French Debt Discipline: The Track Record of the 21st Century

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This paper examines the dynamic record of French governmental debt and its evolution during the current century under the euro regime. We construct detailed breakdowns of the components driving the pattern of debt accumulation according to standard practices of debt accounting and debt management techniques. We also explore the underlying pattern of government expenditures and revenues driving the deficits required to be financed. We used time-series analysis in an attempt to pinpoint particular significant exogenous factors such as the eurozone crisis starting in 2009 and the implementation and evolution of European Union fiscal oversight and governing rules.

Introduction

Our contemporaneous financial environment is characterized by conflicting central bank policy concerns among rising interest rates paths to combat inflation, banking stability, and an emerging global debt crisis. Credit default swap premiums for United States government bonds have shot upward over the past months as the Federal legislative and executive branches dance around the substance of an agreement to raise the debt ceiling before default would be triggered. The rapid upward interest rate path have strained developing and emerging market economies. Ghana, Zambia, and Sri Lanka have defaulted and restructured debt and forced domestic banking systems into hazardous operating environments. Pakistan, Egypt, and Tunisia are on the brink of default and are being given lifelines from generous Arab Gulf states. The IMF stands in peril with nearly a third of its lending tied to Argentina and confronting an inability to effectively implement conditional lending without the prior participation of China in negotiating debt relief to lenders in arrears under Belt and Road Initiative financing schemes.

In Europe NATO, the EU, and the US sustain a financial rescue for the Ukraine. These governments have themselves continued to extend generous costly benefits to subunits of government, businesses, and households in combating first the COVID crisis and its aftermath and now ramped inflation induced by supply-chain disruptions and supply-choked energy markets. Government budgets have exploded and the only salvation has been until recently a greatly moderated interest-rate environment with near zero nominal and mildly negative real rates. But that has recently turned as inflation continues to outpace the rise in nominal interest rates.

We propose to examine the 21st-century debt management record of France as a case study of the ability of the EU, under the single-currency framework, to maintain debt sustainability. The importance of this regulatory framework was tested mightily during the euro crisis a decade ago. But under even more strain from the pandemic, the framework of the fiscal rules of the Stability and Growth Pact have been put on hold by invoking a general escape clause. However a new era is on the horizon as last November the European Commission revealed the outlines of a new economic governance framework. We will continue to hold our judgment as to the suitability of the final form and implementation timetable for this project.

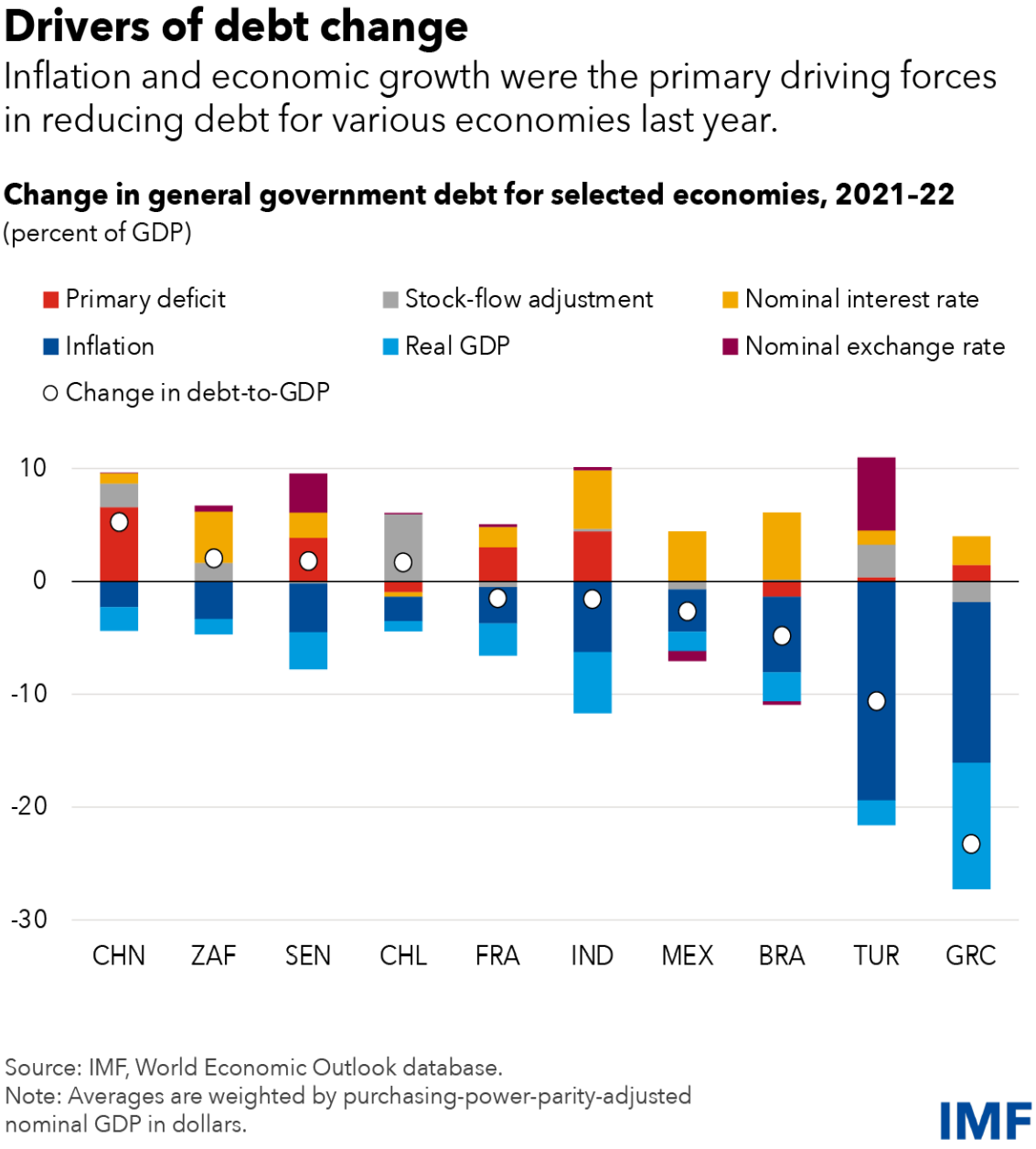
Debt Dynamics[1]

The Maastricht convergence criteria established for entry into the single curren and debt levels. We can illustrate the interplay with the following analysis. cy were based on a country's relative performance and focused on measures of (i) inflation, (ii) the long-term interest rate, (iii) exchange rate stability, (iv) the governmental deficit, and (v) debt. Post-entry, the Stability and Growth pact evolved to concentrate in regulatory application on the final two categories and maintained the affinity to the original reference points of a limit of 3% on the deficit and targeting 60% on debt both in relation to their ratios to GDP. Clearly exchange rate stability was achieved by the single currency while the inflation and interest rate measures remain influential in determining the deficit.

The legend for the bar chart (next page) lists six categorial breakdowns to explain the annual change in the ratio of debt to GDP. The definition of the ratio of concern has as the numerator the level of outstanding debt measured in stated contracted value. The denominator is the nominal value of GDP

[1] Barro's seminal work [4] and [5] serves as the foundation of understanding debt dynamics.

which is the product of real GDP and the price level. $\frac{Debt}{GDP} = \frac{Debt}{Prices * Real\ GDP}$ The numerator is a stock measured at a point in time while the denominator is a flow measured over a period of time, usually a year. The ratio is a very rough measure of sustainability of the debt as it places the absolute amount of the debt in relation to the productive capacity of the nation's economy measured by the flow of output produced. In principle a sovereign government has GDP as a base which could be taxed. [2]



[2] This flow measure ignores the tax base provided by the stock of private sector wealth held by households and business firms, but governments seem reluctant to tax wealth as opposed to income flows. Furthermore, foreign entities may be subject to domestic taxation, licensing fees, import tariffs, etc.

The three categories across the top line have a positive relationship with the debt to GDP ratio: (1) Primary Deficit, (2) Stock-flow adjustment, and (3) Nominal interest rate. The governmental primary deficit is the excess of expenditures over revenues during the year and with a larger deficit comes the necessity of increasing debt to finance the excess expenditure thus raising the debt-GDP ratio. The stock-flow adjustment refers to the timing and management of the issuance of new debt and the retirement of old debt. This is dependent on government liquidity and the timing and realization of both expenditure and revenue streams. It also can fluctuate with the strategies to adjust the term structure of the debt and/or to take advantage of interest rate or exchange rate movements to lock in lower funding costs with a alteration of the duration of the debt. This category is usually of lesser importance relative to other effects for the most developed economies, e.g. France. A positive relationship exists between the level of nominal interest rates and the level of debt, however the timing of the impacts depend on the term structure of existing debt as only new issues of debt face immediate higher interest rate costs unless the existing debt has a variable rate structure. In a rising interest rate environment, debt associate with Treasury bill issuance will be continuously adversely affected.

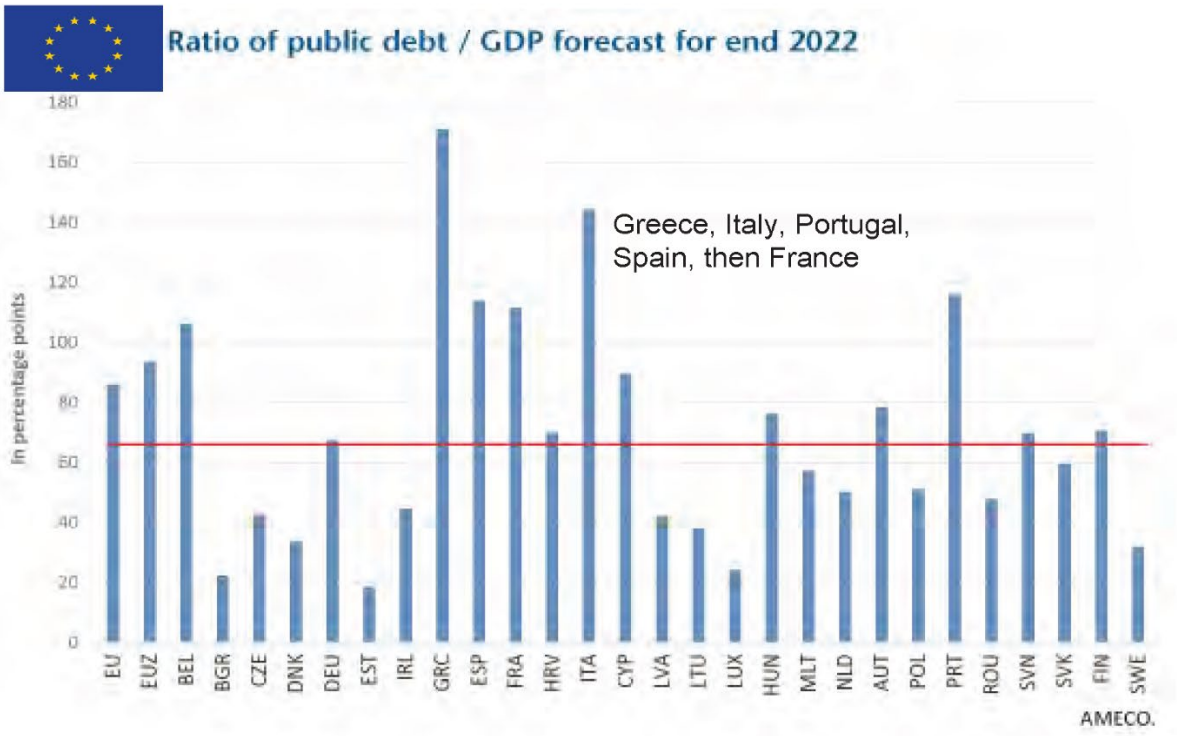
> **Obligations assimilables du Trésor (OATs, or fungible Treasury bonds)** are used for the government's medium- and long-term borrowing, with maturities ranging from two to fifty years. OATs pay a fixed coupon and are redeemed at maturity. The principal may be index-linked to inflation, as is the case for OATi and OAT€i issues. Auctions of long-term OATs are held on the first Thursday of each month. The government uses these auctions to sell OATs with maturities of 8.5 years and more. Auctions are also held on the third Thursday of each month to sell medium-term OATs, with maturities ranging from two to 8.5 years, and index-linked OATs (OATi, OAT€i issues).
>
> **Bons du Trésor à taux fixe et à intérêts précomptés (BTFs or negotiable fixed-rate discount Treasury bills)** are the French government's cash management instrument. They are used to smooth out fluctuations in the government's cash position over the course of the year. These fluctuations stem primarily from lags between revenue collection and expenditure disbursement, as well as from the debt redemption schedule. BTFs have maturities of less than one year at issue. BTFs are issued at auctions held every Monday. The quarterly BTF auction schedule is published in advance and specifies the maturities issued at each auction. One 3-month BTF is issued every week, along with BTFs with maturities of 6 months or 1 year, as the case may be. Unscheduled BTFs with maturities from 4 to 7 weeks may be issued as needed for cash management purposes. *Agence France Trésor* *https://www.aft.gouv.fr/en/products*

The three categories across the second line have a negative relationship with the debt to GDP fraction: (1) Inflation, (2) Real GDP, and (3) Nominal exchange rate. Higher inflation raises nominal GDP and as the denominator increase the debt to GDP ratio falls. In effect this is the well-known relationship whereby debtors, here governments, benefit from inflation as they pay back the interest and principal with deflated currency.[3] Real GDP growth directly increases nominal GDP and this rise in the denominator lowers the debt to GDP ratio. The importance of increasing the rate of growth in Real GDP is a prime mechanism for the improvement in debt sustainability. As the nation's currency depreciates any debt denominated in foreign currencies increases in magnitude and burden.[4]

[3] Of course, going forward lenders are prompted to required compensation for their revised upward expectations for inflation but this will be incorporated via induced higher nominal interest rates. There is a direct impact from inflation on the numerator to the extent that government debt is indexed to inflation, but this is of a second-order magnitude for most countries.

[4] As the EU has begun issuing mutualized debt, Member States will have partial responsibilities for an indirect burden of repayment. This liability may become relatively more important in the future but is not included in the current data.

France's Relative Situation



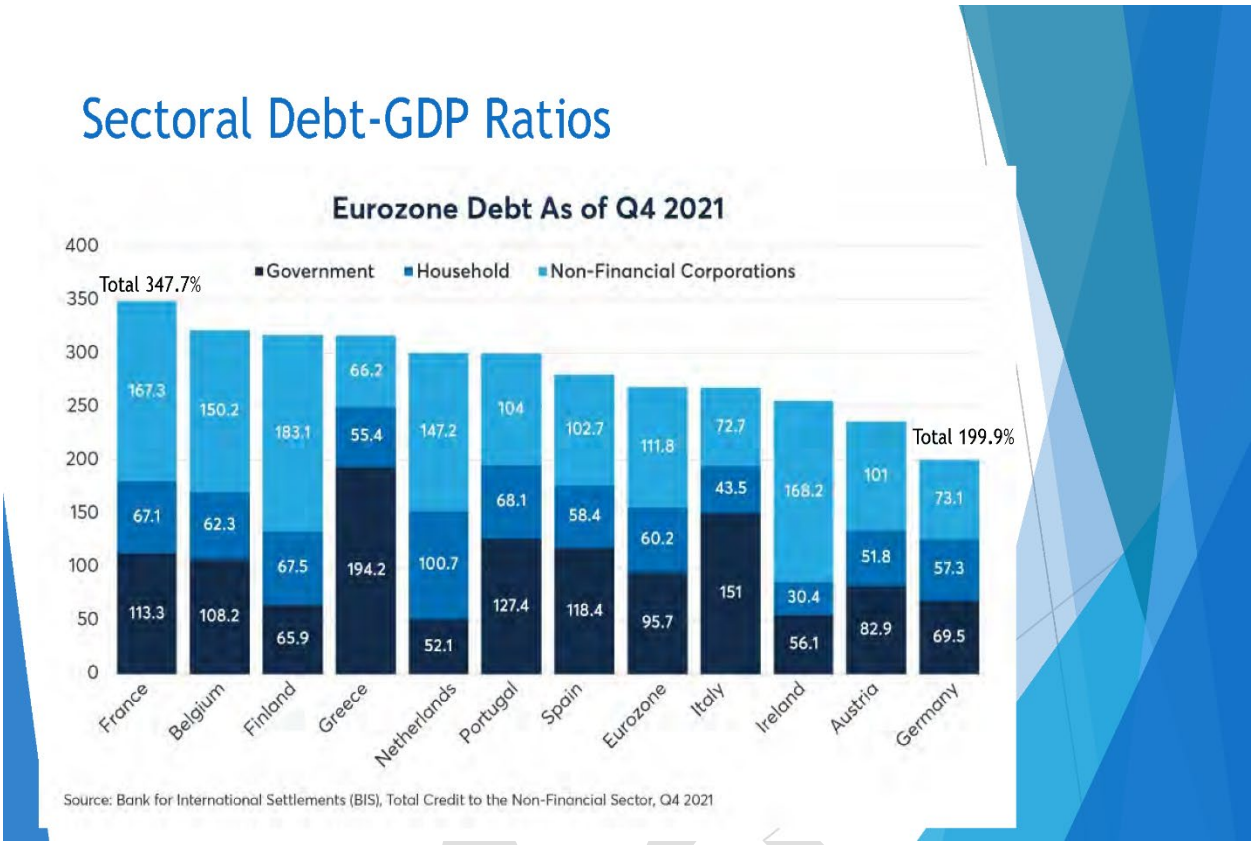
At the end of last year France's debt to GDP ratio was the fifth highest in the EU, trailing only Greece, Italy, Portugal and Spain, all victims of the euro crisis only a decade ago. France stood significantly above both the Eurozone and EU averages and was approaching twice the target reference level of 60%. In comparison, even Germany has just crept past the 60% level due to spending policy responses to the Covid crisis and the economic impacts of the Russian invasion of the Ukraine.

Another troubling dimension of the French fiscal structure is the fact that the public sector enjoys the highest level of government spending in Europe in proportion GDP (Table on following page). France stands 20% higher than the primarily reference Swedish welfare state. The French position is once again substantially above the Eurozone and EU averages. With this very high proportion, the ability to raise taxation as an alternative to debt financing of expenditures seems very questionable. Given the excess burdens created by taxation and the existing high share of taxation, France faces extreme difficulty in using tax instruments as effective alternatives to the debt financing of its high level of public expenditures. This leaves impending control of the primary deficit reliant on the expenditure side with a clear focus on shifting toward a strong emphasis on the substitution of growth enhancing investments for transfer payments.

An economy's debt burden is shared across the governmental, household, and business sectors. There is much cross-sector financing, meaning that what is a debt liability to one sector is a loan asset to another sector. For example, in Italy much government debt is held by the banking sector so the nation owes it to itself. The financial sector is often excluded from aggregated debt burden calculations because of the extensive cross holdings of assets and liability within the subsector. A rough measure of the aggregated debt burden for a country is the government, household, and non-financial business debt to GDP ratio.

Government Spending to GDP by Country | Europe (2021)

Country	Last	Previous
France	59.2	61.4
Greece	56.9	59.9
Austria	55.9	57
Italy	55.5	57
Finland	54.9	57.1
Belgium	54.8	59.2
Euro Area	52.4	53.6
European Union	51.6	53
Germany	51.5	50.8
Denmark	51	53.4
Faroe Islands	51	56.4
Spain	50.6	51.8
Sweden	50.2	52.6



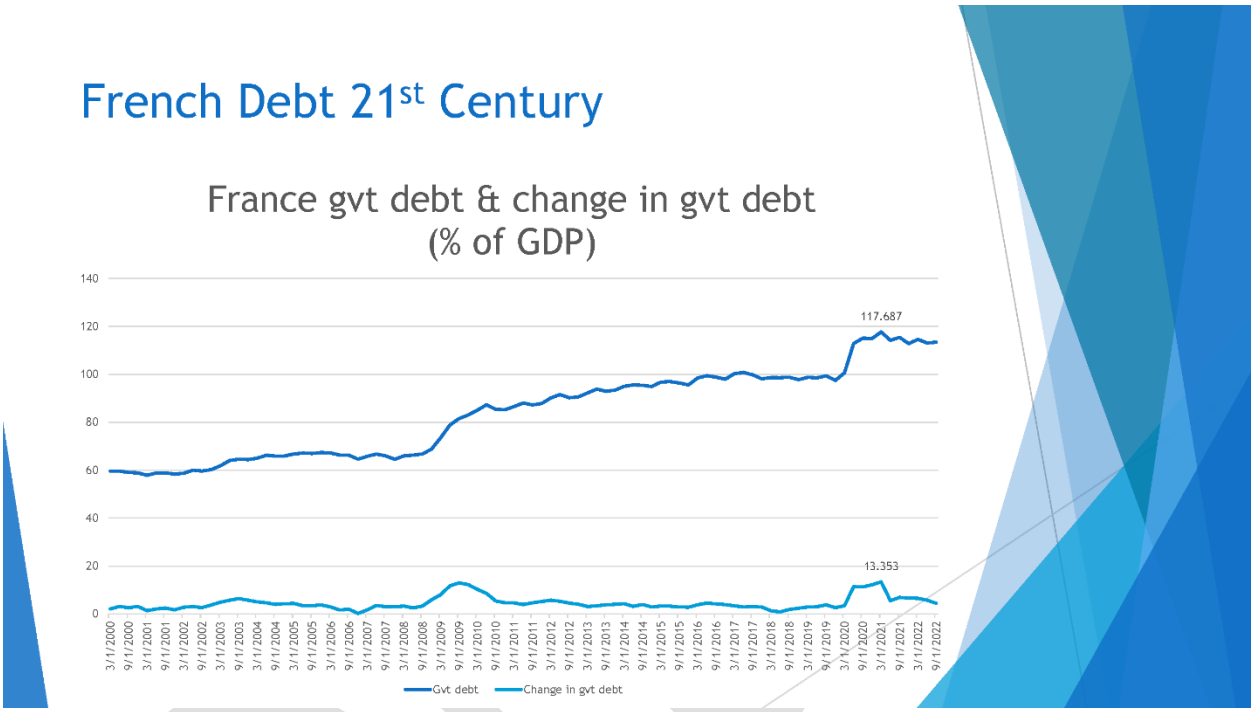
France's aggregated debt to GDP ratio at nearly 350% is the highest in the Eurozone and stands 30% above the zone's ratio. Compared to Germany, the French ratio is 75% higher. In addition France compared to Germany has a household sector with a much more sensitive expenditure elasticity with respect to interest rates. This is due to both higher proportions of homeownership and floating rate mortgages.

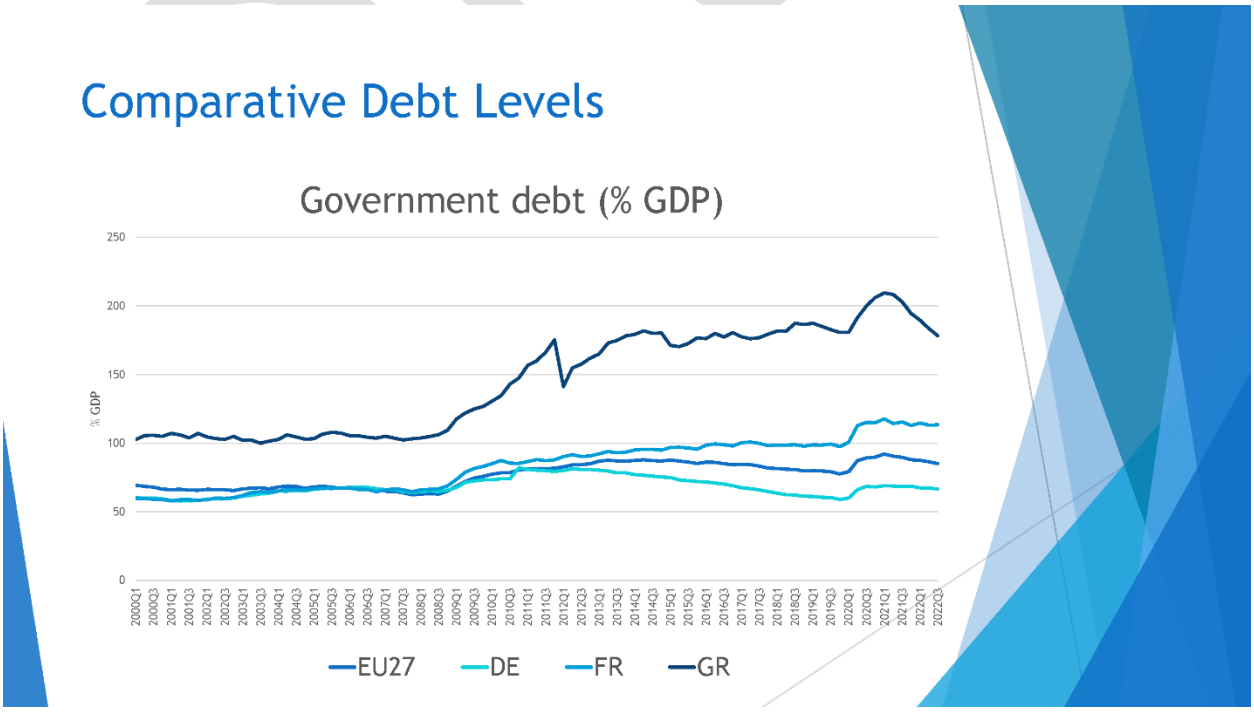
French Debt in the 21st Century

The first chart on the following page lays out the track record over the past two decades of the growth in the debt to GDP ratio for France. During the entireperiod France was operating under the single-currency framework incorporating the Stability and Growth Pact (1997 as amended in 2005 and 2011). The French started the century at the target 60% level but have drifted upward to nearly double that level. The recent peak was at 118% during the 1st quarter of 2021. Every quarter has seen an increase in government debt, but this rate of increase has not always exceeded the growth rate in nominal GDP. The financial and COVID crises saw the biggest runup the debt burden. However, the rapid recovery from the COVID induced recession has not led to any significant reduction in the debt to GDP ratio as deficits have remained high requiring substantial debt financing to remain in place.

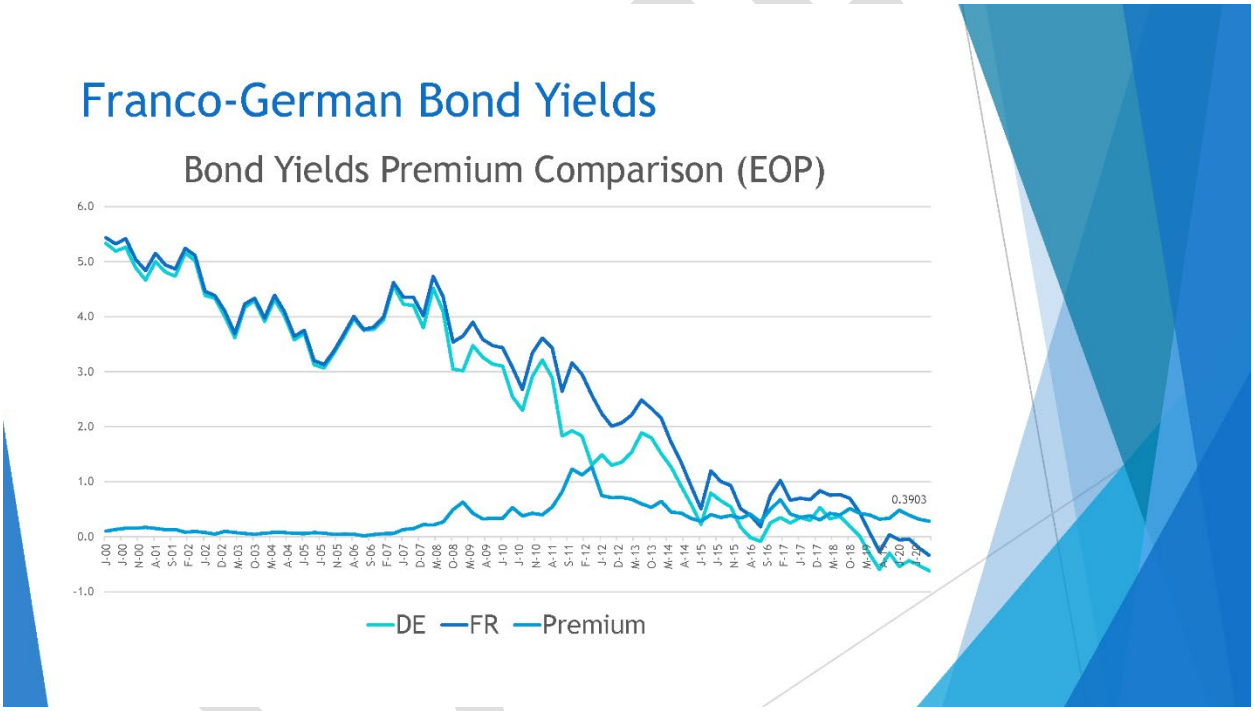
The second chart on the following page shows a comparative framework for the debt to GDP ratios for France, Germany, Greece, and the EU. France and Germany start below the EU average then converge in the runup to the financial crisis. As they move forward from the great recession they

diverge with France drifting above the EU average and Germany below the EU average. Further divergence upward for France and downward for Germany continued until the COVID crisis when all three trends peak up and then decline. At the turn of the century the EU average ratio stood at 70% with both France and Germany at 60% (approximately 14% lower). By the start of 2021 the EU average had drifted up to around 92% while Germany stood at 69% (approximately 25% lower) and France was at 118% (approximately 28% higher).





While a portion of the comparative advantage Germany holds over France in public finance is a sovereign debt interest rate differential, the persistent of the differential and the magnitude has fluctuated with the general level of interest rates. 10-year yields on bonds trended downward from just below 5% at the start of the century to just above 3% prior to the financial crisis and over this period the French yield premium regularly stood in the 5-15 basis point range. The longer period from the peak during the financial crisis until the Covid crisis saw rates decline from around 4.6% into the slightly negative range. The French premium peaked in mid 2021 during the euro crisis at around 125 basis points and then declined slowly until the beginning of the COVID crisis when it stood at around 40 basis points. However since mid-2015 French yields stood at 1% or less meaning new financing costs were extremely low for a period of 5 years.



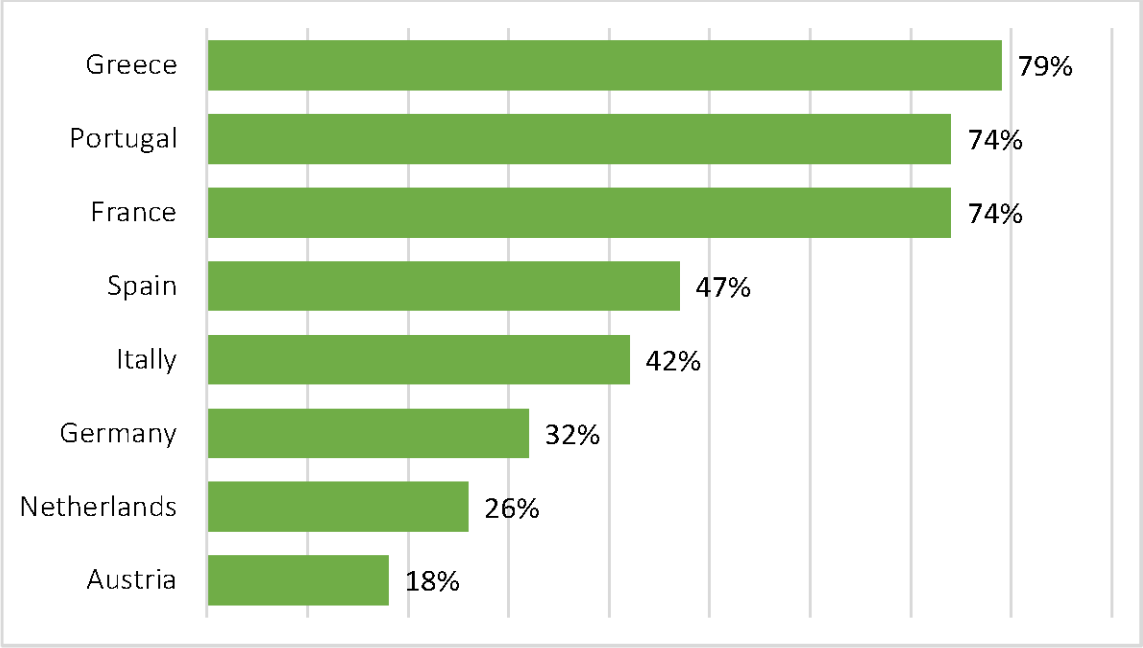
Stability and Growth Pact (SGP)

The SGP relies on a rules-based system for the coordination of Member State fiscal policies in the EU. The SGP is comprised of preventive arm reliant on the Medium-Term Budgetary Objective (MTO) derived by the Member State for the structural balance[5] of general government finances. The Commission and the Council monitor advancement towards the MTO. A Member State is in good standing in the preventative arm if it is not categorized as in the Excessive Deficit Procedure (EDP). The corrective arm of the SGP refers to the established maximum level of 3 per cent of GDP for the government deficit and the 60% target ratio of debt to GDP, as defined in the Maastricht Treaty. If the Commission and the Council establish that a Member State is in violation of the deficit or debt criteria, an EDP may be initiated. A Member State is supervised under the corrective arm if is in an EPD.

[5] The structural balance is set by a calculation involving an adjustment for the actual position of the economy compared to economic capacity. Thus the structural balance would be the deficit if the economy were running at full capacity.

The table below is instructive of the status of France per the SGP. France has an abysmal record in controlling it's government deficit and doesn't seem to have successfully worked cooperatively with the Commission to mitigate this persistent violation status. Hopefully the new forthcoming economic governance framework will make significant improvements in implementing compliance.

Proportion of years in which Member States had deficits of more than 3 % of GDP (2001-2019, in %)



Source: European Commission, DSGV.

The New Framework[6]

The Commission's new proposal takes a more dynamic approach with increased emphasis on the components of governmental expenditure which are growth-oriented investments. With an extended planning and implementation period the goals are to significantly enhance the sustainability off both debt[7] and economic growth. The fiscal framework is set in the context of a multi-year net expenditure path consistent with debt sustainability and monitored by risk-based assessment. The process will maintain the EDP under the established 3% of GDP criterion. A debt-based EDP will be formulated as a tool to supplement the implementation of the net expenditure path. Intelligent sanctions will be established in a toolkit of financial authorizations. Conditionality on macroeconomic performance will be structured into the decision-making process.

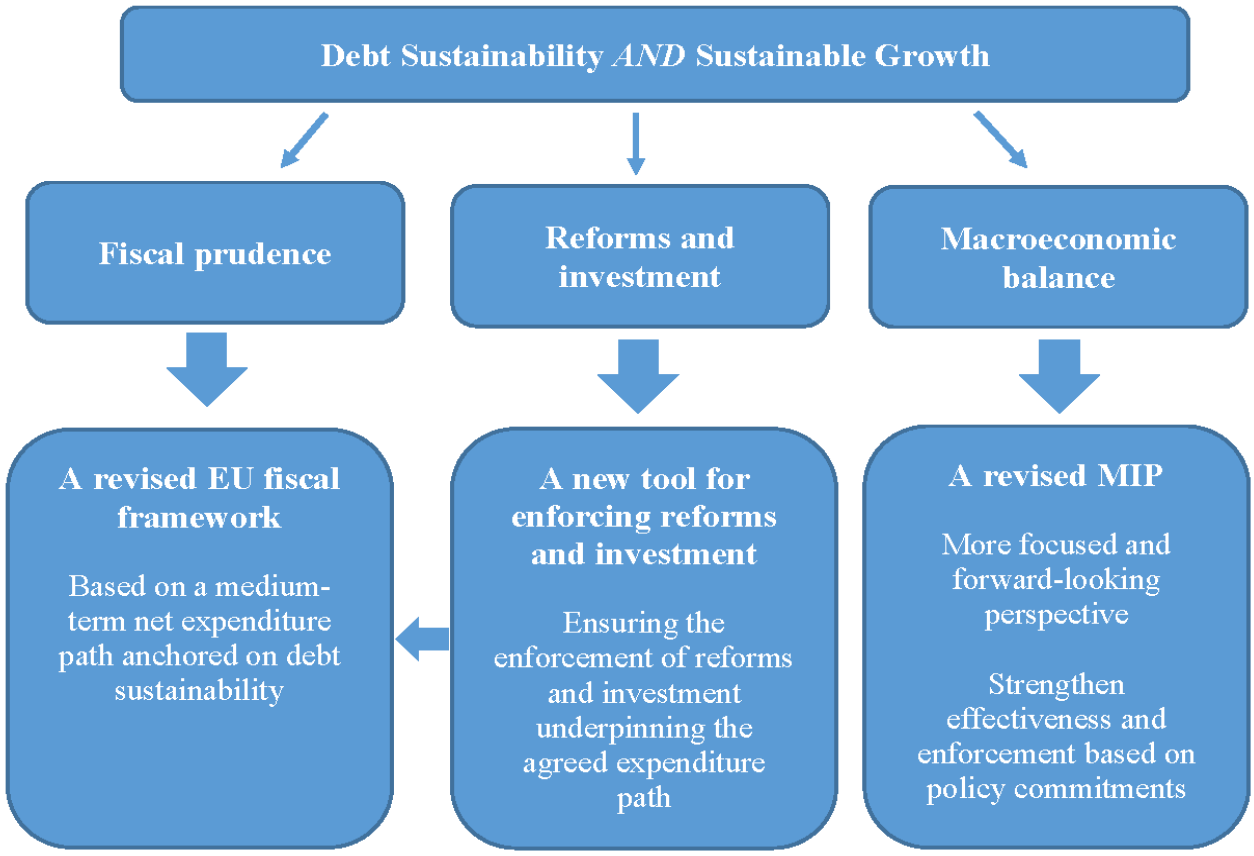
A wide-ranging set of suggestions based on analysis and criticism of the past operating practices of the SGP have been surfacing over the past several years.[8] This includes questions concerning what role and under what auspices state-of-the-art debt sustainability analysis should be incorporated. There is also substantial interest in expanding the role of national Independent Fiscal Institutions (IFIs)[9] in the process of Member State plan design and performance appraisal.

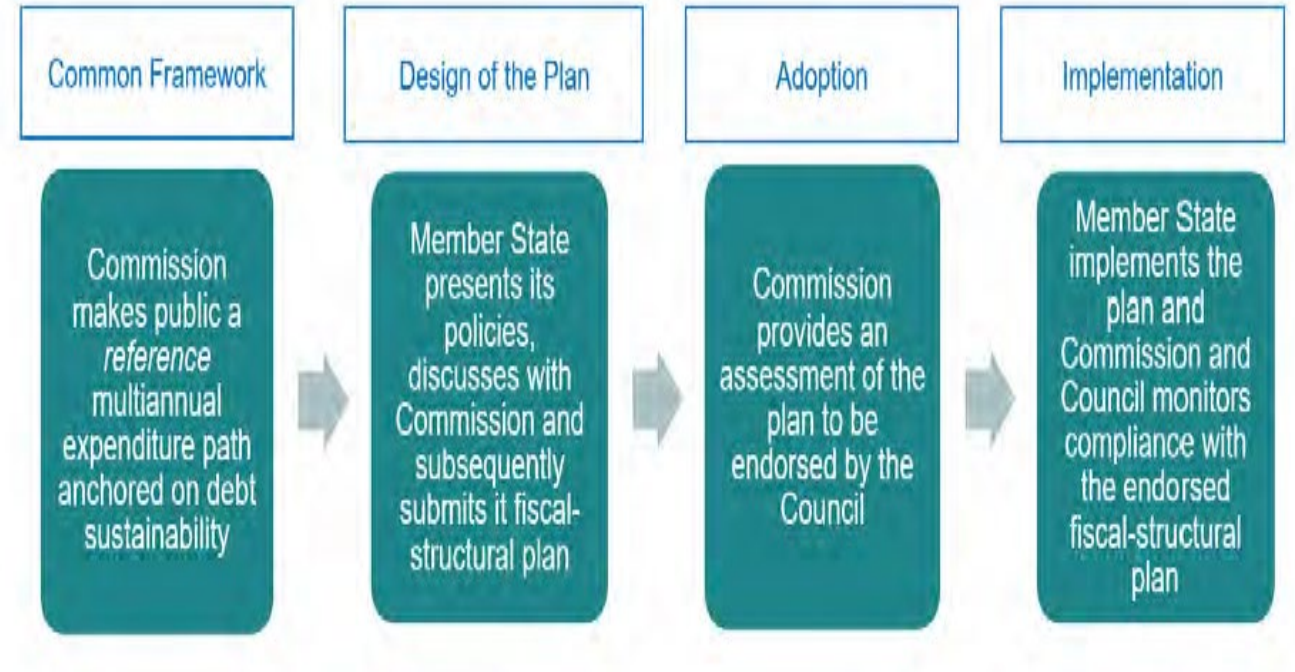
[6] See Commission proposal [7]

[7] On debt sustainability practices see [1], [6], [13], and [14]

[8] See [2], [3], [8], and [9]

[9] See https://www.euifis.eu/pages/about


Debt Sustainability AND Sustainable Growth
Fiscal prudence
Reforms and investment
Macroeconomic balance
A revised EU fiscal framework
Based on a medium-term net expenditure path anchored on debt sustainability
A new tool for enforcing reforms and investment
Ensuring the enforcement of reforms and investment underpinning the agreed expenditure path
A revised MIP
More focused and forward-looking perspective
Strengthen effectiveness and enforcement based on policy commitments


Common Framework
Design of the Plan
Adoption
Implementation
Commission makes public a reference multiannual expenditure path anchored on debt sustainability
Member State presents its policies, discusses with Commission and subsequently submits it fiscal-structural plan
Commission provides an assessment of the plan to be endorsed by the Council
Member State implements the plan and Commission and Council monitors compliance with the endorsed fiscal-structural plan

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