

A stylized world map composed of a grid of dots in various shades of gray, with several dots highlighted in red. The map is centered behind the title text.

The Greek Economy and the Potential for Green Development

GEORGE PAGOULATOS
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- The socialist PASOK government came to power with an ambitious green development programme.
- The PASOK government has officially endorsed the »green economy« agenda as the principal strategy for enhancing economic growth and employment.
- The »green economy« strategy offers a much-needed new growth model for Greece and serves the objective of catching up with EU sustainability targets.
- Greece's fiscal squeeze and recession in 2010 indicate that both the budgetary aspect and the job-saving dimension of green development policies will tend to dominate.
- The scarcity of financial resources could end up impeding the speed and effectiveness of the transition to a »green economy«.



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Economic Context

Greece was catapulted into the global limelight in 2010, but not in a desirable way. The country's credibility was dented after a 12.7 per cent public deficit was revealed, following the October 2009 national elections which brought to power a new socialist government under George Papandreou. The deficit was almost double the one officially declared by the outgoing centre-right ND government. Credit markets, saturated with a large global supply of government bonds, reacted by pushing the Greek government bond rate upwards, thus further impeding fiscal consolidation efforts. Extreme scenarios of a Greek sovereign default or an EU bailout have been spreading at an alarming rate. The Greek crisis has evolved into the first major Eurozone crisis, more broadly revealing a quietly formed cleavage between the (external) surplus economies of the Eurozone »North« and the deficit economies of the »South«, somewhat unkindly referred to as »PIGS« (Portugal, Ireland, Italy, Greece and Spain). Under these circumstances, Greece's »green development« strategy is seriously constrained. But first let us look at the economic context.

The 2008-2009 global financial crisis has taken a heavy toll on the Greek economy, albeit in a different manner from other EU economies. Although Greece's GDP has been contracting since the fourth quarter of 2008, recession in 2009 was relatively milder compared to the larger negative average growth rates of both the EU-27 and the Eurozone. However, the crisis is impacting the real economy with a time lag: in the last quarter of 2009 the Greek economy shrank by two per cent and a serious recession is anticipated for 2010, when the rest of the EU and the Eurozone will probably experience a modest recovery. The global crisis has exacerbated the long-standing structural weaknesses of the Greek economy: a public debt close to 120 per cent of GDP, imposing an exorbitant debt-servicing cost, particularly when the economic growth rate is zero or negative; a pension system whose mid- and longer-term cost, if unreformed, would rise to unsustainable levels, well above the EU-15 average; and a record current account deficit (14 per cent of GDP in 2008) reflecting the serious loss of competitiveness of the Greek economy. Greece slid from 35th to 71st position in the global competitiveness scale between 2003 and 2009. In the years to come, Greece could be facing prolonged stagnation if the necessary reforms (public sector re-

form and de-escalation of the public debt and deficit, pension system overhaul and combined supply-side reforms to enhance productivity and competitiveness) are not implemented.

The socialist PASOK government under George Papandreou came to power in October 2009. Prior to the elections, the budget deficit was estimated by the previous conservative ND government to be about six per cent of GDP. However, aggravated by a heavy shortfall in public revenues (estimated by the European Commission at 3.5 per cent of GDP) and expenditure overruns (of around 2.5 per cent) the budget deficit for 2009 officially closed at 12.7 per cent. In January 2010, the Papandreou government submitted to Brussels an ambitious three-year Stability and Growth Programme, aiming to bring the general government deficit down to 8.7 per cent in 2010, 5.6 per cent in 2011 and below three per cent by 2012. The public debt/GDP ratio, however, is not expected to start de-escalating before 2012. As a result of Greece's extreme fiscal fragility and high debt-servicing cost, Greek government paper has been subject to continuous speculative attacks in the bond markets, with the spread from the German Bund at times rising beyond 400 basis points. Following the persistent failure to control the excessive budget deficit, Greece has been subjected to the provisions of Article 126 paragraph nine of the Lisbon Treaty and its economic policy placed under tight Council surveillance.

The Stability and Growth Programme foresees heavy cuts in public consumption, including extensive wage freezes and cuts in the highest public sector salaries, and a 10 per cent reduction in the budgets of most ministries. After rising by 11 per cent in the election year of 2009, public consumption is expected to decrease by 4.4 per cent in 2010. Private consumption, gross fixed capital formation and imports are also expected to decline, and only exports are expected to increase by 2.5 per cent (Ministry of Finance, Stability and Growth Programme 2010). The reform package involves a mix of public revenue-raising, cost-cutting and structural reform measures, aimed principally at enhancing cost-efficiency in the public sector.

In early March 2010, the Stability Programme was supplemented by an additional package containing the most severe austerity measures ever taken by a Greek government, including an overall average 7-10 per cent

reduction of nominal public sector wages. The harsh measures will test the broad social support hitherto enjoyed by the government in its efforts to overhaul the economy. In February 2010, the polls registered initial popular support of 65-70 per cent for the government's stabilisation programme, a sign of the maturity of Greek society in the face of a national economic emergency. The implementation of adjustment will be an uphill process, with trade unions on the streets and the economic crisis plumbing new depths. A major difficulty with regard to fiscal consolidation is the effects of the recession, undercutting expected government revenues and putting further pressure on government spending. In February 2010, the European Commission predicted a contraction of the economy of up to two per cent of GDP for 2010, revising upwards the earlier projection of only 0.3 per cent.

How did Greece end up in this tight situation? During the 1990s, the Greek economy had shown significant progress in terms of fiscal and monetary adjustment, which culminated in its accession to EMU. Post-accession, however, the reform zeal subsided and complacency prevailed, aided by cheap money; in any case, the country had not undertaken far-reaching structural reforms (Blavoukos and Pagoulatos 2008). The fiscal outlook deteriorated significantly in the 2000s, as the 2004 Olympic Games generated deficits and governments failed to exercise fiscal discipline or implement the necessary reforms in the pension system, public administration and elsewhere. As a result, the 2008 global crisis found the Greek economy in a situation of acute fiscal vulnerability, despite the relatively good standing of the Greek banking sector.

Economic competitiveness has declined during the past few years, largely as a result of persistently higher (relative to the Eurozone) rates of inflation. According to the OECD's (2009) »Going for Growth« report, although the income gap vis-à-vis the best performing OECD economies has narrowed considerably over the past decade, labour utilisation and productivity gaps remain large. Although unemployment is officially estimated at 10-11 per cent, the real problem is more severe, given the large number of underemployed (those working just a few hours per week or month), not officially included in the formal unemployment count. The Employment and Social Insurance minister recently estimated that real unemployment was above 15 per cent.

Green development serves the need for a new growth model for a Greek economy that has relied far too heavily in the past on domestic consumption financed by bank credit, leading to large volumes of imports and constant growth of the sheltered sector of the economy at the expense of the export sector. Greater focus on an export-oriented growth model is now being championed in a number of quarters, exploiting the country's comparative advantages: the climate and the sea, which make quality tourism the country's »heavy industry« (as it is often called); while shipping and financial services, the agro-food industry, health and quality of life services and foreign language higher education have often been indicated as growth sectors the economy must tap into. Green development is highly compatible with these objectives and – through synergies with the above – suggests a distinct area of comparative advantage in its own right.

The Starting Point: Poor Environmental Performance

Environmental policy concerns appeared on the Greek government's agenda fairly recently, which explains the country's disappointing sustainability policy record, overall. A country so generously endowed with sun and wind is trailing other EU countries, such as Austria, Denmark and Germany, but also Portugal and Spain, in the use of renewable sources of energy (RSE) and other environmental indicators.

The Eurostat Lisbon indicators¹ point to a generally disappointing performance in urgent need of improvement. In 2008, Greece had one of the worst records on greenhouse gas emissions: 125, compared to an EU-15 average of 92, second only to Portugal's 127 (target prices). The economy's energy intensity – that is, gross domestic consumption of energy divided by GDP (kilogramme of oil equivalent per 1,000 euros) was 182 for Greece, compared to 152 for the EU-15 and 169 for the EU-27, but still lower than for Portugal and Spain. At 6.8 per cent (2007 figures) the percentage of electricity generated by RSE² lagged behind the EU-5 average (16.6 per

1. Available at: http://epp.eurostat.ec.europa.eu/portal/page/portal/structural_indicators/indicators/environment

2. The indicator refers to electricity generation from hydroelectric plants (excluding pumping stations), wind, solar, geothermal and electricity from biomass/waste as a percentage of gross national electricity consumption.

cent), the EU-27 (15.6 per cent), Spain (20 per cent), Italy (13.7 per cent) and Portugal³ (30 per cent). Moreover, much of that 6.8 per cent comes from older-generation hydro-electric plants. The situation is deplorable when it comes to the urban population's exposure to air pollution by ozone: Greece here receives the worst marks, exceeding by a wide margin the EU-15 and EU-27 averages, as well as that of other Southern European countries. The picture is better when it comes to the urban population's exposure to air pollution by particulate matter, where Greece scores very close to the EU average.

The adoption and diffusion of RSE has encountered a number of problems, ranging from bureaucratic obstacles in the licensing process to difficulties regarding the connection of wind energy stations to the system (National Energy Strategy Council 2009: 40-41). The total power of solar collectors established in 2009 is estimated at 0.32 m² per capita. However, the target of 1m² by 2020 is deemed realistic, given the country's generous natural resources and the salience of the green economy agenda. This could put Greece among the leaders in the EU (ibid: 41). Reliance on thermal energy is limited and has significant growth potential. Solar thermal systems in Greece mainly substitute for electrical energy (corresponding to about three per cent of total production in 2009) in mainland Greece and the islands. About 98 per cent of that is for central heating (water heating for home use) and the remaining two per cent concerns central systems (ibid). Biofuels (mainly bio-diesel and bio-ethanol) accounted for 1.47 per cent in 2008, indicating a late start.

The national 2020 strategy proposes the expansion of RSE in electricity production, heating/freezing and transport. The new socialist government has set out to expedite this strategy and to proceed to a substantial change in the energy mix, previously considered improbable by 2020. In 2007, the implicit tax rate on energy (ratio of energy tax revenues to final energy consumption) was the lowest compared to the EU average and to that of the Southern European countries. Greece will be converging towards the EU average following the tax increase on the price of fuel after the 2010 tax measures.

The energy implications of the global financial crisis for the Greek economy include a reduction in energy de-

mand in all forms and sectors of energy consumption. The macroeconomic prospects suggest a long period of sluggish growth, which will depress energy demand. One positive implication of this is that plans to expand coal-based energy production have been set aside (National Energy Strategy Council 2009).

Ambitions and Programme Goals: The Green Development Strategy

The PASOK government under George Papandreou came to power with an ambitious programme of »Green Development« or »Green Economy«. This was being advocated as a major pillar of PASOK's economic strategy before sustainability became fashionable in the Greek political arena. Soon after becoming leader of PASOK in 2004, Papandreou identified his party with a green agenda, at a time when it was still in its infancy in Greece. Today, almost all political forces pay at least lip service to environmental objectives. Environmental protection rose to prominence in the public debate following the catastrophic forest fires of summer 2007, which destroyed a significant part of the Attica and Peloponnesian forests. A broad societal awakening to the catastrophe gave environmental priorities much greater political salience.

The government's programme is premised on the understanding that the Greek manufacturing sector is being »squeezed«. The Greek economy cannot compete in manufacturing low quality goods nor in the mass production of agricultural goods against developing economies with much lower labour costs. Greece cannot compete with more advanced economies in the high technology sectors, either, given the poor current state of research and funding. For these reasons, regional development and green development are central government objectives. The party's election programme advocated a restructuring of production in sectors such as farming and tourism and green entrepreneurship to generate value added and create many new jobs.

One pillar of the government's green strategy is restructuring agricultural production towards ecologically-friendly methods (for example, encouraging crops which require less water and other natural resources), biological products and broader opportunities for »green entre-

3. 2007 data.

preneurship». Agricultural sector policy reform targets safe, certified and eponymous products and integrated systems of production, sales and marketing of agricultural products to international markets. Agrotourism, combined support for primary production and quality tourism, and the promotion of the Mediterranean nutrition model are important elements of the »green development« strategy. Implementing a green strategy of primary sector development means increasing the chances of obtaining EU agricultural funding after 2013.

The green strategy includes objectives of economising on the use of natural resources, confronting water scarcity (among other things, through desalination of sea water in the islands using RSE) and promoting efficient waste management as a priority. »Green infrastructures« are aimed at increasing reliance on environment-friendly transport.

The government's R&D policy will seek to support innovation in research institutions, emphasising agricultural innovation, improved methods of forestry and water management, RSE and technologies for reducing energy consumption. The government seeks to promote R&D by providing incentives for networking and collaboration between the business, academic and research communities, especially in the ICT and biotechnology sectors, in which there are a number of profitable firms. The objective for research investment spending (currently among the lowest in the EU) officially remains an increase to two per cent of GDP in the coming four-year period. However, this will be very difficult to achieve under the current fiscal circumstances.

The establishment of a separate Ministry of Environment, Energy and Climate Change was one of the first acts of the new 2009 Papandreou government. The green development programme defined as its first priority a progressive reduction of greenhouse gas emissions and a drastic shift to an energy model relying on RSE, energy saving and the active management of energy demand.

The long-term objectives posit a 65 per cent decrease of greenhouse gas emissions by 2050, with several intermediate milestones on the way to that final target. Regarding the 20 per cent reduction of greenhouse gas emissions by 2020, Greece needs to achieve a 1.7 per cent annual decrease of emissions from polluting com-

panies. These include, notably, heavy polluters such as electricity production, oil refineries, steel and cement production, the lime industry, glass and ceramics production and paper mills, sectors which account for 56 per cent of Greece's total emissions (Georgiopoulou 2009). Emissions from activities that do not fall within the emissions trade mechanism (such as transport and heating) are to be reduced by four per cent from 2005 levels (ibid.).

The government programme includes an explicit commitment to deriving 18 per cent of the country's energy from RSE by 2020 (this is the commitment vis-à-vis the EU); but the government aims to raise that to 20 per cent. This would imply an additional 700 megawatts of RSE energy every year. The 20 per cent target means that, by 2020, over 35 per cent of the electrical energy produced in Greece must come from RSE.

The government programme stresses the integrated promotion of the production of RSE supplies and the latter's significant contribution to the country's energy balance. Policy instruments towards that aim will include cutting bureaucracy and the simplification of the licensing process, as well as the abolition of all counterincentives stifling small-scale RSE production, including home production/consumption. However, an effort to bolster the domestic production of RSE equipment could create problems with EU competition rules. For instance, three photovoltaic construction units are currently functioning in Greece. These cannot be supported by state subsidies, however (ibid).

The government programme provides for an RSE Fund, bringing together the Public Power Corporation (DEH) (that is, the National Electricity Company – one of the country's major polluters), Greek banks and investors to promote the development of a national RSE industry. A 50 per cent target has been set for national participation in the added value of RSE equipment by 2020. In addition, the government is adopting carrot and stick measures to reduce the energy consumption of buildings and accelerate the renewal of the country's aged fleet of older-technology cars. An explicit priority associated with electricity production is the replacement of old production units relying on lignite with new high-efficiency units, and the banishment of coal from the country's energy mix. Nuclear energy is not an option (PASOK Election Programme 2009).

With regard to the Public Power Corporation (DEH), the new government-appointed chairman and CEO has announced the closure of two of the most heavily polluting old lignite-based units (in Ptolemais) and the acceleration of the bidding process for the construction of a new one, thus satisfying the demands of environmental groups (Kathimerini, 15.1.2010). The national electricity company will be burdened with a 1.3 billion Euro cost for its carbon dioxide emissions after 2013, a cost that will inevitably be passed on to the consumers. However, the CEO of DEH confirmed a plan to open up new lignite-based units, stating that »lignite was and will remain for many years the national fuel«, adding that the re-orientation of DEH investment decisions to rely more extensively on RSE »will not affect in the least the decisions already taken for greater exploitation of the domestic sources of lignite« (ibid). This serves to demonstrate the difficulties encountered on the ground in attempting to change the country's energy mix towards a greater reliance on RSE.

The government's 2009 election programme pledged to introduce »Green« national accounts: that is, to view the country's total natural wealth by category and geographical region in terms of »green accounts«, supplementing the conventional indices of economic welfare. A »greening« of the tax system will seek to transfer the tax burden from environment-friendly goods and services to those constituting an ecological burden. This will provide incentives for ecologically sound choices by both producers and consumers. Again, fiscal squeeze imposes a heavy constraint on the implementation of »green« tax reform.

The Green Dimension in the 2010 Stability and Growth Programme

Green growth and development occupy pride of place in the Papandreou government's Stability and Growth Programme, submitted to Brussels in January 2010. The green economy agenda is the first among the main policies aimed at enhancing economic growth and employment. The Programme reiterates the commitment to green growth and development as a »major priority for the country«, given the need to address the challenges of climate change and the country's unexplored potential in renewable energy development (Ministry of Finance, Hellenic Stability and Growth Programme 2010: 40).

The green agenda is a horizontal strategy that cuts across different sectors. The country's green growth and sustainable development policy strategy seeks to change the energy mix by 2020, strengthen trade openness and upgrade the quality of products and services in a number of traditional and modern sectors, such as transportation, telecoms, port facilities, tourism and land development, culture, the agro-food industry, ICT and biotechnology (Ministry of Finance, Hellenic Stability and Growth Programme 2010: 40). The effective implementation of the green strategy requires important public investments in support activities, including education, research, innovative entrepreneurship, management of natural resources and public health. Indeed, despite the drastic fiscal deficit reduction in the amount of 10 per cent of GDP over three years (with a four per cent cut for 2010) resulting from cuts in current government expenditure, the government's programme envisages a public investment rise to 4.2 per cent of GDP (up from 3.9 per cent in 2009), which is to be followed by further increases in all subsequent years, towards a five per cent target in 2013. In addition to the national public investment budget, the green growth and development strategy is to be financed from EU structural funds (the National Support Reference Framework, 2007-13) and public-private partnerships.

The National Support Reference Framework (NSRF) will be the key financial vehicle for supporting green development objectives; its importance is even greater given the government's fiscal squeeze. The NSRF is scheduled to amount to 26.2 billion Euro (that is, corresponding to a little over 10 per cent of GDP) of co-financed public expenditure over the programme period 2007-13. However, a poor track record in the past suggests that actual absorption rates might end up being lower. The government plans to streamline implementation by simplifying (in consultation with the European Commission) administrative procedures, decentralising decisions to Regional Management Authorities to bolster the capacity-building of regional public administration. In addition, by June 2010 and in collaboration with the Commission and regional authorities, the government plans to proceed to a strategic revision and re-orientation of the NSRF operational programmes, strengthen the green dimension and promote productive restructuring, innovation, human capital investment and better job creation (ibid: 41).

The government has committed itself to bringing to Parliament by the first semester of 2010 a new investment law on green development to provide further incentives for green growth and development activities, supporting energy-saving investments and greenfield investment in RSE, including the effective utilisation of water resources, modern waste management techniques and urban regeneration projects (ibid: 42).

The government programme emphasises productive restructuring in sectors such as the agro-food industry, innovative start-ups, cluster development, ICT use and the promotion of exports. Given the recession expected in 2010, there will be a strong emphasis on creating and retaining jobs, especially in areas with high unemployment. A study commissioned by the Greek Confederation of Labour foresees a possibility of 100,000 new jobs created by the green development strategy. These would mainly be jobs for skilled workers, if necessary, retrained before entering the job market. The estimate might be on the optimistic side, but it indicates the potential of a green strategy. The promotion of sectors such as tourism and culture is also part of the green development strategy, through concerted policies and investment incentives for high-quality services, the diffusion of information and communication technologies, especially among small and medium-sized enterprises, modern transportation and communication infrastructure, port development and theme parks.

In terms of governance structures, the green growth and development agenda is to be coordinated by a high-level Inter-ministerial Investment and Competitiveness Committee, in open consultation with all relevant private sector stakeholders, facilitated by the Economic and Social Committee (ibid: 41).

An additional institution aimed at supporting green development objectives is the Hellenic Development Fund (HDF), scheduled to be established in 2010. The HDF will operate as a financial vehicle for the promotion of green infrastructure and energy, innovative start-ups, urban regeneration and local development support. Set up as a revolving financial vehicle in the spirit of similar European Investment Bank initiatives, the HDF will fund its operations through the international capital markets, seeking to unlock new sources of private capital and develop new funding models. The HDF will work with government agencies, financial institutions and sover-

ign or private funds to attract and promote investment activities and enhance Greece's role as a regional trade and investment hub. It will operate along the lines of multi-annual development programmes, safeguarding the completion of all necessary technical due diligence before including a candidate project in the development pipeline (ibid: 43).

Conclusion

The new socialist government of George Papandreou came to power in 2009 with an ambitious »green economy« agenda. In fact, since 2004, PASOK has moved decisively to embrace the »green« strategy as a central pillar of its economic policy programme. However, the acute financial and economic crisis confronted by the new government directly upon its assumption of power is bound to circumscribe and define its capacity to implement its green development programme. One could say that, while PASOK's initial, pre-electoral green development strategy tended to stress the environmental dimension, the economic recession following its accession to government has tipped the balance in favour of a strong emphasis on the economic growth dimension. The economic crisis suggests that the implementation of the government's green development strategy must prioritise new investment and job creation.

Sustainable development requires the commitment of regulatory resources as well as government funds, in order to facilitate scale economies and synergies and direct investment in green economy sectors that involve high start-up costs and potentially lower initial returns. Amidst a fiscal crisis and a recession, transferring financial resources to the green economy carries an often prohibitive cost. The government's ability to implement the green development strategy, and the scope of implementation, will depend heavily on the macroeconomic conditions, the intensity of recession in 2010 and the government's success in meeting its deficit reduction targets.

Greece's financial fragility and recession in 2010 imply that both the budgetary aspect and the job-saving dimension of any green development policies will tend to predominate. This could end up impeding the speed and effectiveness of transition to a green economy.



Literature

Blavoukos, S. and **Pagoulatos, G.** (2008): The Limits of EMU Conditionality: Fiscal Adjustment in Southern Europe, *Journal of Public Policy*, 28/2, 2008: 229-53.

Georgiopolou, T. (2009): The Greek Ten-year Plan for »Green Development«, *Kathimerini*, 25.12.2009 (in Greek).

Kathimerini, 15.1.2010.

Ministry of Finance, Hellenic Stability and Growth Programme, January 2010.

National Energy Strategy Council, Long-term Energy Planning, Report, July 2009.

PASOK Election Programme, October 2009.



About the author

George Pagoulatos is Professor at the Athens University of Economics and Business & The Hellenic Foundation for European and Foreign Policy (ELIAMEP).

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Friedrich-Ebert-Stiftung | International Policy Analysis
Hiroshimastraße 28 | 10785 Berlin | Germany

Responsible:
Dr. Gero Maaß, Head, International Policy Analysis

Tel.: ++49-30-269-35-7745 | Fax: ++49-30-269-35-9248
www.fes.de/ipa

To order publications:
info.ipa@fes.de

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