Levy Economics Institute of Bard College

Strategic Analysis

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GREECE: IN SEARCH OF INVESTORS

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Introduction

The year 2019 marked the third year of continuing recovery for the Greek economy, albeit with modest GDP growth ranging between 1.4 percent in 2017 and about 2 percent in 2019, while the unemployment rate decreased to 16.6 percent as reported in the latest available data (October 2019). The Greek economy's improving conditions have been recognized by financial market players, as evidenced by the dramatic interest rate drop on Greek bonds, which are presently at par with those issued by Portugal, while short-term government bills are issued with negative interest rates.

In descending order of importance, net exports (especially tourism and shipping), public and private consumption, and investments contributed to GDP and employment growth, while imports of goods (especially raw goods including crude oil) also increased relatively significantly, thereby dampening growth. Net exports' contribution to growth for the three-quarter period in 2019 was 1.08 percent (the difference between exports raising GDP by 2.24 percent and imports reducing it by 1.16 percent), with the major driver being tourism and shipping. Public consumption contributed 0.62 percent to GDP growth, while the contribution from private consumption was limited to 0.14 percent and that of gross fixed investment to 0.11 percent. Growth in domestic and foreign investment—which is critical to reversing the depletion of fixed capital that occurred over the last decade—has not materialized according to expectations. This casts doubt on the ability of the Greek economy to generate a strong recovery and hit the economic growth targets the new government (which took office in July 2019) claimed were possible.

As mentioned, the main driver for the recovery thus far has been exports. This export-led recovery is both unstable and fragile, given the slow growth of the global economy and most especially that of Greece's trading partners (Germany, Italy, France, and Turkey). The global slowdown not only affects export demand, but may also worsen the geopolitical turbulence that impacts a region of Greece critical to tourism and transport, which are the two major components of Greek exports.

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Notwithstanding the strong tourism dynamics over the last three years, the immediate rehabilitation of private consumption and investment is necessary to ensure a strong and sustainable recovery and accelerated growth. According to ElStat, private consumption growth for the three-quarter period in 2019 slowed to 0.2 percent, as compared to an average of 1 percent in the two-year period 2017–18, despite the increase in employment, some tax reduction, the increase in the minimum wage, and the increase in real disposable income by 4.5 percent in the first six months of 2019. To be sure, a factor in this decline in private consumption growth is the high debt-service obligations of Greek households and the continuing deleveraging process. Statistics from the Independent Agency of Public Revenues (AADE), as reported by the Labour Institute of the Greek General Confederation of Labour (INE GSEE 2019), show that 31,481 electronic foreclosures took place over the last two years (November 2017 to November 2019), with more scheduled for the current year, and about 1.8 million private debtors have been forced into strict payment schedules for overdue taxes and bank loans. This does not bode well for an increase in private consumption in either 2020 or beyond, and therefore a significant contribution to growth should not be expected from this source.

The other crucial component for sustainable growth is public and private investment, including foreign direct investment (FDI) for important development projects (energy, logistics, industry) and for small- and medium-size enterprises, to expand and modernize productive capacity, creating value chains for sustainable exports and supporting innovative businesses (including start-ups). Despite the improving financing and entrepreneurial environment and the tax reductions, gross fixed investments, as reported by the Bank of Greece, decreased from 14.2 percent of GDP in 2017 to 11.3 percent in 2019, while Eurostat, by contrast, reports an increasing trend for the eurozone: from 20.4 percent of GDP in 2017 to 22 percent in 2019. Since domestic investment remains weak and public investment is very much below its 2010 level, all eyes must be on attracting FDI. FDI has been on an increasing—but decelerating—trend since 2017. Furthermore, a growing share of FDI is being directed toward the purchase of real estate, limiting its capacity to enhance the productive base of the economy.

In this report, we begin with an analysis of the current Greek conditions in some detail, including the structure of the government's economic policies, especially those relating to its fiscal stance and trade. We also examine the differences between the nominal and market values of its public debt and how these relate to the government's budget deficit or surplus. We explore the policy ramifications for private demand and investment, and end our report with simulations using the Levy Institute's stock-flow consistent model for Greece (LIMG) detailing the sectoral balances of two scenarios: one is a business-as-usual scenario (baseline scenario); the other is a scenario that explores the necessary conditions required to achieve the 4 percent growth rate in 2020 and 2021 that formed the present government's campaign mantra.

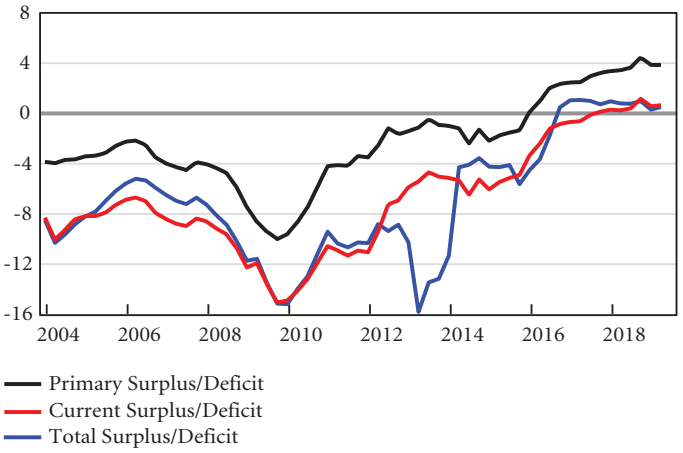
Our baseline projections suggest a moderate growth rate of around 2 percent for the next two years, driven mainly by net exports. Our projections are in line, albeit on the lower side, with several international organization's most recent projections for Greece—such as the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD), and the European Commission (EC). There is a more significant discrepancy between our baseline and the Greek government's projections in the State Budget of 2020, which was published last November and forecasts a growth rate of 2.8 percent for this year. As we mentioned above and will discuss in more detail below, a significant acceleration of private consumption and investment—the budget forecasts 1.8 percent and 13.4 percent, respectively—is unlikely. The 4 percent growth scenario is thus all the more improbable—as, according to our projections, it would require an even greater increase in private expenditure than what the current government (already unrealistically) forecasts.

Fiscal Policy and Sectoral Balances

Since 2016, the Greek government has fulfilled its commitments to international creditors, achieving and maintaining a primary surplus (Figure 1) with the aim of making Greek public debt sustainable, and therefore enjoying continuous financial support from the European Central Bank (ECB) and the other international institutional creditors, namely the European Stability Mechanism (ESM) and the IMF.

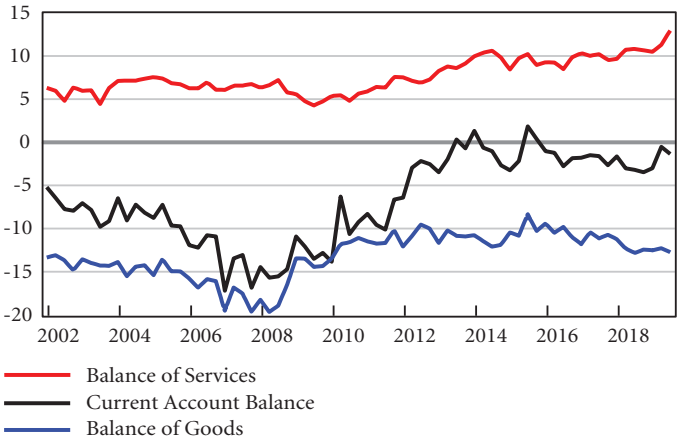
As Figure 1 shows, the total government deficit was greater than 15 percent of GDP in 2009, due to the effects of the

Figure 1 Greece: Government Surplus/Deficit (percent of GDP)



Source: ElStat

Figure 2 Greece: Current Account Balance (percent of GDP)



Source: ElStat, Bank of Greece

international crisis, and reached that level again in 2013, when the government had to save the banking sector with large capital transfers. These extraordinary measures aside, the current government deficit has been steadily shrinking since 2009, but only recently, in 2018, have gross government liabilities stabilized, at around 196 percent of GDP.[1]

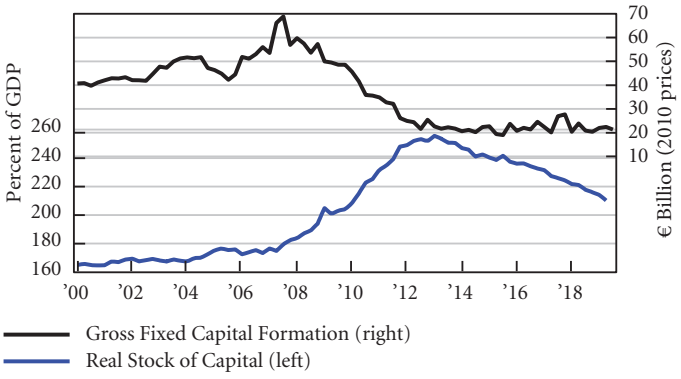
The *fundamental identity* (Godley and Lavoie 2007, 490–92) of sectoral balances reminds us that a reduction in the government deficit will damage the private sector's net financial position unless it is accompanied by an increase in the current account surplus of the same size. Using symbols, the private sector's net acquisition of financial assets (NAFA), which is the excess of private saving (S) over investment (I), must be equal to the excess of government expenditure (G) over revenues (T), plus the current account balance (CA).

$$NAFA = S - I = (G - T) + CA$$

It follows that if the government achieves a surplus ($G - T < 0$), the impact is either neutralized by a surplus in the current account ($CA > 0$) or the private sector will have a negative balance ($NAFA < 0$), implying that either the private sector is increasing its debt (borrowing from abroad) or decreasing its stock of financial assets.

In Figure 2 we report the dynamics of the current account balance, along with the balances of trade in goods and services. The overall balance has improved dramatically from its

Figure 3 Greece: Investment and Capital



Sources: ElStat; authors' calculations

trough, which was deeper than -15 percent of GDP in 2008, and although the trade balance finally became slightly positive in the third quarter of 2019,[2] the overall balance still registers a small deficit due to net income and transfer payments—fiscal austerity is thus still exerting negative pressure on the private sector.

The main consequence is the stagnation of investment. In Figure 3 we report the level of investment, measured at constant 2010 prices. The figure clearly shows that, with some short-lived exceptions in the second half of 2017, investment never recovered the peak reached before the 2009 crisis, and it has been fluctuating around €20–23 billion, less than one-third of its previous peak. In addition, using the institutional

A Technical Note on Debts and Deficits

Comparing the data in Figure 1 with the government debt dynamics—as published by the Bank of Greece in its financial accounts of institutional sectors—it may seem strange that the level of public debt is not being reduced by an overall government surplus. It should be remembered that current accounting rules require registering the market value of assets and liabilities in balance sheets, and therefore a change in the average market price of Treasuries will impact the end-of-period value of the stock. Using symbols:

$$GNFA_t = GNFA_{t-1} + GNETL_t + GNKG_t \quad (1)$$

Where GNFA represents government net financial assets at the end of an accounting period, GNETL is government net lending, and GNKG are net capital gains due to changes in the market price of assets and liabilities (or to write-offs/defaults). Considering assets (GA) and liabilities (GL) separately, we have:

$$GNFA_t = GA_t - GL_t = GA_{t-1} - GL_{t-1} + GNETL_t + GKGA_t - GKGL_t \quad (2)$$

Since we are interested in the evolution of government gross debt (GL), we can rearrange the terms in (2) as follows:

$$GL_t - GL_{t-1} = GA_t - GA_{t-1} - GNETL_t - GKGA_t + GKGL_t \quad (3)$$

Identity (3) shows that gross debt will increase: (a) with a government deficit, i.e., a negative value of GNETL; (b) if the government chooses to increase its stock of financial assets (GA); (c) if the market value of government liabilities increases, i.e., a positive value of GKGL; or (d) the market value of government assets decreases, i.e., a negative value of GKGA.

In Table A1 we provide the figures that correspond to identity (1). According to the data from the Bank of Greece, the government sector registered an overall surplus from 2016 to 2018, but the stock of net financial assets (row [1] in Table A1) has increased in the first two years, while gross government liabilities (row [5] in Table A1) have increased over the whole period. This is due to two factors: (a) the government has increased its stock of financial assets, mainly in its "currency and deposits" position with the Bank of Greece, and (b) net capital gains (row [4] in Table A1) more than offset the government surplus, with the exception of 2018.

Table A1 Greece: Public Debt and Its Determinants

€ Billions	2015	2016	2017	2018	2019*
[1] Net Financial Assets (GNFA)	-257.8	-259.0	-266.0	-265.2	-274.1
[2] Change in [1] (ΔGNFA)	-19.3	-1.2	-6.9	0.7	-8.8
[3] Net Lending (GNETL)	-10.8	1.2	1.0	1.7	-1.7
[4] Net Capital Gains (GNKG)	-8.6	-2.3	-7.9	-1.0	-7.1
[5] Total Liabilities (GL)	328.3	332.9	344.1	360.3	370.4
[6] Consolidated Debt (Bank of Greece)**	303.8	309.3	322.6	340.4	346.1
[7] Consolidated Debt (Maastricht Definition)	311.7	315.0	317.5	334.7	335.5
Consolidated Debt (% of GDP)	176.1	178.7	176.6	181.8	177.3

Sources: ElStat; Bank of Greece; Eurostat
* As of end of June 2019. GDP for 2019 is estimated from our model baseline.
** Consolidated debt is obtained from gross liabilities reported by the Bank of Greece, less those held by the general government.

Notice that balance sheet data as published by the Bank of Greece report the market value of the debt, while the Maastricht criteria refer to the nominal value of the debt outstanding.† The figures for this measure of consolidated gross government debt are reported in Table A1, row [7], and they also show an increase over the 2016–18 period, which must be due only to the changes in government financial assets.

Note that the debt-to-GDP ratio is projected to fall in 2019 due to an estimated increase in GDP, which is larger than the increase in the debt.

† See https://stats.oecd.org/glossary/detail.asp?ID=1161

sectors' accounts we have estimated net investment[3] and used it to reconstruct a measure of the Greek economy's stock of capital. As the bottom part of Figure 3 shows, net investment has been negative since 2012, generating a fall in the stock of capital, which will hinder a robust recovery of the Greek economy.

As a consequence of the processes sketched above, which will be discussed in more detail below, GDP has been growing slowly, mainly as the result of export-led growth driven by tourism. Employment has recovered more rapidly (Figure 4), but even though the unemployment rate has been declining, it was still as high as 16.6 percent in October 2019.

In the next sections we will discuss the dynamics of the components of GDP in more detail, and we will conclude with some projections of alternative policy scenarios.

Trade and the Balance of Payments

As noted above, since the start of austerity programs Greece has relied on net exports as the main source of aggregate demand increases. So-called "structural reforms" in the austerity package aimed at lowering wages, and therefore unit production costs, to restore price competitiveness (a devaluation of the currency is no longer an option since the country joined the euro).

This strategy has worked, in terms of external competitiveness, as Figure 5 shows. The figure shows Greece's real effective exchange rates as computed by the Bank for International Settlements (BIS),[4] where an increase in competitiveness is denoted by a decrease in the index's value. As the figure shows, Greece restored its competitiveness frequently through devaluation in the period of flexible exchange rates of the 1970s, but

when European currencies aimed at a stabilization in the 1980s, the country started to lose competitiveness, recording its highest index value in 2011. Since then, the index shows a steady increase in competitiveness, given by the reduction in wages. The ElStat wage index reached its highest level in the first quarter of 2010; since then, wages declined steadily until 2015, when they were 29 percent lower with respect to the previous peak. Wages have been recovering since 2015, but the index is still 21 percent below its peak. Unit labor costs have also declined, but to a lesser extent: they are now (2019Q2) 13 percent below their 2010 peak. The reason why unit labor costs decline more slowly than wages is linked to productivity, which has been correlated with wages (although it may have decoupled from wages starting in 2013). In other words, if productivity declines with wages, unit labor costs will not be as affected by "internal devaluation." These processes help explain the behavior of external competitiveness in Figure 5, but the recent upward trend in nominal wages may imply that Greece should not expect further increases in competitiveness, so that increases in net exports will have to be fueled by other sources. Despite the fact that price competitiveness is no longer improving, exports of services have been steadily increasing since 2014, and at a faster pace since 2016 (Figure 6). The main source of such exports, aside from shipping, is—of course—tourism, where Greece also benefitted from instability in countries like Turkey and Egypt, which are Greece's traditional competitors as a destination for tourism. How long this favorable trend will continue remains to be seen, given the political turmoil in the Middle East—which has a sizeable impact on the number of migrants and refugees.

Fiscal Policy

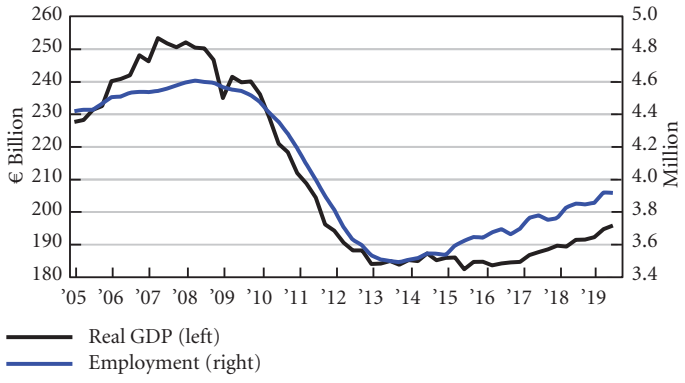
As reported above in Figure 1, in 2017 the government had already achieved a primary surplus of 3.5 percent of GDP, which was required by the Medium-Term Fiscal Strategy 2019–22 (EC 2018). The target was even exceeded in 2018, so that the government had some fiscal space for additional spending in the first half of 2019.

This result has been achieved by a dramatic cut in expenditure and an increase in indirect taxes and social contributions. The two main components of government expenditure are the wages of public employees and social benefits, which include pension payments.

Wages were reduced by 31 percent between 2009 (the previous peak) and 2014, through a reduction in average wages paid and employment, which peaked in 2010 at around 955,000 jobs,[5] but was down to 800,600 in 2014, registering a more than 16 percent fall over the period. Employee compensation in the government sector has been stable from 2014 to the present: since employment has been rising over this same period, this implies that average unit wages have continued to fall. So while the government sector is responsible for part of the employment increase reported in Figure 4, this channel has not provided any stimulus to aggregate Greek income.

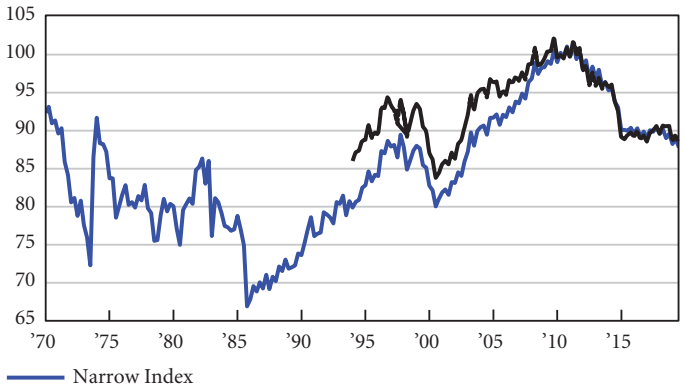
Social benefits were also cut by almost 19 percent from 2009 to 2014, and remained stable thereafter, in nominal terms, until 2018. In the last quarters of 2019, they have increased somewhat, due to additional spending the government was able to undertake after having exceeded its primary surplus target in 2018.

Figure 4 Greece: Real GDP and Employment



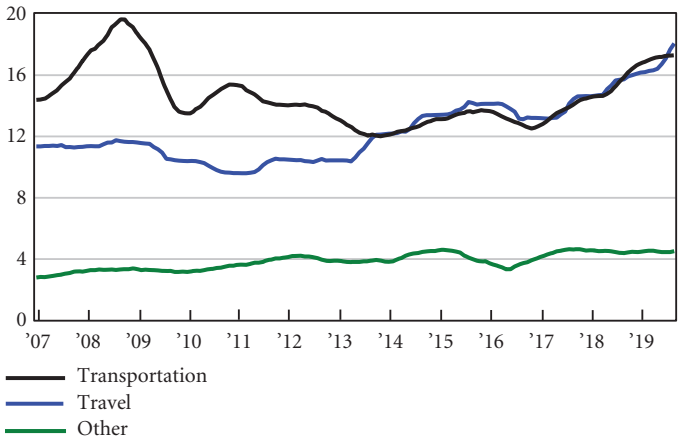
Source: ElStat

Figure 5 Greece: Real Effective Exchange Rates (2010=100)



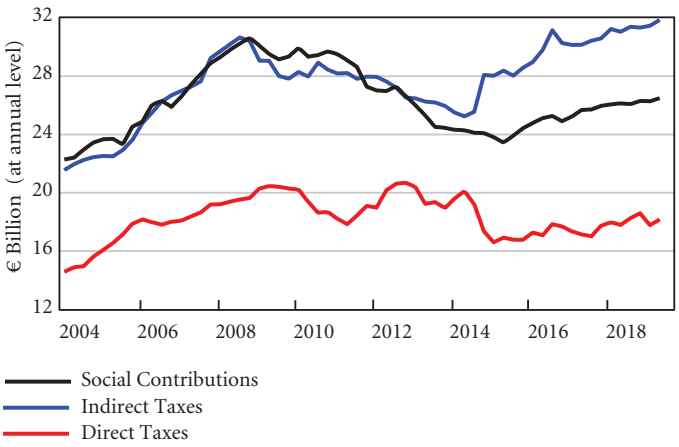
Source: BIS

Figure 6 Greece: Exports of Services (€ billion, 12-month moving average)



Source: Bank of Greece

Figure 7 Greece: Components of Government Revenue



Source: ElStat

Interest payments also fell from the peak reached in 2011, as financing from the markets was substituted with loans from institutional investors at more favorable interest rates.

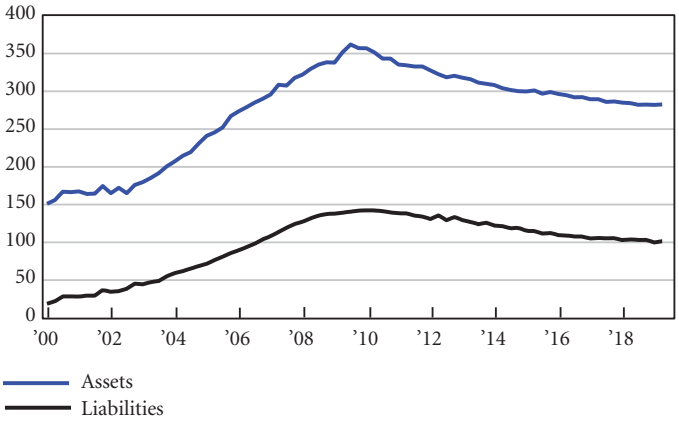
In Figure 7 we report the dynamics of the main components of government revenues. After the first economic shock in 2008, revenues from indirect taxes and social contributions fell somewhat, but less than GDP, while revenues from direct taxes stabilized. It is worth remembering that in the face of a dramatic fall in GDP and income, stable tax revenues imply a strong increase in the average ex post tax rate. As GDP stabilized around 2012, the major increase in tax revenues was obtained through indirect taxes. Greece tops other European countries with the highest indirect consumption tax rate of 24 percent. Social contributions have also been increasing with the recovery in employment beginning in 2015.

The decrease in government expenditure up to 2014 and its stabilization afterward, together with the increase in taxation, have managed to bring the overall government current balance into positive territory, and to exceed the 3.5 percent of GDP primary surplus target, as documented in Figure 1. There is therefore some fiscal space that the government could use without breaching its agreement with international creditors.

Private Sector Demand

Household consumption declined in line with GDP until 2015 and has been roughly stable since. Given the restrictive fiscal policy stance, and the increase in taxation in particular,

Figure 8 Greece: Household Financial Assets and Liabilities (€ billion)



Source: Bank of Greece

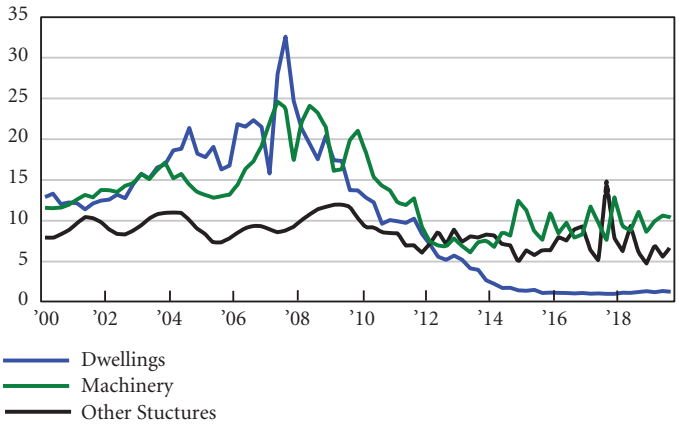
consumption has been rising relative to household disposable income. The increase in consumption relative to income has been financed, at least in part, by a reduction in the stock of household financial assets. In Figure 8 we report a measure of household financial assets and liabilities that abstracts from fluctuations in the market prices of such assets.[6] As the figure shows, in the 2000s Greece (and other countries) underwent a process of financialization, leading to an increase in the value of both assets and liabilities in households' portfolios. While the data in Figure 8 are reported only in nominal terms, a similar figure can be obtained by scaling assets and liabilities by GDP.

The figure clearly shows that if household consumption and investment were financed by borrowing up to the 2009 crisis, this process has stopped: households are deleveraging and financing an increasing share of their expenditure out of previously accumulated financial assets. In the face of stagnating wages and disposable income, it is therefore unlikely that additional contributions to aggregate demand could come from consumption—since that would require financing that is unlikely to be either demanded or supplied.

Turning our attention to investment, in Figure 9 we report the dynamics of its main components. As the figure shows, the dramatic fall in investment (discussed at the aggregate level in reference to Figure 3) is mostly due to the collapse in residential investment, which peaked in 2007 as the largest component of gross capital formation; it is now around €1 billion, or less than 1 percent of GDP. Investment in machinery followed a similar trend, albeit not as dramatic, and seems to be recovering slowly in recent quarters. It is clear from the figure that the fall in interest rates—which, according to mainstream economic theory, should be a major driver of investment—had no impact whatsoever.

As already noted above, such a low level of gross investment may imply a negative level of net investment (i.e., gross investment net depreciation of fixed capital) and therefore a reduction in the stock of capital. Inverting this trend is crucial to allow the Greek economy to expand at a faster pace.

Figure 9 Greece: Gross Fixed Capital Formation (€ billion)



Source: ElStat

Our Projections for 2019–21

Though this Strategic Analysis was published in January 2020, the official measures for 2019 Greek GDP are not yet available,[7] so our figures for 2019 are projections rather than historical statistics.

Our model of the Greek economy has not been built for producing accurate short-term forecasts, but to evaluate the impact of policies, taking consistently into account the main economic variables that characterize real and financial markets.

Having said that, the policy evaluation requires a baseline, which is typically a business-as-usual (BAU) scenario. Following our standard Strategic Analysis procedures, we try to reduce the number of arbitrary assumptions as much as possible: values for the evolution of foreign demand are taken from the IMF's World Economic Outlook database, fiscal policy variables are deduced from government projections, and other exogenous variables are projected according to their recent trends.

Under these assumptions, our model projects the economy to continue on a moderate growth path, mainly driven by exports. Our projections for 2019 are, however, subject to a degree of uncertainty larger than usual, given the fact that—according to the model—consumption has not been moving in line with disposable income and wealth in the first part of 2019, which increases the confidence interval for our short-term projections.

Table 1 Greece: Key Indicators under Alternative Scenarios

	2018	2019	2020	2021
Baseline				
Real GDP (growth rate)	1.9	2.2	2.0	2.0
Government Total Surplus (% of GDP)	1.0	0.3	1.5	1.0
Government Primary Surplus (% of GDP)	4.3	3.2	4.0	3.4
Current Account (% of GDP)	-2.3	-0.1	1.2	1.3
External Balance (% of GDP)	-0.4	1.6	2.8	2.9
Scenario 1: Investment Materializes				
Real GDP (growth rate)	1.9	2.2	4.0	4.0
Government Total Surplus (% of GDP)	1.0	0.3	2.0	2.2
Government Primary Surplus (% of GDP)	4.3	3.2	4.5	4.5
Current Account (% of GDP)	-2.3	-0.1	-0.6	-1.3
External Balance (% of GDP)	-0.4	1.6	1.0	0.3
Real GDP Projections from Other Sources				
Greek Government – November 2019		2.0	2.8	n.a.
IMF WEO – October 2019		2.0	2.2	1.7
OECD – November 2019		1.8	2.1	2.0
European Commission – November 2019		1.8	2.3	2.0

Under our BAU assumptions, Greece's current account returns to positive territory and the government will exceed its primary surplus target, as should be expected when growth is driven by net exports. The government would thus have some fiscal space to begin to counter the damage wrought by fiscal austerity in the previous years.

A comparison of our projections with those of other models is provided at the bottom of Table 1.

Comparing our baseline projections for 2019 with those of other forecasters, it is apparent that we are on the optimistic side. However, the projections we reported from the Greek government (in the state budget of 2020), the IMF, the OECD, and the EC were all published before the data for the third quarter of 2019 were released: in that quarter, real GDP grew by 2.2 percent year-over-year. In order for the Greek government and IMF projections for 2019 to be correct, this implies that real GDP in the fourth quarter of 2019 would have had to have slowed down to 1.5 percent year-over-year, and it would have had to have slowed down even further for the OECD/EC projections to be on target. The information on which we base our projections does not suggest such a slowdown.

We next used the model to evaluate what additional amount of investment would be necessary to reach a 4 percent growth target for 2020 and 2021 (see Scenario 1 in Table 1). To reach this growth target, our model suggests that, with respect to the baseline, investment would have to increase by €3 billion in 2020, and by €4 billion in 2021. As mentioned, fixed investment in the first three quarters of 2019 has not increased with respect to the same period in 2018, and total investment in the last four quarters amounts to €20.4 billion, so investment would have to increase by almost 15 percent in 2020, and a further 17 percent in 2021. It is very unlikely that such a boost in investors' confidence will materialize, given the current adverse trends in the eurozone—with the German economy possibly slowing down—and uncertainty in the Middle East, Libya, and Turkey.

Conclusion

Greece continues its economic recovery and growth, albeit at modest rates. Employment is increasing slowly while net exports in services, primarily in tourism and shipping, contribute significantly to growth. We expect their contribution to continue in the intermediate run, as reflected in the assumptions we make in our simulations for 2020–21.

The improving business and consumer confidence level, the purchasing managers' index, the dramatic decrease in Greek bonds' interest rates, and other positive indices have not had a noticeable impact on the still-unsatisfactory levels of private consumption and investment—both of which are crucial in ensuring robust GDP growth and significantly reducing the unemployment level (still the highest in Europe). Our analysis shows neither will change significantly, at least in 2020.

The simulations derived from our model confirm that if the baseline scenario comes to fruition, growth rates would continue to be modest and recovery of the Greek people's fortunes (to their precrisis employment and income levels) would take a much longer time to achieve. On the other hand, we offer evidence, via the simulations of an alternative scenario, that a substantial increase in investment would deliver robust growth and recover the output and employment lost during the decade of the Greek crisis in a much shorter period. However, the level of investment required to deliver the 4 percent GDP growth the present government promised in its election campaign is highly unrealistic—and destined to be labeled another unfulfilled political promise.

Notes

1. Our measure is obtained from the Financial Accounts of the General Government, published by the Bank of Greece, which does not consolidate the accounts. Our measure is given by the difference between gross liabilities and the liabilities held by the general government. Eurostat publishes the "Government consolidated gross debt," which was lower than our measure, at €334.7 billion (181.2 percent of GDP) at the end of 2018. See Table A1 in our Technical Note on Debts and Deficits.
2. Our estimate is based on seasonally adjusted data from the balance of payment statistics published by the Bank of Greece.

3. Obtained by deducting consumption of fixed capital (CFC) from gross fixed capital formation (GFCF). Using data at constant 2010 prices, the stock of capital (K) has been estimated from $K(t) = K(t–1) + GFCF(t) – CFC(t)$, starting from a benchmark value.
4. The "narrow" index is relative to 27 countries and is available from 1964, while the "broad" index refers to 60 countries, but is only available from 1994.
5. As measured by employment in branches O, P, and Q of the Statistical Classification of Economic Activities in the European Community (NACE), which also includes private business providing healthcare or education services. See ElStat, Table 3 of Labour Force, quarterly data.
6. The measures are obtained by cumulating the flow of new net financial assets from the Flow of Funds tables published by the Bank of Greece to the starting value of such assets at the end of 1997, as published in the Bank of Greece's Balance Sheet of the Household Sector data. The same applies to liabilities.
7. ElStat will publish the first estimate of fourth quarter GDP for 2019 on March 6, 2020.

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