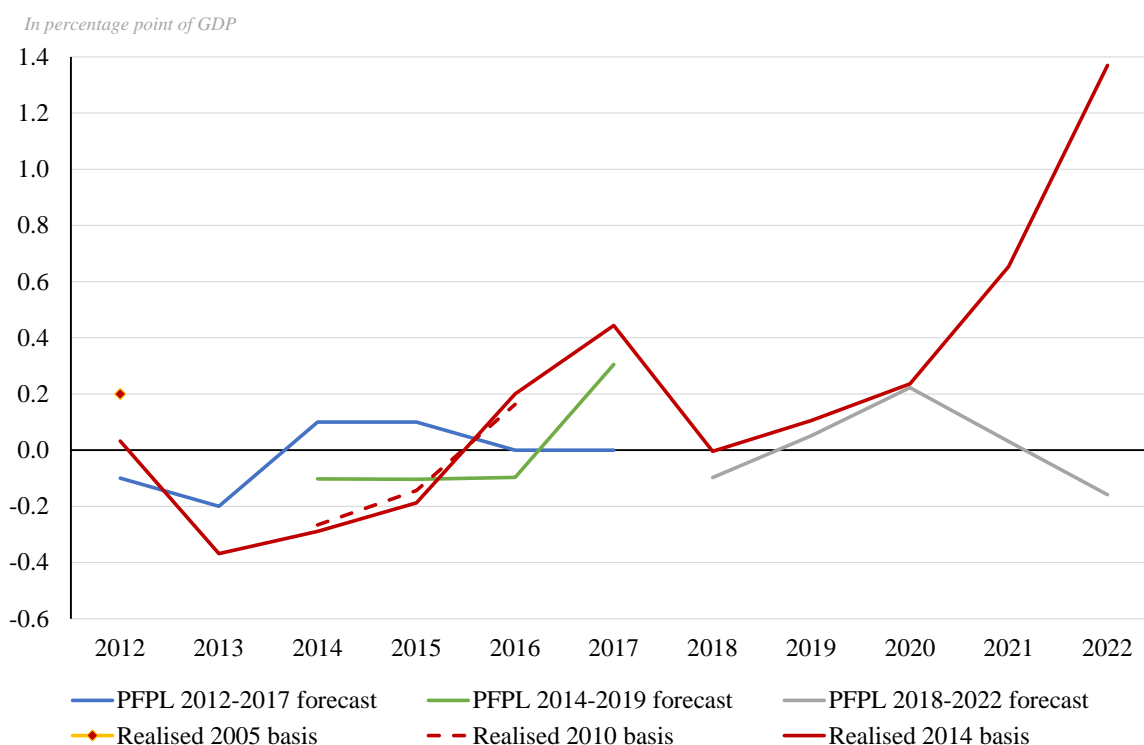
²⁰ Strictly speaking, it would be preferable to add indexation of the income tax scale to the new measures. However, this is not the choice made by the Government and therefore not the approach adopted in this note.

N.B.: in the PFPL 2018-2022, new measures are presented excluding one-offs. The amounts associated with the transfer of the tax credit for competitiveness and jobs, recorded in the new measures taken from the RESFs for year n+2, have been added to the forecast amount of new measures in order to enable a comparison to be made between the programmed and observed amounts.

The variations in compulsory levies net of tax credits observed since 2012 are mainly explained by these new measures. However, in some years, the difference between spontaneous growth in compulsory levies and GDP growth contributes to these variations: spontaneous growth that is higher (or lower) than GDP growth has a positive (or negative) effect on the compulsory levies ratio. These differences have been particularly marked in recent years, and especially in 2022.

The spontaneous change in the compulsory levies ratio (change in the compulsory levies rate net of tax credits minus new measures expressed in GDP percentage points) was higher than expected from 2016 to 2022²¹. The difference is even greater in 2021 and 2022.

Figure 11: expected and actual spontaneous change in the rate of compulsory levies net of tax credits



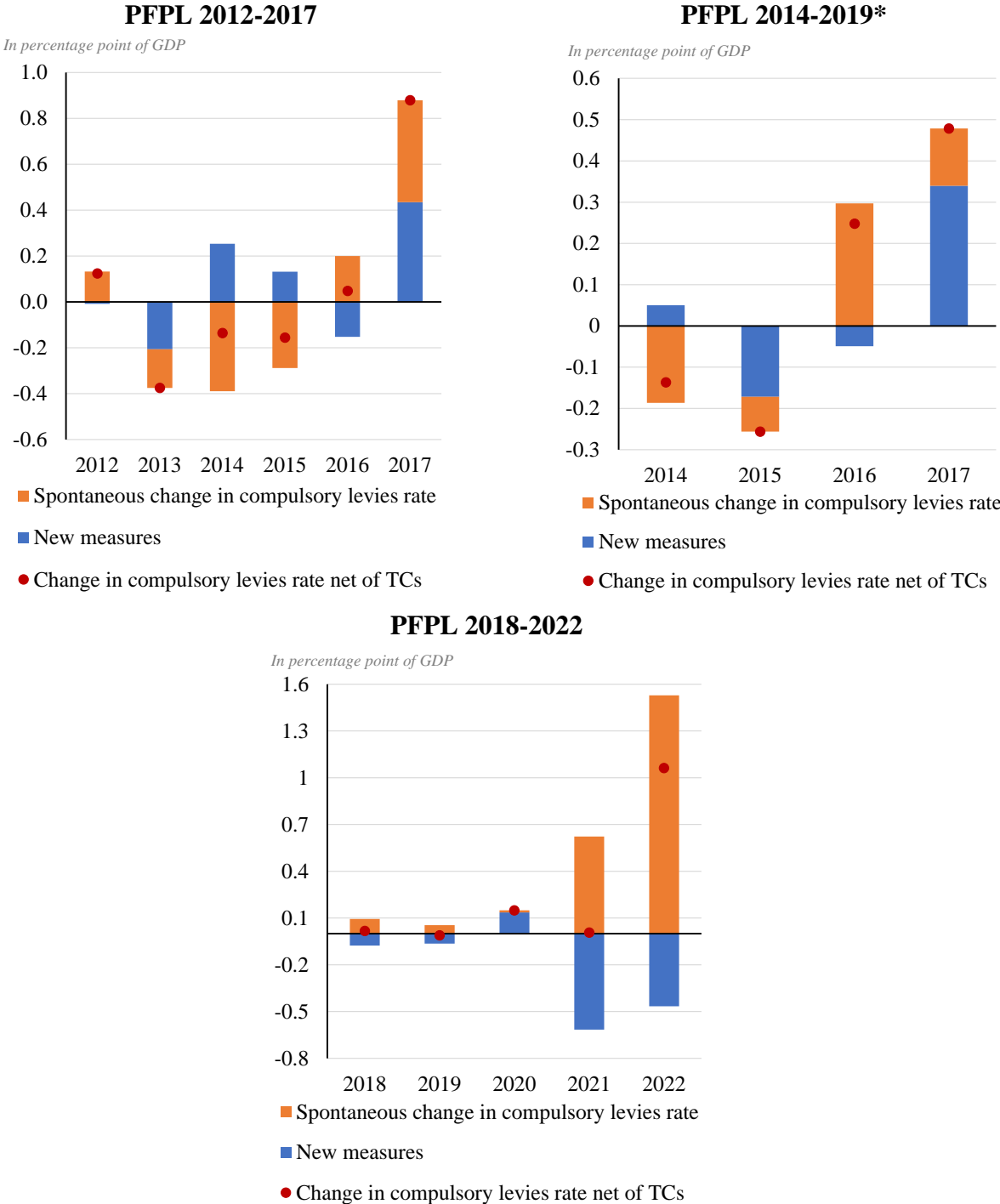
Sources: PFPL 2012-2017, PFPL 2014-2019, PFPL 2018-2022, INSEE

To summarise, the graphs below break down the difference between the forecast change in the rate of compulsory levies in the PFPL and the change observed in the 2014 base into a difference in new measures and a difference in the spontaneous change in the rate of compulsory levies. Over the last PFPL period studied, the spontaneous change in the compulsory levies rate was systematically more favourable than expected and new measures were always more negative or weaker than forecast, with the exception of 2020. In 2022, the spontaneous trend in

²¹ This favourable trend in spontaneous taxes and social security contributions towards debt reduction came to a halt in 2023, a year in which spontaneous growth in taxes and social security contributions was much lower than forecast in the current PFPL. According to the latest information available, this should be the case again in 2024.

the compulsory levies rate was much stronger than expected, allowing the compulsory levies ratio to increase despite the measures implemented to reduce it.

Figures 12, 13 and 14: breakdown of the difference in the rate of change in compulsory levies net of tax credits between the difference due to the effect of new measures and the difference due to the effect of spontaneous growth (2014 base)



Sources: PFPL 2012-2017, PFPL 2014-2019 (*public revenue forecasts unavailable from 2017, the presidential election year), PFPL 2018-2022, INSEE

Reading note: in 2022, the PFPL forecast new measures amounting to 0.2 percentage point of GDP. In the end, they amounted to -0.3 percentage point of GDP. The difference in new measures is therefore -0.5 percentage point of GDP. The spontaneous change in the rate of compulsory levies net of TCs was expected to be -0.2 percentage point of GDP. In the end, it reached 1.4 percentage point of GDP. The difference in the spontaneous change in the compulsory levies rate is therefore 1.5 percentage point of GDP. In the end, the compulsory levies rate was expected to remain stable. In the end, it increased by 1.1 percentage point of GDP. The difference in the compulsory levies rate is therefore 1.1 percentage point of GDP.

IV. The target for the public debt ratio set at the end of the PFPL has never been reached, due to nominal GDP growth falling short of expectations and a target for the public primary expenditure ratio that has been missed repeatedly

This section summarises the differences between the public debt ratios forecast in the PFPL and those actually observed (on a 2014 base), as well as the influence of various factors.

The need to break down the impact of growth differentials on the debt trajectory

The breakdown adopted in this note shows the comparative impact, between the PFPL and actual outcomes, of the difference between the interest rate and the nominal growth rate of the economy: $(r_t - g_t) * d_{t-1}$.

All other things being equal, stronger nominal GDP growth has a downward effect on the public debt ratio via the term $-g_t * d_{t-1}$.

In the proposed decomposition, the extent of this effect depends not only on growth (g_t) but also the stock of public debt in the previous year (d_{t-1}). Consequently, the higher the stock of debt in the previous year, the more favourable the effect of growth on the debt-to-GDP ratio: for a given growth rate, a higher observed debt than in the PFPL translates into a more favourable effect of growth the following year.

The period covered by the PFPL 2018-2022 provides a good illustration of this point. Nominal GDP growth was 2.8%, compared with a forecast of 3.2% in the PFPL 2018-2022: the impact of growth is therefore unfavourable for the public debt ratio. However, the comparative effect of the term $-g_t * d_{t-1}$ on the debt ratio is negative over the entire period: the public debt ratio for the previous year is in fact rising (particularly in 2021 due to the health crisis in 2020) and therefore gives greater weight to the favourable effect observed in 2021 and 2022, two years characterised by stronger than expected nominal growth in GDP.

In order to measure the sole effect of the growth differential on the public debt ratios compared between the PFPL and the observation, it is therefore necessary to deduct the effect of the differential on the public debt ratio of the previous year from the difference between the effects of growth on the debt ratio in the two paths.

For this purpose, the total gap (E_t) is defined as the difference between the terms $-g_t * d_{t-1}$ realised and forecast in PFPL.

$$E_t = -g_1^t * d_1^{t-1} + g_0^t * d_0^{t-1}$$

$$\Leftrightarrow E_t = -g_1^t * d_0^{t-1} + g_1^t * d_0^{t-1} - g_1^t * d_1^{t-1} + g_0^t * d_0^{t-1}$$

$$\Leftrightarrow E_t = -(g_1^t - g_0^t) * d_0^{t-1} + g_1^t(d - d_1^{t-1})$$

$$\Leftrightarrow E_t = A_t + B_t$$

Thus, A_t represents the effect of growth differences alone on the public debt ratio and B_t represents the effect of the difference in the stock of debt

- a. Looking back at the 2012-2017 PFPL: a difference of more than 15 percentage points compared to the target, mainly due to disappointing growth and the primary public expenditure ratio

In 2017, the public debt ratio was 15.2 percentage points higher than forecast in the 2012-2017 PFPL (98.1 percentage points of GDP compared with 82.9 percentage points of GDP forecast in the PFPL). This difference results from:

- a difference of 1.8 percentage point in the starting point (2011): the public debt ratio was 86.0 percentage points of GDP in the 2012-2017 PFPL and 87.8 percentage points of GDP in actual terms in 2011;
- a difference of 13.4 percentage points on the expected change. The public debt ratio was expected to fall by 3.1 percentage points compared with 2011, but actually rose by 10.3 percentage points.

Table 5: factors explaining the differences between the expected change in the public debt ratio in the 2012-2017 PFPL and the actual change (2014 base) in percentage points of GDP

	2012	2013	2014	2015	2016	2017	Total
Change forecast in the public debt ratio under the PFPL (1)	3.9	1.4	-0.8	-2.0	-2.7	-2.9	-3.1
Observed change in public debt ratio (2)	2.8	2.8	1.5	0.7	2.4	0.1	10.3
Difference in the change in the public debt ratio = (2) - (1) ≈ (3) + (4) + (5) *	-1.1	1.4	2.3	2.7	5.1	3.0	13.4
Including effect (r - g) (3)	0.5	1.0	1.6	0.7	1.0	-0.4	4.4
Including effect « r »	0.1	-0.1	-0.4	-0.6	-0.8	-0.9	-2.7
Including effect « g » = (a) + (b)	0.4	1.1	2.0	1.3	1.8	0.5	7.0
<i>Including pure growth effect (a) = (i) + (ii)</i>	<i>0.5</i>	<i>1.1</i>	<i>2.0</i>	<i>1.4</i>	<i>1.9</i>	<i>0.8</i>	<i>7.6</i>
<i>Including volume effect (i)</i>	<i>0.0</i>	<i>0.2</i>	<i>1.0</i>	<i>0.8</i>	<i>0.8</i>	<i>-0.2</i>	<i>2.5</i>
<i>Including price effect (ii)</i>	<i>0.5</i>	<i>0.9</i>	<i>1.1</i>	<i>0.6</i>	<i>1.1</i>	<i>1.1</i>	<i>5.1</i>

<i>Including effect of debt stock (b)</i>	0.0	0.0	0.0	-0.1	-0.1	-0.3	-0.6
Including primary public balance ratio effect (4)	0.4	1.2	2.0	2.8	3.8	3.5	13.7
Including ratio effect of primary public expenditure excluding TC	-0.1	0.3	1.0	1.4	2.3	2.9	7.8
Including the effect of the ratio of public revenue net of TC	0.4	0.8	0.9	1.1	1.2	0.5	4.9
Including TC effect	0.1	0.1	0.2	0.3	0.3	0.1	1.0
Including stock-flow adjustments effect (5)	-1.9	-0.8	-1.3	-0.8	0.4	-0.1	-4.6

Sources: PFPL 2012-2017, INSEE, authors' computations

N.B.: the sum of the various effects may differ slightly from the variation in the public debt ratio. This is because the formula for calculating the change in debt used to propose this breakdown gives an approximate result, which may differ from the exact result, particularly when $(r - g)$ has large values.

Reading note: in 2015, the public debt ratio was expected to fall by 2 percentage points compared with 2014 in the PFPL. In the end, it increased by 0.7 percentage point. This 2.7 percentage points difference can be explained as follows: 0.7 percentage point by less favourable macroeconomic factors than expected, as measured by the term ' $r - g$ '; 1.4 percentage point by a drift in the primary public spending ratio; and 1.1 percentage point by a lower-than-expected ratio of public revenue net of TC. Conversely, developments in stock-flow adjustments helped to contain the rise in the debt ratio by 0.8 percentage point of GDP.

The 13.4 percentage points difference in the expected change in the public debt ratio is mainly due to:

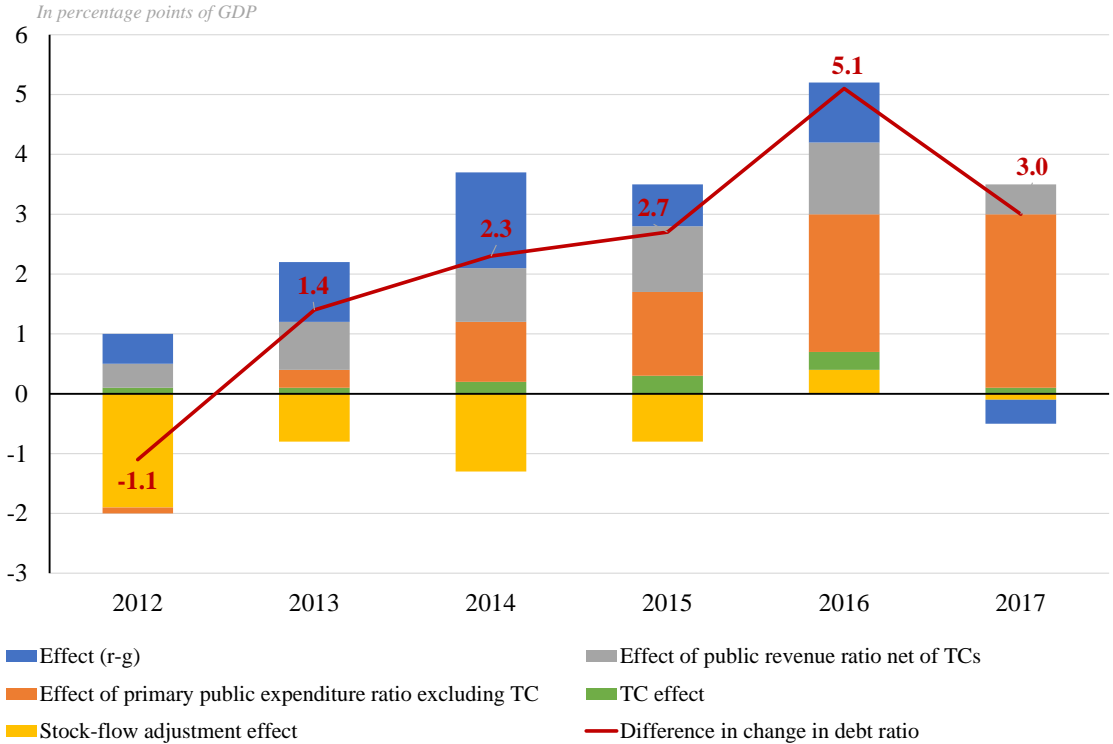
- more unfavourable than expected macroeconomic trends for the debt ratio (' $r - g$ ' effect) for 4.4 percentage points. Despite a lower-than-expected apparent interest rate (impact of -2.7 percentage points over the period), this upward effect on the debt ratio is explained by a nominal GDP growth rate that was systematically lower than expected from 2012 to 2017 (impact of the pure growth effect of 7.6 percentage points of GDP). The change in the deflator was weaker than expected (impact of 5.1 percentage points), as was the change in real GDP (pure impact of 2.5 percentage points);
- a worse-than-expected primary public balance ratio, the result of an expected but not fully realised fall in the primary public expenditure ratio excluding tax credits (7.8 percentage point effect) and a lower-than-expected public revenue ratio net of tax credits (4.9 percentage point effect).

However, the change of base has resulted in stock-flow adjustments that have had a favourable impact on debt over the period²²: when the base was changed to 2014, Société de Financement de l'Économie Française (SFEF) was reclassified in general government (compared with its previous classification as a financial company). This company was set up at the end of 2008 to grant large loans to French banks following the collapse of Lehman Brothers; the repayment of these loans between 2009 and 2014 resulted in a large flow of credit, which

²² Stock-flow adjustments are one of the items most affected by changes in the base.

improved the public debt ratio compared with the previous base and therefore compared with the forecast, particularly for 2012 and 2014.

Figure 15: factors explaining the differences between the forecast change in the public debt ratio in the 2012-2017 PFPL and the actual change (2014 base)



Sources: PFPL 2012-2017, INSEE, authors' computations

b. A look back at the 2014-2019 PFPL: a less ambitious PFPL than the previous one, for which the end-of-period public debt ratio target was nevertheless exceeded

In 2019, the public debt ratio turned out to be 5.0 percentage points higher than forecast in the PFPL 2014-2019.

The data available in the 2014-2019 PFPL only make it possible to provide a complete breakdown of the change in the public debt ratio up to 2017: it turned out to be 1.1 percentage point of GDP higher than forecast (98.1 percentage points of GDP compared with 97.0 percentage points of GDP forecast in the PFPL). This difference results from:

- a difference in the starting point (in 2013) of 1.2 percentage point of GDP: the public debt ratio was recorded in 2013 at 92.2 percentage points of GDP in the PFPL 2014-2019 and was finally estimated at 93.4 percentage points of GDP;
- a difference of -0.1 percentage point of GDP in the expected change. The public debt ratio was expected to rise by 4.8 percentage points between 2013 and 2017 and actually increased by 4.7 percentage points, i.e. a variation very close to the forecast.

The weaker-than-expected fall in the primary expenditure ratio (+0.6 percentage point) and government revenue ratios net of tax credits that were lower than forecast in the PFPL (+0.7 percentage point) were offset by the favourable impact of the difference between forecast

and actual tax credits (-0.7 percentage point) and more favourable-than-expected stock-flow adjustments (-0.8 percentage point).

Beyond 2017, two assumptions are made here to compensate for the lack of detail in the PFPL: in the 2014-2019 PFPL, expected stock-flow adjustments are assumed to be zero in 2018 (a realistic assumption for this forecast horizon) and in 2019, and the weight of the interest expenditure in GDP is unchanged compared with 2017²³. In this context, the impact of the primary public balance is very unfavourable: 1.3 percentage point in 2018 and 3.3 percentage points in 2019. Macroeconomic factors have been less favourable than expected in 2018, but more so in 2019.

Table 6: factors explaining the differences between the expected change in the public debt ratio in the PFPL 2014-2019 and the actual change (2014 base) in percentage points of GDP

	2014	2015	2016	2017	Total 2014- 2017	2018 (e)	2019 (e)	Total 2014- 2019
Change forecast in the public debt ratio under the PFPL (1)	3,0	1,9	0,6	-0,7	4,8	-1,9	-2,7	0,2
Observed change in public debt ratio (2)	1,5	0,7	2,4	0,1	4,7	-0,3	-0,4	4,0
Difference in the change in the public debt ratio = (2) - (1) ≈ (3) + (4) + (5) *	-1,5	-1,2	1,8	0,8	-0,1	1,6	2,3	3,8
Including effect ($r - g$) (3)	-0,4	-0,5	1,0	0,0	0,1	0,2	-0,6	-0,3
Including effect « r »	0,0	-0,2	-0,5	-0,7	-1,4	-0,7	-1,0	-3,2
Including effect « g » = (a) + (b)	-0,3	-0,3	1,5	0,7	1,5	0,8	0,4	2,7
<i>Including pure growth effect (a) = (i) + (ii)</i>	-0,3	-0,3	1,4	0,8	1,5	0,8	0,5	2,9
<i>Including volume effect (i)</i>	-0,5	-0,1	0,6	-0,4	-0,4	0,1	0,1	-0,1
<i>Including price effect (ii)</i>	0,2	-0,2	0,9	1,2	2,0	0,7	0,4	3,1
<i>Including effect of debt stock (b)</i>	0,0	0,0	0,0	0,0	0,0	0,0	-0,1	-0,1
Including primary public balance ratio effect (4)	-0,5	-0,3	0,5	0,9	0,7	1,3	3,3	5,3
Including ratio effect of primary public expenditure excluding TC	-0,4	-0,6	0,3	1,3	0,6			
Including the effect of the ratio of public revenue net of TC	0,1	0,4	0,3	-0,1	0,7			
Including TC effect	-0,1	-0,1	-0,1	-0,3	-0,7			
Including stock-flow adjustments effect (5)	-0,7	-0,4	0,4	0,0	-0,8	0,1	-0,4	-1,1

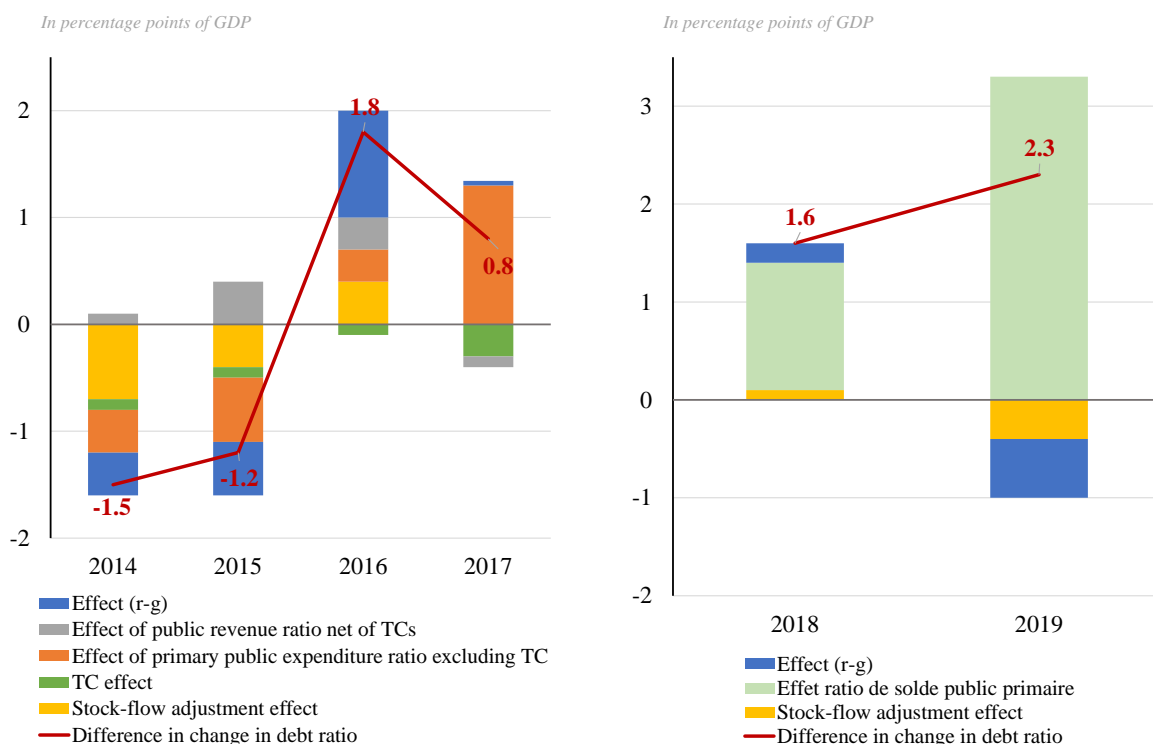
²³ Another hypothesis would have been to assume that the weight of interest charges in GDP would continue to rise at the same rate as in previous years (2016 and 2017), i.e. 0.1 points of GDP: this would have changed the following analysis only marginally.

Sources: PFPL 2014-2019, INSEE, author's computations

*N.B.: the data from the 2014-2019 PFPL do not make it possible to break down the change in the debt ratio as proposed in this note beyond 2017, as the public revenue and expenditure ratios are not available for 2018 and 2019. However, by assuming, in 2018 and 2019, that the weight in GDP of the interest expenditure is unchanged from its 2017 level and that stock-flow adjustments are expected to be zero, it is possible to calculate the effect of the primary public balance ratio and that of macroeconomic factors; in the 2014-2019 PFPL, revenue excluding compulsory levies is calculated as the balance between gross revenue and the sum of compulsory levies (excluding EU compulsory levies) and the tax credit revenue key. The compulsory levies include the EU compulsory levies, which are therefore reclassified as compulsory levies in the PFPL data * the sum of the different effects may differ slightly from the difference in the change in the public debt ratio. This is due to the fact that the formula for calculating the change in debt used to propose this breakdown gives an approximate result, which may differ from the exact result, particularly when $(r - g)$ has large values.*

Reading note: in 2016, the public debt ratio was expected to be 0.6 percentage point higher than in 2015 in the PFPL. In the end, it rose by 2.4 percentage points. 1.0 percentage point of this 1.8 percentage point difference can be explained by macroeconomic factors, assessed in terms of $r - g$, which were less favourable than expected (in this case, a lower than expected rate of growth in nominal GDP), by 0.3 percentage point of slippage in the primary public expenditure ratio, by 0.3 percentage point of slippage in the ratio of public revenue net of TC (lower than expected) and finally by 0.4 percentage point of stock-flow adjustments.

Charts 16 and 17: factors explaining the differences between the forecast change in the public debt ratio in the 2014-2019 PFPL and the actual change (2014 base)



Sources: PFPL 2014-2019, INSEE, author's computations

Although the trajectory was kept relatively steady until 2017, it included macroeconomic assumptions that were more favourable than realised, leading to a slower-than-expected increase in nominal GDP for 2018 and 2019 and a mechanical deterioration in the public debt ratio. The PFPL also forecast an improvement in the balance of 1 percentage point

per year between 2017 and 2019, which was greater than that achieved in the first years of the PFPL.

c. A look back at the 2018-2022 PFPL: a PFPL quickly obsolete

In 2022, the public debt ratio is 20.4 percentage points of GDP higher than forecast in the 2018-2022 PFPL (111.8 percentage points of GDP compared with 91.4 percentage points of GDP forecast in the PFPL). This difference results from:

- a difference of 1.7 percentage point of GDP from the starting point (in 2016²⁴): in the PFPL 2018-2022, the public debt ratio was set at 96.3 percentage points of GDP in 2016. The actual public debt ratio was finally estimated at 98.0 percentage points of GDP;
- a difference of 18.7 percentage points of GDP from the expected change over the entire period covered by the PFPL. The public debt ratio was expected to fall by 4.9 percentage points compared with 2016, but actually increased by 13.8 percentage points.

Table 7: factors explaining the differences between the expected change in the public debt ratio in the PFPL 2018-2022 and the actual change (2014 base) in percentage points of GDP

	2017	2018	2019	2020	2021	2022	Total
Change forecast in the public debt ratio under the PFPL (1)	0.4	0.2	0.2	-1	-1.9	-2.8	-4.9
Observed change in public debt ratio (2)	0.1	-0.3	-0.4	17.2	-1.7	-1.1	13.8
Difference in the change in the public debt ratio = (2) - (1) \simeq (3) + (4) + (5) *	-0.3	-0.5	-0.6	18.2	0.2	1.7	18.7
Including effect ($r - g$) (3)	-0.4	-0.1	-0.5	7.1	-6.3	-2.9	-3.2
Including effect « r »	-0.1	-0.1	-0.4	-0.8	-0.6	-0.1	-2.0
Including effect « g » = (a) + (b)	-0.4	0.0	-0.2	7.9	-5.7	-2.8	-1.2
<i>Including pure growth effect (a) = (i) + (ii)</i>	-0.3	0.0	-0.1	7.9	-4.3	-1.8	1.4
<i>Including volume effect (i)</i>	-0.6	-0.2	-0.1	9.0	-4.6	-0.6	2.9
<i>Including price effect (ii)</i>	0.3	0.1	0.0	-1.3	0.3	-1.1	-1.8
<i>Including effect of debt stock (b)</i>	0.0	0.0	0.0	0.0	-1.5	-1.0	-2.6
Including primary public balance ratio effect (4)	0.2	-0.2	0.5	8.2	6.3	4.7	19.7

²⁴ The starting point is taken in 2016, as the draft PFPL was presented in September 2017, when the current year had not been completed.

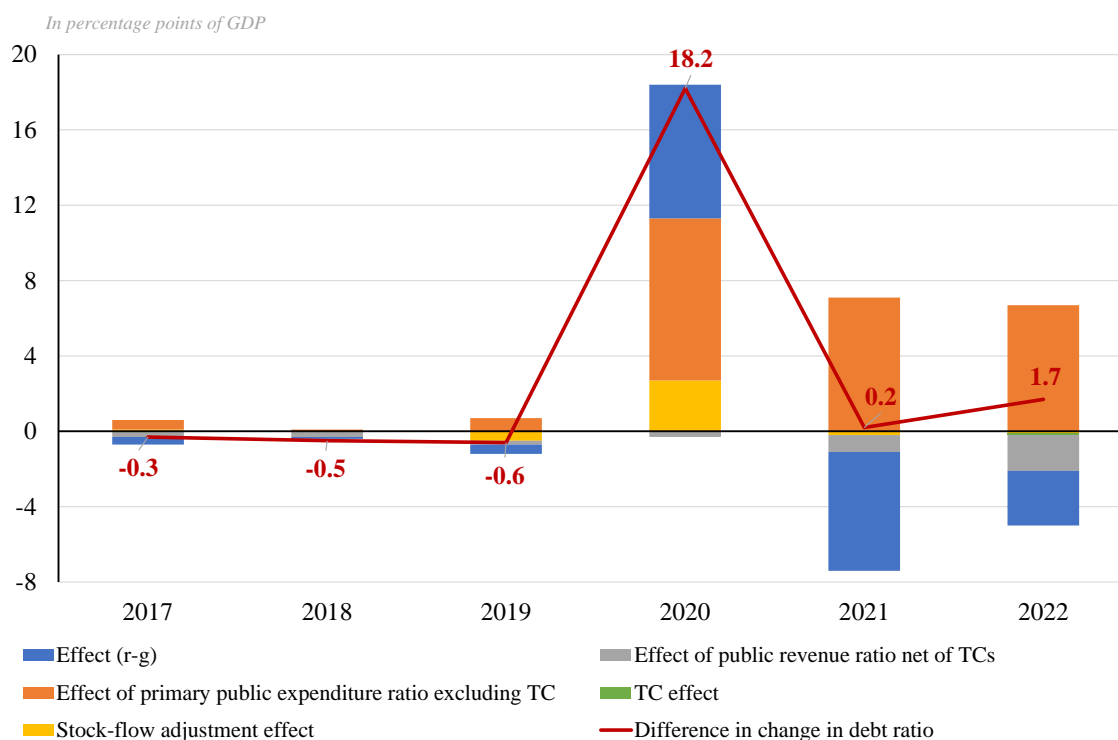
Including ratio effect of primary public expenditure excluding TC	0.5	0.1	0.7	8.6	7.1	6.7	23.7
Including the effect of the ratio of public revenue net of TC	-0.3	-0.3	-0.2	-0.3	-0.9	-1.9	-3.9
Including TC effect	0.0	0.0	0.0	0.0	0.0	-0.1	0.0
Including stock-flow adjustments effect (5)	0.1	0.0	-0.5	2.7	-0.2	-0.1	1.9

Sources: PFPL 2018-2022, INSEE, authors' computations

N.B.: the sum of the various effects may differ slightly from the variation in the public debt ratio. This is due to the fact that the formula for calculating the change in debt used to propose this breakdown gives an approximate result, which may differ from the exact result, particularly when $(r - g)$ has large values, as in 2020.

Reading note: in 2019, the public debt ratio was expected to rise by 0.2 percentage point of GDP compared with 2018 in the PFPL. In the end, it fell by 0.4 percentage point. This difference of -0.6 percentage point is explained by -0.5 percentage point by macroeconomic factors, assessed through the term $(r - g)$, which were more favourable than expected (in this case, a lower than expected apparent interest rate), -0.2 percentage point by a ratio of public revenue net of IC (higher than expected) and -0.5 percentage point by stock-flow adjustments. This more than offsets a 0.7 percentage point drift in the primary public spending ratio excluding tax credits.

Figure 18: factors explaining the differences between the forecast change in the public debt ratio in the PFPL 2018-2022 and the actual change (2014 base)



Sources: PFPL 2018-2022, INSEE, author's computation

However, the ratio of public revenue net of tax credits had a favourable effect over the period: while it was expected to fall in the 2018-2022 PFPL, it held steady, despite new tax-

cutting measures, thanks to more dynamic than expected spontaneous growth in compulsory levies. Although the pure effect of volume growth was unfavourable (+2.9 percentage points), the term $(r - g)$ tended to reduce the public debt ratio over the period, thanks to the effects of r , prices and the stock of debt. The difference of 18.7 percentage points on the expected change is mainly due to a primary public spending ratio excluding tax credits that increased much more than expected over the period, notably as a result of the multiple mechanisms to support the economy during the health and economic crisis of 2020²⁵, then during the inflationary crisis, the recovery plan and France 2030.

d. Public debt ratio target systematically missed

The following table summarises the results obtained for each PFPL.

Table 8: factors explaining the differences between the change in the public debt ratio expected under the PFPL and the change actually achieved (2014 base) (in percentage points of GDP)

	LPFP 2012-2017	LPFP 2014-2019		LPFP 2018-2022
		2014-2017	2014-2019	
Change forecast in the public debt ratio under the PFPL (1)	-3.1	4.8	0.2	-4.9
Observed change in public debt ratio (2)	10.3	4.7	4.0	13.8
Difference in the change in the public debt ratio = (2) - (1) \approx (3) + (4) + (5) *	13.4	-0.1	3.8	18.7
Including effect $(r - g)$ (3)	4.4	0.1	-0.3	-3.2
Including effect « r »	-2.7	-1.4	-3.2	-2.0
Including effect « g » = (a) + (b)	7.0	1.5	2.7	-1.2
<i>Including pure growth effect (a) = (i) + (ii)</i>	7.6	1.5	2.9	1.4
<i>Including volume effect (i)</i>	2.5	-0.4	-0.1	2.9
<i>Including price effect (ii)</i>	5.1	2.0	3.1	-1.8
<i>Including effect of debt stock (b)</i>	-0.6	0.0	-0.1	-2.6
Including primary public balance ratio effect (4)	13.7	0.7	5.3	19.7
Including ratio effect of primary public expenditure excluding TC	7.8	0.6		23.7
Including the effect of the ratio of public revenue net of TC	4.9	0.7		-3.9
Including TC effect	1.0	-0.7		0.0

²⁵ The large amount of stock-flow adjustments in 2020 can be explained by the build-up of cash during the crisis period.

Including stock-flow adjustments effect (5)	-4.6	-0.8	-1.1	1.9
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Sources: PFPL 2012-2017, PFPL 2014-2019, PFPL 2018-2022, INSEE, authors computations

Overall, the analysis shows that two factors have systematically contributed to the public debt ratio target set at the end of the programming period always being exceeded: the pure effect of nominal GDP growth (i.e. adjusted for the effect of the stock of debt) has always been unfavourable and the primary public expenditure ratio targets excluding tax credits have not been met, generally to a large extent. Conversely, the interest expenditure has so far always been more contained than forecast in the PFPL. Public revenues net of tax credits as a percentage of GDP and stock-flow adjustments have been some of the time on the rise and some of the time on the decline.

However, whether or not the primary public expenditure ratio target is met may also depend on surprises in macroeconomic factors. Over-optimistic assumptions about value GDP can contribute to missing the target by reducing the denominator of the ratio. In the numerator, however, since some expenditure is indexed to inflation²⁶, lower-than-expected inflation makes it easier to meet the expenditure target set in value. Conversely, higher inflation makes it more difficult to meet the target. Taking into account these surprises, which, as the analysis of French PFPLs in this note shows, can be significant, raises questions about the effectiveness of the new European rules.

Meeting the objectives set out in the medium-term fiscal-structural plan, which is once again based on an effective growth scenario deemed optimistic by the High Council²⁷ and a significant reduction in the expenditure ratio, would require a clear break with the past, particularly in terms of method.

²⁶ The elasticity of primary public spending to inflation has been estimated at around 40% due to the various indexation mechanisms in place for pensions and other social benefits. See P. Helwaser, A. Lacan, *Comparaison de l'effet de l'inflation sur les finances publiques en 2022 et en 2023 dans six pays de la zone euro*, staff report n°HCFP-2024-1, May 2024.

²⁷ <https://www.hcfp.fr/liste-avis/avis-ndeg2024-4-psmt-2025-2028>.

Appendix 1: impact of the apparent real interest rate

The decomposition proposed in this note highlights the effect of the apparent nominal interest rate and the nominal GDP growth rate, which makes it possible to clearly distinguish the surprises observed in real GDP growth from those observed in the GDP deflator.

Another decomposition, this time based on the real apparent interest rate and the real GDP growth rate, was possible.

While the effect of the nominal interest rate was always more favourable than expected in the programming law, the diagnosis is different if we look at the real interest rate observed ex post.

The effect of the real interest rate is unfavourable over the period covered by the PFPL 2012-2017 (effect of +2.2 percentage points). It is very slightly favourable over the period 2014-2019 (effect of -0.2 percentage point) and very markedly so over the period covered by the PFPL 2018-2022 (effect of -4.6 percentage points).

Effect of the apparent real interest rate on the public debt ratio

	PFPL 2012-2017	PFPL 2014-2019	PFPL 2018-2022
Effect « $r - g$ » = (i) + (ii)	4.3	-0.4	-3.4
including effect « r réel » (i)	2.2	-0.2	-4.6
including effect « g volume » (ii) = (a) + (b)	2.1	-0.2	1.2
<i>Including pure volume growth effect (a)</i>	2.5	-0.1	2.9
<i>Including effect of debt stock (b)</i>	-0.4	-0.1	-1.7

Sources: PFPL 2012-2017, PFPL 2014-2019, PFPL 2018-2022, INSEE, authors computations

Appendix 2: comparison of forecasts and actual figures in the same national accounts base

This appendix compares forecast and actual variables defined in the same national accounts base. Given the successive changes of base, this exercise is only possible for four years: 2012, 2014, 2015 and 2016.

The objectives of the 2012-2017 PFPL were defined in 2005 base. The national accounts for 2013 were published in May 2014 in 2010 base. Only 2012 can therefore be compared using the same methodological framework.

In 2012, the public debt ratio was 0.3 percentage point of GDP higher than forecast in the 2012-2017 PFPL (90.2 percentage points of GDP compared with 89.9 percentage points of GDP forecast in the PFPL). This difference results from:

- a difference in the starting point (in 2011) of -0.2 percentage point of GDP: the public debt ratio was forecast at 86.0 percentage points of GDP in 2011 in the 2012-2017 PFPL and was estimated at 85.8 percentage points of GDP;
- a difference of 0.5 percentage point of GDP in the expected change between 2011 and 2012. The public debt ratio was expected to rise by 3.9 percentage points compared with 2011, but ended up increasing by 4.4 percentage points.

The higher-than-expected rise in the public primary expenditure ratio and less buoyant macroeconomic factors due to slower-than-expected nominal GDP growth led to this more marked increase in the debt ratio.

Table: factors explaining the differences between the expected change in the public debt ratio in the 2012-2017 PFPL and the actual change (2005 base) in percentage points of GDP

	2012
Change forecast in the public debt ratio under the PFPL (1)	3.9
Observed change in public debt ratio (2)	4.4
Difference in the change in the public debt ratio = (2) - (1) \simeq (3) + (4) + (5) *	0.5
Including effect ($r - g$) (3)	0.4
Including effect « r »	0.1
Including effect « g » = (a) + (b)	0.4
<i>Including pure growth effect (a) = (i) + (ii)</i>	<i>0.3</i>
<i>Including volume effect (i)</i>	<i>0.2</i>
<i>Including price effect (ii)</i>	<i>0.1</i>
<i>Including effect of debt stock (b)</i>	<i>0.0</i>
Including primary public balance ratio effect (4)	0.4
Including ratio effect of primary public expenditure excluding TC	0.3
Including the effect of the ratio of public revenue net of TC	0.0
Including TC effect	NA
Including stock-flow adjustments effect (5)	-0.1

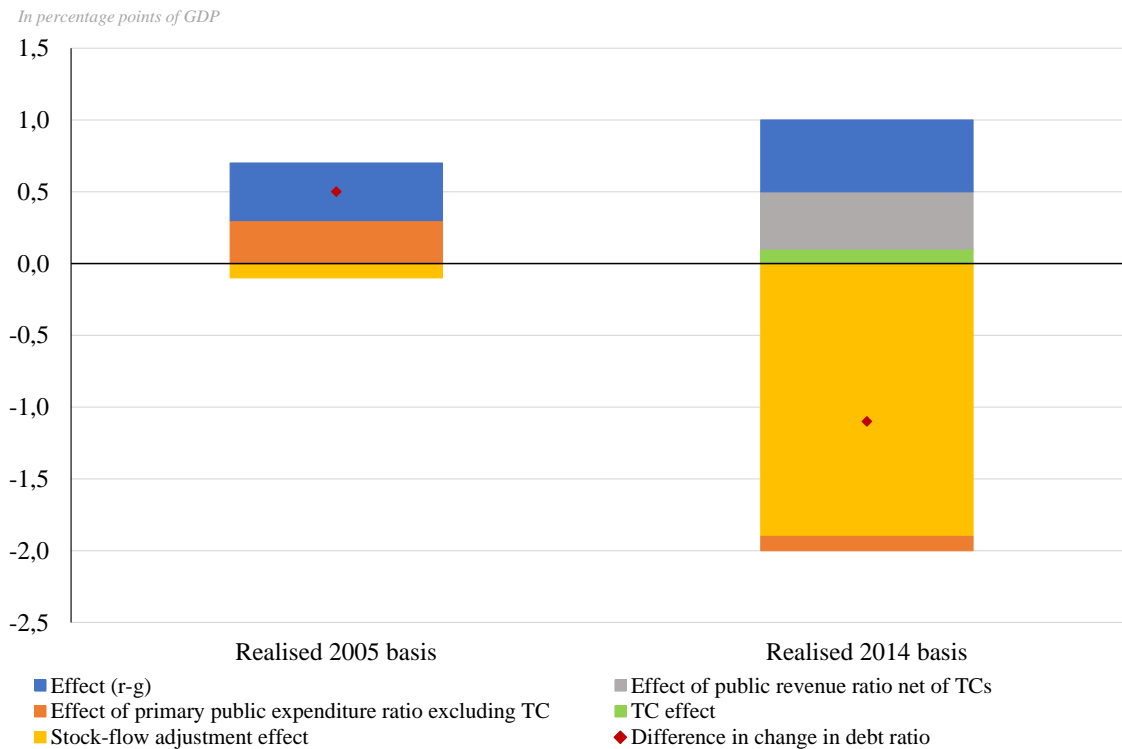
Sources: PFPL 2012-2017, INSEE, authors' computations

*N.B.: * the sum of the different effects is slightly different from the variation in the public debt ratio. This is due to the fact that the formula for calculating the change in debt used to propose this breakdown gives an approximate result, which may differ from the exact result, particularly when ($r - g$) has large values.*

Reading note: in 2012, the public debt ratio was expected to be 3.9 percentage points higher than in 2011 in the PFPL. In the end, it rose by 4.4 percentage points. This 0.5 percentage point difference can be explained as follows: 0.4 percentage point by macroeconomic factors, assessed using the term ' $r - g$ ', which were less favourable than expected (in this case, a lower-than-expected rate of growth in nominal GDP), and 0.3 percentage point by a higher-than-expected rise in the primary public spending ratio. This was partially offset, by 0.1 percentage point, by the difference observed in stock-flow adjustments.

The effect of the stock-flow adjustments differs considerably depending on the national accounts base used for the actual data, with the switch to the 2014 base adding a large stock-flow adjustment in 2012²⁸. Similarly, while the effect of primary expenditure excluding tax credits was favourable when the comparison was made with actual figures in 2014 base, it becomes unfavourable when the comparison is made in the same national accounts base. Conversely, the upward effect of macroeconomic factors on the public debt ratio is not called into question.

Figure: factors explaining the differences between the forecast change in the public debt ratio in the 2012-2017 PFPL and the actual change (2014 base and 2005 base) in 2012



Sources: PFPL 2012-2017, INSEE, authors' computations

The objectives of the PFPL 2014-2019 were defined on a 2010 base. The data for 2014, 2015 and 2016 are available in this same base. The 2017 accounts, published in May 2018, were published in 2014 base.

In 2016 (the latest year available on a 2010 base), the public debt ratio was 1.4 percentage point of GDP lower than forecast in the 2014-2019 PFPL (96.3 percentage points of GDP compared with 97.7 percentage points of GDP forecast in the PFPL). This difference results from:

- a difference of 0.1 percentage point of GDP in the starting point (in 2013): the public debt ratio was forecast at 92.2 percentage points of GDP in 2013 in the PFPL 2014-2019 and finally reached 92.3 percentage points of GDP;

²⁸ The changeover to the 2014 base reclassified the Société de Financement de l'Économie Française (SFEF) as a general government entity, compared with its classification as a financial company in the 2010 base. The SFEF was created to grant major loans to French banks following the collapse of Lehman Brothers at the end of 2008; the repayment of these loans between 2009 and 2014 resulted in significant flows of credit (particularly in 2012), which improved the public debt ratio compared with the previous base, all other things being equal.

- a difference of -1.5 percentage point of GDP in the expected change between 2013 and 2016. The public debt ratio was expected to rise by 5.5 percentage points compared with 2013 and ended up increasing by 4.0 percentage points.

The larger-than-expected fall in the primary public expenditure ratio and better-than-expected stock-flow adjustments led to this more marked fall in the debt ratio, despite a weaker-than-expected rise in the public revenue ratio and slightly less buoyant macroeconomic factors.

Table: factors explaining the differences between the expected change in the public debt ratio in the PFPL 2014-2019 and the actual change (2010 base) in percentage points of GDP

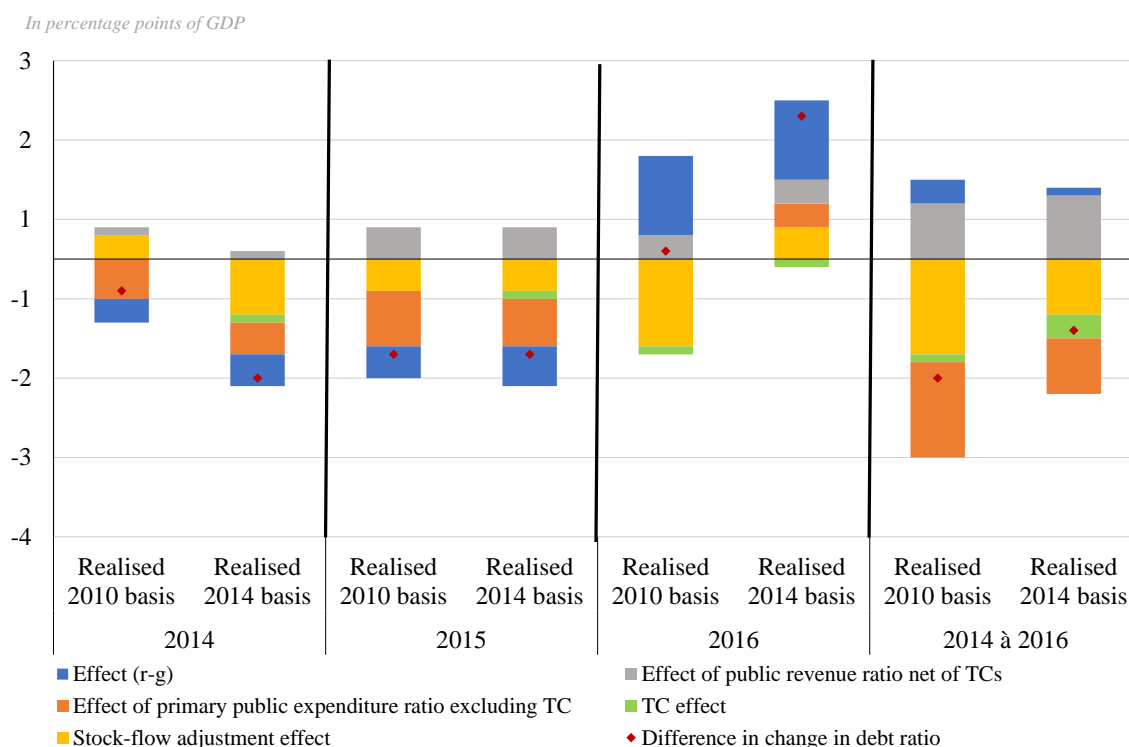
	2014	2015	2016	Total
Change forecast in the public debt ratio under the PFPL (1)	3.0	1.9	0.6	5.5
Observed change in public debt ratio (2)	2.6	0.7	0.7	4.0
Difference in the change in the public debt ratio = (2) - (1) \approx (3) + (4) + (5) *	-0.4	-1.2	0.1	-1.5
Including effect ($r - g$) (3)	-0.3	-0.4	1.0	0.3
Including effect « r »	0.0	-0.2	-0.5	-0.7
Including effect « g » = (a) + (b)	-0.3	-0.3	1.5	0.9
<i>Including pure growth effect (a) = (i) + (ii)</i>	-0.3	-0.3	1.5	0.9
<i>Including volume effect (i)</i>	-0.5	-0.1	0.5	-0.1
<i>Including price effect (ii)</i>	0.2	-0.2	1.0	1.0
<i>Including effect of debt stock (b)</i>	0.0	0.0	0.0	0.0
Including primary public balance ratio effect (4)	-0.4	-0.3	0.2	-0.6
Including ratio effect of primary public expenditure excluding TC	-0.5	-0.7	0.0	-1.2
Including the effect of the ratio of public revenue net of TC	0.1	0.4	0.3	0.7
Including TC effect	0.0	0.0	-0.1	-0.1
Including stock-flow adjustments effect (5)	0.3	-0.4	-1.1	-1.2

Sources: PFPL 2014-2019, INSEE, authors' computations

N.B.: the sum of the various effects may differ slightly from the variation in the public debt ratio. This is because the formula for calculating the change in debt used to propose this breakdown gives an approximate result, which may differ from the exact result, particularly when ($r - g$) has large values, as in 2020.

Reading note: in 2015, the public debt ratio was expected to be 1.9 percentage point higher than in 2014 in the PFPL. In the end, it increased by 0.7 percentage point. This difference of -1.2 percentage point is explained by -0.4 percentage point by macroeconomic factors, assessed through the term ($r - g$), which were more favourable than expected (in this case, a lower apparent interest rate and stronger nominal GDP growth than expected), -0.7 percentage point by a lower primary public expenditure ratio excluding TC and -0.4 percentage point by stock-flow adjustments. The effect of the ratio of public revenue net of TC is unfavourable by 0.4 percentage point.

Figure: factors explaining the differences between the forecast change in the public debt ratio in the 2014-2019 PFPL and the actual change (2014 base and 2010 base) from 2014 to 2016



Sources: PFPL 2014-2019, INSEE, authors' computations

Over the period as a whole (2014 to 2016), the magnitude of the effects is increased when the data is considered on the same base as that used to define the PFPL targets. However, the favourable effect of the primary public expenditure ratio excluding tax credits and stock-flow adjustments and the unfavourable effect of macroeconomic factors and the public revenue ratio are not called into question.

In some years, however, the diagnosis itself is affected. For example, in 2016, while the effect of the primary public expenditure ratio excluding tax credits leads to an increase in the public debt ratio when the data is taken on a 2014 base, it becomes neutral when the data is taken on a 2010 base.

When changing bases, so that the HCFP can carry out its task with complete rigour, it would therefore be useful for it to have either the PFPL objectives 'translated' into the new base, or the national accounts maintained for the year in the PFPL base, or the key for switching between the different base.