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Greece 10 Years Ahead

Defining Greece's new growth model and strategy

Executive summary

June 2012

Report #1/15

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Introduction

Greece 10 Years Ahead is a study that aims to define a new growth model and strategy for economic development in Greece for the next 5 to 10 years, founded on the principles of **competitiveness, productivity, extroversion, investment stimulation,** and **employment growth.**

To fulfill this purpose, **Greece 10 Years Ahead** analyzes the structure and development prospects of key economic sectors, and studies fundamental cross-sector macroeconomic drivers, challenges, and opportunities of the Greek economy. Thereafter, the study focuses on the five largest (in terms of Gross Value Added-GVA) 'production' sectors ('major sectors') and eight smaller but high potential areas of the economy ('rising stars') that have significant potential to fuel the country's economic growth in the coming years, clearly recognizing that there might be additional growth opportunities in other sectors or sub-sectors that have not been covered by **Greece 10 Years Ahead**.

Greece 10 Years Ahead proposes a new **National Growth Model** for Greece for the next decade and outlines a 'blueprint' to reignite growth that contains 20 specific proposals on possible 'horizontal' (cross-sector) reforms and more than 130 proposals on 'vertical' (sector-specific) priorities and measures for the Greek state and market participants to consider.

The **Greece 10 Years Ahead** study was conducted by the Athens Office of McKinsey & Company. It took place between December 2010 and November 2011 and was jointly sponsored by McKinsey & Company Inc, the Hellenic Bank Association (HBA) and the Hellenic Federation of Enterprises (SEV).

The outcome of the **Greece 10 Years Ahead** effort is a completely independent report that solely reflects the results of analyses conducted and insights gathered and substantiated by McKinsey & Company.

The end products of the **Greece 10 Years Ahead** include 15 reports: An Executive Summary, a Macroeconomic Analysis and 'horizontal' growth reforms report and 13 sector reports: i.e., five reports on the largest 'production' sectors namely: Retail, Manufacturing/Food Processing, Tourism, Energy, Agriculture, and eight reports on the 'rising stars' namely: Generic Pharmaceuticals, Aquaculture, Medical Tourism, Long-term & Elderly Care, Cargo & Logistics Hub (transshipment and gateway), Waste Management, Graduate Classics Education Hub, and Greek Specialty Foods.

This document is the Executive Summary of the **Greece 10 Years Ahead** study and contains an overview of the major conclusions. This Executive Summary can be found on the website of McKinsey & Company, Athens Office (www.mckinsey.gr).

1. Overview

1. Overview

In 2008, Greece entered a deep recession from which it is still struggling to emerge. Private and public investment has ground to a halt. Public sector debt has increased substantially as the state had to rely on official support loans to fund social payments, payroll expenses and the fiscal deficit. In addition to a fiscal and debt crisis, the country is facing competitiveness and employment challenges. It has lagged its European peers in key measures, such as foreign direct investment (FDI), productivity and workforce participation. At the same time, the recession is rapidly morphing into a jobs crisis, with the official unemployment rate already above 21% in the first quarter of 2012.

A combination of economic, political and social factors has contributed to the poor foreign investment, productivity and employment record. Greece has grown on an unsustainable demand structure, driven almost entirely by consumption. Between 2000 and 2008, private and public consumption rose by approximately four percentage points of GDP and accounted for 97% of cumulative GDP generation for the period, compared with countries like Austria, France, Germany, Belgium, Luxembourg, and the Netherlands, where the respective figure was much lower (71% on a weighted-average basis) and complemented by higher levels of investment.

Greece is chronically suffering from unfavorable conditions for business and investment. It is one of the most regulated economies in Europe, creating 'red tape' that affects businesses, from the development of land to the competitive intensity of several regulated markets and professions. A complex administrative and tax system creates legal and procedural disincentives to operate and expand businesses while failing to collect an estimated €15-20 billion in annual tax revenue.

As a result, Greece attracts insufficient investment capital to build job-creating businesses. Foreign inward investment relative to GDP in Greece is just a fraction of the amount flowing to Spain and Italy, two of the country's Mediterranean economic rivals in important product and services sectors. This offers some explanation as to why Greece cannot create or sustain jobs in 'production' sectors of the economy, such as manufacturing, and must rely instead on imports for many of its needs, contributing to a €20 billion trade deficit in 2010.

Productivity is lagging across economic sectors (almost 30% lower than EU-15 and 40% lower than the US). One of the main reasons for the productivity gap is the relative lack of larger-scale enterprises, which maximize output through economies of scale and scope (e.g., through specialization, focused investments, and effective knowledge and innovation management). For example, just 27% of manufacturing firms have more than 250 employees, compared with 34% in the Netherlands and 54% in Germany.

The recent debt crisis has led to the adoption by Greece of several harsh, multi-billion euro austerity packages, to urgently tackle its fiscal imbalances as part of the fiscal stabilization program. For Greece, however, to achieve lasting economic recovery, *the implementation of the fiscal stabilization program needs to be complemented by a robust and sustainable new* **National Growth Model** *and strategy.*

Greece 10 Years Ahead aims to address precisely this need. It proposes a new **National Growth Model,** which could lead within 10 years to the creation of *520,000 new jobs and €49 billion in new Gross Value Added (€55 billion in GDP terms)* in the **five largest 'production' sectors** of the economy and **eight 'rising star' sectors** alone. In addition, the impact on Greece's trade and fiscal balance could be significant. Specifically, we estimate the annual *impact on the trade balance of €16-17 billion and of the fiscal balance of €8-9 billion.*

Particularly important under the current economic circumstances is the fact that more than *30-35% of this impact could materialize within a 5 year horizon*, pending effective implementation of the reform measures.

The new **National Growth Model** aspires to six changes. *First,* tradable sectors to get a large share of resources and investments, allowing them to build scale, expertise and competitiveness at international level in order for Greece to become more **extrovert** in producing export goods and services and importing capital. *Second,* funding of the economy to transition **from public debt to private sector equity and investment** by setting–up a truly business-friendly environment. *Third,* Greece to achieve **a step-change in productivity and efficiency,** eliminating redundant public sector entities and improving public administration efficiency while the private sector builds larger, more extrovert organizations that better utilize resources, investment capital and technology. *Fourth,* the country to materially limit **informality,** with tax evasion and official corruption rooted out by internationally proven techniques, minimizing transaction between the private sector and state agencies. *Fifth,* the country to develop a **new employment culture and opportunities** where women and young people are encouraged to join the workforce, where education is upgraded in both existing and new fields (e.g., tourism, agriculture, aquaculture) and where innovation and entrepreneurship are systematically and institutionally promoted. *Finally,* a critical prerequisite is that Greece radically improves its **public administration effectiveness and execution capacity,** both through better coordination among entities (e.g., Ministries) and the quality upgrade of managerial capabilities through a substantial infusion of local and international managerial talent and expertise.

To materialize the new **National Growth Model, Greece 10 Years Ahead** has defined **20 'horizontal'** (cross-sector) and more than **130 'vertical'** (sector-specific) possible **reforms** and measures for the state and the private sector to consider and act upon.

In terms of 'horizontal' reforms the **Greek state** should first consider the *radical improvement of its reform coordination and execution capacity.* This would involve establishing the **"Economic Development and Reform Unit"** (EDRU) as an independent institution reporting to the Prime Minister to support the Greek government in planning, coordinating, facilitating, and monitoring the execution of fiscal adjustment and growth reforms. Moreover, it would be critical to set up a public sector **"Talent Placement Office"** (TPO) to hire and deploy ~200 domestically and internationally accomplished executives from the private and the public sector into pivotal managerial positions in the Greek public administration and state-owned enterprises (SoE).

Other 'horizontal' priorities address how Greece could *ignite and sustain a growth trajectory,* for instance through a **"National Liquidity Relief and Growth Fund"** that would inject lower cost liquidity to companies using an independent underwriting platform under the supervisory auspices of the Bank of Greece. Moreover, it is imperative to **immediately restore infrastructure and sector investment flows** by unblocking currently stalled growth-relevant infrastructure projects (e.g., large motorways) and launching 3-4 new growth-critical infrastructure investments (e.g., high speed cargo train, cargo gateway and transshipment port facilities, 3-4 cruise embarkation ports) and establishing the **"Greece 10 Years Ahead Investment Fund"**, starting with private capital from Greece and the diaspora to fund sector investments. This can be enabled by the **revision of the investment "fast-track" framework**, leveraging proven techniques and practices from the "Athens 2004" Olympic Games experience and by **upgrading the role and capabilities of "Invest in Greece".**

Finally, in terms of the *employment framework, judicial operations and informality* it is important to complete the efficiency-related labor reforms, to accelerate decision making in the Council of State (CoS) and earlier degree courts (e.g., by **introducing a 7th CoS department** for strategic investments and reforms), to immediately **introduce internationally proven methodologies in tax evasion detection and collection** (while selectively easing tax pressure and providing incentives in growth areas), to consolidate all internal public sector auditing functions into one **Central State Auditing Unit,** and to establish a **Central Procurement Unit** for the public sector.

The **private sector** and local businesses need to develop scale through consolidation, build healthier and more productive operating models, and be more proactive in promoting Greek-branded products and services in core export markets. Examples of the possible sector-specific priorities outlined include making a strategic shift in *tourism* towards larger, untapped markets such as the US, Russia and China (while defending core European markets), attracting higher-income visitors, encouraging investments in large integrated resorts and high-end vacation homes and aggressively pursuing *cruises, yachting & sailing* and *'city break'* as add-ons to the core *'sun & beach'* theme. In *energy,* there are major opportunities to reduce energy consumption in buildings, to accelerate productivity improvements both in power and oil, and to expand Greece's extroversion and participation in the sector's value chain (e.g., upstream oil & gas, regional power and gas projects). *Agriculture* and *food manufacturing* can be reoriented towards clearly defined priority export markets, where specific food products such as olive oil, dairy, and selected fresh and processed fruits & vegetables could reach international markets at scale. Doing so would require the development of 4-6 modern processing facilities throughout Greece and the setup of a "Greek Foods Company" to also enable small and medium size players to capture synergies and gain international market access. In most *'rising star'* sectors (e.g., generic pharmaceuticals, aquaculture, medical tourism), a gradual and growth-minded deregulation coupled with accelerated consolidation and stronger focus on innovation and operating efficiency could help scale-up these sectors' unique advantages in know-how and resources.

Such moves could have a beneficial spillover effect in other sectors, such as manufacturing, construction, real estate, and financial services, creating substantial export capacity and FDI flows. Collectively, this strategic reorientation can create a healthier demand structure in the economy, benefiting the primary sectors, stimulating investment and creating jobs in manufacturing and heavy industry, where the alleviation of undue complications and the establishment of a steady and predictable business environment is the most important requirement for companies to thrive and contribute to growth and job creation.

This Executive Summary defines the obstacles that Greece needs to overcome to establish the new **National Growth Model.** It then outlines this new model in macroeconomic terms and briefly presents the cross-sector and sector-specific priorities and measures to be considered by the Greek state and market participants to stimulate growth and employment.

We consider these reforms and measures crucial in the process of moving Greece out of recession and onto a sustainable economic development path.

2. Greece's unsustainable growth model

2. Greece's unsustainable growth model

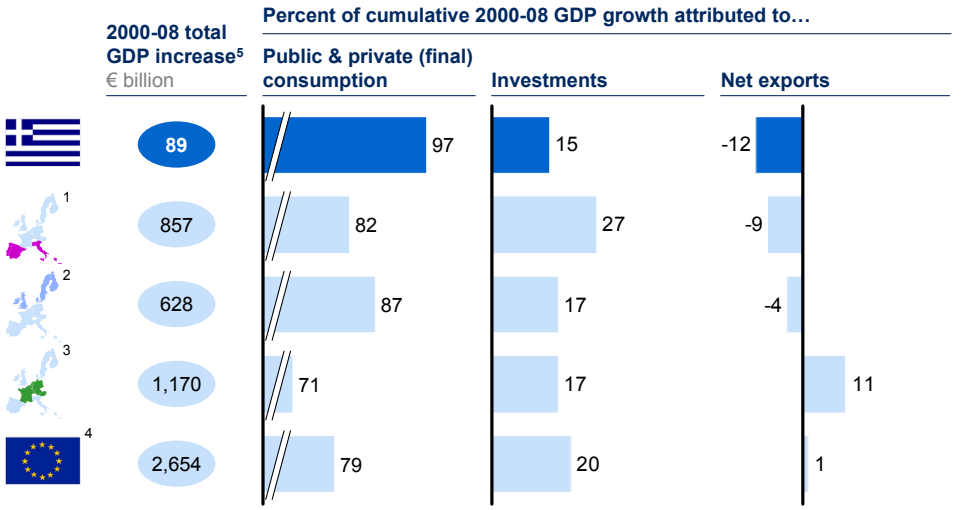
Until the recent economic crisis, Greece was actually a growth champion. In fact, it outgrew most other European nations and even the US, especially after Greece joined the single European currency. But it turned out that almost all of that growth was the result of government and consumer spending fuelled by low-cost credit. In 2009, Greece's economy suffered a crash landing when it became clear that the fiscal deficit was more than 15% of GDP. Between 2008 and 2010, Greece lost 1.75% of its output per year, which, combined with persistent fiscal deficits and emergency loans from the EU, the ECB and the IMF, caused the public debt pile to shoot up to more than 160% of GDP in 2011.

It became clear from the debt crisis that Greece had a flawed economic model. Chronic overconsumption in the public sector spilled over into the private sector, revealing major structural gaps in competitiveness and productivity. Greece's burgeoning private and public spending between 2000 and 2008 (97% of the cumulative GDP growth was driven by consumption) created a deteriorating trade balance, as demand could not be met by foreign and domestic investment. In contrast, most of Greece's EU peers managed a much more favorable trade balance and invested around 20% of their GDP in their economies (Exhibit 1).

As a result of this, even before the crisis, Greece's overall debt burden was very high (214% of GDP in 2008) with public debt and consumer lending ratios being the highest in Europe (111% of GDP and 15% of GDP respectively) (Exhibit 2).

Exhibit 1

Overreliance on consumption and underinvestment versus European peers



1 Southern Europe: Greece, Italy, Portugal, Spain
2 Northern Europe: Denmark, Finland, Ireland, Sweden, UK
3 Continental Europe: Austria, Germany, Belgium, France, Netherlands, Luxembourg
4 EU-15
5 Cumulative growth, delta 2000-08, amounts in PPP standards

SOURCE: Eurostat

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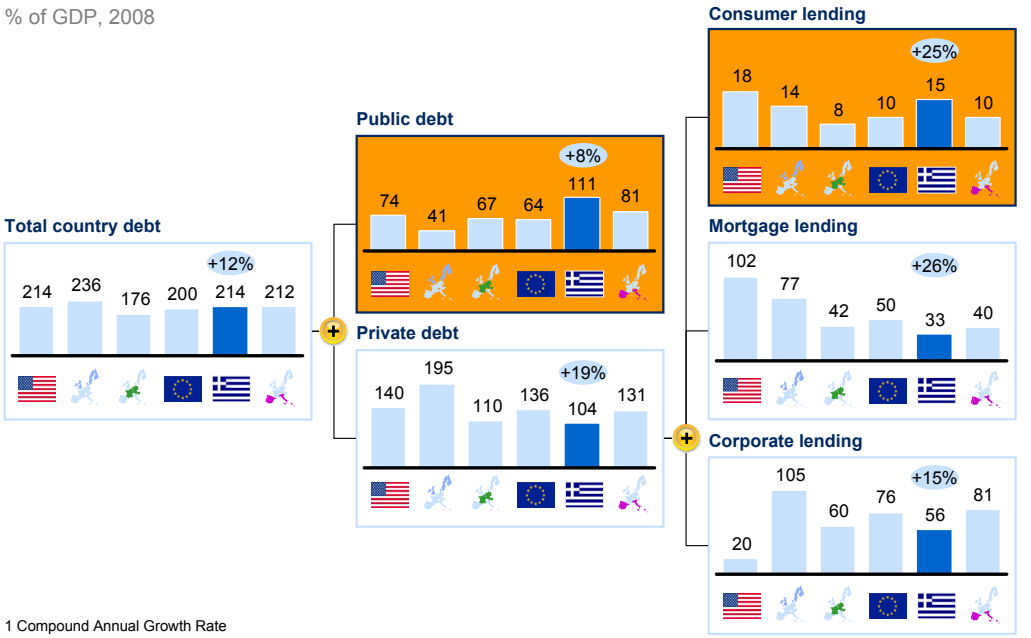
Exhibit 2

Even before the crisis, Greece's debt burden was very high, with public debt and consumer lending being the highest in Europe

% of GDP, 2008



1 Compound Annual Growth Rate

SOURCE: McKinsey Global Banking Pools (April 2011); Bank of Greece, http://www.treasurydirect.gov; US Federal Reserve

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Despite having joined the EEC already in 1981, Greece never really increased its external orientation and fully reap economic benefits from membership in such an international community. Exports fell far short of imports. The bulk of the relatively small investments made were financed primarily by the Greek private sector through Greek public and private debt. In fact, only 4% of total capital formation between 2000-08 was driven by foreign direct investment. This figure is only a fraction of the European average (Exhibit 3).

Private consumption in Greece was very high – almost 20 percentage points of GDP higher than in most European countries – and demand predominantly domestic. Even export-oriented sectors of the economy, such as tourism, were heavily skewed towards demand generated by Greek consumers (Exhibit 4). Simply put, the Greek growth engine was fuelled by few domestic investments and high domestic demand, artificially inflated by ample credit and an overleveraged public sector.

Government spending had to increase by ~6.5 pp of GDP between 2000 and 2009 to keep up with accruing expenses, mainly mandated increases in public employees' salaries and pensions (Exhibit 5). Over the same period, government income declined by ~5 pp of GDP, because the bulk of new revenue was due from sales taxes (e.g., VAT), which were vulnerable to evasion and difficult to audit. As a result, the Greek state had to borrow money on the international markets and later from official emergency facilities, creating one of the most indebted public sectors globally.

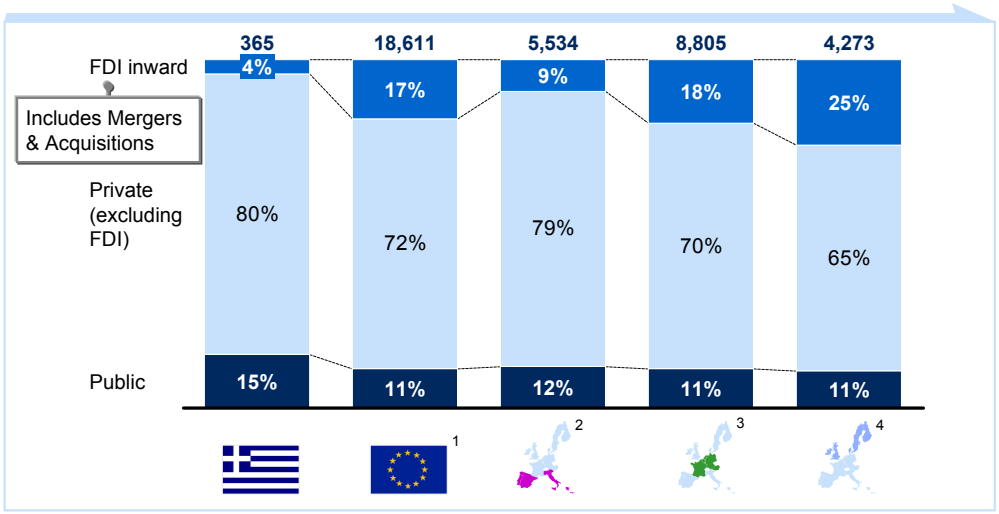
This flawed model and the unexploited opportunity to restructure the Greek economy are also evident in the breakdown of Greek GDP. Tradable sectors contribute 3-4 pp of GDP less than they do in other European countries (6-7 pp of GDP excluding direct shipping contribution). In core tradable sectors, such as manufacturing and business services, the gap is even wider. Meanwhile, specific non-tradable sectors are far larger, with retail and wholesale, for example, accounting for 18% of Greek GDP, compared to 11% in south and central Europe (Exhibit 6).

Exhibit 3

Capital formation in Greece has been driven mainly by domestic private investment

ESTIMATES

2000-2008 Cumulative gross capital formation; € billion



1 EU-15 excluding Luxembourg (due to its special economy structure); 2 Southern Europe: Greece, Italy, Portugal, Spain; 3 Continental Europe: Austria, Germany, Belgium, France, Netherlands; 4 Northern Europe: Denmark, Finland, Ireland, Sweden, UK

SOURCE: Eurostat; UNCTAD for FDI figures; Banque Nationale de Belgique for Belgium FDI 2000-01

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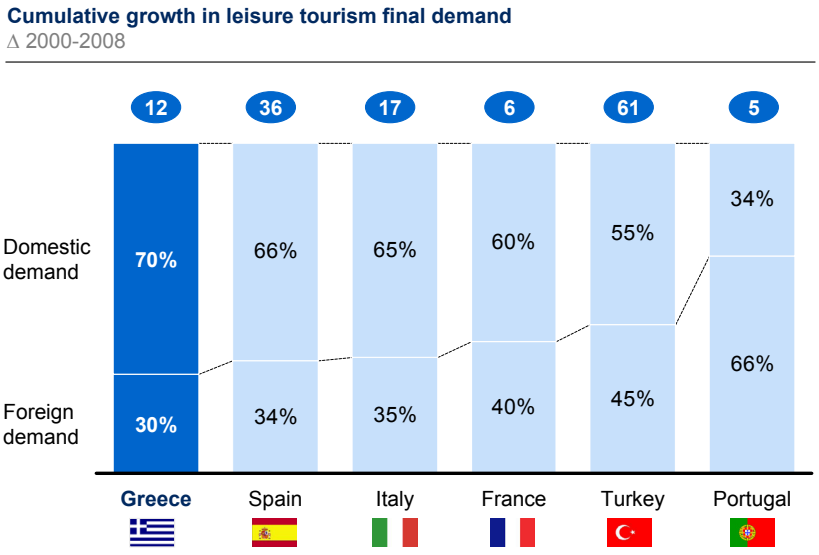
Exhibit 4

Domestic consumption driving growth even in tradable sectors like Tourism

€ billion; nominal



SOURCE: World Travel and Tourism Council

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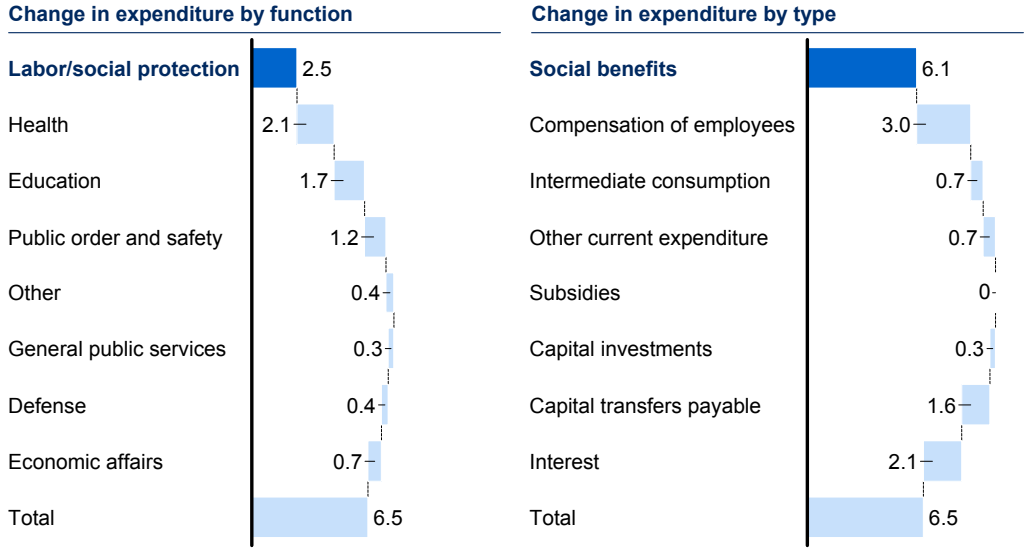
Exhibit 5

Public expenditure growth was mostly allocated to social benefits

Change in p.p. of GDP 2000-2009



Note: includes government expenditure on final goods and services plus interests, social benefits, capital transfers

SOURCE: Eurostat, ELSTAT; IMF 3rd Review March 2011

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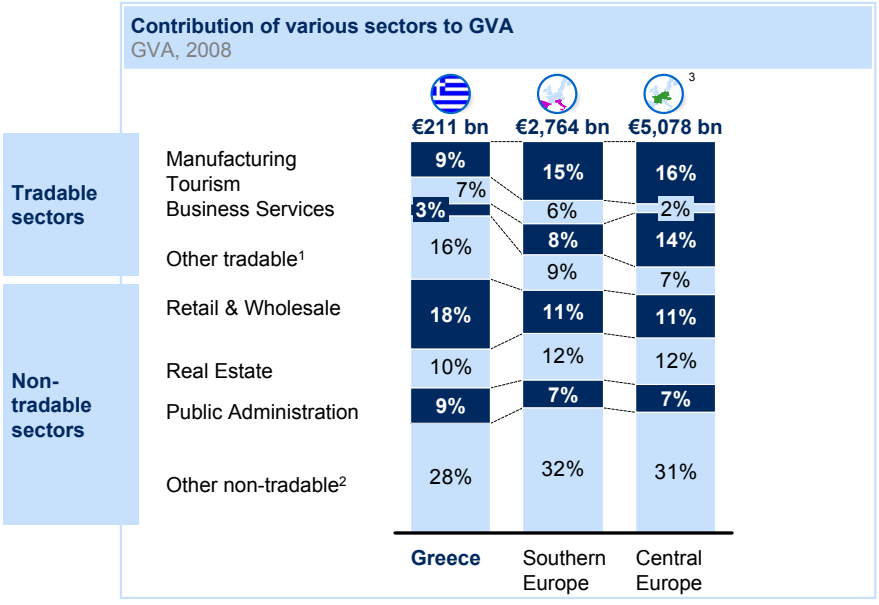
Exhibit 6

Debt-fuelled consumption creating imbalances between tradable and non-tradable sectors

ESTIMATES



1 Agriculture, shipping, energy, other ; 2 Health, education, post & telecom, utilities, financial services, construction, land transport; 3 Excluding Luxembourg

SOURCE: Eurostat; WIS Global Insight

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2.1. Persistent productivity and labor participation deficits

Not only was Greece growing its debt stock leading up to the crisis, but it also continued to lag behind in terms of economic wealth generation, despite having been a growth champion in the past. Even in 2007, Greece's GDP per capita was lagging behind the EU-15 and the US by 15% and 35% respectively[1] (11% and 33% in 2009). This 'wealth gap' is primarily due to lower productivity and secondarily to lower labor participation rates than in other European countries (Exhibit 7).

Despite substantial growth in the previous decade, (between 1999-2009, productivity in Greece grew by 2.4 CAGR vs. 1.1% for EU-15), Greece's productivity was still a major problem. It lagged the US by 40% and the EU-15 by 29% in 2009 (Exhibit 8). Greece's productivity, at $35 per hour worked (adjusted for purchasing power parity), compares with $49 in EU-15, $42 in south Europe and $55 in central Europe.

When comparing Greece and the different European regions (in terms of their GDP per capita gap) with the US, we see that Greece's productivity gap is in fact larger than the GDP per capita gap itself. The remaining of the economic wealth (GDP per capita) gap can be explained by the low workforce participation rate which, however, is more than fully offset by Greece's higher number of hours per employee (Exhibit 9).

Importantly, the productivity deficit is not due to an unfavorable mix of sectors in total output, but is primarily due to productivity shortcomings within each sector, affecting the entire economy. Less than 15% of the shortfall (compared to the US) is due to the sector mix (Exhibit 10).

On top of this productivity deficit, Greece has one of the lowest workforce participation rates in Europe – the number of employed and unemployed as a percentage of the entire workforce – at just 69% of the employable population. That compares with 74% in EU-15 as a whole, and 70% in southern Europe. In Greece, the labor participation deficit is most prominent among youth and women. While both youth and female unemployment was similar to other countries in 2010, non-participation was (and remains) very high, reaching 70% for youth and 37% for women (Exhibit 11).

The combination of low labor force participation (i.e., a narrow employment base) with higher implicit hours worked per employee leads to one inescapable conclusion about Greece's employment challenge: a relatively smaller percentage of Greeks works longer than their European peers to support a generally unproductive economic system.

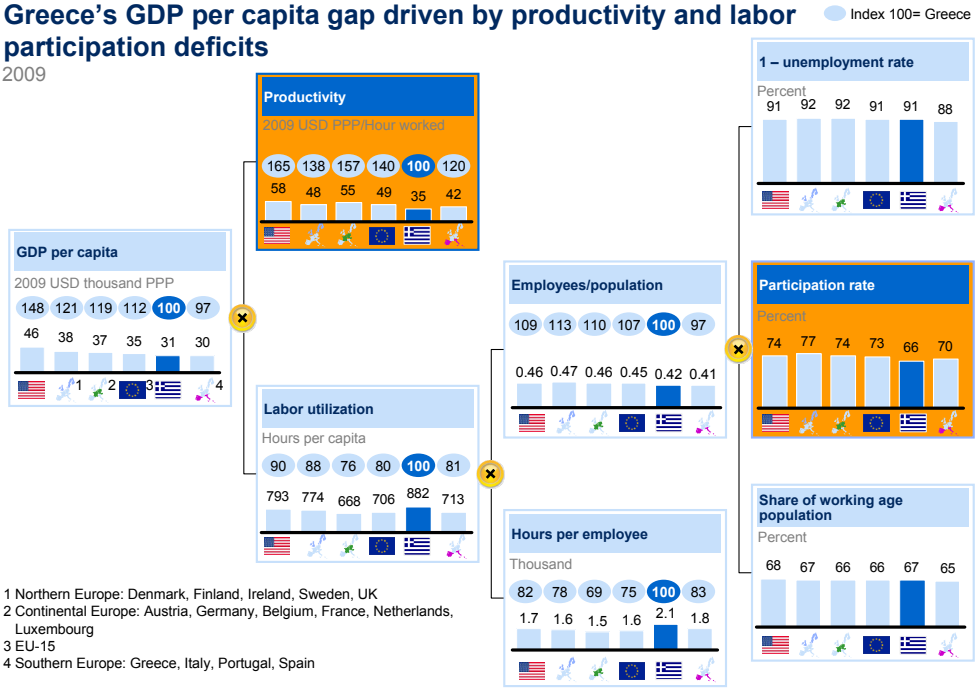
There is an important distinction, however, between the 'deficits' in productivity and labor participation. While low productivity is a primary, structural barrier to wealth creation and growth, that can and should be directly acted upon, the labor participation issue is a symptom and the result of long-standing distortions that prevent mobility and employee turnover, especially in the broader public sector. In the absence of labor supply constraints, the participation issue cannot be addressed before an adequate amount of new jobs is created. This underlines first and foremost the need for a massive productivity boost, which can no longer come from debt- and consumption-driven output growth in non-tradable sectors, but rather from investments and a substantial shift of output and employment towards tradable sectors. In other words, to avoid a so-called **'jobless adjustment'**, the economy needs to generate jobs primarily in tradable sectors, at least as fast as the contraction in public and private consumption reduces output and jobs in consumption-heavy, non-tradable sectors.

1 Source: The Conference Board; IMF

Exhibit 7

Greece's GDP per capita gap driven by productivity and labor participation deficits

2009



1 Northern Europe: Denmark, Finland, Ireland, Sweden, UK
2 Continental Europe: Austria, Germany, Belgium, France, Netherlands, Luxembourg
3 EU-15
4 Southern Europe: Greece, Italy, Portugal, Spain

SOURCE: IMF; Global Insights; Eurostat; The Conference Board Total Economy Database

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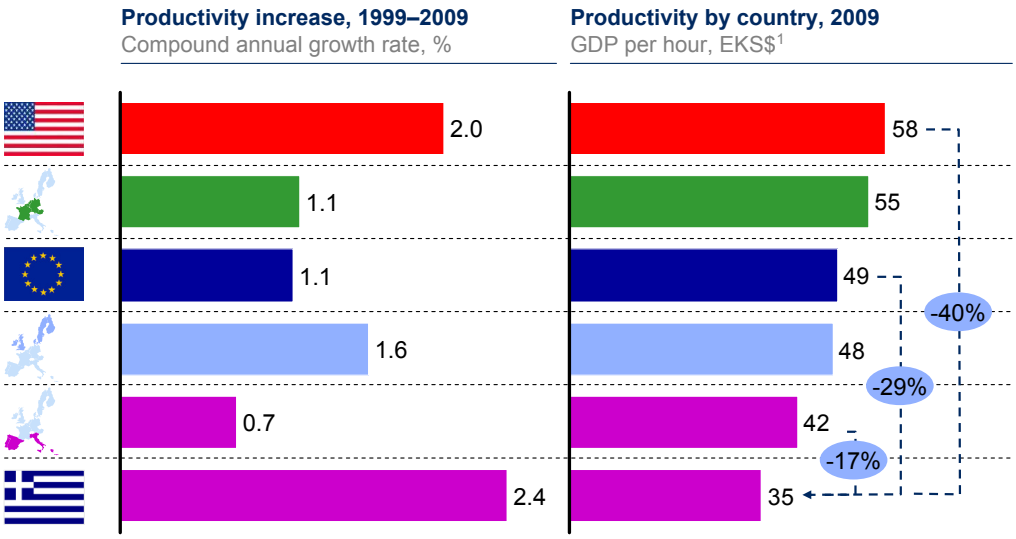
Exhibit 8

Persistent productivity gaps even after years of strong growth



1 Elteto-Koves-Szulc method to derive transitive multilateral purchasing power parities

SOURCE: The Conference Board; IMF; McKinsey Global Institute

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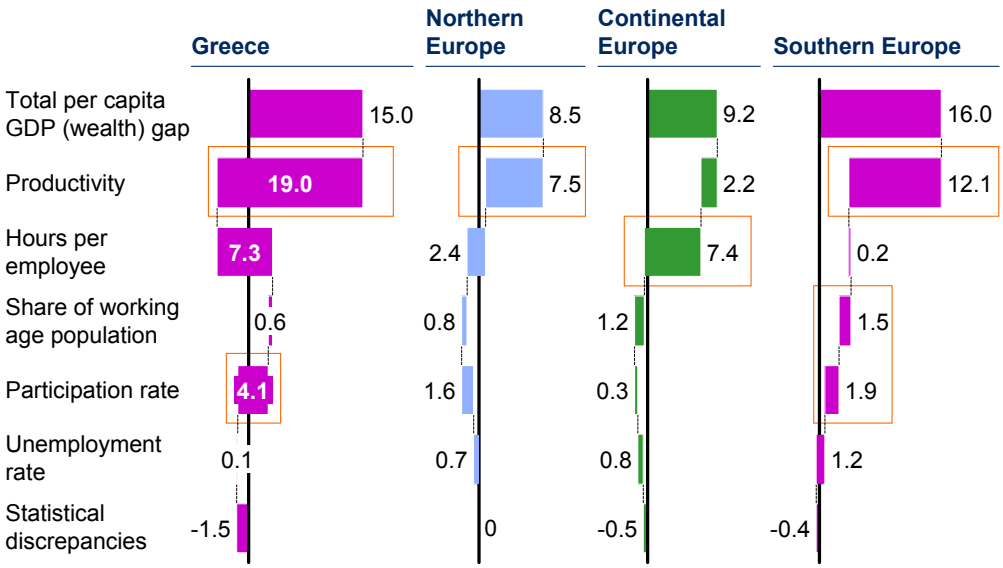
Exhibit 9

Low productivity accounting for (more than) the entire wealth gap

ESTIMATES

Contribution to per capita GDP gap vs. United States by key drivers
2009 PPP, $ thousand



SOURCE: The Conference Board; IMF; Eurostat; Global Insight; OECD; McKinsey Global Institute

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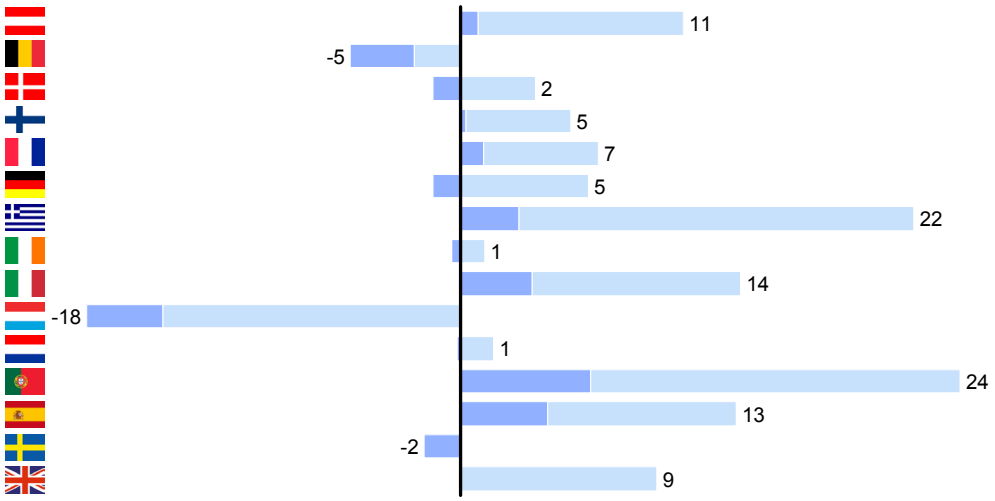
Exhibit 10

Low productivity within sectors rather than sector mix driving Greece's productivity gap

ESTIMATES

Productivity level
Labor productivity gap versus US[1]
PPP 2005 USD/worked hour



1 Excluding mining, real estate, education, health and other public goods

SOURCE: EU KLEMS; McKinsey Global Institute

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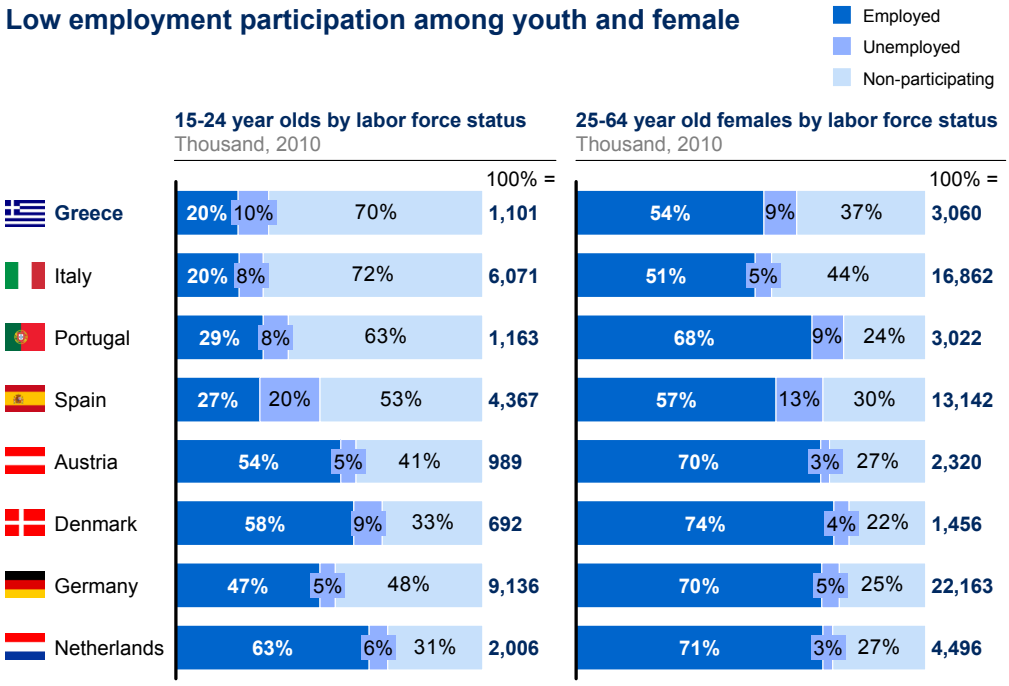
Exhibit 11

Low employment participation among youth and female



SOURCE: OECD

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2.2. The underlying problems of the Greek economy

We have identified five major handicap areas responsible for the productivity and competitiveness gaps detailed in the previous section. Within these handicaps, our analysis focuses on 17 growth and competitiveness barriers that need to be removed. The five handicap areas are the following: **(a) Discouragement of investment and scale; (b) Large and inefficient public sector; (c) Rigid and 'narrow' use of human resources and capital; (d) Cumbersome judicial and legal system;** and finally **(e) Widespread informality** (Exhibit 12).

a. Investment and business scale discouraged

As in many Mediterranean countries, where family-owned businesses are still predominant, the backbone of the Greek economy comprises mostly small and very small enterprises. For example, around 30% of manufacturing employment in the country is in firms with nine or fewer employees. In contrast, Italy has just 15% of employees in this segment and Germany has only 5%. Based on EU-27 average figures, these small firms typically operate at less than 40% of the productivity of larger companies with 250 or more employees (Exhibit 13).

In addition to family ownership, a number of scale disincentives have resulted to the relative lack of larger businesses. These include several overregulated areas of economic activity (where prices, competitive conduct, number and required 'credentials' of market participants are regulated), a frustrating bureaucracy that must approve investments, tax laws and administration practices that hinder scale (e.g., different requirements for tax-related documentation), and labor restrictions on larger enterprises. In terms of regulation, for example, Greece exhibits one of the highest degrees of product markets regulation among OECD countries, an index that has proven to have a strong inverse correlation with productivity (Exhibit 14).

Exhibit 12

Productivity, competitiveness and growth barriers in the Greek economy

A *Investment and scale discouraged*	*1.* **Fragmentation** and **small scale** of businesses across sectors
	2. **Over-regulation** of markets and professions
	3. Complex and **restrictive licensing** and operating processes
	4. **Lack** of integrated and systematic **zoning** and **real estate planning**
	5. Highly **complex** and **volatile tax framework** creating scale disincentives
B *Large, inefficient public sector*	*6.* Large, **expensive public sector** with **low quality outputs**
	7. Very **low efficiency** driven by highly fragmented and overlapping tasks
	8. **Lack** of mechanism to inject **private sector expertise** & **management talent**
	9. Low **performance clarity/accountability;** limited use of "double entry" system
C *Rigid and 'narrow' use of human resources*	*10.* Low **employment participation** of youth and female
	11. Limited **employment flexibility** (e.g., part-time, mobility) and turnover
	12. Binding and **inflexible collective agreement framework**
	13. **Disconnect** between **market and education**; lack of innovation support
D *Cumbersome legal and judicial system*	*14.* **Over-abundance** of **laws** often **conflicting** and with **unclear applicability**
	15. Heavy **administrative burden in courts** resulting to long trial lead times
E *Widespread informality*	*16.* **Extensive tax-evasion**; detection and collection reforms still emerging
	17. Substantial **wealth creation** and transaction **outside formal economy**

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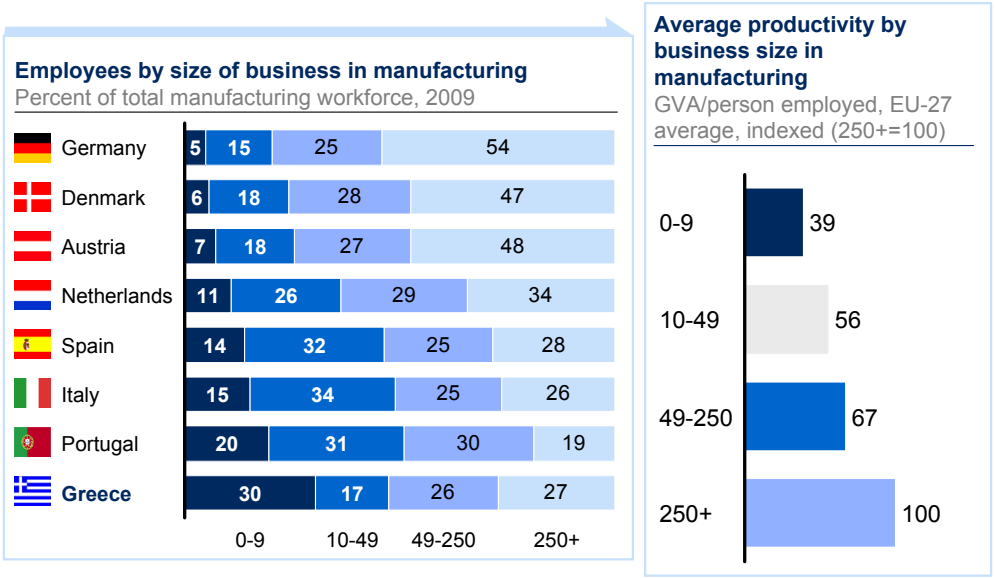
Exhibit 13

Fragmentation and small scale impacting productivity

EXAMPLE: MANUFACTURING



SOURCE: Eurostat Structural Business Indicators; EL STAT

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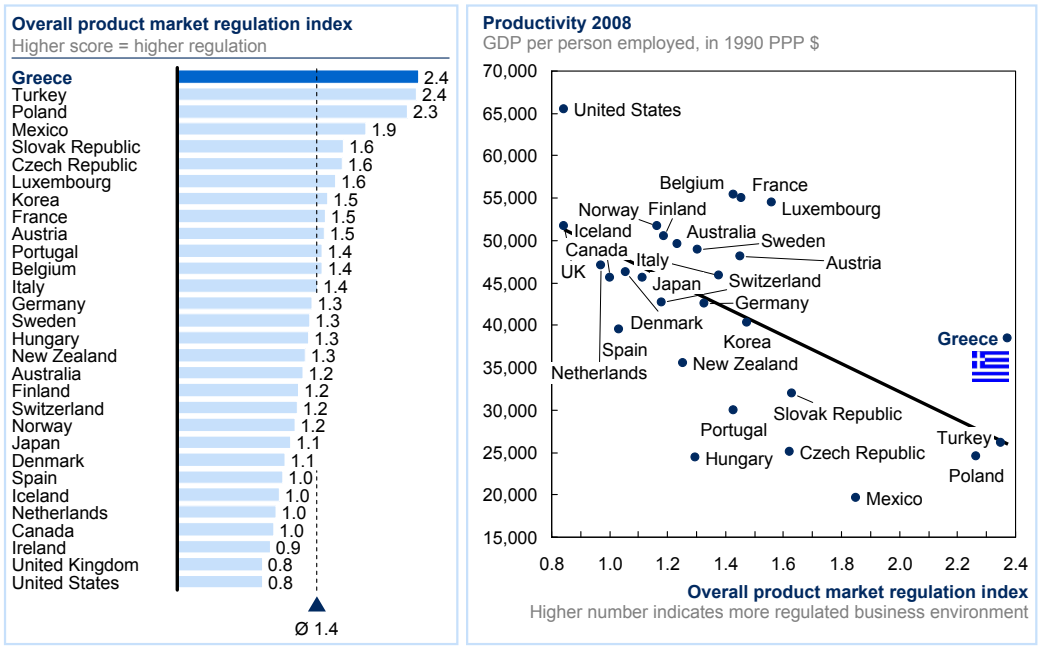
Exhibit 14

Overregulation impacting productivity



SOURCE: OECD; IFC; ILO; World Bank; McKinsey Global Institute

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b. Large and inefficient public sector

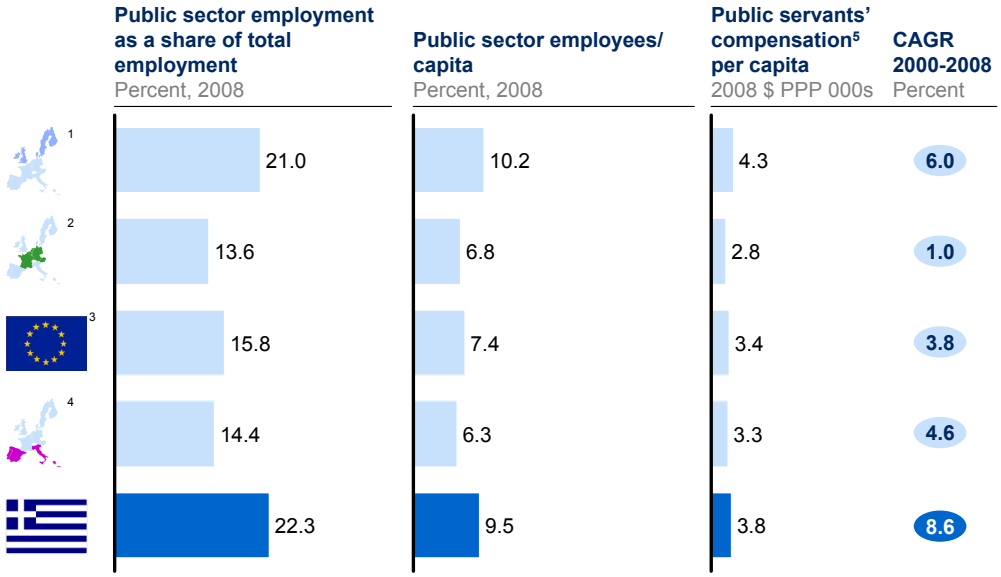
Greece's public sector, relative to the size of the country and its economy, is clearly large, and ranks at the upper end of European benchmarks. It is eclipsed only by Northern European countries, where, however, social service delivery and overall quality of output is recognized as clearly superior. In fact, the World Economic Forum ranked Greece extremely low in public sector outcomes. Combined with high government expenditure, this demonstrates the underperformance of the Greek public sector (Exhibits 15-16).

At the same time, Greek public sector suffers from significant fragmentation and overlap of responsibilities, between the various Ministries and multiple other authorities, creating additional burden and delays to business operations and allowing for informality to flourish. An example of this is that a total of 13 Ministries are involved in 27 tourism-related activities and responsibilities.

On top of the 'core' public sector, there is a multitude of large and mid-sized corporations across sectors that are directly or indirectly controlled by the state (even if formally recorded in the private sector), exhibiting very similar structural inefficiencies in resource utilization. Moreover, the lack of performance transparency and accountability on public spending (e.g., lack of "double entry" system) and procurement practices has created substantial competitive distortions in the pure private sector, with many enterprises being strongly dependent on financial transactions with the public sector. This underscores a vital need for the Greek economy to both reduce its reliance on the public sector and to step-improve its efficiency.

Exhibit 15

Benchmarking the Greek public sector



1 Northern Europe: Denmark, Finland, Ireland, UK, 2 Continental Europe: Austria, Germany, Netherlands, Luxembourg, 3 EU 15 (excluding Belgium, France, Sweden due to data unavailability), 4 Southern Europe: Greece, Italy, Portugal, Spain, 5 As reported in State Budget
Note: Public sector employees include both core and broader public sector entities

SOURCE: LABORSTA Labour Statistics Database; Eurostat, IMF

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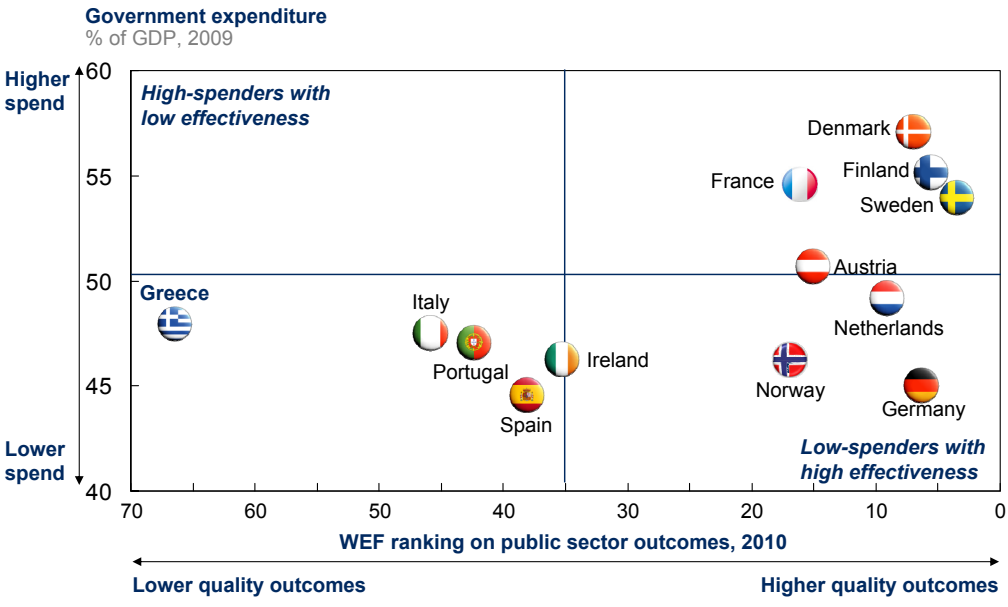
Exhibit 16

An expensive and ineffective public administration



Note: Excluding interest; including government expenditure on final goods and services, social benefits and capital transfers

SOURCE: OECD; WEF Global Competitiveness Report 2010-2011

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c. Rigid and 'narrow' use of human resources

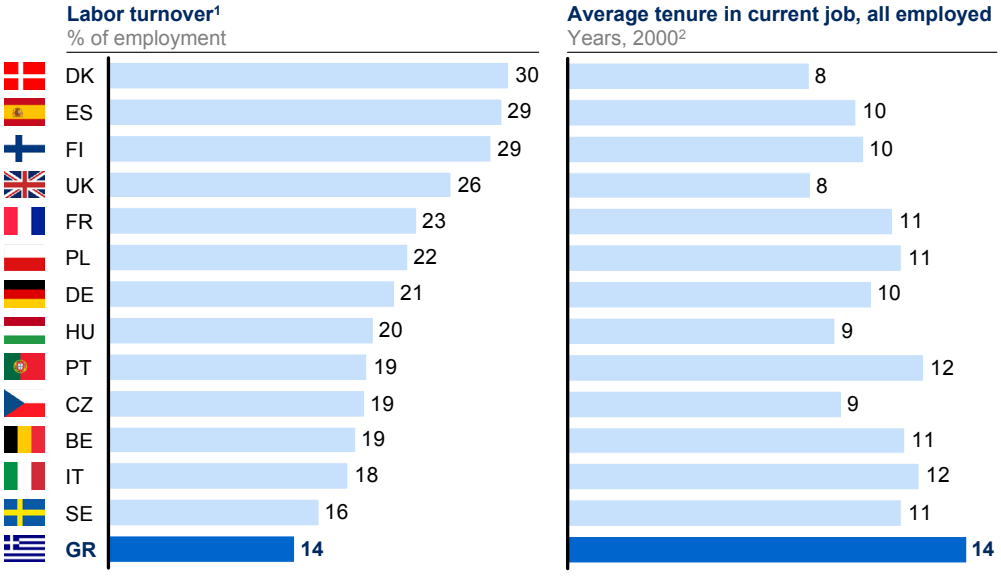
Greece has not capitalized on its human resources and labor force potential. Although recent reforms have taken important steps towards proven European models and practices, employers are still hesitant to hire more workers because of inflexible legal requirements, the cumulative effect and inflexibility frequently associated with collective labor agreements and the skewed functioning of arbitration.

As a result of such distortions, Greece has the lowest employment turnover rate (14%) in Europe and the highest average tenure in the current job (14 years) among OECD countries (Exhibit 17). Labor force mobility is a crucial indicator of 'health' for the Greek economy, the lack of which is also clearly reflected in the low observed levels of labor participation. For example, there is clear international evidence that part-time employment is correlated with lower unemployment and higher female employment participation (Exhibits 18-19).

There is also poor placement of young university graduates in the workforce, a problem reflecting the largely severed link between universities and the business world. Beyond its impact on employment, the lack of collaboration between academia and business is seriously hindering innovation and entrepreneurship. Exhibit 20 clearly demonstrates the importance of Academia-Business collaboration in boosting innovation and entrepreneurship (measured by number of triadic patents per 10,000 population) and the unfavorable position Greece is currently in.

Exhibit 17

Greece has the lowest employment turnover and highest average employee tenure in Europe



1 Labor turnover = (Hirings+Separations)/total employment; annual averages across 2002-07, 2002-04 for Sweden
2 Last year for which Greece reported this figure

SOURCE: "Employment in Europe 2009"; DG EMPL calculations using EU LFS data; OECD

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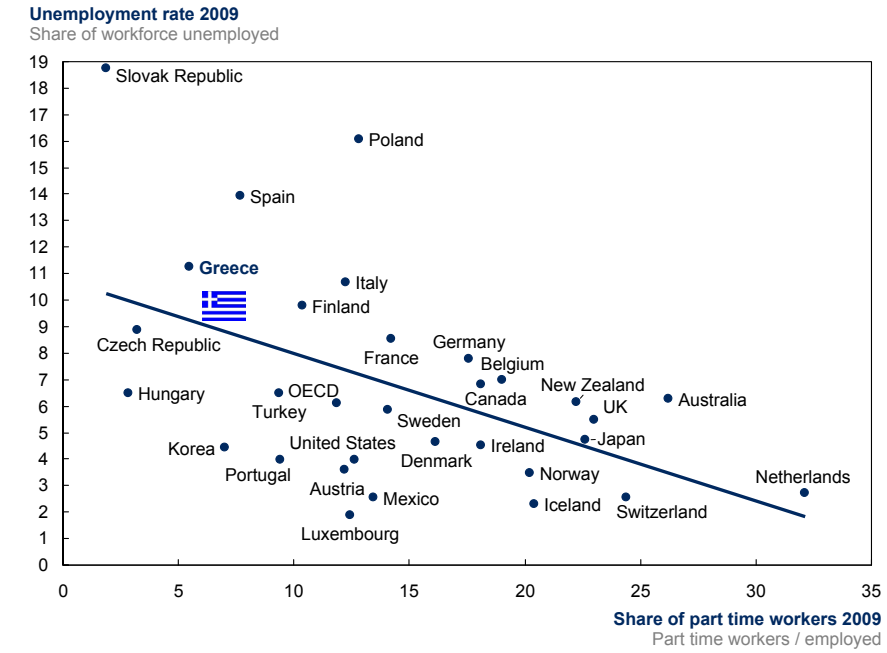
Exhibit 18

Link between unemployment and part-time employment options



SOURCE: OECD

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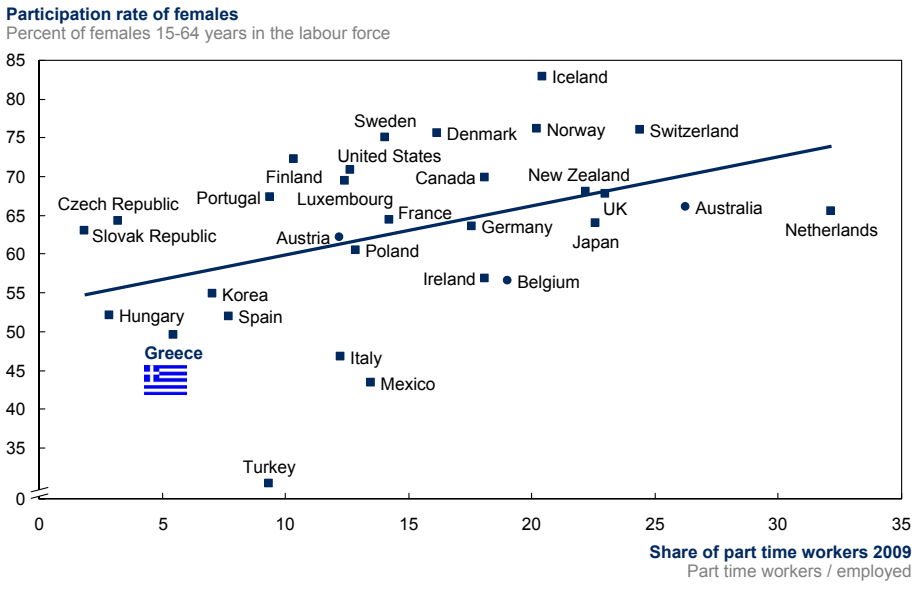
Exhibit 19

Link between female employment participation and part-time employment options



SOURCE: OECD

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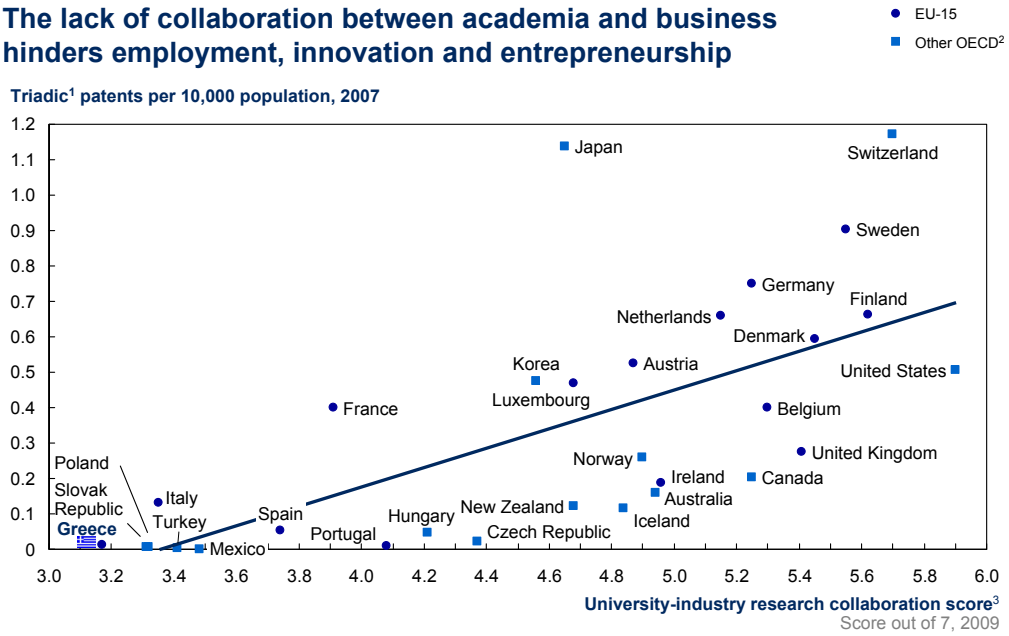
Exhibit 20

The lack of collaboration between academia and business hinders employment, innovation and entrepreneurship



1 Patents filed at the European Patent Office (EPO), the United States Patent and Trademark Office (USPTO), and the Japan Patent Office (JPO)
2 Sample of 30 OECD countries
3 Based on responses from 13,000 business leaders on a scale from 1 = minimal or non-existent to 7 = intensive and ongoing

SOURCE: OECD; WEF; McKinsey Global Institute

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d. Cumbersome legal and judicial system deterring investment

Business in Greece is impeded by a cumbersome legal system, which comprises a large number of laws, sometimes ambiguous, obsolete or contradictory (e.g., in environmental legislation), with multiple overlaps and frequent revisions (e.g., in the case of tax legislation). The resulting complexity creates a rigid and inefficient administration, responsible for delays, confusion and frequent friction with businesses and citizens.

Largely as a result of this, the Greek judicial system is overburdened with cases waiting to be tried. Indicatively, the Council of State –the country's supreme administrative court– appears to receive 8,000-9,000 new cases per year, and only decides on 3,000 of those annually, creating an ever-increasing backlog and lengthening decision lead-times, now ranging from two to six years. At the same time, preliminary evidence suggests that there is a lack of clear criteria for case prioritization and administrative resources to execute time-consuming bureaucratic tasks. The increasing backlog is also evident in first and second degree administrative courts that occasionally seem to lack capacity in number of judges.

e. Widespread informality

According to reports from the Bank of Greece and other institutions, the informal sector in Greece accounts for approximately 30% of total economic activity. This translates to a very significant gap in tax receipts: in 2009, it was estimated that between €15-20 billion of personal, corporate and sales taxes was lost, with more than half of this foregone revenue attributed to VAT evasion. That is equivalent to 7%-9% of the country's GDP and 60%-80% of 2010 fiscal deficit.

The traditional inability to effectively collect taxes is to a large extent driven by the lack of sophisticated processes and practices in registration, evasion detection, case segmentation, evader contact strategy and collection approaches.

There is also a substantial gap versus proven international practices across the tax value chain. Most notable are deficiencies in the automated detection of potential tax offense perpetrators (based on advanced statistical tools), the degree to which effective segmentation is used to drive different contact/audit approaches, the ability to efficiently and effectively audit large amounts of cases and the tactical orchestration and escalation of intervention methods to maximize collection of tax revenue (Exhibit 21).

Beyond outright tax evasion, there is also a substantial informal labor market (especially among the self-employed and very small businesses) where income taxes and social contributions are not collected, and a large number of other untaxed areas such as fuel informality and unreported gaming.

Our outside-in analysis suggests that, in 2010, the total system revenue loss (state, companies, consumers) from fuel informality was between €600-650 million. Moreover, undeclared gaming seems to lead to an estimated €2 billion of non-registered revenues.

Exhibit 21

Tax evasion counter-measures emerging; still major gaps with international best practices

INDICATIVE

	Indicative best practices (non-exhaustive)	Current status
1 Detection 	▪ **Pro-active deterrence** – targeted and relevant outreach/awareness programs, as well as pre-filing certification to pro-actively assist taxpayers to comply	✗
	▪ **Sophisticated detection** – definition of the probability of 'hit' and likely 'yield/audit outcome/payout' based on selected key taxpayers parameters	✓
	▪ **Prioritization and segmentation** – use of the above as well as other parameters (e.g., likelihood/ability to pay) to segment taxpayers and prioritize segments and cases	✓
	▪ **Continuous calibration** – detection, segmentation, prioritization parameters calibrated with continuous inflow of contact and audit results and data	✗
2 Contact/ Collections 	▪ **Contact strategies** – definition of the most suitable contact and audit strategy based on segment/cases characteristics and available audit resources; use of variable approaches (e.g., letter, call centre, audits of variable 'intensity')	✗
	▪ **Auditors deployment/'rostering'** – complexity and fraud prevention based case allocation	✓
	▪ **Audit guidance and monitoring** – on-line audit direction, workflow audit recording	✗
	▪ **Debt settling strategies** – flexible payment arrangements where applicable	✓
	▪ **Demand management** – dynamic pay-as-you-earn system and pre-due date contact	✗
	▪ **Tight performance management** – 'closed files' reviews and frequent tax audit controls	✗
3 Taxpayer service 	▪ **High e-filing rates** – reduction of processing costs, clear taxpayers benefits	✓
	▪ **Efficient processing of paper returns** – digital technology as productivity driver	✓
	▪ **Claims/liabilities clearance** – robust offsetting mechanism for open positions	✗
	▪ **Query resolution** – efficient/effective delivery using demand/triaging expertise	✗
	▪ **Channel management** – increased use of self services; targeted in-person channels	✗
	▪ **Taxpayer education/assistance** – targeted education/assistance campaigns	✗
	▪ **Tax auditors capabilities and training** – robust selection/termination, rotation, training	✗

SOURCE: Tax administrations; Interviews

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3. The new National Growth Model

3. The new National Growth Model

3.1. Major principles and impact on growth

It has become obvious that the flawed economic growth model of the past needs to be replaced by a drastically different pattern of development and sense of purpose. Consumption-driven growth in Greece has come to an end. Greece needs to adopt a new **National Growth Model,** featuring six major changes and pillars:

1. Tradable sectors like tourism, agriculture, manufacturing and business services need a large share of resources and investments, allowing them to build scale, expertise and competitiveness at an international level. As a result, the economic model can become much more **outward** and **extrovert,** focused on foreign markets for producing export goods/services and importing capital.

2. Funding of the economy should transition from public debt to private sector equity and debt. This requires higher levels of foreign and domestic **investment** and a business-friendly environment that will attract local and foreign investment, to generate new jobs and the economic growth required to gradually reduce the country's reliance on debt.

3. The **productivity and efficiency** of the public and private sector needs a substantial boost. This can be accomplished by eliminating marginal or obsolete public sector entities that do not contribute to the public good and by step-improving the operating efficiency of the broader public sector. The private sector should be activated to pursue business and investment opportunities that would enhance the country's extroversion and international competitiveness and build larger, more efficient organizations that better utilize resources, investment capital and technology.

4. Greece needs to eventually create a culture of **tax compliance.** Tax evasion should finally be effectively addressed and loopholes that allow, or even incentivize it, removed. Informality should be rooted out, by minimizing transactions and interfaces between the private sector and state agencies, both in tax administration and other areas of business and investment activity.

5. The country requires new **employment opportunities and culture.** Women and young people, should be encouraged to join the workforce. There should be meritocracy in the public sector, with individual effort and skill adequately rewarded. Part-time work needs to be promoted to broaden the employment base, increase flexibility and reduce unemployment. Employment mobility is a sign of a robust economy that creates employment opportunities and should not be discouraged. **Education** should be revamped, both in terms of its academic distinctiveness in existing and new fields, (e.g., tourism, agriculture, aquaculture) as well as in reinforcing the link between academia and business to boost innovation and entrepreneurship.

6. Finally, a critical prerequisite for Greece to succeed in its growth and fiscal adjustment program and establish a new sustainable economic model is to **radically improve the execution and managerial capacity of its public administration.** Such an improvement would need to take place at two levels: first, at the level of **coordination** among Ministries and important state entities (e.g., Hellenic Republic Asset Development Fund, Invest in Greece, National Tourism Organization) to ensure systematic and attentive planning and implementation monitoring; and second, at the level of **managerial capabilities** within the public administration, where a substantial inflow of local and international expertise and managerial talent from both the private and public sector is required, to complement existing managerial capacity of the Greek public administration in effectively carrying out the challenging and complex reform program.

These new standards will de facto translate to a number of major **performance improvements** in key economic metrics: economic wealth (GDP per capita) would grow by more than 32%; aggregate productivity would increase by more than 17%; dependence on private and public consumption would drop from 94% to 75-80% of GDP; investments would reach or even exceed south European levels of 20-23%; and net exports would turn from negative 8-9% to zero or even positive 2% of GDP. In addition, the **National Growth Model** could reach a set of important **economic 'health'** milestones, such as closing the tax gap (from 30% to 15-20%) and increasing employee turnover (from 14% to 20-25%) (Exhibit 22).

The recession and the ongoing efforts for fiscal stabilization have already set in motion some of the necessary macro developments. Private consumption is already declining (though not yet as a share of GDP), as a result of lower disposable incomes and deleveraging by consumers. Eventually, total private and public consumption would need to decline from its current level by 15-20 p.p. of GDP, to reach sustainable levels observed in the rest of Europe.

More importantly, Greece needs to materially increase the amount of investment flowing into the country to levels that converge to or exceed EU levels. The privatization program can help accomplish this by attracting international investors for acquisition of key assets, fostering strategic partnerships with Greek enterprises and encouraging sustained investment activity. Given that valuations of Greek assets are currently depressed as a result of the crisis, each transaction should be viewed against mid- to long-term benefits including the elimination of incurred losses and subsidy outflows from the public 'purse', as well as the important benefit of bringing in long term local and foreign investors and opening up state-controlled business to competition, that will also eventually create investment and employment opportunities while stimulating competitiveness.

Exhibit 22

Impact of the new "National Growth Model" on major indicators of the Greek economy

ESTIMATES

		From (2010)	To (2021)	References
Performance	GDP per capita USD thousand PPP[1]	31	41	▪ Average GDP growth of ~3% p.a; realizing the €49 billion growth upside in the sectors studied while rest of economy grows at 1.5% p.a
	Productivity USD PPP/hour worked[1]	35	41-43	▪ GDP growth as above ▪ Average employment growth of 1.0-1.3% p.a.
	Private and public (final) consumption over GDP	93%	75-80%	▪ Consumption adjustment to sustainable levels and increased extroversion in the economy
	Net Exports over GDP	-9%	0-2%	▪ Trade balance improvement validated from 'bottom-up' analysis of selected sectors' trade balance evolution
	Investments over GDP	16%	20-23%	▪ Matching Southern European peers' performance (Italy ~20% and Spain ~23%)
Health	Tax gap[2]	30%	15-20%	▪ Matching international benchmarks; typical impact from intensive counter tax-evasion programs
	Employment turnover[3]	14%	20-25%	▪ Converging to average European practices

1 In 2009 terms
2 Amount of tax liability that is not paid on time
3 Hirings plus separations over total employment

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The growth impact of the new **National Growth Model** and strategy could be significant. The 'bottom-up' analysis of the five largest 'production' sectors and the eight 'rising stars' suggests that there is potential for raising annual GVA levels by €49 billion (€55 billion in GDP terms) and employment by an estimated 520,000 new jobs in a 10 year horizon through measures taken in these sectors alone (including direct and indirect GVA effects, netting out overlaps among sectors) coupled with the implementation of important 'horizontal', cross-sector growth measures and reforms.

The largest increase is likely to originate from the tourism sector, which could add €18 billion in GVA per year, followed by the energy sector, which could add another €9 billion, food manufacturing and agriculture, contributing €6 and €5 billion respectively. Retail is estimated to add €4 billion (following a relative decline in the short-to-medium term as a result of the crisis and consumer credit contraction), and 'rising stars' such as aquaculture, medical tourism and generic pharmaceuticals may generate as much as €7 billion in additional annual output (Exhibit 23).

Assuming an underlying 10 year annual growth trajectory of 1.5%, this would mean that Greece's growth rate could double to 3% per year on average over the next decade. This positive impact reflects only the cumulative effect of actions taken in the sectors examined by **Greece 10 Years Ahead**, with other sectors assumed growing at the baseline rate of 1.5%. Even if that baseline assumption were to be proven optimistic (e.g., due to externalities negatively affecting global demand) the estimated impact in GVA and employment would only take longer to materialize rather than being jeopardized in absolute terms. This would also mean a collective boost to productivity – an important pillar of the new **National Growth Model** – by more than 17% (Exhibit 24).

The new **National Growth Model** could also have a significant impact on the country's fiscal and trade balances. From these sectors alone, Greece could have a positive impact on the fiscal balance in excess of €8 billion and on the trade balance in excess of €16 billion in a 10 year horizon, going a long way towards curbing the large deficits currently crippling the economy (Exhibit 25).

Particularly important under the current economic circumstances is the fact that more than 30-35% of this impact could materialize within a five year horizon, assuming effective implementation of the reform measures.

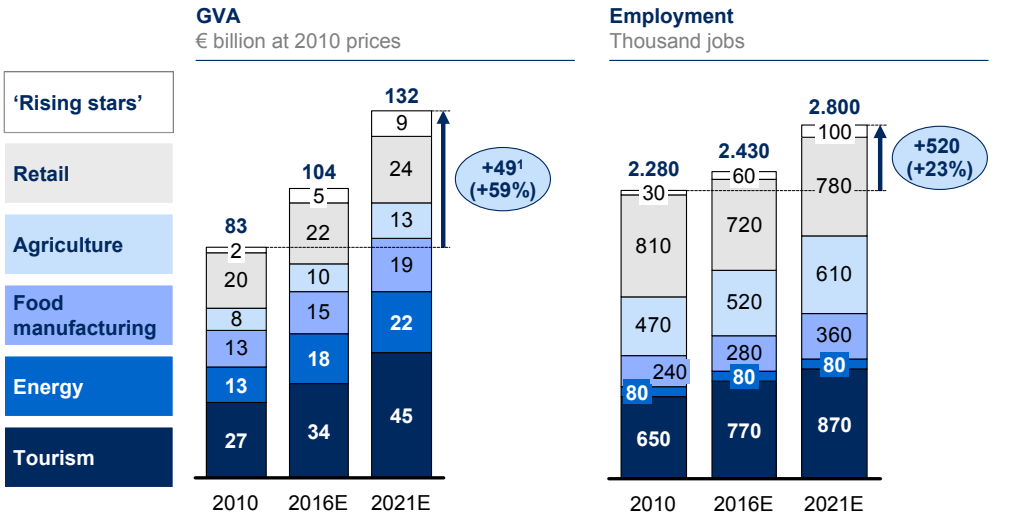
The described potential requires an average annual investment increase in excess of €16 billion versus 2010 levels. More specifically, the identified demand upside generated by the sectors examined in **Greece 10 Years Ahead** would warrant more than €10 billion in new investments, with the remaining €6 billion generated by the other sectors. Construction and manufacturing would deliver the bulk of this increase, the former accounting approximately for €9 billion and the latter for €4 billion, with all other sectors accounting for the remaining €3 billion (Exhibit 26). This increase would lead to a total annual investment of almost €50 billion on average per year for the next ten years. These levels –although representing a significant increase (+47%) versus the €34 billion investments of 2010– are considered attainable, based on Greece's past investment record before and after the Athens 2004 Olympic Games (e.g., total investment - in 2010 prices - of €54 billion in 2003 and €63 billion in 2007).

Given the current distressed fiscal situation, as well as the challenging outlook for public investments going forward, recovery of domestic and foreign private investment is critical. As argued by this report, the public investment program should be revisited and should focus on growth-related infrastructure projects with a high contribution to domestic GVA, leveraging EU funds and PPP schemes. The positive impact from such a reorientation of the public investment program would complement the investment upside calculated by the horizontal cross-sector and sector-specific initiatives proposed by **Greece 10 Years Ahead.**

Exhibit 23

Potential for €49 billion incremental annual GVA (€55 billion in terms of GDP) and 520 thousand new jobs in the next decade

ESTIMATES



Note: Tourism and Retail are depicted in 2009 figures instead of 2010
1 ~€55 billion in GDP terms

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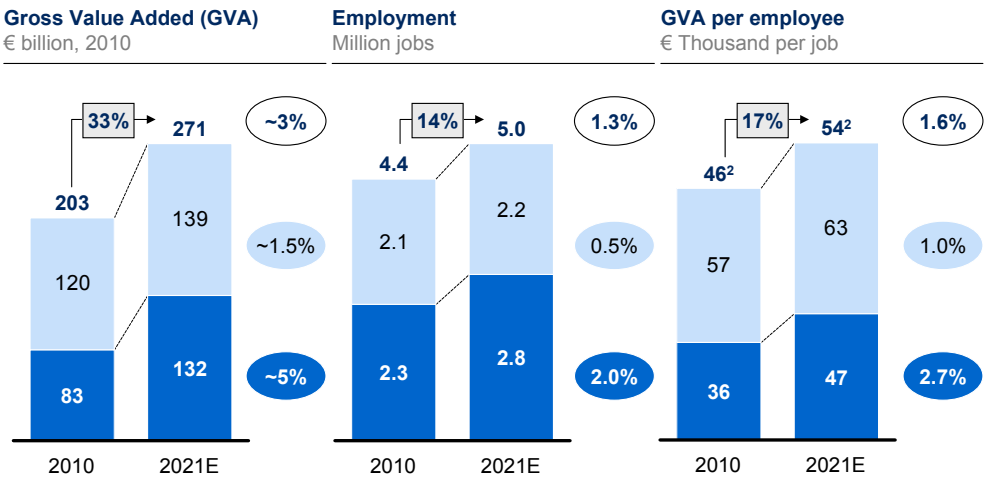
Exhibit 24

Potential to double growth and significantly boost output, employment and productivity

ESTIMATES

"Greece 10 Years Ahead" focus sectors
Rest of economy¹
10 year CAGR



1 Assuming baseline growth for the Greek economy at an average annual rate of 1.5%
2 Weighted average

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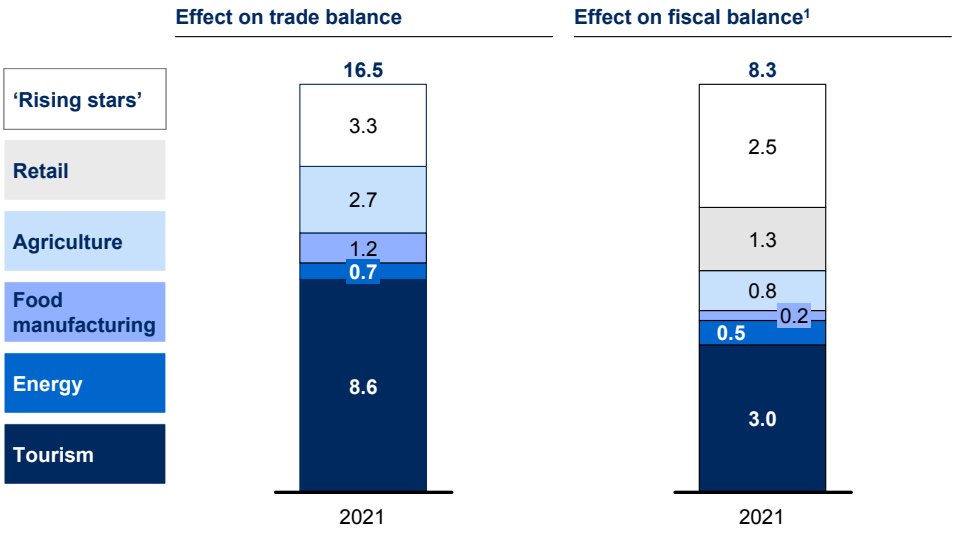
Exhibit 25

Potential impact in closing the 'twin' deficit gaps

ESTIMATES

€ billion, 2010 prices



1 Effect on fiscal balance includes corporate tax, personal tax, and VAT revenues (with exception of Retail where personal tax revenues were not included); not taking into account social security contributions effect on state-controlled pension and health insurance funds, import/export duties, or other similar revenues

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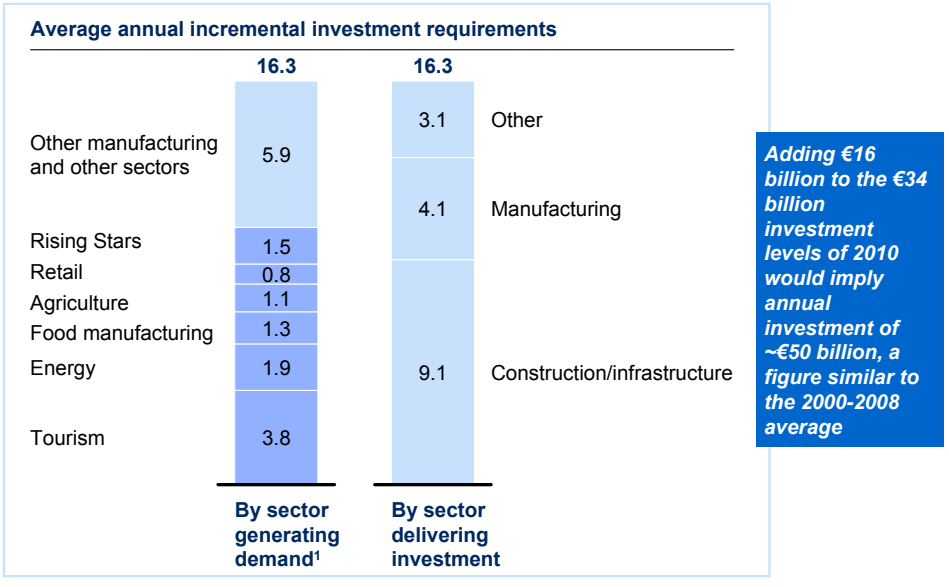
Exhibit 26

Incremental annual investment of ~€16 bn on top of 2010 levels needed to realize the growth potential

ESTIMATES

€ billion, 2010 prices



1 Based on each sector's contribution to GVA upside

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3.2. Twenty 'horizontal' macroeconomic growth reforms

Greece 10 Years Ahead details numerous growth priorities and measures, both across and within sectors. In terms of **'horizontal', macro-level priorities** across sectors, we have identified **20 possible reforms** to remove productivity, competitiveness and growth barriers and unleash the country's growth potential (Exhibits 27-28). The following outlines the higher priority ones.

The first three relate to the need for *a radical improvement in the reform coordination and execution capacity, and in the performance transparency of Greece's public administration:*

- Establishing an independent **"Economic Development and Reform Unit" (EDRU)** as an institution directly reporting to the Prime Minister. The EDRU, which, as a concept, has been effectively adopted in various countries (e.g., the UK, Germany, Singapore), would support the Greek government in effectively planning, coordinating, facilitating, and monitoring the implementation of fiscal adjustment and growth reforms. We consider the set up and effective operation of the EDRU a critical precondition for the successful execution of the reforms (Exhibit 29).

- Establishing a public sector **"Talent Placement Office" (TPO) to hire and deploy ~200** locally and internationally **accomplished executives** from the private and the public sector into pivotal managerial and/or technical roles in the Greek public administration and state-owned enterprises (SoE). These executives would work in senior positions (e.g., Deputy Minister, General/Special Secretary and General Manager). They would have a fixed-term contract of one to five years with the Greek state, which would compensate them in line with the current public sector compensation standards, while the TPO would cover the difference to converge to reasonable market levels. The TPO would be set up by Greece with the likely support of its EU partners (e.g., France, Germany, Italy) leveraging also on international and local private sector expertise (Exhibit 30).

- Enforcing **IPSAS/IFRS 'double entry' standards across all state entities** to establish performance transparency while putting in place a **budgeting** and **financial consolidation system** to plan, monitor and manage performance centrally.

The next five priorities relate to how Greece could *ignite and sustain a growth trajectory:*

- Developing the **"National Liquidity Relief and Growth Fund"** to inject lower cost liquidity to companies using an **independent** underwriting platform operated by Greek commercial banks under the supervisory auspices of the Bank of Greece, to ensure consistent and fair underwriting standards. The size of the fund would likely need to exceed €3 billion, supported by NSRF (National Strategic Reference Framework) funds. In terms of scope and eligibility criteria, the funds should primarily target small & medium sized companies (e.g., 30-100 employees) with a resilient business model and strong investment and export orientation (Exhibit 31).

- Quickly restoring **infrastructure and sector investment flows** is critical. This should be accomplished on three fronts: **(i) un-blocking** major growth-relevant **infrastructure** projects currently stalled (e.g., large motorways – Exhibit 32); **(ii)** rapidly launching **3-4 new** growth-critical **infrastructure** projects (e.g., high speed cargo train, cargo gateway and transshipment port facilities, 3-4 cruise embarkation ports, some of the 30-35 new marinas needed) using EU funds and PPP schemes (Exhibit 33); and **(iii)** establishing the **"Greece 10 Years Ahead Investment Fund",** starting with local and Greek Diaspora private sector funds for sector investments and eventually expanding it to include other foreign investors.

Exhibit 27

Greece 10 Years Ahead defines 20 horizontal growth priorities and reforms across sectors (1/2)

Priority 1
Priority 2
Priority 3

	New cross-sector priorities and reforms	Priorities/reforms to accelerate and/or revisit
Enhancing the execution capacity and limiting the size of the public sector	1 Introduce the **"Economic Development & Reform Unit"** (EDRU) as an independent institution under the Prime Minister to support the government in planning, coordinating and monitoring the execution of the reforms 2 Establish a public sector **"Talent Placement Office" (TPO) to hire and deploy** local and international talent (~200 FTE) into pivotal senior managerial and technical positions 3 **Consolidate** all **state entities' IT** architecture design and strategic management into a **central IT unit**	4 Enforce **IPSAS** / **IFRS**[1] **double-entry standards** across all state entities; establish a budgeting and financial consolidation system to plan, monitor and manage performance centrally 5 Accelerate the **integration** or **discontinuation of marginal state-owned enterprises / state entities** to gain effectiveness, efficiency and reduce public sector size 6 **Broaden scope** of the **HRADF**[2] to include performance management and asset consolidation to maximize the impact of the privatization program and TRS[4]
Igniting and sustaining growth	7 Set up the **"National Liquidity Relief & Growth Fund"** to provide liquidity to companies creating a common underwriting platform supervised by the Bank of Greece applying strict eligibility criteria (fund size > €3 bn) 8 Restore **infrastructure** and **sector investment flows** – **Unblock** major **growth relevant infrastructure projects** currently stalled (e.g., large motorways) – Rapidly **launch 3-4 new growth-critical infrastructure** projects using **EU funds** and **PPPs**[3] – Establish the **"*G10YA* Investment Fund"** for sector projects starting with local / Greek diaspora funds 9 Stimulate sector growth by grouping sectors and launching a program to **remove administrative, regulatory and infrastructure barriers** while providing **growth-linked output-based** (e.g., investment, exports) **incentives** (e.g., tax rebates)	10 Revisit the **"Fast Track"** framework and upgrade **"Invest in Greece"** using proven *Athens 2004* practices – i.e., – Introduce dedicated **legal pre-clearance team** – Replace the 'deadline induced approval' principle with **legislated simplified processes** (see reform #9) – Upgrade **"Invest in Greece"** (skills, organization) 11 Revise the **environmental** and **zoning framework** to better balance growth and environmental priorities – **Adjust specifications** for **land usage** and **zoning** for specific activities (e.g., tourism, industrial, commercial) – **Adapt development standards** (for each land use) to real market context and growth imperatives 12 Re-design the **University-Business R&D collaboration** and **patenting framework** to promote **innovation** and **entrepreneurship**

1 International Public Sector Accounting Standards/International Financial Reporting Standards;
2 Hellenic Republic Asset Development Fund; 3 Public-Private Partnership; 4 Total Returns to Shareholders

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Exhibit 28

Greece 10 Years Ahead defines 20 horizontal growth priorities and reforms across sectors (2/2)

Priority 1
Priority 2
Priority 3

	New cross-sector priorities and reforms	Priorities/reforms to accelerate and/or revisit
Stimulating employment and capability building	13 Launch **"Ellada & Ergasia"** as a cross-ministerial program – Incentivize and facilitate **youth** and **female participation** (e.g., support for working mothers, social security breaks) – **Consolidate employment databases** and develop a **national employment communication portal** – Create **central** public sector **employment/HR coordination function** to manage supply/demand 14 Revamp **undergraduate, graduate** and **technical education** – Introduce **new university programs** in growth relevant areas such as **Tourism, Crops Agriculture, Aquaculture** – **Upgrade technical** university/school **curriculum** to better reflect modern academic and professional requirements – **Obligatory practical training** in the penultimate (3rd or 4th) university year; **exchange programs** with universities abroad	15 Complete pending **flexibility** and **efficiency-related labor** reforms: – **Unified compensation scheme** across the public sector – **'Cap' in employment discontinuation reimbursement** for fixed-term contracts – Broadening of **part-time employment** (allow in public sector and promote in private sector) – **Shift** from tenure-**to tenure & performance-**based **advancement** in the public sector
Improving the effectiveness of judicial operations	16 **Accelerate decision making** in **Council of State** (CoS) and **earlier degree courts** – Introduce a **7th CoS department** for strategic investments and reforms and install prioritization approach – Selectively **add capacity** (i.e., judges in earlier degrees, possibly support staff in CoS)	
Enforcing compliance and limiting informality	17 Consolidate all **internal auditing functions** of all Ministries and core public sector entities (e.g., tax, licensing, health care, municipal authorities) into one **Central State Auditing Unit** 18 Launch **dedicated projects** ("SWAT teams") to further investigate and **eliminate possible informalities** in different fields of economic activity such as illegal imports, undeclared labor, and unreported gaming	19 Introduce internationally proven **methodologies** in **tax evasion detection** and **collection** to boost state revenues; selectively **ease tax pressure** and **provide incentives** in areas affecting growth (e.g., investment incentives, category VAT) 20 Reinforcing a **Central Procurement Unit** to set guidelines, monitor practices and procure major common categories for the public sector

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Exhibit 29

1 The EDRU will be critical in supporting the Greek state to effectively plan, coordinate and monitor the execution of the reform programs

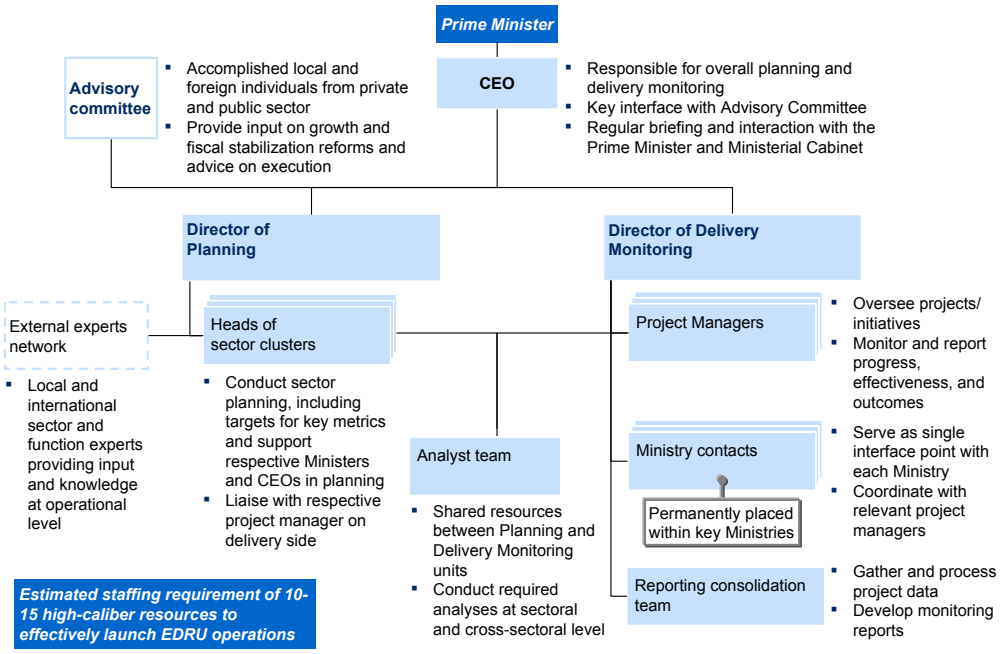

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Exhibit 30

2 Establish the Talent Placement Office to hire and deploy ~200 executives into pivotal technical and managerial positions in the public sector

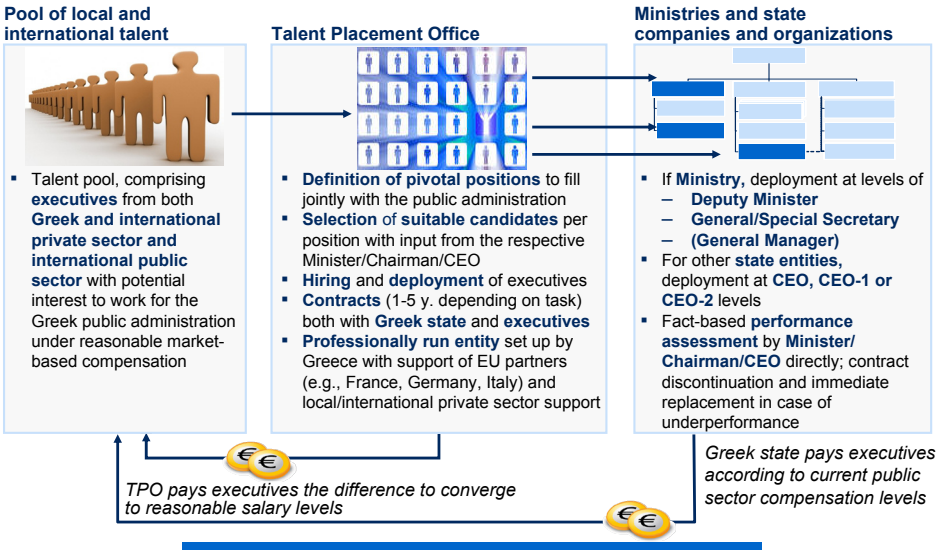

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Exhibit 31

7 The National Liquidity Relief & Growth Fund

Lending — — Repayment

	National Liquidity Relief and Growth Fund	Independent underwriting platform leveraging banking sector skills supervised by Bank of Greece	Small and Medium companies with growth potential, yet in liquidity "squeeze"
			
Description	▪ Funds (>€3billion) carved out from NSRF (2007-2013) ▪ Primarily directed to working capital financing; selective use also for CapEx financing ▪ Low interest rates (e.g., 2-4% or equal to coupon rates of new GGBs) guaranteed for a 5-year period ▪ Repaid principal + interest potentially directed to pay down public debt	▪ Common underwriting and loan servicing platform; single credit policy, eligibility criteria, application process ▪ Lending transaction 'off-balance-sheet' for banks ▪ Reasonable transaction & servicing fee charged to the fund with a moderate variable component linked to credit quality (e.g., first-loss piece) ▪ Setup and operation supervised by the Bank of Greece	▪ Primarily Small and Medium sized companies (e.g., 30-100 employees) with strong fundamentals that currently WC financing e.g., – Very high receivables – Unreasonably high funding costs – Unfavorable payment terms with international suppliers ▪ Potential eligibility criteria – Income and/or employment resilience through the crisis – Export & investment orientation – Credit history prior to 2009
Key benefits	▪ Effective reorientation of unabsorbed NSRF funds in 'mission-critical' uses for reigniting growth ▪ Equivalent to a NPV-positive investment in the Greek economy with a short payback period	▪ Uniformity and alignment of under-writing principles and growth priorities ▪ Short-term, low-cost funding relief for banks during loan servicing ▪ Possible risk transfer to bank(s) once the system stabilizes post recapitalization (to be determined)	▪ Working capital financing at pre-crisis cost; avoidance of funding 'choke' ▪ Cushion against ongoing mismatch in receivables-payables and extraordinary tax burdens ▪ Major liquidity relief and growth stimulation

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Exhibit 32

8 Major public infrastructure projects facing delays

NOT EXHAUSTIVE

€ million

Delayed Project	NSRF budget	Delayed Project	NSRF budget
Management of liquid waste in 120 locations	1,050	Ktimatologio (land registry)	130
Kastelli airport (Heraklio)	730	Waste management in Koropi - Paiania	125
Olympia Motorway (Elesfina-Korinthos-Patra-Pyrgos-Tsakona)	511	Integrated waste management sites in Attica	120
Central Greece Motorway (E65)	456	Suburban railroad - Attica (Piraeus-Athens-3 Bridges)	78
New railway line (Aegion-Rio, 27km)	429	Thriasio freight center	78
Thessaloniki METRO extension to Kalamaria	425	Motorway Veroia-Naousa-Skydra	63
Cyclades electrical interconnection	363	Energopolis Kozanis	61
Salamina-Perama connection	350	National Registry	45
Moreas (Korinthos-Tripoli-kalamata)	250	Integrated Information System for HTSO	41
Faliro bay restoration	200	Kos airport	30
Ionia Odos (Antirrio-Ioannina)	184	Lefkada subway tunnel	23
Tram expansion to Piraeus	154	Elliniko area restoration	N/A
Closure and restoration of unregulated waste landfills	150	FTTH infrastructure outside Athens	N/A
Maliakos-Klidi (part of Aegean Motorway)	150	Exploitation of Vevi lignite mines	N/A
Broadband infrastructure for agricultural and island areas	140	Volos Periphery Road	N/A

More than 30 projects on hold representing NRSF investments of more than €6bn

SOURCE: Ministry of Development Competitiveness and Shipping; press search

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Exhibit 33

8 Immediate need to launch 3-4 new growth-relevant infrastructure investments

EXAMPLES

	Examples of high priority infrastructure investments
Cross-sectoral investments *(Public or PPP[1])*	▪ **High-speed cargo train-line** (Patras – Athens – Thessaloniki – Evzoni/Kipi) ▪ Expansion/upgrade of **major ports** for cargo gateway (e.g., Piraeus, Thessaloniki, Patras) and/or transshipment (e.g., Piraeus) ▪ Development of **residential and industrial waste processing** facilities ▪ Further expansion of **broadband** penetration
Tourism *(Public, PPP or Private)*	▪ Upgrade of **3-4 cruise ship embarkation ports** ▪ Development of new **marinas** (30-35 in 10-year horizon) ▪ Development of **3-4** new major **conference facilities** ▪ Development of **Large Integrated Resorts** (15-20 in 10-year horizon) ▪ Development of resort based **Vacation Homes** (50,000 in 10-year horizon) ▪ Upgrade of **cultural sites** infrastructure
Energy *(Public, PPP or Private)*	▪ Prioritization of high local GVA **renewable** investments (e.g., hydro) ▪ **Exploration of domestic oil and gas** reserves to substitute energy imports ▪ **Interconnection** of specific **islands** with the national **grid** ▪ **Gas pipelines** to function as a gas hub ▪ **Smart metering;** eventually **smart grid** pending further investment analysis

1 Public-Private Partnership

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- Stimulating sector growth by grouping sectors and launching dedicated programs to **remove administrative, regulatory and infrastructure barriers** within each sector across seven core areas and processes – namely business licensing and operation, taxation, labor regulation and operations, uses of land, application of justice, public health regulation, and funding procedures. Moreover, in the context of this effort, the Greek state could provide growth-linked, output-based (e.g., investment, exports) incentives (e.g., tax rebates) (Exhibits 34-35).

- Simplifying and **accelerating investment approval** and licensing and **improving the "Fast-Track" framework,** leveraging proven techniques and practices from the "Athens 2004" experience. This would require intervention on three fronts: **(i)** introducing a dedicated legal pre-clearance team; **(ii)** replacing the 'deadline induced approval' principle with a legislative amendment of the underlying simplified processes; and **(iii)** upgrading "Invest in Greece" in terms of managerial talent and organization (Exhibit 36).

- Revising the **environmental and zoning framework,** adjusting specifications for land usage and adapting development standards to real market context and growth imperatives, while preserving Greece's environmental legacy. This area merits dedicated attention beyond the relevant interventions that could result from the administrative and regulatory barrier removal program (reform #9) mentioned above.

Exhibit 34

9 Dedicated 'vertical' programs to boost sector growth by removing administrative and regulatory barriers across seven 'horizontal' dimensions

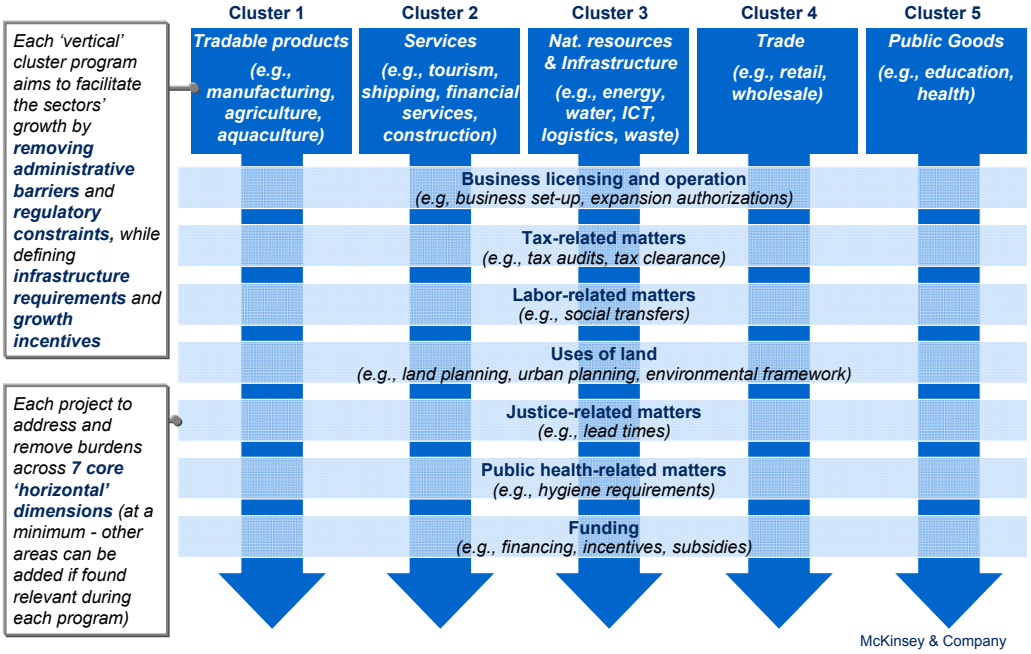

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Exhibit 35

9 Some examples of growth barriers to remove and actions to facilitate in the top 5 'production' sectors

NOT EXHAUSTIVE

	Examples of barriers (regulatory or admin)	Examples of actions to facilitate
Tourism	▪ Constraint on cruise embarkation turnaround time ▪ No framework for re-using 'dormant' capacity ▪ Unfavorable building rules for LIRs[1]/vacation homes ▪ Limited opening hours for archaeological/cultural sites	▪ Use of ports for cruise embarkation ▪ Re-use/transfer rights of dormant capacity ▪ Bundling/clustering of marina projects with 'hubs' and 'throughputs' to improve viability
Energy	▪ Incomplete framework and high cost of energy efficiency actions (e.g., building retrofits, 'eco' cars) ▪ Long licensing lead times for new projects	▪ Progressive electricity pricing for efficiency ▪ Residential and commercial 'green' buildings ▪ Higher local GVA renewables (e.g., hydro)
Food processing	▪ Long lead times and complexity of export procedures and funding administration ▪ Long approval times and high costs related to licensing, operation and new capacity	▪ Consolidation for productivity/market access ▪ Product & manufacturing innovation & patents ▪ Export activity, particularly to target markets ▪ Development of new food processing capacity
Agriculture & Aqua-culture	▪ Lack of framework for the use of public land for farming to develop higher size units ▪ Insufficient zoning/planning for new aquaculture capacity	▪ Consolidation for productivity/market access ▪ Product & manufacturing innovation & patents ▪ Export activity particularly to target markets ▪ Development of new food processing capacity
Retail	▪ Constraints on products sold by different channels ▪ Restrictive regulation for public-use trucks ▪ Excessive accounting paperwork requirements	▪ Investments in IT, supply chain management and e-commerce for productivity gains ▪ Forming purchasing groups for smaller players

▪ **Incentives eligibility:** *Output and performance based (e.g., exports, investments)*
▪ **Incentives type:** *No subsidies; tax-rebates/breaks, social security cost*

1 LIR: Large Integrated Resorts

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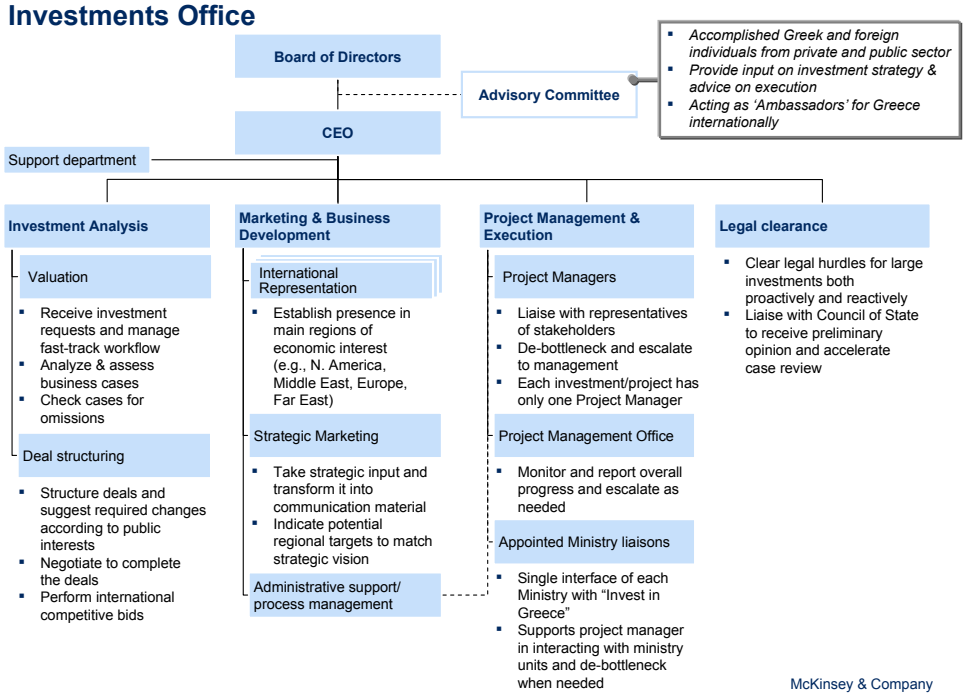
Exhibit 36

10 Proposed structure and functions of "Invest in Greece" as a Strategic Investments Office



Finally, in terms of the *employment framework, judicial operations and countering informality,* the higher priority reforms involve the following:

- Completing pending **flexibility** and **efficiency-related labor reforms** – e.g., implementing the unified compensation scheme across the public sector and the 'cap' in employment discontinuation reimbursement for fixed-term contracts, broadening part-time employment and shifting from tenure- to tenure-and-performance-based advancement in the public sector.

- Accelerating decision making in the Council of State (CoS) and earlier degree courts. This would involve **introducing a 7th CoS department** for strategic investments and economic reforms and installing a systematic case prioritization approach. Moreover, it involves selectively increasing the number of judges at first and second degree level of administrative courts and some additional highly qualified support staff capacity at the CoS to address the current backlogs.

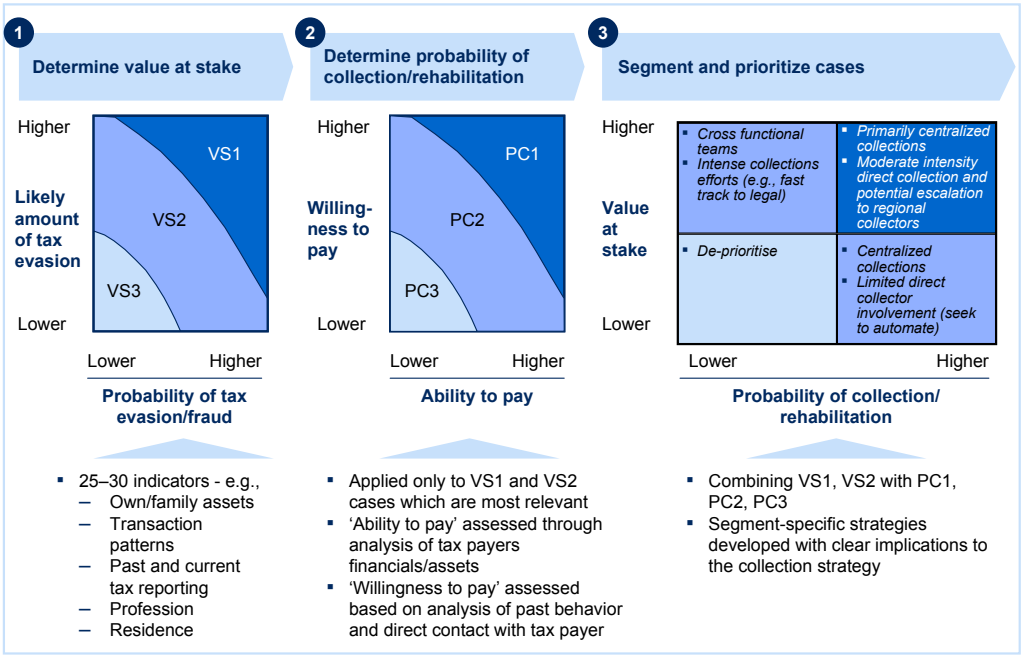
- Introducing internationally proven methodologies in **tax evasion detection** and **collection** to boost state revenues, while selectively **easing tax pressure** and **providing incentives** in areas affecting growth, such as investment incentives and VAT for specific growth-sensitive categories (Exhibit 37).

- In further addressing informality beyond tax evasion, the Greek state could consider consolidating all **internal auditing functions** of all Ministries and core public sector entities into one **Central State Auditing Unit,** reinforcing a **Central Procurement Unit** and launching dedicated projects **("SWAT teams")** to address fraud in different fields of economic activity, such as illegal imports, undeclared labor, and unreported gaming.

Exhibit 37

19 International best practices for effective tax evasion detection, segmentation and prioritization

SIMPLIFIED



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4. Laying the foundations in key economic sectors

4. Laying the foundations in key economic sectors

The cross-sector macroeconomic reforms outlined in the previous section are critical to lift the barriers mentioned earlier and to develop the necessary conditions for the country's economic sectors to grow. A top-to-bottom examination of the Greek economy shows that the best opportunities for growth would most likely occur in sectors where output can be enhanced by measures to maximize competitiveness, productivity and extroversion.

The study identifies these as 'production' sectors (Exhibit 38). They collectively generate €125 billion in GVA (approximately 60% of total GVA in the Greek economy) and employ more than 3 million people (approximately 70% of total employment). The five largest sectors among those – tourism, retail, energy, manufacturing and agriculture – which have been studied in detail, account for 42% of economic output. They are collectively the largest employers (51% of total employment) and 'tax payers' in the country, while they stand to benefit the most from investment spillover effects between sectors. Manufacturing, for instance, accounts for 8% of direct output and 11% of employment and can grow strongly on the back of demand generated in several other 'production' sectors. Indicatively, out of €18 billion in identified new output originating in tourism, almost €3 billion would be formally recorded as direct GVA in manufacturing and heavy industry sub-sectors.

Greece 10 Years Ahead also identifies eight 'rising stars' in the economy (six primary and two secondary ones), which, though they are not yet sizeable, nonetheless offer the possibility of significant future growth. These 'rising stars' include **manufacturing of generic pharmaceuticals, aquaculture, medical tourism, long-term & elderly care, regional cargo & logistics hub (transshipment and gateway), waste management, Graduate Classics education hub,** and **Specialized Greek foods.** They were selected among a long-list of more than 20 candidate sub-sectors, based on the relative intrinsic capabilities of Greece (e.g., in terms of primary resources, know-how, infrastructure, proximity to key markets) and the dynamics of supply and demand internationally (e.g., size and growth, labor versus knowledge intensity, local versus regional versus global reach) (Exhibit 39).

The estimates of 520,000 new jobs and €49 billion in additional annual GVA (€55 billion in GDP terms) in the new **National Growth Model** are based on the detailed and 'bottom-up' sector analysis conducted and reflect the application of well-established proven international practices to the Greek business landscape, taking into account the local economy's particular context and needs.

The remainder of this Executive Summary briefly outlines the major conclusions and growth priorities for the five 'major sectors' and eight 'rising stars' within the scope of the **Greece 10 Years Ahead** study. For each of these 13 sectors, a dedicated detailed report has been completed.

As already mentioned in the introduction of this document, there are clearly growth opportunities in other sectors and sub-sectors of the Greek economy that have not been covered by the scope of this study.

Exhibit 38

Mapping the economic sectors of Greece

ESTIMATES

		Direct GVA[1] of sector at basic prices € billions, 2010	Share	Direct employment Thousands, 2010	Share
"Production" €125 billion	Retail & Wholesale[2]	38	19%	783	18%
	Manufacturing[3]	17	8%	492	11%
	Tourism	14	7%	356	8%
	Energy[4]	9	4%	49	1%
	Agriculture	9	4%	551	13%
	Shipping	8	4%	53	1%
	Business services	7	3%	292	7%
	Post & Telecom	6	3%	48	1%
	Utilities excl. energy	6	3%	93	2%
	Land Transport	5	2%	147	3%
	Other	6	3%	185	4%
"Input cost" €45 billion	Public admin	18	9%	370	8%
	Education	15	7%	310	7%
	Health	12	6%	228	6%
"Imputed returns" €20 billion	Real estate	20	10%	6	~0%
"Derived demand" €16 billion	Financial services	9	5%	116	3%
	Construction	7	3%	319	7%

1 GVA=GDP-Taxes + subsidies; 2 Excluding fuel retail; 3 Excluding pharma manufacturing and ship building; 4 Extraction, processing and retail distribution of fuels; electricity; Note 1: Figures include only direct GVA and employment and are therefore not comparable with figures that include indirect effects

SOURCE: WIS Global Insight; EU KLEMS 2009; Eurostat

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Exhibit 39

'Rising Star' growth opportunities and selection criteria

Prioritization criteria for 'Rising Stars'

Greece's intrinsic assets and capabilities

- Availability of indigenous resource inputs and/or raw materials
- Specific know-how availability
- Existing infrastructure that could be leveraged and scaled-up
- Geographical proximity to destination markets

Market profile and success conditions

- Market size and growth
- Nature and scope of competition – e.g.,
  - Labor vs. knowledge vs. capital intensive
  - Local vs. regional vs. global reach
- Success parameters in each value chain step

Eight 'Rising Stars' prioritized among 20+ candidate sub-sectors analyzed

1. Manufacturing of generics pharmaceuticals
2. Aquaculture
3. Medical Tourism (mainly outpatient)
4. Long-term and Elderly care
5. Regional Cargo & Logistics hub (transshipment and gateway)
6. Waste Management
7. Classics hub
8. Greek Specialty Foods

Note: The scope of **G10YA** involved 13 sectors/sub-sectors (the 5 largest 'production' sectors and 8 'rising stars') of the economy, clearly recognizing that there might be additional growth opportunities in other sector/sub-sectors not been covered by **G10YA**

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4.1. Major sectors

4.1.1. Tourism

Tourism accounts for approximately 15% of the Greek economy when both direct (7%) and indirect (8%) GVA contribution is measured. The sector has been growing for a decade, but 70% of that growth has been fuelled by domestic demand. A traditional "Sun & Beach" holiday destination, Greece competes with Italy, Spain, France and – recently – Turkey for tourist revenue. It gets most of its foreign visitors from Germany and the UK, with market shares of around 3% to 4%.

Greece faces a deteriorating competitive position in its traditional markets and has had limited success in attracting visitors from emerging markets such as China and Russia (Exhibit 40). The tourist season is too concentrated in the summer months (52% of arrivals in Q3) and tourists spend relatively less money in Greece than tourists visiting competing destinations (€146/day versus €200 in Italy and €162 in Turkey).

These challenges result from a number of underlying issues. In terms of its **commercial strategy,** Greece offers a "Sun & Beach" product with broad mass-market appeal, yet with low average quality, very limited differentiation in 'themes' and doubtful economic viability in the absence of large-scale accommodation and high value added infrastructure. In terms **of real estate planning, infrastructure and investment framework,** several restrictions prevent developments that would cater more effectively to modern demand patterns and growing market segments (e.g., integrated resorts, vacation homes, cruise embarkation ports, marinas), while cumbersome licensing processes and a volatile tax framework discourage investments. **Connectivity** to emerging and long-haul markets is limited, while specific entry points (especially Athens) are very costly for air carriers. In terms of **capabilities,** Greece is under-performing in talent quantity, quality and status of academic institutions, while it lacks an effective market-driven organization for managing and promoting its tourism product.

Greece 10 Years Ahead synthesizes 13 possible priorities for tourism grouped into four strategic themes (Exhibit 41):

- **Re-defining and re-focusing Greece's commercial strategy.** Greek tourism needs to focus its source market targeting, aiming to maintain market share in core European markets (Priority 1: Germany, UK, Scandinavia; Priority 2: Italy, France, Netherlands), while achieving a meaningful penetration in emerging (e.g., Russia, China) and long-haul (USA) markets. The commercial strategy should aspire to also shift the mix of visitors towards higher-income segments, from 62-38 to 55-45 mass-affluent mix. The above could be achieved through a quality upgrade of the core "Sun & Beach" product with specific extensions – in developing cruises and nautical tourism, developing a network of large integrated resorts (15-20 in the 10 year horizon) and vacation homes (approximately 50,000 in the 10 year horizon), and establishing Athens and Thessaloniki as attractive 'City Break' destinations (Exhibit 42).

- **Developing quality infrastructure while accelerating investments.** This involves investments in 2-3 larger-scale conference centers in Athens and Thessaloniki, as well as the development of the necessary infrastructure to support nautical tourism, especially marinas (to reach 60-65 from 32 today in the 10 year horizon) and 3-4 cruise ship-friendly embarkation ports, since there is clear evidence that embarkations are critical in revenue generation for the country (Exhibit 43). Policy priorities should revolve around the selective lifting of restrictions and bureaucracy in vacation home and integrated resort development, as well as the enablement of the productive utilization of dormant tourism assets.

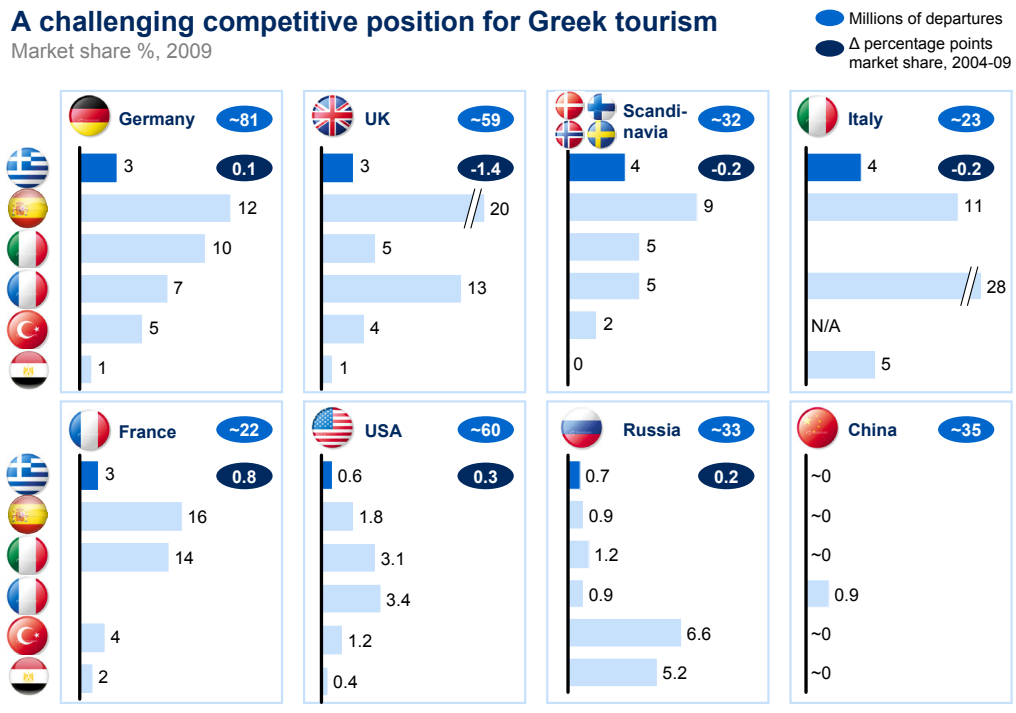
- **Facilitating access and transportation.** Greece needs to actively promote better connectivity with emerging and long-haul markets by attracting more direct flights from these source markets, as well as lowering entry barriers (facilitating Schengen Visa processes) and airport charges.

- **Revamping Greece's Tourism capabilities and know-how.** Greece needs a distinctive Tourism University degree (undergraduate and graduate) with strong international links, as well as revisiting and upgrading the existing academic curricula to cover the necessary technical capabilities. Moreover, it is critical to set up eight functions (i.e., tourism strategic planning, source market and product management, marketing execution, channel/sales support, accreditation, sector intelligence, fast-track for large tourism investments, tourism operation facilitation / local tourism KEPs). Leveraging and revamping existing capabilities (e.g., within the Ministry and the Greek National Tourism Organization – GNTO), while injecting additional talent and setting up a Public-Private Partnership (PPP) to develop some of these functions (Exhibit 44) will be important to achieve this capability upgrade.

Based on our estimates, the impact of Greece's new tourism strategy could be more than €10 billion incremental annual tourism demand in a 5-year horizon and more than €25 billion in a 10 year horizon. We expect the growth of visitors demand to come primarily from foreign visitors (approximately 62%) driven by a parallel increase in both number of visitors (+48% in ten years) and average daily spend (+32%) (Exhibit 45).

This incremental tourism demand would result to a €18 billion increase annual GVA (in a ten year horizon) and an increase in employment by approximately 220,000 jobs. The positive impact on Greece's trade and fiscal balance could reach approximately €9 billion and €3 billion respectively.

Exhibit 40



SOURCE: Euromonitor

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Exhibit 41

Possible priorities and measures to further develop Tourism

High priority

	Possible priorities and measures
A *Re-defining and re-focusing the commercial strategy*	1 **Systematically target core mature and emerging markets** – Defend and reinforce share (>3.5-4%) in mature markets: Priority 1 - UK, Germany, Scandinavia, Priority 2 - France, Italy, Netherlands – Aggressively penetrate and gain share in North America (>1%), Russia (>1%), and China (>0.5%)
	2 **Upgrade** and selectively **expand the product portfolio** while improving the **mass-affluent mix** – Upgrade 'Sun & Beach' to increase value for money and establish a healthier mass/affluent mix (~55/45) – Develop 'City Break' themes in Athens/Thessaloniki with global events, MICE[1], culture and leisure offers – Aggressively build 'Cruises' and 'Sailing/Yachting' themes for European leadership (25% embarkation and visits share compared to 10% and 21% share today) – Develop a systematically planned network of LIRs[2] and vacation homes (15-20 LIRs, ~50K homes)
	3 Deepen **destination marketing sophistication**, while bringing Greece's **brand** 'back-to-basics'
	4 Introduce **multi-channel platforms** for a distinctive **pre-visit experience** (e.g., "Visit Greece" portal)
B *Developing quality infrastructure while accelerating investments*	5 Revamp Tourism **zoning and planning legislation** and lift excessive restrictions – Facilitate the development of quality accommodation, including LIRs, vacation homes and golf courses – Enable the productive utilization of existing dormant tourism assets
	6 Pursue **growth-relevant public infrastructure investments**: upgrading 3-4 ports (for cruise embarkations), building 30-35 new marinas (to reach 60-65); investigate regional airport expansions
	7 **Upgrade cultural sites' infrastructure** (prioritized by cultural importance and traffic) while developing 2-3 new major **conference facilities** to reinforce 'City Break' and MICE value proposition
	8 Leverage the **"fast-track" framework** (including the introduction of leaner licensing processes and the introduction of a legal pre-clearance team) to accelerate tourism investments
C *Facilitating access and transportation*	9 Increase **flight connectivity** with US, Russia and China; **facilitate Schengen procedures**
	10 **Re-plan and re-schedule** capacity, connectivity and quality/cost offering for **island transportation**; consider the development of 2-3 local hubs (e.g., in Cyclades, Dodecanese, Ionian islands)
	11 Review **pricing at access points** (ports and airports) against demand elasticity
D *Developing capabilities and know how*	12 Build Greece's **University Department for Tourism Studies** (undergraduate and graduate); upgrade existing curriculum for technical education; introduce extensive international exchange programs
	13 **Step-improve central sector planning** and **management capabilities;** establish **eight critical functions** (e.g., strategic planning, product/customer management, marketing execution, channel/sales support); **inject talent** into the **Ministry** and **GNTO**; **create a market driven PPP**[3] for selected critical functions

1 Meetings, Incentives, Conferences, Exhibitions; 2 Large Integrated Resorts; 3 Public-Private Partnership

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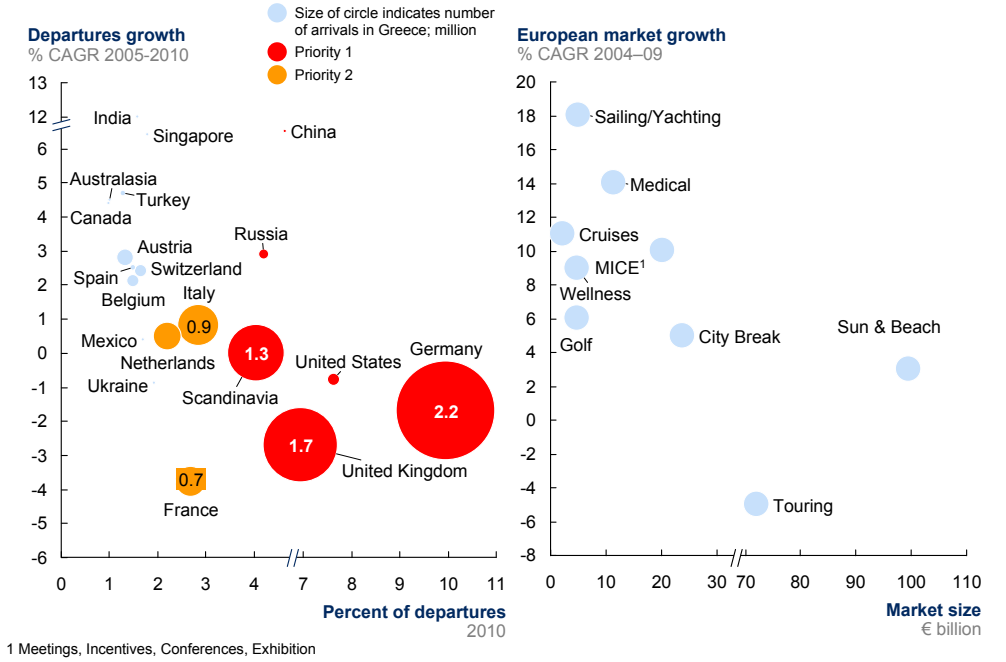
Exhibit 42

Greece's source market and product focus



1 Meetings, Incentives, Conferences, Exhibition

SOURCE: Euromonitor; WTCC

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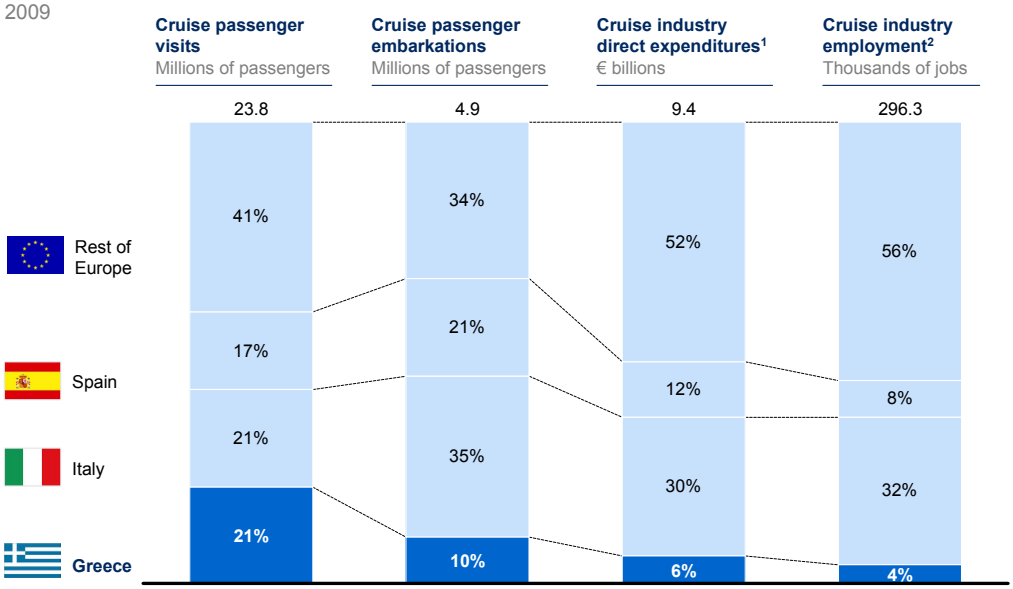
Exhibit 43

Opportunity for boosting revenues and employment in the cruise industry by capturing a 'fair share' in embarkations

ESTIMATES

2009



1 Excluding shipbuilding
2 Including shipbuilding

SOURCE: G. P. Wild

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Exhibit 44

Eight critical functions to drive the new tourism growth strategy

Ministry of Tourism | PPP[1] (ΣΔΙΤ) | GNTO | Local tourism offices (ΠΥΤ)

Overall Tourism sector strategy
- Develop overall sector strategy, determine country positioning and branding
- Define Tourism products/destinations and source market targets; provide brief for product/customer management
- Determine marketing budget and allocation; provide brief for marketing execution (country wide and specific campaigns)
- Identify Tourism related infrastructure requirements and coordinate with other Ministries/Authorities for execution

Product/destination and customer/source market management	***Marketing execution***	***Sales and know how support[2]***	***Accreditation***	***Sector Intelligence***
▪ Monitor market and competitive developments ▪ Provide input to sector strategy ▪ Translate strategy into specific product/destination and customer/ source market action plans ▪ Execute and fine tune action plans; on going liaison with strategic planning	▪ Execute marketing plans and manage marketing budget ▪ Pool demand and create 'packages' for segment specific promotions ▪ Manage and coordinate satellite offices in coordination with strategic planning and product/ customer management	▪ Provide sales support through portal and/or call center ▪ Develop operate and maintain visitgreece.gr ▪ Collect, refine and disseminate local and international best practices to local players	▪ Define criteria and process for accreditation ▪ Monitor, performance manage the execution of accreditation (to be performed outside the GNTO) ▪ Audit the accreditation process and outcomes	▪ Monitor and report sector development and trends (e.g., "*Quarterly Barometer*", "*Annual Tourism Report*") ▪ Review and report employment and education developments ▪ Link with International Tourism Organizations

Tourism operations facilitation (Local Tourism ΚΕΠ)[3]
Operational support for day-to-day requirements for business set-up and operations

Tourism-related fast track
Own facilitation of large and/or bottlenecked tourism related projects

1 Public-Private Partnership; 2 Three options available for the "Sales and know how support" function: Depending on capability levels and aspired levels of control the function could either be under GNTO or the PPP. Alternatively the "Sales Support" and the "Know How" sub-functions could be potentially separated between GNTO and the PPP
3 Local Tourism Offices administratively under regional authorities but guidelines and procedures to be instructed by the Ministry of Tourism

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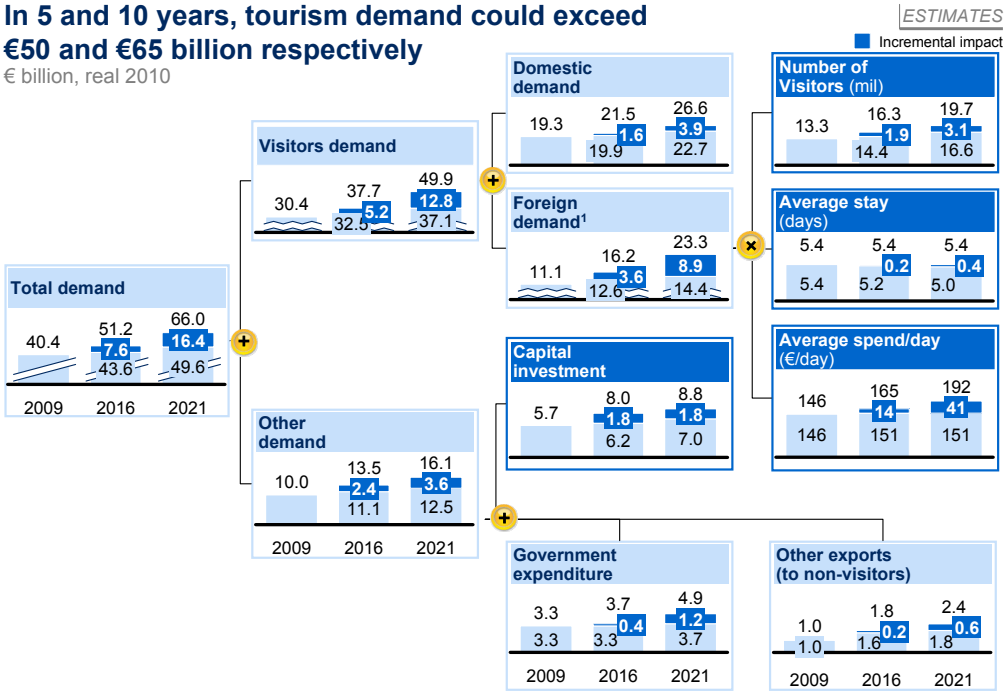
Exhibit 45

In 5 and 10 years, tourism demand could exceed €50 and €65 billion respectively

€ billion, real 2010



1 Foreign demand includes cruises spend on top of regular international visitors spend (Baseline: € 0.6 billion for 2009, €1.3 billion for 2016, €1.9 billion for 2021/Incremental impact: € 0.4 billion for 2016 and €1 billion for 2021)

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4.1.2. Energy

Energy accounts directly for 4% of Greece's GVA and plays a key role in the competitiveness of domestic industrial players. The sector in Greece has a higher contribution to the GVA of the economy compared to other countries, for example in south Europe and Germany. The GVA of the Greek energy sector was growing between 2000 and 2008, contrary to other economies where the sector's GVA was declining throughout most of the past decade. Both the higher contribution and the recent growth are largely driven by sector inefficiencies.

Energy consumption in buildings and transportation is higher compared to other South European countries such as Portugal, Spain and Italy (in the case of transportation; Exhibit 46). The current energy mix is dependent on petroleum products (versus lower-cost gas) compared to other economies and targets for the future mix include a high share of renewables that will likely increase costs. These inefficiencies are partially offset by regulated low electricity tariffs and good energy efficiency in the industrial sector, which keep the overall per capita cost of energy low compared to European peers. Clearly acting on these efficiency challenges could further reduce the cost of energy for Greece.

In addition, the sector is characterized by limited extroversion, as there is relatively little activity of Greek energy players abroad, and narrow activity across the value chain, with practically no oil and gas upstream activity – despite the potential domestic reserves – and relatively small participation in the manufacturing of infrastructure for the sector. Both the limited extroversion and the narrow scope in the sector's value chain currently limit the potential for growth of the sector.

Greece 10 Years Ahead outlines 14 possible priorities across four areas that sector players and the Greek state should consider (Exhibit 47):

- **Improving energy efficiency.** Involves initiatives to streamline energy consumption mainly in buildings (Exhibit 48) and transportation. A number of technical levers are available, several of which require upfront investment and thoughtful incentive schemes to accelerate implementation. Pursuing an effective energy efficiency program for buildings would require the adjustment and increased specificity of relevant standards and could result to a beneficial 'spillover' impact in the output of the manufacturing and construction sectors (estimated annual GVA upside of ~€1.5 billion).

- **Boosting productivity.** We estimate that in electricity, efficiency and productivity improvements could reduce unit costs by at least 10%-15%. In the petroleum sector, unit costs could be improved by at least 5%-10%. Actions include availability, operating efficiency (fuel, labor and 3rd party costs) and capital productivity improvements, reducing power transmission and distribution losses (e.g., by installing smart meters for short to medium term benefit; smart grid investment case for Greece needs further investigation), and minimizing informality/illegal imports in petroleum retail. Finally, the introduction of a "price and cap" system needs to be considered to ensure fair returns and appropriate investment conditions across the electric power value chain.

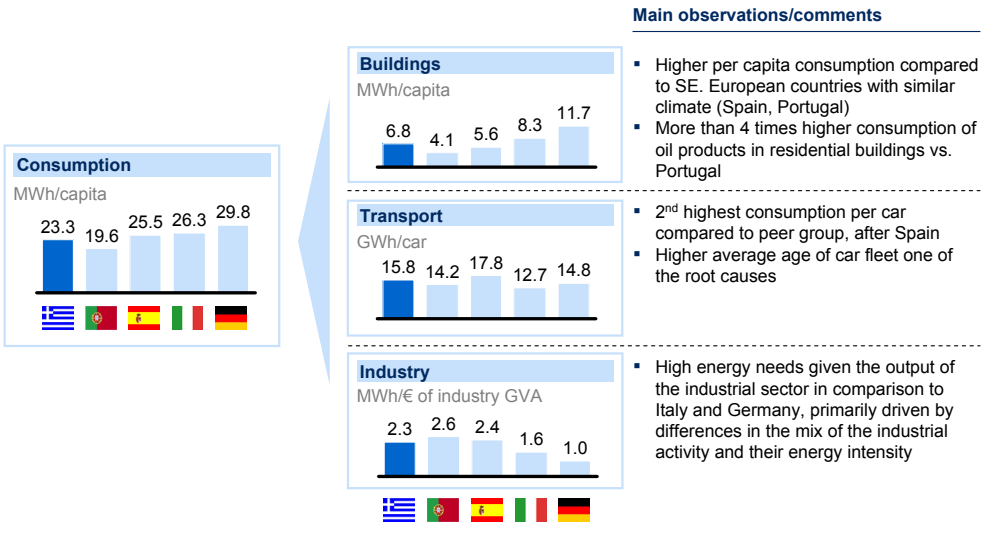
- **Optimizing the energy mix** by assessing fuel and technology substitution alternatives in terms of security of supply, financial impact and environmental implications. A comprehensive energy strategy for the country would be needed, in the context of which the plan towards the EC 202020 targets should be revisited to ensure that both environmental and economic sustainability (in terms of CAPEX and OPEX implications) are properly balanced (Exhibit 49). Finally, it will be important to review and develop an economically viable plan for the interconnection of the islands.

Exhibit 46

Comparative per capita energy consumption levels

ESTIMATES

2008, Energy consumption by segment



SOURCE: Eurostat; Enerdata; DG of Energy of the European Commission

McKinsey & Company

Exhibit 47

Possible priorities and measures to further develop the Energy sector

High priority

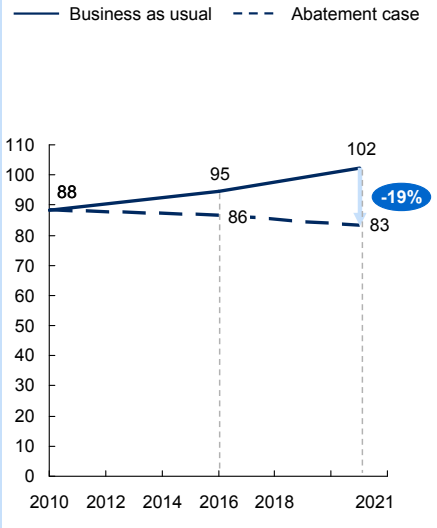
	Possible priorities and measures	Priorities and measures to accelerate and/or revisit
A *Improving energy efficiency*	1 Introduce **parametric** and **progressive electricity pricing** to incentivize energy conservation 2 Launch awareness **campaigns** on energy efficiency benefits, levers and costs for buildings and transportation	3 Improve the **specifications** of **energy policies** for **energy efficient buildings** (new-builds, retrofits) and introduce strict **auditing** procedure and penalties 4 Revisit **incentives** for **retrofits** (e.g., tax rebates instead of subsidies); ensure 'critical mass' of buildings eligibility
B *Boosting productivity and efficiency*	5 Introduce **smart metering** (short term) to reduce T&D losses (to EU levels), enable accurate billing and support energy efficiency; complete an investment feasibility study/plan for smart grid 6 Revisit the framework in electric power and consider introducing a **"price and cap" system** to ensure fair returns across the value chain that provide appropriate investments incentives	7 Accelerate **critical productivity improvements** – Improve lignite plants **fuel efficiency** and **availability/uptime** – Intensify **labor productivity and non-labor cost improvement** programs in power and petroleum – Implement **capex management** best practices (mainly lignite and hydro) – Speed-up petroleum retail **network consolidation**
C *Optimizing the energy mix*	8 Carefully **review** the **options** and **trade offs** for **meeting the 202020 environmental targets** and the share of renewables in power and other sectors, considering system costs, required capex, EU renewable compliance and system security/stability	9 **Accelerate** the **completion** of a robust and comprehensive **national energy strategy** 10 Accelerate the implementation of financially viable **island interconnections** (i.e., Cyclades, Dodecanese, Crete) to reduce costs and emissions
D *Increasing extroversion and sector impact*	11 **Investigate** the feasibility/viability to **locally manufacture renewable energy parts** and **equipment** (e.g., bilateral agreements with OEMs for wind towers); explore potential for emerging technologies (e.g., solar CSP)	12 Participate in regional gas and power infrastructure projects; expand the regional presence of Greek players 13 Intensify **tactical exports** of oil products and power 14 Accelerate the **National Hydrocarbons entity;** accelerate efforts for the exploration of domestic oil & gas reserves (impact lead time of 7-10 years)

McKinsey & Company

Exhibit 48

Almost 20% energy efficiency opportunity in buildings

Buildings energy demand
TWh



Top 10 energy efficiency levers

Lever (2010-2021)	Efficiency potential TWh	OpEx savings € billion	CapEx € billion
Building envelope - residential	8.0	1.9	6.8
Efficiency package - residential	3.3	0.7	2.3
HVAC	2.4	0.7	0.7
Lighting	1.8	1.0	1.0
Efficiency package - commercial	1.4	0.5	1.2
Appliances	1.1	0.5	0.1
Water heating	0.5	0.2	0.4
Electronics	0.4	0.2	0.0
Building envelope - commercial	0.4	0.1	0.2
Total	**19.3**	**5.8**	**12.7**

SOURCE: McKinsey Greenhouse gas abatement cost curve for Greece

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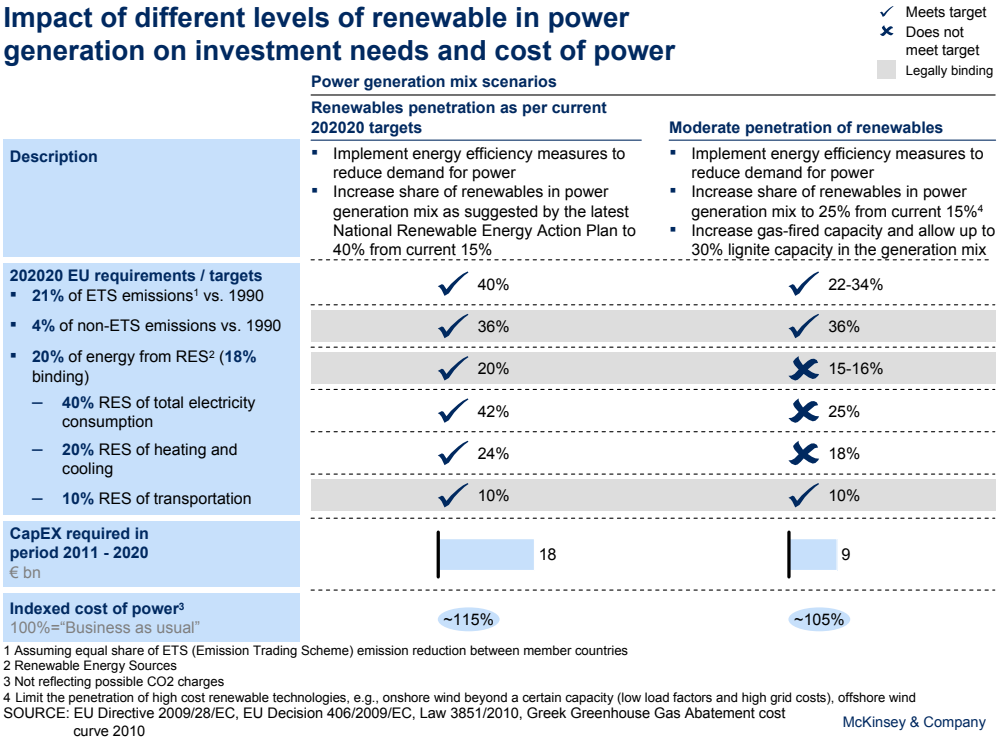
Exhibit 49

Impact of different levels of renewable in power generation on investment needs and cost of power



1 Assuming equal share of ETS (Emission Trading Scheme) emission reduction between member countries
2 Renewable Energy Sources
3 Not reflecting possible CO2 charges
4 Limit the penetration of high cost renewable technologies, e.g., onshore wind beyond a certain capacity (low load factors and high grid costs), offshore wind
SOURCE: EU Directive 2009/28/EC, EU Decision 406/2009/EC, Law 3851/2010, Greek Greenhouse Gas Abatement cost curve 2010

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- **Increasing extroversion and participation in the sector's value chain.** Priorities include leveraging Greece's georgraphical position and participate to regional gas and electric power infrastructure projects, promoting exports of energy products mainly in the next five years, and accelerating the national hydrocarbons entity and the respective efforts for the exploration of domestic oil and gas reserves.

The potential growth upside in a ten year horizon from the energy sector could be an additional (direct and indirect) annual GVA of approximately €9 billion (versus 2010) and measures in the sector could lead to an improvement in fiscal and trade balance by approximately €500 and €700 million respectively.

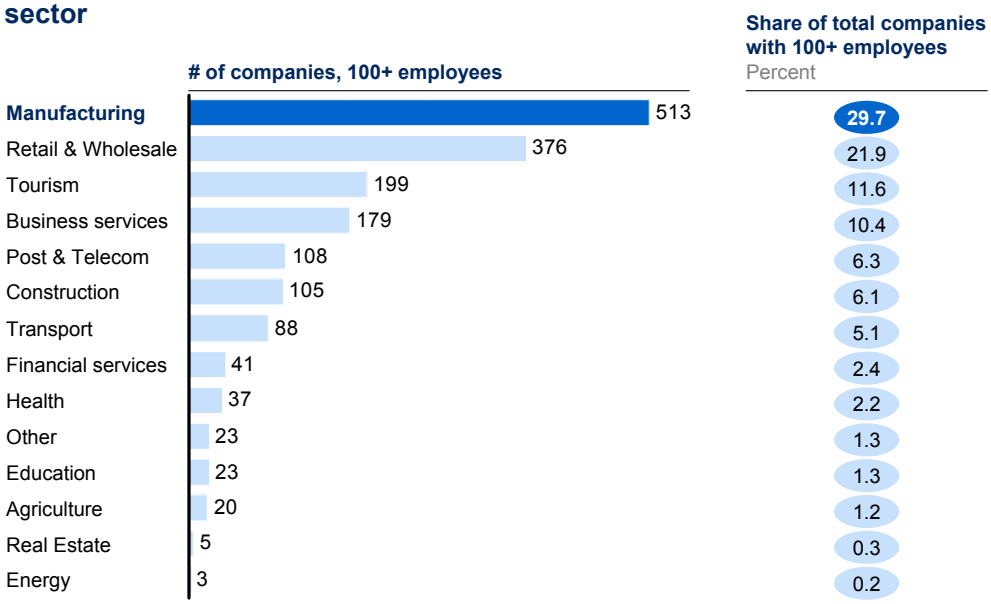
4.1.3. Manufacturing – Food processing

During the last 20 years, both Greece and the EU-15 have been 'de-industrialized' with the GVA contribution of manufacturing diminishing from 22% to 15% in the EU-15 and from 13% to 8% in Greece. Although manufacturing GVA has been declining in real terms, since 2000, the sector remains the second largest GVA contributor and the third largest employer among Greece's 'production' sectors. Moreover, it remains the largest contributor in terms of tax revenues and social transfers.

Among sectors, manufacturing includes the highest number of larger (>100 employees) companies in the economy (Exhibit 50). It also includes numerous large-scale, modern and internationally competitive companies with significant export activity. For the sector overall –and for the large extrovert companies in particular, the removal of cross-sector macroeconomic barriers and the development of a business-friendly environment will be critical in their effort to further enhance their local and international competitiveness.

Exhibit 50

30% of the larger companies (>100 employees) are in the Manufacturing sector



Note: Tourism includes hotels & restaurants and entertainment; Post&telco includes media; Manufacturing includes mining; Public admin and utilities not included

SOURCE: EL.STAT, latest relevant report, 2006

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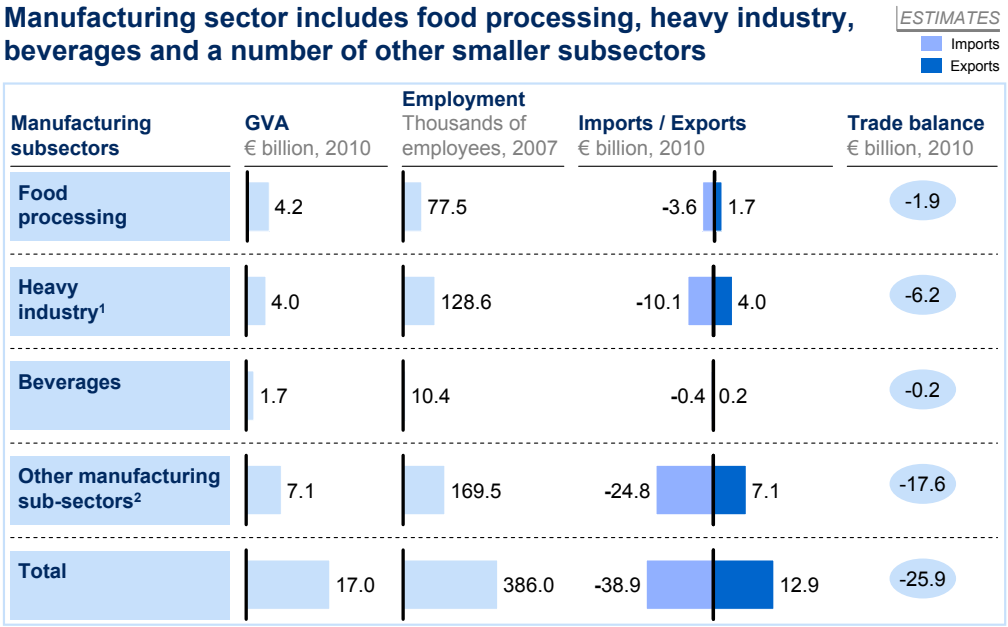
The manufacturing sector comprises four broad sub-sectors: (a) **food processing,** accounting for approximately 25% of manufacturing GVA and 20% of employment, (b) **heavy industry,** accounting for 23% of manufacturing GVA and 33% of employment, (c) **beverages,** accounting for 10% of manufacturing GVA; and (d) a set of **smaller size sub-sectors** with a diverse set of activities that represent the remaining 41% of the manufacturing GVA (Exhibit 51).

Food processing is the largest sub-sector and continues to grow both in Greece and the EU driven by the demand shift to packaged foods and the more regional competitive nature of the sector. It is examined in detail as part of the **Greece 10 Years Ahead** study not only because of its size, but also because it lends itself to the application of both the cross-sector recommendations, as well as to specific recommendations at the 'micro' sector level. Heavy industry includes a smaller number of typically mature players in fields such as metals, cement and mining, with established international presence. Key actions for supporting the competitiveness of these players include the reforms and measures identified at the cross-sector macroeconomic level, as well as measures relevant to the reduction of energy costs covered in the analysis of the energy sector. Similarly, beverages primarily include large multinational and some local players who could also benefit significantly from the cross-sector reforms. The rest of the manufacturing sector ranges from publishing to communication equipment and is highly diverse and fragmented. As such, recommendations on growth priorities and measures for the individual sub-sectors – beyond the cross-sector ones – would only have limited applicability and have not been explored.

In food processing, due to the availability of high quality raw materials and produce, specialized know-how and reasonable cost levels (in some categories), Greece has significant potential to increase its output, boost exports and contain imports, especially in four major categories, namely **oils & fats, fruits & vegetables, dairy,** and **bakery products.**

Exhibit 51

Manufacturing sector includes food processing, heavy industry, beverages and a number of other smaller subsectors



1 Fabricated metal products, mineral based products, manufacturing of basic metals, rubber and plastic products, machinery equipment, chemicals and fertilizers
2 Printing and publishing, furniture, jewelry, specialty chemicals, drugs, wearing apparel, electrical machinery, paper and pulp, transport equipment, textiles, tobacco products, motor vehicles, wood products, communication equipment, leather goods and medical equipment

SOURCE: Global Insights for real GVA and import/export figures; Eurostat for employment figures

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Exploiting these opportunities would require Greece to address a number of issues related to the lack of large scale modern and productive processing capacity, product innovation and international market access. As an example, Greece is the 3rd largest olive oil producer worldwide and exports 60% of its output to Italy in bulk, yet in doing so allows Italy to capture an extra 50% premium on the price of the final packaged product (Exhibit 52). The fact that Greece holds only a 28% share of the global 'Greek Feta' cheese market and 30% of the US 'Greek Style' yoghurt markets, further emphasizes a clear commercial opportunity for Greece.

Greece 10 Years Ahead outlines 12 possible priorities and measures for market participants and the Greek state to consider, grouped in four major strategic themes (Exhibits 53-54):

- **Prioritizing target export markets.** This would first involve the clustering of foreign markets based on common retailer presence and commercial synergies and a subsequent prioritization of these markets based on their size, growth potential and receptiveness to Greek products (proxied by Greek diaspora and tourist origination). Priority 1 markets include North America, UK, Germany & Austria, and the Balkans. Priority 2 markets include Italy, France & Belgium, Scandinavia, Australia, selected CEE countries and Russia (Exhibit 55).

- **Step-improving product value proposition and innovation.** Initiatives include the acceleration of the global introduction of the “Made in Greece” origin certification platform and product-specific actions, such as packaging and branding olive oil and substituting imports of other oils (i.e., sunflower, palm) mainly for wholesale use, further driving product innovation and advertising of place of origin for Greek flagship dairy products (e.g., strained yoghurt and feta cheese), and selectively marketing high-potential, non-feta cheese categories, and boosting ‘Greek Heritage’ and Mediterranean diet based product innovation in the bakery category.

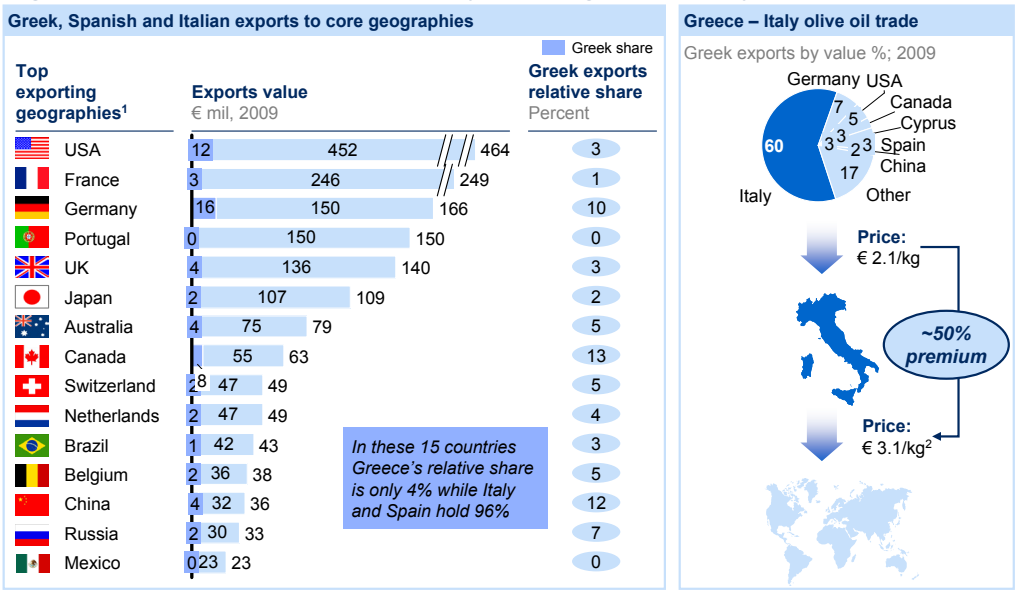
- **Increasing Greece's processing capacity and efficiency.** Examples of important initiatives here would be the development of 4-6 large scale modern processing and packaging units for priority products such as olive oil, olives, tomatoes, potatoes and selected fruits (e.g., peaches, apples, oranges) strategically located across Greece close to sources of raw material supply.

- **Securing strong commercial access to priority target markets.** An important initiative would be to establish the "Greek Foods Company" to provide competitive Greek products and small and medium size manufacturers extensive access to priority export markets by setting up and managing wholesaler and retailer networks, coordinating marketing and trade marketing campaigns and developing and managing a limited retail "Greek Corner" store network in high traffic locations in major cities of Priority 1 (at least initially) markets. Finally, Greece could consider launching the "Greek Diet" international 'umbrella' campaign as well as introducing the "GreekDiet.com" website.

In a 10 year horizon the sector could increase its annual GVA contribution by approximately €6.5 billion. Trade balance is estimated to improve by approximately €1.2 billion and fiscal balance by almost €250 million per year. Finally, the impact on employment will likely exceed the 120,000 new jobs.

Exhibit 52

Greece does not capture its 'fair share' in olive oil exports and foregoes significant opportunities, especially with regards to Italy



1 Excluding Italy which is considered peer country
2 Average price per kilo for total Italian exports

SOURCE: UN Comtrade

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Exhibit 53

Possible priorities to further develop Food Processing (1/2)

High priority

	Possible priorities and measures
A *Targeting high potential export markets*	**1** **Cluster export markets** based on **common retailers presence** and **prioritize** based on size and growth: – **Priority 1**: UK, Germany & Austria, North America, Balkans – **Priority 2**: Italy, France & Belgium, Scandinavia, Australia, selected CEE countries, Russia
B *Step-improving product strategy and value proposition*	**2** **Convert exports of bulk olive oil to branded packaged and substitute imports** of **other oils** – Aggressively campaign in core markets to build brand awareness and equity of Greek olive oil versus Italian and Spanish; create the necessary processing/packaging capacity (see #7) – Substitute - to the extend possible - palm and sunflower oil imports with local olive oil and competitively priced corn oil in the local HO.RE.CA and retail markets
	3 **Standardize the quality and increase the value added of Fruits & Vegetables category** – Address high variability in quality; pursue quality standardization and upgrade programs – Increase the value added by tapping into the trend for healthy, high quality and more convenient products; expand assortment to include more ready-to-cook and eat options; improve packaging to convey quality; make use, re-use and storage easier
	4 **Emphasize origin, and extent the portfolio in dairy products** – Continue growing and capture increasingly larger share of Greek feta and yoghurt by introducing greater product innovation (e.g., in packaging, variations) and communicating the Greek origin – Create a compelling (high value) Greek PDO offer locally and internationally promoting other high quality and popular cheeses (e.g., graviera, kaseri); include in broader campaigning (e.g., "Greek Diet") – Introduce new variations of yellow cheeses to compete against low-cost imports
	5 **Deepen the geographic coverage and increase the innovation content of the bakery category** – Adjust commercial strategy and allocation of production capacity to deeply penetrate priority markets – Introduce new product variations also emphasizing the Greek heritage and Mediterranean identity; innovate in packaging to address needs for ease of use and convenience – Investigate export opportunities in Middle East and Africa (TBC)
	6 Accelerate the global introduction of the **"Made in Greece" origin certification mechanism**

McKinsey & Company

Exhibit 54

Possible priorities to further develop Food Processing (2/2)

High priority

	Possible priorities and measures
C *Increasing processing capacity and scale*	**7** Investigate the development of **4-6 large scale modern processing and packaging units** – e.g., – Two to three units for olive oil and olives (possibly in Peloponnese and Crete with 100-150 thousand tons of olive oil processing capacity) – Two to three units for potatoes, tomatoes and selected fruits such as peaches, apples, oranges possibly in Central Greece, North Greece, Peloponnese
	8 Develop a **dedicated proposition** and **increase production** and **processing scale** in **fragmented 'niche'** (PDO or non PDO) **Greek Specialty categories**[1] (e.g., honey, vinegar, mastiha, safran, ouzo, graviera)
	9 Continue and reinforce the consolidation to form larger modern milk farms (to the extent possible); **investigate** the **viability** for processing capacity for **concentrated** and **powder milk** to reduce imports
D *Securing strong access to priority export markets*	**10** Establish the **"Greek Foods Company" (GFC)** (private or PPP with private sector control); tasks to include: – Define the *network of primary units* per category and *pool their production output* – Determine suitable *market coverage model* per country (and category) – Establish and manage *wholesale and retailer networks* per country/region – Plan and coordinate *trade marketing and promotion initiatives* – Manage the *domestic logistics chain* (including distribution and storage) and *execute exports*
	11 **Differentiate commercial strategy** and country **coverage model** (for processed and non-processed categories) – *Priority 1* markets (see #1): Strong local Key Account Manager (KAM) support to build up presence in large grocery retailers and expand the wholesaler network; creation of small retail network (e.g., "Greek Corners") in high traffic areas of major cities to drive awareness and trial – *Priority 2* markets (see #1): Local Key Account Manager support to build up presence in larger grocery retailers and expand the wholesaler network – *Other markets*: Key Account Manager team based in Greece working with large retailers/wholesalers
	12 Launch an umbrella **"Greek Diet"** international campaign for priority processed and non-processed categories; establish the "GreekDiet.com" website with links to major Greece related and food related sites

1 Refer also to the "Greek Specialty Foods" report

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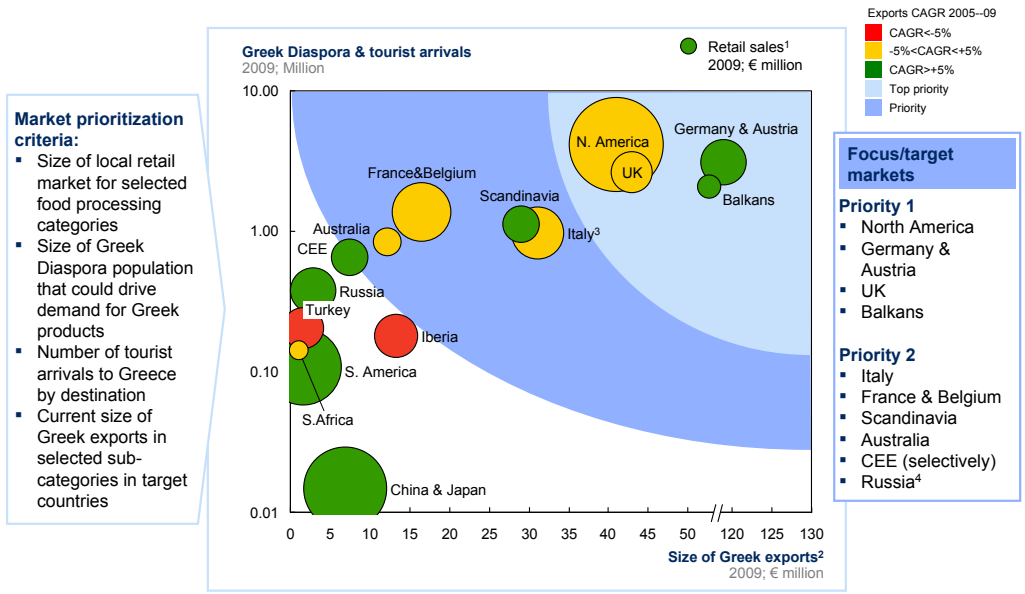
Exhibit 55

Markets for Greece to target its food processing exporting strategy



1 Local retail sales for dairy, oils and fats and bakery
2 Greek exports on dairy, oils and fats and bakery
3 Excluding exports of oils and fats which represent 83% of selected category exports
4 Due to the growing number of tourist arrivals and Russian market relevance for agricultural products exports

SOURCE: UN Comtrade; Euromonitor; websearch

McKinsey & Company

4.1.4. Agriculture – Crops agriculture

Agriculture has been historically important to Greece, accounting for 13% of employment (~550,000 jobs). Agriculture contributes 4% to Greece's GVA (almost triple that of the EU-15), being the fifth largest contributor to economic output. The overall sector (crops, livestock and fishing) is characterized by low productivity. Pre-crisis, GVA per person employed was 44% below EU-15 (€17,200 versus €30,900 respectively). Between 2000-2008, labor costs have almost doubled, suggesting a further relative loss of competitiveness; in the same period, the increase in Germany, Italy and France was 3%, 23% and 38% respectively.

Crops agriculture is the largest agricultural sub-sector, accounting for 62% of GVA and 74% of agriculture employment. Pre-crisis, crops agriculture has been seriously challenged; production had declined by more than 15% while production costs seem to have increased by approximately 40% and prices by 25%.

Greece's penetration of core European export markets is very low (less than 2% share versus Italy and Spain holding 10% and 13% respectively) and the country lacks a holistic and focused product and export strategy. Labor input and land productivity lags behind most south European peers (Exhibit 56), while its fragmented production is sub-scale for international competitiveness. In Greece, agricultural units are on average almost five times smaller compared to EU-15 levels (Exhibit 57). Despite these challenges, the fundamentals of the sector primarily in terms of product quality and underlying cost structures remain promising and render themselves to an aggressive effort to boost the country's output and exports.

Greece 10 Years Ahead has identified nine priorities and measures grouped in four major strategic themes (Exhibit 58):

- **Sharpening Greece's market and product strategy.** First, target export markets are prioritized: Priority 1 markets are Germany, Scandinavia, Netherlands, the UK, Russia and Austria; Priority 2 markets are Iberia (Spain and Portugal), Italy, Balkans and (Romania, Bulgaria) and North America (TBC). Moreover, Greece should consider pursuing a differentiated category strategy based on the fundamentals of four product clusters (Exhibit 59):

  - **'Export Engines'** and **'Emerging Traders'** including competitive products such as peaches, nectarines, oranges, seed cotton, kiwis, potatoes, apples. For these categories pursue competitiveness and quality standardization/certification programs and expand the production scale; while also exploring the use of 'idle' public land to resolve land constraints.

  - **'Domestic/processed focused'** includes olives, tomatoes and sugar where emphasis should be placed on creating and modernizing processing capacity with the primary objective of import substitution and eventually export growth.

  - **'Consumption/import majors'** includes 'heavy importers' such as wheat, maize and other cereals whose high local cost needs to be addressed to reduce the level of imports while investigating the possibility of land reallocation to higher export potential products.

- **Improving competitiveness through scale, productivity and quality.** This involves revisiting arable land allocation to products, potentially utilizing 'idle' publicly-owned land (e.g., with long term leasing) to increase scale, and introducing modern methods to boost land productivity while providing relevant incentives that are output and result-based (e.g., proven capacity and production, investments in modern methods). The launch of a new standardization and certification mechanism for agricultural products and methods (including biological farming) would also be critical.

- **Ensuring international market access and presence.** This involves establishing the **"Greek Foods Company"** (private company or PPP) to pool production, coordinate, establish and manage distribution networks abroad (same platform as in the food processing sector). The Greek Foods Company would be particularly relevant for the growth of the Crops Agriculture sector given the small size of existing units and cooperatives. Moreover, Greece could launch the "Greek Diet" campaign starting with Priority 1 markets.

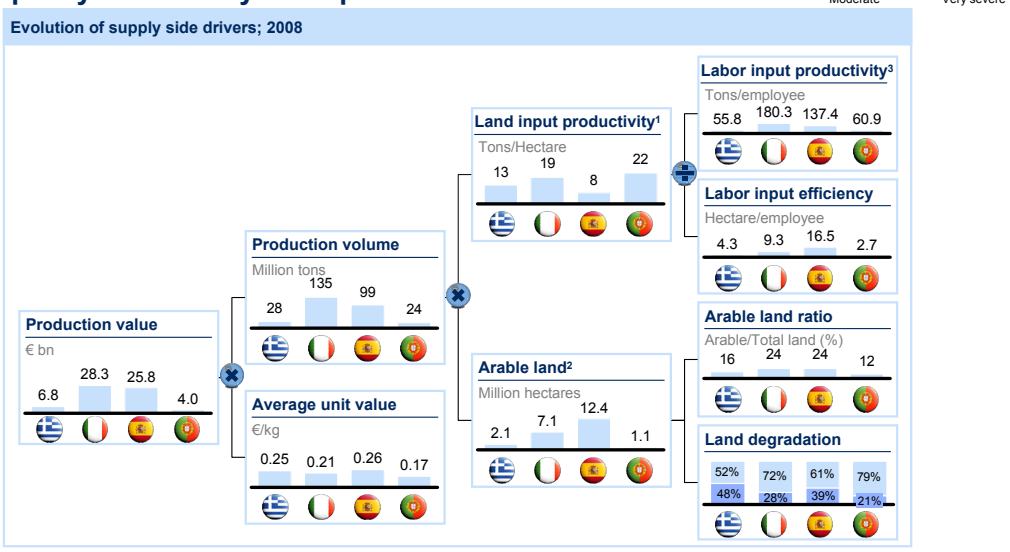
- **Revamping capabilities.** This involves reinforcing **Agriculture (and Aquaculture) University education,** and creating an **"Agricultural Development Institute"** to disseminate and promote know-how and innovation to agricultural units and cooperatives. Finally, introducing incentives for new farmers focused on scale and export-oriented farming, to rejuvenate the labor force and create additional employment opportunities.

In a 10 year horizon, the annual incremental (direct and indirect) GVA (versus 2010) is estimated to be €4.5 billion, employment could increase by an additional 140,000 jobs and the trade balance could improve by approximately €2.7 billion.

Exhibit 56

Lower land and labor input productivity and lower land quality versus Italy and Spain

ESTIMATES



Note: 2008 data are the latest available
1 Not including un-declared labour
2 Land utilized for agricultural crops production
3 Estimate due to unavailability of employment split by crop and livestock production

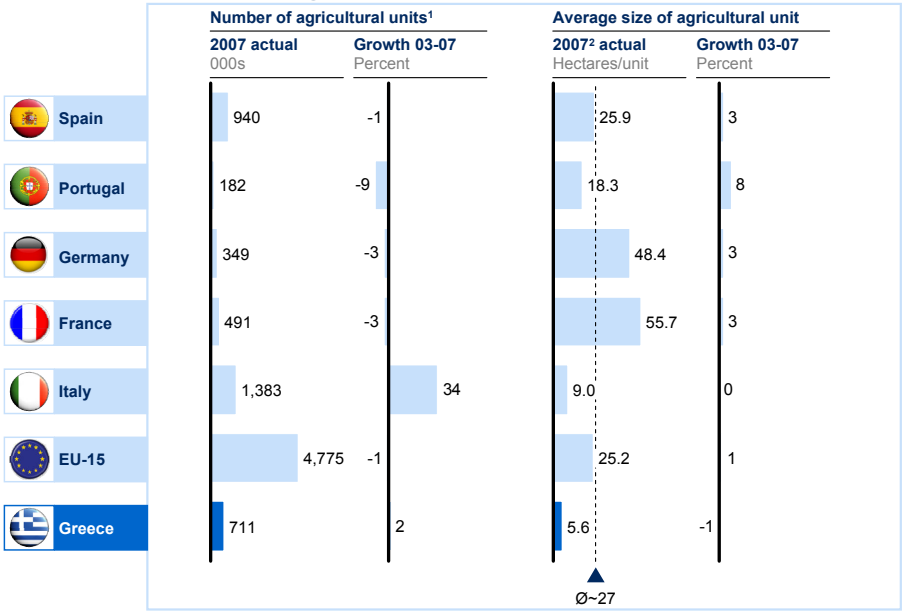
SOURCE: FAO; Eurosat; Terrastat

McKinsey & Company

Exhibit 57

In Greece, agricultural units are almost five times smaller compared to EU-15 average

ESTIMATES



Note: 2007 data are the latest available
1 With at least €1,200 of standard gross margins monthly

SOURCE: Eurostat

McKinsey & Company

Exhibit 58

Possible priorities to further develop crops agriculture

High priority

	Possible priorities and measures
A *Sharpening Greece's market and product strategy*	**1** **Prioritize target export markets** - *Priority 1*: Germany, Scandinavia, Netherlands, UK, Russia, Austria; *Priority 2*: Spain, Portugal, Italy, Balkans (e.g., Romania, Bulgaria), North America (TBC) **2** Pursue a **differentiated category strategy** based on the fundamentals of **four product clusters:** – *"Export Engines" & "Emerging Traders":* Pursue cost competitiveness and quality standardization/ certification program; materially expand production scale; explore the use of publicly owned land – *"Domestic & processed focused ":* Expand and modernize processing capacity – *"Consumption & import majors":* Boost production efficiency/cut costs and reduce trade deficit; exploit maize for quicker import reduction; explore land reallocation and 'pool' higher import levels for lower prices
B *Step-improving competitiveness through scale, productivity and quality*	**3** Stimulate **scale, productivity and extroversion** – Revisit *land allocation* in line with cluster category strategy requirements – Explore the *use of 'idle' publicly owned land* (e.g., through long term leasing) to expand the country's production capacity and scale-up production units in suitable geographies to become more competitive – Provide output *incentives* (e.g., export rebates) to *stimulate production scale* and *technological innovation* – Incentivize *young farmers* and *agricultural entrepreneurship* **4** Introduce a new **standardization** and **quality certification mechanism** for agricultural products/methods (including biological farming) at unit and cooperative-level;
C *Ensuring international market access and strong presence*	**5** Establish the **"Greek Foods Company" (GFC)** (private or PPP with private sector control); tasks to include: – Define the *network of primary units* per category and *pool their production output* – Determine suitable *market coverage model* per country (and category) – Establish and manage *wholesale and retailer networks* per country/region – Operate (and differentiate according to priority) a key account management coverage model – Set-up/operate a limited *retail store network ("Greek Corners");* high traffic locations in priority 1 markets – Manage the *domestic logistics chain* (including distribution and storage) and *execute exports* **6** Launch an umbrella **"Greek Diet"** international campaign for priority processed and non-processed categories **7** Accelerate the global introduction of the **"Made in Greece" origin certification mechanism**
D *Developing sector capabilities and supporting mechanisms*	**8** **Reinforce Agriculture (and Aquaculture) University education** (undergraduate, graduate); cover growth relevant functions and establish **strong international links and joint R&D programs** **9** Establish the **"Agricultural Development Institute"** to lead and operate the standardization and quality certification mechanism (see #4) and engage in the dissemination of productivity and innovation know-how and capability building programs for S&M agricultural units and cooperatives (in cooperation with "GFC")

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Exhibit 59

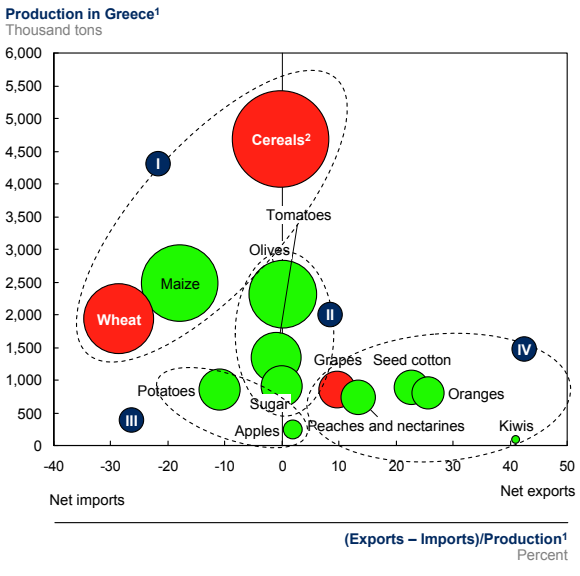
Differentiated category strategies tailored to each cluster's fundamentals

SUMMARY

Lower costs vs. import prices
Higher costs vs. import prices
Size of domestic consumption

I ***Consumption & Import majors***
- Boost production efficiency/cut costs
- Reduce trade deficit; exploit maize for quicker import reduction
- Units consolidation and modernization
- Explore land reallocation; 'pool' higher imports for lower prices

III ***Emerging Traders***
- Ramp-up local production
- Boost exports to priority markets
- Substitute part of imports
- Consolidate to further reduce costs (e.g., potatoes)



II ***Domestic & processed focused***
- Competitive position allows for higher exports either in bulk or preferably processed
- Materially expand and modernize processing capacity

IV ***Export Engines***
- Materially expand production scale
- Quality standardization/ certification and cost competitiveness program
- Explore the use of publicly owned land

1 Using 2008 figures due to unavailability of more recent data
2 Un-milled (other than wheat, rice, barley, and maize)
SOURCE: FAO; UN Comtrade; McKinsey & Company Agriculture & Chemicals Practice

McKinsey & Company

4.1.5. Retail and wholesale

Retail and wholesale trade is the largest sector in the Greek economy accounting directly for 19 % of total gross value added (GVA) and for 18 % of total employment. Retail alone accounts for about 7% of GVA and 10 % of employment. At the same time, it has been one of the most dynamic sectors, growing at more than double the rate of the Greek economy as a whole. **Greece 10 Years Ahead** has examined grocery (~€25 billion in annual sales), apparel (~€6 billion) and electronic appliance (~€2 billion) sub-sectors, jointly accounting for more than 50% of retail sales.

There is significant room for improvement in productivity (measured both in terms of GVA per hour and GVA per m^2) of the Greek retail sector, which lags by 30% to 40% compared to EU-15 averages (Exhibit 60). These productivity gaps are evident across sub-sectors (Exhibit 61). Furthermore, the productivity gap between Greece and other EU countries appears to be widening as GVA per hour worked remains flat in Greece, while it is increasing in other countries (Exhibit 62). Based on initial evidence, price levels appear to be in line with EU averages in grocery and electronics and modestly higher in apparel, although significant variations exist between product categories and suppliers.

To understand the drivers of performance we examined four core dimensions: the **format mix** accounting for 10-15 percentage points of the total productivity gap, the **retail operating model** and efficiency accounting for 9-10 percentage points, and the **upstream value chain** explaining another 2-5 percentage points. **Other factors** such as **market competition,** regulatory context and informality collectively explain the remaining of the gap (Exhibit 63).

- **Format mix.** International experience indicates that, especially in grocery, larger formats are typically more productive. The Greek market, especially in grocery and apparel, has almost double the number of stores per capita compared to Europe and a relatively larger share of fragmented trade (Exhibit 64). Factors resulting to this format mix in Greece include the traditional micro and small business dominated structure of the Greek economy, consumer preferences, regulatory costs and restrictions, and sector informality. Online retailing penetration is also low in Greece compared to peers.

- **Retail operating model.** Greek retailers are challenged by the limited usage of innovative IT and supply chain management solutions as well as lower labor flexibility compared to peers. Another important factor is the high transportation costs to remote areas resulting from lower transportation operating productivity (Exhibit 65).

- **Market competition.** While retailers concentration is similar to, or below that of other EU countries, supplier concentration, specifically for selected categories within grocery, is higher. This is partly driven by the lower penetration of private label products (12% versus an average of 24% for selected European countries) and the lower penetration of discounters (6% versus average of 13% for some other European countries).

- **Upstream value chain.** Wholesalers in Greece appear to be less productive than in other countries due to lower scale, heavy category specialization and observed lower levels of sophistication in terms of inventory management, customer service levels and warehouse management.

We have identified 10 possible priorities and reforms to be considered by the Greek state and market participants, grouped in two major strategic themes (Exhibit 66):

- **Further reinforcing competition, investment and regulatory compliance.** This involves proactively defining commercial zones in urban and suburban areas to facilitate commerce investments (preliminary evidence suggests that larger single store formats are likely to have a more positive contribution to Greece's GVA compared to larger multi-store formats). Also, lifting constraints for retailers to sell currently restricted product categories (e.g., OTC drugs, baby food) and further improving price transparency, by increasing the awareness of existing tools such as the Price Observatory, and creating platforms for comparing price/performance such as Germany's *Stiftung Warentest*. Increasing the capacity of the Competition Committee and extending informality controls on unlicensed traders would also improve competition and regulatory compliance.

- **Boosting retailer and wholesaler productivity** would require both managerial and regulatory adjustments. Managerial changes include expanding the scale of existing players through further consolidation and partnerships (e.g., purchasing clusters) among small & medium enterprises, while pursuing targeted investments in IT, logistics and e-commerce to step-change value chain efficiency. Regulation wise Greece needs to accelerate the full liberalization of public road transport, simplify unnecessary reporting requirements and eliminate remaining retail-specific labor rigidities (e.g., employee mobility across stores, split daily shifts).

In terms of growth upside, in a ten year horizon, retail productivity could increase by 22% and annual retail sales (grocery, apparel, appliances) could grow by an extra €1.5 billion. At total economy level, the incremental (versus 2010) GVA uplift could reach €4.3 billion (€2.6 billion direct and €1.7 billion indirect), while tax revenues could increase by €1.3 billion.

Exhibit 60

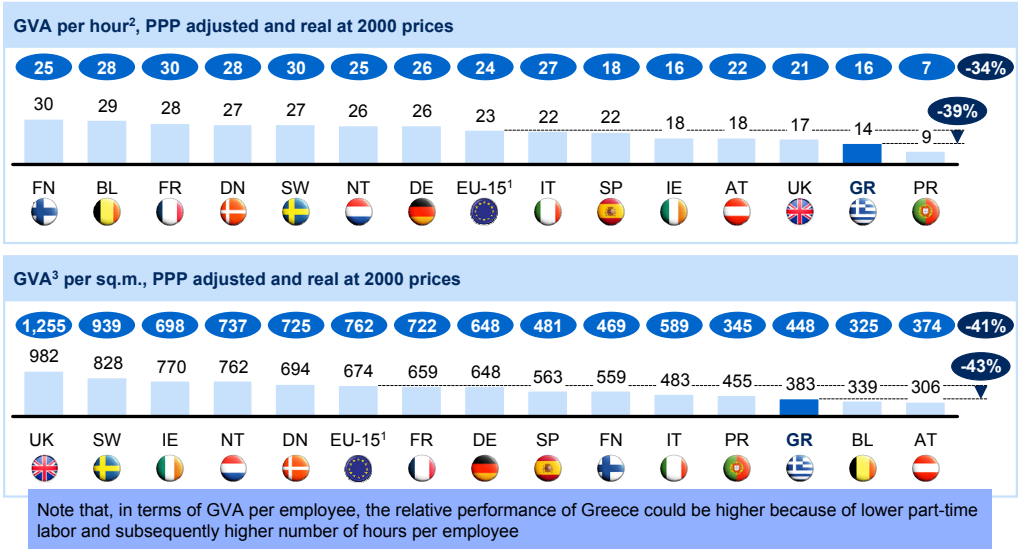
Pre-crisis retail productivity in Greece was 30%-40% lower compared to EU-15[1] averages

€, 2007

ESTIMATES

Non-PPP adjusted real values at 2000 prices

Greece's difference from EU-15[1] weighted average



Note that, in terms of GVA per employee, the relative performance of Greece could be higher because of lower part-time labor and subsequently higher number of hours per employee

Note: Retail sector as per NACE 52 according to Rev 1.1
1 EU-15 weighted average excluding Luxembourg; 2 Not including undeclared employment and unreported output; 3 Not including unreported output

SOURCE: Eurostat (employment, GVA, average working hours); EU KLEMS (Deflators, PPP); Euromonitor (selling space)

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Exhibit 61

Pre-crisis retail productivity was low across several retail sub-sectors

ESTIMATES

GVA per hour[1], €, PPP adjusted[2], 2007

1 Not including undeclared employment and unreported output; 2 2000 prices; 3 EU-15 weighted average excluding Luxembourg

SOURCE: Eurostat (employment, GVA, average working hours); EU KLEMS (Deflators, PPP)

McKinsey & Company

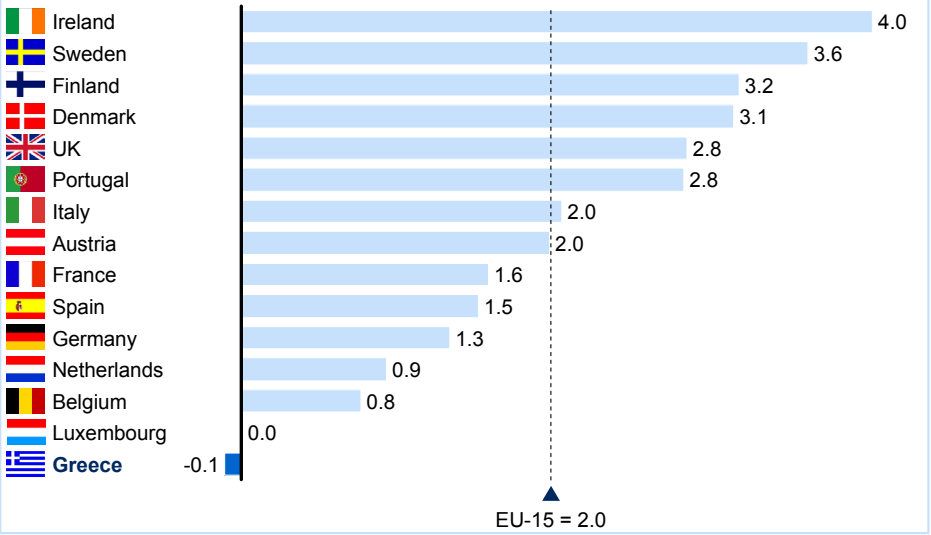
Exhibit 62

Pre crisis, the productivity increase of the retail sector across Europe has not been matched by Greece

ESTIMATES

GVA per capita (CAGR, 1985–2005) minus hours worked per capita (CAGR, 1985–2005)[1]

Percentage points



1 Productivity measure comparing growth in GVA per capita (output) with growth in hours per capita (input)

SOURCE: EU KLEMS

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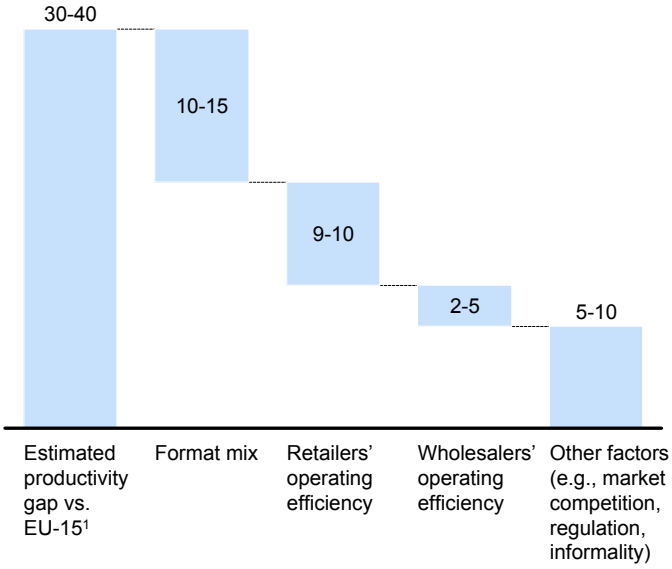
Exhibit 63

Potential drivers of the productivity gap

ESTIMATES

Productivity indexed based on average EU-15 productivity levels[1]



1 EU-15 weighted average excluding Luxembourg

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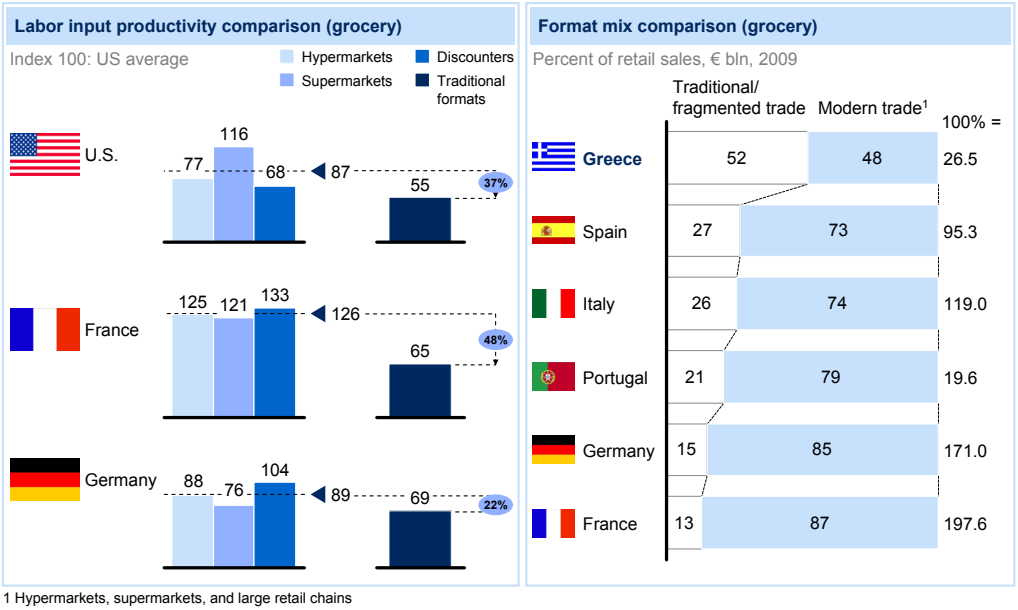
Exhibit 64

International productivity and format mix references in grocery

ESTIMATES



1 Hypermarkets, supermarkets, and large retail chains

SOURCE: Euromonitor; Eurostat; Global Insight (WMM)

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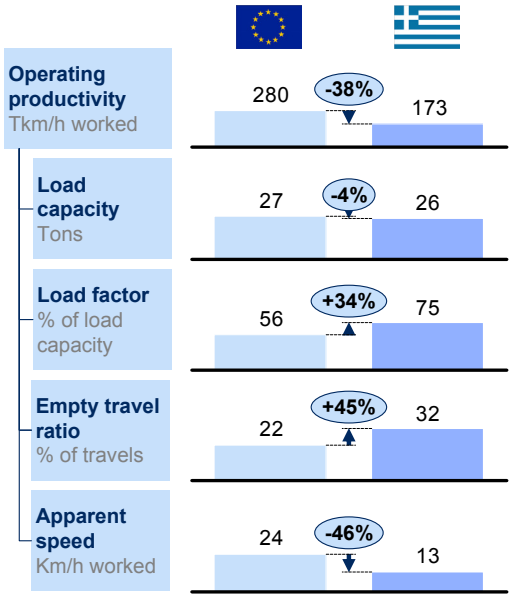
Exhibit 65

Transportation operating productivity in Greece seems to be ~40% lower vs. EU-15 driven by empty travel ratio and low speed

ESTIMATES



SOURCE: Eurostat; McKinsey Global Institute

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Exhibit 66

Possible priorities and measures to increase the competitiveness of the retail sector

High priority

	Possible priorities and measures	Priorities/measures to accelerate and/or revisit
A *Further reinforcing competition, investments and regulatory compliance*	1 Proactively **define commercial zones** in urban and suburban areas to facilitate and accelerate retail and wholesale investments 2 **Lift constraints on** the sale of **currently restricted product categories** by grocery retailers (e.g., bake-off bread, press, OTC drugs, baby food)	3 **Further increase price transparency**: – Launch campaigns to increase awareness of existing price benchmarking tools (e.g., the price observatory) – Launch platform comparing product – price performance (e.g., Stiftung's Wahrentest) 4 **Extend informality controls** to limit unlicensed trading and **provide a new framework** for legitimate open market trade 5 **Improve the Competition Committee's capacity to secure fair competition** – Increase talent capacity for cases review – Allow for greater prioritization of cases based on case importance for the public interest
B *Boosting retailers and wholesalers productivity*	6 **Expand scale of current retailer operations** – Consolidation/M&A – Operational clusters/partnerships to capture synergies (e.g., procurement, distribution) 7 **Pursue targeted investments in IT, logistics and e-commerce** to step-change value chain efficiency 8 **Eliminate remaining** retail related **labor rigidities** (e.g., continuous daily shift)	9 **Accelerate the full liberalization** of the **public trucks** transportation market 10 **Simplify unnecessary** retailer-specific **reporting and regulatory** compliance **requirements** (e.g., end of year stock reporting, paper copies of delivery notes)

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4.2. Rising Stars

Greece 10 Years Ahead identifies eight 'rising stars' in specific niche areas of growing economic activity, where Greece possesses or could develop a relative competitive advantage. Although most of these areas are currently relatively small in size, they could contribute meaningfully to the GVA and employment growth of the Greek economy, and also assume a symbolic 'visionary' role of dynamism, innovation and entrepreneurialism in Greece's new **National Growth Model.** They are grouped as **primary or secondary,** depending on the size and timing of their expected contribution to GVA.

The six primary 'rising stars' that could contribute to the Greek economy's growth in a 5 to 10 year horizon include **manufacturing of generic pharmaceuticals, aquaculture, medical tourism, long-term and elderly care, regional cargo & logistics hub** and **waste management,** while the two secondary ones, which are expected to assume a more symbolic role include and the development of Greece **as a Graduate Classics education hub** and **Greek specialty foods.** Collectively, 'rising stars' could contribute approximately €7 billion of additional annual GVA and create more than 70,000 new jobs in a 10 year horizon.

As also mentioned in the introduction of this document, these 'rising stars' are indicative of the overall possible growth opportunities available in Greece. Clearly there could be other emerging sub-sectors with growth potential that have not been studied within the scope of **Greece 10 Years Ahead**.

Exhibits 67-68 provide a very brief outline of the opportunity rationale and the possible growth priorities for each one of the six primary 'rising stars'.

Exhibit 67

Primary 'rising stars' - Opportunity indicators and growth priorities (1/2)

BRIEF SUMMARY

Sector	Opportunity indicators	Outline of growth priorities (indicative)
Generics manufacturing	▪ Significant **market growth** expected both in Greece and internationally (5-9% p.a.), supported by government actions ▪ Sizeable **established industry** already in place (~€ 1.3 bn sales in 2010), dominated by Greek players) ▪ Successful, yet sporadic, **exporting activities** of domestic players	▪ **Selected consolidation and scale-up**; radical **optimization of operations** to maintain margins in a lower price context ▪ Targeted **expansion** in new geographies ▪ Gradual reduction of floor price **in synch with domestic competitiveness improvement** ▪ Major **awareness campaign** targeting doctors, pharmacists, patients as well as opinion leaders and medical organizations ▪ **Reduction of delays** in licensing, pricing and reimbursement
Aquaculture	▪ Steady **production growth**, with high share of exports (~80% of total) and relevant share in Europe (~50% production share in two focus products) ▪ **Cost competitiveness** vs. most competitors (4-15% lower cost)	▪ Enforcement of a **nation-wide zoning plan and a national capacity plan** and allocation mechanism among players ▪ Establishment of a **national observatory** for supply/demand and prices in Greece and key markets ▪ Establishment of **effective international representation** and state sponsorship for entry in new markets ▪ Acceleration of **current consolidation trend** following a focused product strategy
Medical tourism	▪ High **number of specialized doctors** (e.g., ~2.5 times more dentists compared to Hungary, a popular destination for dental procedures) ▪ **Lower cost** compared to high-end destinations (e.g., ~20% lower cost vs. UK in dental procedures and ~7% in laser eye surgery) ▪ Good offering of **supporting tourism infrastructure** ▪ Favorable **regulatory regime** for some treatment types (e.g., medically assisted reproduction)	▪ Development of **national strategy** to position country in 'middle-market' segment with specific product/market focus ▪ Adoption of **international accreditations** (e.g., JCI) and partnerships with global institutions ▪ Establishment of **strict quality assurance** and control process ▪ **Revision of requirements** for surgery eligibility (e.g., scale of unit, same day surgery centers)

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Exhibit 68

Primary 'rising stars' - Opportunity indicators and growth priorities (2/2)

BRIEF SUMMARY

Sector	Opportunity indicators	Outline of growth priorities (indicative)
Long-term and elderly care	▪ **Fast ageing** of Greek population (32% expected share of 65+ population in 2050 in Greece compared to 19% in 2010) implying also **higher prevalence** of Long Term Conditions ▪ **Stressed macro situation** in Greece demanding preventive policies to lower healthcare costs	▪ Creation of a **patients registry,** a care **quality accreditation** and **performance management** system for out-of-hospital services ▪ **Expansion of** local industry players' **service offering** and **area coverage** ▪ **Execution of awareness program** and **incentivization of patient participation** ▪ **Facilitation of funding release** and public contribution
Regional cargo & logistics hub	▪ Greek ports are **positioned along** one of the two **major shipping trade** routes worldwide (~19 million TEU[1], going through East Med region in 2009 with ~9% annual growth in trade between 2004 and 2008), indicating significant opportunity to act as both gateway and trans-shipment hub ▪ **Existing infrastructure** and **deals with international operators** (e.g., Cosco) provide a good starting point and critical mass for further expansion	▪ **Optimization of administrative requirements** (e.g., custom clearance) and **decrease of port handling time** to lower indirect cost to international operators ▪ Review of relevant legislation to **ensure a smooth and continuous operation** of ports ▪ Improvement of the **infrastructure** to **further develop connectivity** with the main ports (e.g., high-speed cargo train lines)
Waste management	▪ In Greece **landfilling** still at 80% of its municipal solid waste vs. 41% of EU-27 and <10% for several EU-15 countries instead of **more value-adding options**, e.g., incineration and recycling ▪ Industrial waste management an important factor of manufacturing competitiveness and environmental safety	▪ **Acceleration of 'advanced' waste management projects** of a viable scale (e.g., incineration and recycling facilities for municipal waste, consolidated facilities for industrial waste) ▪ Development of **regulatory framework** for industrial waste as a critical enabler for overall growth of the industrial sector ▪ Leverage of **energy recovery** opportunity from waste, e.g., convert waste in RDF and use as alternative fuel in cement plants, incinerate waste in gasification plants

1 Twenty-foot-container Equivalent Units
2 Refuse-derived fuel

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The remaining of this report provides a very brief overview of the opportunities, challenges and proposed measures related to the 'rising stars'.

At this point we need to mention that these eight 'rising stars' are prioritized after having analyzed more than 20 sub-sectors as possible candidates.

4.2.1. Manufacturing of generics pharmaceuticals

The distressed current state of the Greek economy and the commitment of the Greek government to increase the currently low penetration of generic drugs (only 18% of total pharmaceutical volumes, compared with over 60% in Germany, the UK and the US) suggest a potentially promising future for the local generic drugs (Gx) market. If properly developed, in a 10 year horizon Generics could grow domestic and export sales up to €2.2 billion by 2021 from approximately €1.2 billion in 2010 and provide an additional annual GVA of €1.9 billion while creating 4,000 new jobs.

This creates an important window of opportunity for the domestic industry to leverage this wave of growth (also in adjacent export markets) and move towards the development of scale in generic manufacturing companies with sufficient local and international presence, differentiated product portfolio and efficient operations that will generate significant value and employment in the sector.

Greece 10 Years Ahead has defined four major growth levers:

- **Promoting generics attractiveness and penetration.** The industry would benefit from a campaign that would provide quality guarantees and stress the positive trade-offs from usage of generics. In parallel, the state could consider developing a comprehensive generics strategy for growth, in cooperation with industry participants, particularly including the detailing of specific incentives for key stakeholders, such as physicians, pharmacists, reimbursement funds, but also patients (e.g., the establishment of absolute margin per subscription for pharmacists, and co-payment model of incentives for patients). In addition, the restructuring of the generics companies' sales force would be an imperative both to reduce their cost base and protect their margins, as well as to respond to more sophisticated buying processes by hospitals and pension funds. Moreover, the state should define a plan of gradual price reductions (not large step-wise reductions) in order to, on the one hand, increase the penetration of generics and force the industry to optimize operations and reduce costs, while, on the other hand, allowing sufficient time for the local industry to adapt and consolidate and become more efficient in light of the intensifying international competition. The sector optimization could also be supported through the removal of unnecessary regulatory and legal obstacles, such as the long approval process for generics and biosimilars, to help companies reduce time-to-market and cost, as well as the provision of quality guarantees (e.g., through certifications) for physicians and consumers.

- **Competing through scale, focus and innovation.** As of 2009, the Top-10 generics companies in Greece accounted for only 35% of the total generics market, indicating significant levels of fragmentation. The local industry requires consolidation in order to attain the scale and efficiency required in a global context, allowing the operational optimization and synergies that would enable international cost competitiveness. We can identify six Gx business models and differentiate between them, in addition to the value chain elements, based on scale, geographical footprint and product portfolio (Exhibit 69). Among the models that involve manufacturing (illustrated in Exhibit 69) the "*large integrated player*" model (#1) is not applicable, the "*globally present, locally strong*" model (#3) is highly challenging while the "*strong regional/local player*", "*CRAMS*" and "*niche*" business models (#2,4,5) are possible for Greek players to pursue depending on their individual capabilities, know how and scope aspirations. However, in any case, the players should focus on the right product niches and higher value-add R&D to leverage existing experience and skills, concentrate the relatively few expert resources, and pursue innovation, e.g., new formulations, new devices and drastic molecules combinations. The Greek state could facilitate these moves by providing incentives such as lower cost financing and tax rebates based on local and foreign capacity development, R&D, and export activity, while also intensifying quality control mechanisms to increase real and perceived quality of the generic products.

Exhibit 69

In the global generics industry several business models exist with specific characteristics along the 4 competitive dimensions

NOT EXHAUSTIVE

Gx business model	Competitive dimensions: A Presence along value chain	B Geographical footprint	C Product portfolio	D Scale	Examples
1 Large integrated player	▪ Possibly full value chain player	▪ Global	▪ Highly diversified	▪ Large	▪ Teva, Sandoz, Mylan, Ranbaxy
2 Strong regional/ local player	▪ Possibly full value chain player	▪ Local to regional	▪ Diversified	▪ Medium	▪ Stada, Watson, Zentiva, KRKA, Gedeon Richter
3 Globally present, locally strong	▪ R&D and manu-facturing player	▪ Global	▪ Diversified	▪ Medium	▪ Zydus Cadila, Lupin, Cipla, Wockhardt
4 CRAMS[1] player	▪ R&D and manu-facturing player	▪ Local to global	▪ Diversified	▪ Small to medium	▪ Piramal Health-care, Jubilant, Divi's
5 Niche player	▪ R&D and manu-facturing player	▪ Local to global	▪ Highly specialized	▪ Small	▪ Hospira, Baxter, Abraxis
6 Marketing and dis-tribution players – Private label	▪ Marketing and distribution player	▪ Regional to global	▪ Diversified	▪ Small to medium	▪ Alliance, McKesson, Walgreens
6 Marketing and dis-tribution players – Marketing company	▪ Marketing and distribution player	▪ Regional to global	▪ Diversified	▪ Medium	▪ Actavis, Meda

1 Contract research and manufacturing services

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- **Penetrating high potential export markets.** The Greek pharmaceutical sector has been significantly extrovert, and is placed in the Top 5 of manufacturing sub-sectors in terms of exports. With generics exports already estimated at €250 million, Greek players could further increase their activities abroad, both in neighboring countries and selected mature Western healthcare systems, where niche opportunities exist (e.g., Balkans, UK, Germany, France, Russia). This would help them safeguard and increase their revenue levels and increase scale and capacity utilization, while also adding an element of diversification to their activities. While some of this can be achieved through organic growth, reaching the necessary scale and market access might also require a plan of targeted acquisitions.

- **Securing access to alternative financing sources.** Most of the priorities pertaining to the requirements described above will need significant capital that is currently lacking in the sector, given the difficulty of obtaining bank financing, the current debt levels of the Greek state towards pharmaceuticals companies and the state of the local capital markets. Greek companies could turn towards Private Equity or Venture Capital financing. The Greek state should consider addressing the funding challenges by reviewing the current settlement of pending debts in VAT reimbursement or other repayments to pharmaceutical companies, in order to increase, to the extent possible, the liquidity available to the industry and decrease its financing cost and working capital requirements.

4.2.2. Aquaculture

Although still relatively small in size, with GVA of approximately €400 million in 2010, aquaculture is growing at around 3% per year, with 80% of production exported. About 90% of domestic aquaculture production is in just two products, sea bass and sea bream, for which Greece produces almost half of the global output.

Due to the nature of the products (small size of fish) and relative lack of sophisticated processing by local players, the Greek products are exported primarily in bulk or lightly processed form, while the high certification costs and the resulting low adoption of such certification have not allowed the effective branding of Greek production in international markets. At the same time, despite the competitive cost position of Greek players overall, also due to increased vertical integration, the sector is already facing stiff competition from lower labor cost countries such as Turkey. Furthermore, local players have not managed to effectively balance the supply and demand cycles, leading to massive price fluctuations (+/- 33% between 2000 and 2009) and uncontrolled consolidation.

In addition, an unstable regulatory environment, the lack of clear licensing procedures and the absence of a clear zoning plan for the sector threaten the industry's growth prospects. At the same time, Turkey is ramping up production and threatens to exceed Greek output in the next two years.

To strengthen the competitiveness of the Greek fish farming industry and further boost extroversion, Greek players and the Greek state should consider focusing on the following key priorities:

- **Pursuing a phased product and market strategy,** in order to: **(i)** defend leadership position in sea bass and sea bream in core European markets (e.g., Germany, Italy, Spain, France, UK); **(ii)** expand geographic coverage (existing products) in Europe (i.e., the Netherlands, Russia, Ukraine, Poland), US and Japan; and **(iii)** broaden product portfolio into mussels and larger-size, higher-value-added fish categories leveraging current know-how (Exhibit 70). To facilitate entry in new markets, the state could support effective international representation and sponsorship (e.g., road-shows in Russia, US and Japan similar to Norway's case example of promoting salmon for sushi to Asia in the 1980s), as well as the introduction and enforcement of a commonly accepted certification procedure, initiative to be jointly pursued by the state and market participants.

- **Building competitiveness through scale, product focus and labor efficiency,** through the acceleration of the consolidation trend, following a focused product strategy for the core business and the introduction of labor efficiency measures to offset cost disadvantage versus strong competitors such as Turkey. In this area, a nation-wide zoning plan is critical to clearly indicate eligible areas for aquaculture activity, while focused incentives could be developed to promote targeted R&D, higher export activity and the ramp up of production capacity.

- **Ensuring systematic planning and regulatory compliance,** to avoid excessive oversupply and major price volatility. This requires the development of a robust national capacity plan and allocation mechanism agreed among players and its enforcement through strict controls.

In a 10 year horizon, the growth potential of aquaculture as a 'rising star' is significant as the sector's GVA could more than triple from €0.4 to €1.4 billion creating more than 20,000 new jobs.

Exhibit 70

Aquaculture: Phased product & market strategy and priorities for Greece

	Market focus: European markets	Market focus: Non-European/off-shore markets
Core/ existing products	**1** ▪ Maintain **leadership position (share of >60-70%) in existing core markets** (Italy, France, Spain) through current product mix ▪ Further **penetrate markets of presence** (e.g., Germany, UK) and new major European markets (e.g., Russia) to approach levels of core markets (1.5-2% of sea bass / sea bream over total fish consumption)	**2** Promote **existing product portfolio and simple variations of it to offshore markets in combination with other Greek products:** ▪ US: Target top-10 metropolitan areas by population, leveraging Greek diaspora and building on existing/emerging export activity ▪ Japan/China: Focus on mid-market range segment through products in frozen form; target high-end segment (mainly in Japan) with high quality fresh products and guaranteed service levels
New products	**3** ▪ Accelerate **introduction of new species** to expand product portfolio and facilitate size/processing, leveraging existing product development effort (e.g., puntazzo, pargus) and considering additional products developed in competing markets (e.g., dentex, sargus) ▪ Further expand **mussel production** to differentiate product portfolio	**4** Further penetrate offshore markets (mainly Asia) through: ▪ Focus on **high-value adding products** (e.g., bluefin tuna) ▪ **Fast growing species** (for processing) such as yellowtail

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4.2.3. Medical tourism

Medical Tourism has been a fast growing sector internationally over the last fifteen years. Among its two segments, the outpatient segment (e.g., dental care, certain cosmetic procedures, selected eye surgery) is the largest, being 3-4 times the value size of the inpatient segment (e.g., cardiovascular interventions, orthopedic procedures) (Exhibit 71).

Medical Tourism has created opportunities for very diverse countries to position themselves as medical tourism destinations, ranging from the traditional high quality/high-tech destinations (e.g., North America) to developing health markets combining low cost at good quality in niche areas (e.g., plastic surgery, dental treatments, cardiovascular care).

While fundamentally Greece has the potential to compete in the rapidly growing 'middle market' of medical tourism, the country lacks a comprehensive national sector growth strategy and the necessary infrastructure. Indicatively, it has only one facility that is accredited by Joint Committee International (JCI; an international monitoring body), compared with 43 in Turkey, 21 in Italy and 14 in Thailand. At the same time, Greek hospitals lack collaborative agreements with leading international medical institutions, which would raise the country's profile internationally.

In outpatient segments, although the country has available resources, know-how and occasionally a competitive price advantage (e.g., in fields such as reproductive fertility), it still needs to establish a reputation as a quality destination.

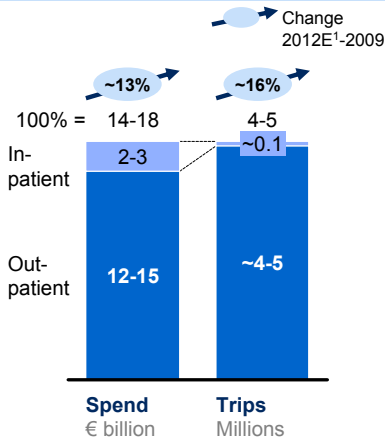
Exhibit 71

Medical tourism: Promising size and growth prospects for the outpatient segment

ESTIMATES

Segments of medical tourism	Description	Example categories
Inpatient	▪ Healthcare where admittance to the hospital and stay for a period ranging from several days to weeks ▪ Usually refers to heavier, acute and/or invasive cases	▪ Cardio-vascular ▪ Oncology ▪ Orthopedics
Outpatient	▪ Hospitalization for less than 24 hours, where patient visits hospital facility for diagnosis and treatment ▪ Usually refers to lighter invasive cases	▪ Cosmetic ▪ Eye surgery ▪ Dental

Breakdown of total medical tourism market, 2009



1 Estimates

SOURCE: Deloitte; McKinsey Quarterly

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In line also with the new strategic direction in tourism, there are five levers that would enable the local industry to capture the growth opportunity presented by Medical Tourism:

- **Developing a national strategy to position Greece in the 'middle market' with specific product and market focus.** This could include a primarily outpatient product focus, (e.g., eye surgery, cosmetics, fertility, obesity, haemodialysis), with only a focused inpatient offer (e.g., cardiovascular surgery, hip replacement), and geographic focus on Russia/CEE, Balkans, Middle East, and selected higher-cost EU countries (e.g., UK, Germany). This should also entail securing international accreditations (e.g., JCI) and partnerships with global medical centers/ organizations and leading international medical institutions (such as the Johns Hopkins Hospital, the Cleveland Clinic, Sloan Kettering and the Harvard Medical School, or institutions focusing in Eastern Mediterranean, such as the Japanese-built Tokuda Hospital in Sofia), to significantly raise the profile of Greek hospital operators abroad. Medical tourism should be promoted to the aforementioned target countries, including the sponsoring of participation in relevant medical tourism conferences, but also the signing of bilateral agreements with foreign payors (public for non-EU, private for EU and non-EU) to support the new market. Creating a strong brand and reputation for Greece as a medical tourism destination would be key to the success of the new strategy.

- **Establishing modern quality assurance, licensing and control frameworks,** in particular for outpatient services, including a registry to track patients and procedures (e.g., for fertility). It would also be important to implement a quality assurance system that would satisfy the requirements of EU directives, improve the quality perception of Greek clinics, and potentially facilitate the reimbursement of cross-border treatments in Greece. Likewise, the current restrictive regime of licensing facility and surgery eligibility procedures (e.g., allowing surgeries only in hospitals of over 60 beds) could be updated to allow more flexibility (e.g., facilities in islands, same-day surgery centers) and result to reduced costs for procedures that require up to one day of hospitalization without however jeopardizing medical care quality.

- **Pursuing and maintaining 'offer' specialization to reduce costs through scale** in key procedures. There are multiple examples of specialization and focus on efficient delivery of high throughput procedures at good quality and low cost. An example is Turkey's World Eye Hospital, that handles over 5,500 eye surgeries a month, including 2,000 international patients.

- **Leveraging networks to attract inbound volumes.** The presence of Greek healthcare providers abroad provides a good basis to promote the Greek healthcare offering. Other international examples from leading medical centers show that there is an opportunity to attract patients for specialized treatment into the country by enhancing alliances with medical providers and funds in key countries and non-medical partners (e.g., specialized tour operators).

- **Complementing the offer with the necessary auxiliary** services for medical tourists, such as multilingual support, logistics support, informatics/online consultations and electronic patient record sharing, as well as closer links to the travel industry (for the wellness tourism). This could also include the development of integrated 'health resorts', where multiple treatments can be offered to individuals and groups across the spectrum of health and wellbeing services.

It is estimated that in a 10 year horizon medical tourism could contribute €450 million in additional annual GVA and 11,000 new jobs to the Greek economy.

4.2.4. Long-term & elderly care

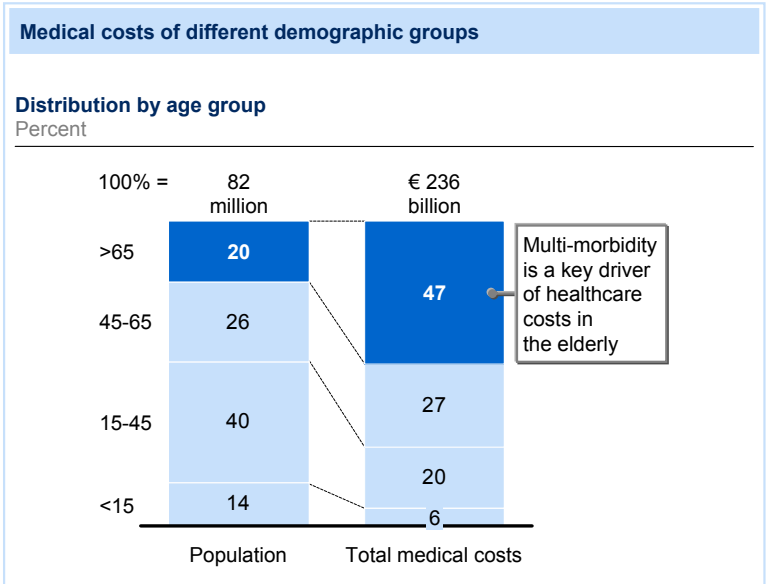
Population ageing and Long-Term Conditions (LTC) prevalence pose a significant challenge to healthcare systems, payors, providers and society as a whole (Exhibit 72). OECD populations are ageing fast, making the funding of healthcare through insurance contributions increasingly unsustainable, as age is correlated with co-morbidities, higher incidence of LTCs (such as Diabetes, or Cardiovascular Disease-CVD), and frequently a higher case complexity that may lead to higher healthcare utilization and cost. Indeed, over 15% of OECD populations are already over 65, with current projections bringing over 65s to 25% of total OECD population by 2050. At the same time, the ratio of working population per pensioner is on a steady decrease since the 1980s. LTC prevalence is similarly on the increase, across age groups, resulting in a disproportionate share of healthcare costs.

Greece faces an even higher pressure due to both demographic and system pressures across health and social care: (i) Greek population is ageing faster than OECD: 19% of population is 65+ and could rise to 32% by 2050; LTC prevalence is also high at 18%; (ii) little has happened in the form of a national plan for disease management and only fragmented attempts are pursued to stem the cost increase in the acute sector through better management of out-of-hospital care; (iii) the official market for out-of-hospital care provision is small with high levels of informal economy supply; and (iv) there is significant undersupply of officially employed and properly trained key health professionals such as nurses and other care personnel, whereas there is a high supply of physicians (with the exception of Primary Care GPs). These system features create a barrier to the development of an effective out-of-hospital integrated care system to address the current LTC and ageing time-bomb.

Exhibit 72

Ageing population creates a disproportionate cost to healthcare systems

GERMANY EXAMPLE



SOURCE: Milliman; German Federal Statistics Office; 11th coordinated population forecast, 2006 data

Emerging practices navigate towards integrated (as opposed to episode-based) care management, moving care (where appropriate) closer to the patient. This is achieved by providing long-term, prevention-focused care in the community (or at home), moving it away from high cost hospital settings. Integrated care models in countries such as the UK and the US demonstrate ability to contain cost growth while providing quality care by: (i) supporting independent living for elderly and chronically ill patients through care-at-home and case/disease management programs; (ii) providing enhanced assisted living services to elderly patients in tailored nursing and residential units, focusing much more on prevention; and (iii) providing comprehensive rehabilitation services to improve outcomes and speed of recovery, and reduce clinically avoidable readmissions (e.g., services may include physical therapy, occupational therapy, pharmacological support, and mental health services).

Building on these global trends, we have identified a number of possible measures and reforms grouped in four major strategic themes:

- *Developing a robust sector strategy focusing on high potential areas.* A national strategy for long-term conditions and care of the elderly could include the development of a full range of products, covering related fields (e.g., case/disease management, care at home, rehabilitation, assisted living services). The state could focus on developing a blueprint for disease management and integrated care programs, developing clear clinical pathways and therapeutic protocols and robust quality accreditation system for out-of-hospital healthcare provision, updating the law articulating requirements for Elderly Care and Long-Term Conditions Management operations, and conducting selected pilots to test approach core programs.

- *Building relevant capabilities and supporting mechanisms.* Greek providers could seek and adopt international best practices in areas such as telemedicine/telehealth and process optimization. Greece could do so through partnerships with leading international organizations in the field, to support in particular rural and remote populations, and the elderly living alone. A further step would be the development of risk management tools, including risk stratification and management in order to support effective case/disease management policies and application of integrated care healthcare programs. Specialist training is critical in order to empower staff to deliver a high quality service, e.g., on remote healthcare consultation or adherence monitoring. The Greek state could also help by creating comprehensive patient registries, introducing risk profiling and management tools as a minimum, and identifying and addressing gaps in healthcare workforce to fast-track industry development.

- *Boosting product attractiveness and awareness for all involved parties* (investors, service providers and patients). It would be important to invest in promotion of services locally to build awareness of initiatives that may be new in some areas (e.g., case management). The state and market players would need to build awareness through targeted campaigns and provide incentives for higher participation in these programs. Greece could also find creative ways to build attractive products for an international audience, e.g., bundling LTC/elderly care and medical tourism services for patients who may be exploring relocation and retirement abroad. This growing trend in Europe could make Greece an attractive destination and leader in the field (Medical Tourism). Assisted living and care at home services can both support and benefit from an effort to attract European retirees for potential relocation to Greek destinations.

- *Securing and enabling access to diverse financing sources*. Enabling Greek companies to access diverse sources of capital, including for instance Private Equity or Venture Capital financing could help build significant growth momentum in the market. Providers need to build awareness and co-operate with private insurers towards the large-scale introduction of out-of-hospital care cov-

erage in the offered insurance packages, that would benefit patients and insurers in terms of cost control. They can also protect their profitability and margins by effectively targeting and capturing affluent patient segments potentially interested in premium services, through targeted campaigns and promotions in Greece and abroad. Last, the Greek state could also focus on rationalizing reimbursement policies and introducing targeted payor programs to facilitate funding release and public contribution.

Our estimates suggest that in a 10 year horizon the combined impact of growth in the various sub-segments of the market could enable sector revenues of €665 million, as well as significant savings in current acute spend of €670 million. Incremental annual impact (direct and indirect) on GVA could reach approximately €1 billion and approximately 24,000 new jobs. The trade balance would improve by €100 million and the fiscal balance by €400 million.

4.2.5. Waste management

The Greek population currently produces ~457 kg of household waste per capita per year – less than the European average of 502kg. The growth of the country's municipal waste volumes, 1.7% per year, has been slightly decoupled from its GDP growth (~3% per year), but has not yet flattened out.

Waste management in Greece is not as developed as in European peers. Indicatively, only 85% of the total municipal solid waste (MSW) in Greece is collected, compared to 100% in countries with more sophisticated practices. In addition, the country still heavily relies on landfilling, which remains the predominant waste management method accounting for about 77% of total weight of waste managed compared to only 41% for EU average (Exhibit 73).

Greece lags behind European peers in the adoption of advanced waste management methods, as the low cost of landfill has been acting as a 'barrier' towards adopting alternative, more effective and environmentally friendly methods (e.g., Greece treats only 4% of organic waste vs. 68% in Europe). This is particularly problematic, since, Greece has a much higher share of organic matter in municipal waste than other European peers (46% vs. 25% EU average). Composting is underdeveloped and anaerobic digestion is not available for MSW, although both are considered preferred methods for managing organic waste. Recycling is at levels comparable to the EU (21% in Greece vs. 23% EU average over total waste weight and 39% in Greece vs. 31% EU average over total non-organic waste), yet lagging behind several EU countries. At the same time, incineration with energy recuperation is still not available as an alternative disposal method for non-organic waste.

The EU Landfill Directive obliges member states to reduce, by 2016, the amount of biodegradable waste managed through landfill by 65% compared to 1995 levels. Compliance with the directive implies a very different waste management landscape for Greece requiring major investment in alternative treatment infrastructure and a change in consumer mindsets.

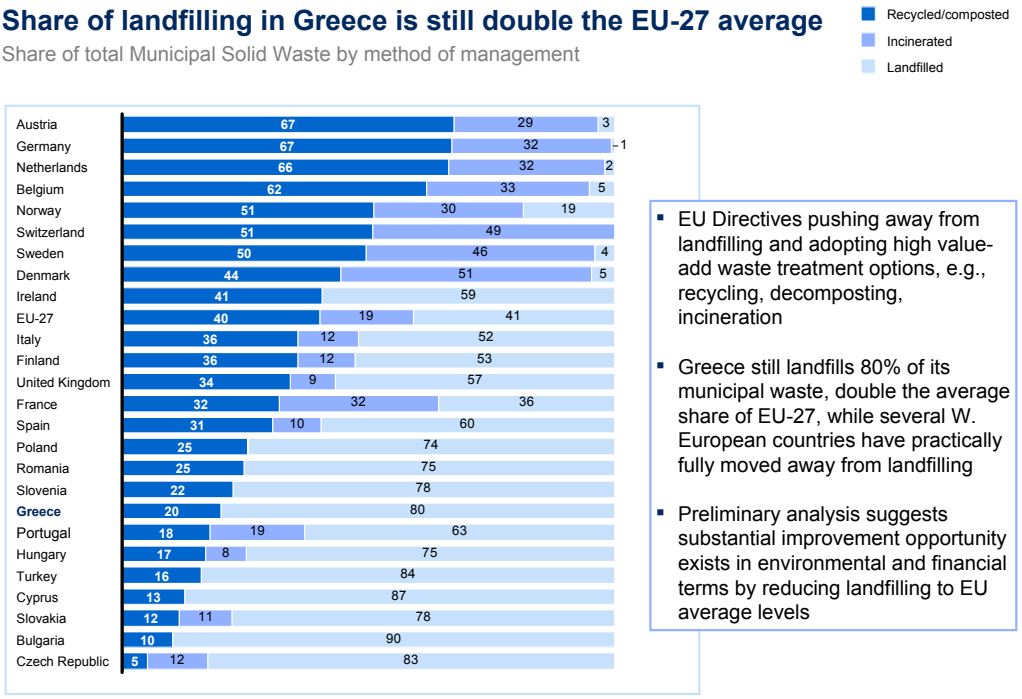
We outline eight possible priorities and measures for the Greek state and market players/investors to consider grouped in three main themes, namely:

- *Reducing waste volumes and improve sorting,* focusing on educating the public to reduce waste volumes - but also to sort waste that is a key enabler for adopting waste management methods alternative to landfilling - providing 100% collection coverage volume, and collecting sorted waste;

Exhibit 73

Share of landfilling in Greece is still double the EU-27 average

Share of total Municipal Solid Waste by method of management



SOURCE: Eurostat Structural Indicators, Mavropoulos et al.

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- *Upscaling and upgrading recycling and other alternative (to landfilling) capacity.* This involves accelerating consolidation of small recycling players to increase efficiency/viability, enabling the introduction of composting and incineration infrastructure, launching additional tenders for Public-Private Partnerships (PPPs) to handle waste in Greece, creating a level playing field for alternatives to landfilling, and making regulatory adjustments, so as to allow industries to use processed waste as fuel;

- *Ensuring systematic regulatory compliance and planning.* Measures would include introducing a compliance gatekeeper and providing training for the regional and city administrators that are responsible for the integrated waste management plan.

The growth upside for the domestic Waste Management sector can be substantial. We estimate that the annual impact on GVA could reach approximately €0.6 billion, while more than 11,000 new jobs could be created in a 10 year horizon.

4.2.6. Regional cargo & logistics hub

The Eastern Mediterranean region offers strong fundamentals for the development of a cargo & logistics hub, as it is located on one of the three largest intercontinental routes worldwide with approximately 19 million TEU (Twenty-foot-container Equivalent Units) going through the region in 2009 and a significant growth in trade of approximately 9% annually between 2004 and 2008 (Exhibit 74).

There are two prevailing types of maritime trade flows, namely transshipment and gateway. Indicatively, the value addition of a TEU (Twenty-foot equivalent unit) is €30-100 from transshipment and €400-500 from gateway. Overall, Greek ports are strategically located and highly relevant to serve as regional hubs. Piraeus' relatively low distance from the main Mediterranean maritime route (i.e., 210 nm) allows it to become a transshipment center while both Piraeus and Thessaloniki are well positioned to serve as gateway ports. Between 2000 and 2010 trade flows passing from Greece grew at 8% per year reaching €85 billion.

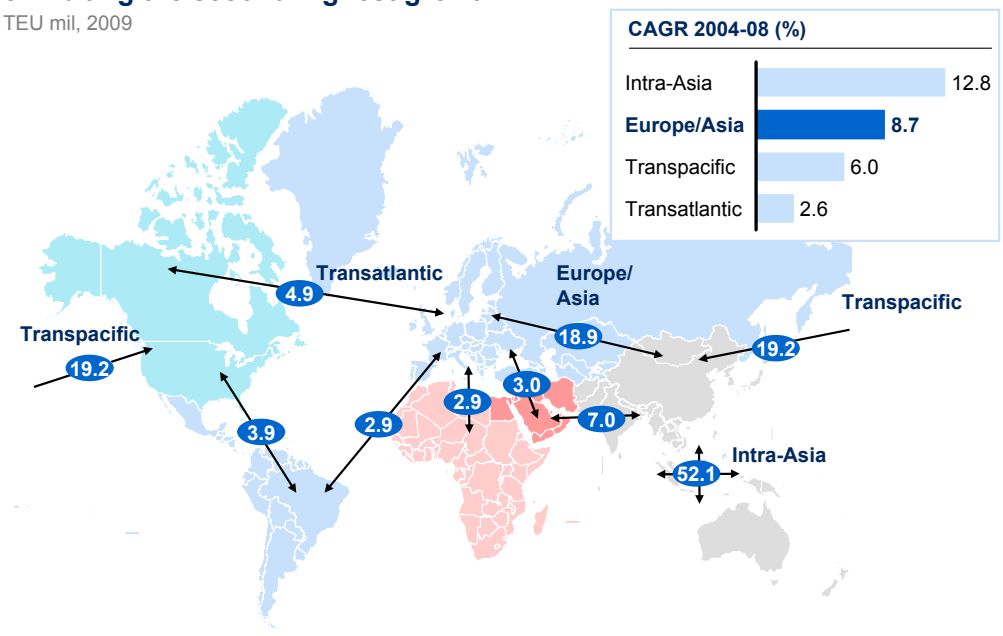
Piraeus' main competing transshipment ports are Gioia Tauro (Italy), Port Said (Egypt), Marsaxlokk (Malta) and Mersin (Turkey). In gateway, Piraeus and Thessaloniki are primarily competing with Ambarli (Turkey), Constantza (Romania), Trieste (Italy) and Varna (Bulgaria).

In order for Piraeus and Thessaloniki to strengthen their position as regional hubs a number of challenges need resolution: (i) in terms of *infrastructure and operational readiness*, Greece's logistics performance is lower across most levers. Port facilities can cater for present needs but need upgrading in order to capture future flows. Rail infrastructure is poor both at a local and a national level and Greece lags behind competitors in terms of operational efficiency and stability (e.g., takes ~11 days for Piraeus and

Exhibit 74

There are three major container trade flows globally, with Asia-to-Europe exhibiting the second highest growth

TEU mil, 2009



SOURCE: Drewry

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Thessaloniki for import customs clearance and discharge port handling while it takes 6 or fewer days in competing ports). (ii) in terms of *cost competitiveness*, while freight costs (e.g., from China) are relatively in line, customs clearance costs are the highest in the region and hinterland transportation cost is high from Piraeus; (iii) as far as *capabilities* are concerned, the Greek sector is under-penetrated by global players, and – beyond some notable 'niche' exceptions – educational programs specialized in transportation and logistics are not sufficient.

We have identified eight possible priorities and measures to boost the growth of the sector in the next decade grouped in four strategic themes:

- *Enhancing Greece's strategic relevance and supporting transport infrastructure.* This would further leverage partnerships with large cargo operators and introduce concessions for developing, operating, and managing port facilities and its key infrastructure. Given Thessaloniki's strong relevance as a gateway port, it would be important for the international partner to be able to secure large trade volumes to the Balkans, Central and Eastern Europe. Moreover, the necessary rail infrastructure needs to be developed (e.g., Patra-Piraeus-Thessaloniki-Evzoni/Kipi high speed cargo rail connection) and the motorway network to be completed.

- *Improving port infrastructure and operational attractiveness.* Monitor planned capacity expansion at Piraeus (i.e., 3.6 million TEUs in 2014 and 4.7 million TEUs in 2016) while accelerating the capacity expansion at Thessaloniki (i.e., 1.24 million TEUs). Targeted infrastructure additions and enhancements are required to increase effectiveness and efficiency of operations in both Piraeus and Thessaloniki ports (e.g., large container ships cannot currently embark at Thessaloniki due to depth). Both Piraeus and Thessaloniki need to assess the adequacy of their storage capacity as well as the number and length of cranes (quay and yard) to cater for future needs. Finally, Greek ports should ensure information availability and transparency by establishing an electronic platform inter-connecting commercial and regulatory systems for trade & logistics (e.g., in line with competing ports such as Constanza).

- *Ensuring cost competitiveness*. Greek ports need to optimize handling charges, port fees, customs costs and, administrative burdens against demand elasticity and leverage technology to reduce the time and cost requirements for port handling. Administrative processes related to customs clearance and port handling need simplification and lower charges.

- *Building sector critical capabilities.* This involves revamping the transportation & logistics university education and promoting the creation of a 'logistics cluster' in Greece; to support the development of the 'logistics cluster', Greece could attract major regional R&D programs as well as offering specific allowances and incentives for foreign companies to develop their logistics base in Greece.

The transformation of Piraeus and Thessaloniki into hubs would have substantial positive impact on the Greek economy adding approximately €1.3 billion of annual Gross Value Added (GVA) and creating a minimum of 9,000 new jobs in a 10 year horizon.

4.2.7. Secondary Rising Stars

Further to the six primary 'rising stars', **Greece 10 Years Ahead** outlines opportunities in two additional sub-sectors, which are expected to yield relatively smaller impact in terms of GVA and employment, but could constitute a strategic and symbolic role for the new extrovert model of the Greek economy.

4.2.7.1.Classical Hub

Greece can leverage on its unique history and Classical heritage and become a globally relevant Classical Hub acting both on the Classical Studies and the Classical tourism fronts.

The focal point of the country's effort in **Classical studies** could be to develop *two world class international postgraduate programs with a focus on Classical Theatrology and Classical Archaeology.* The two postgraduate programs could be offered jointly from the University of Athens and the University of Thessaloniki, with one program focusing on Theatrology and the other on Archaeology.

There are four main prerequisites in doing so: (i) *Ensuring top quality faculty members* with the aspiration for the two programs to have at least 30% international faculty members and the faculty-to-student ratio to be around 1:7; (ii) *enticing top foreign students to study in Greece* aspiring for 50% of the students to be international with teaching, as well as university services being in English and scholarships being available for distinctive candidates from abroad; (iii) granting full access to *infrastructure and facilities* available (e.g., libraries, archaeological digs, laboratories) and free access to all museums and archaeological sites; and (iv) *proper governance* requiring the two postgraduate programs to operate with greater flexibility than current academic programs in Greece adopting local best practices where available while escaping the structural inefficiencies of the tertiary educational system.

Classical tourism could be a standalone tourism proposition targeting a particular segment of visitors or a complementary proposition for the 'sun & beach', 'sailing/yachting', 'city break' or other visitor segments. Despite Greece's apparent inherent advantages, Greece's Classical (and more broadly cultural) tourism seems to suffer from a lower quality perception as a result of typically mediocre visitor experience. It is indicative that among 177 cultural sites and museums analyzed, 65% (i.e., 116) do not even provide basic services such as toilets, canteen, and parking while opening hours remain inflexible and several sites are reported not to meet the aspired operating standards. Finally, Greek Tourism campaigning traditionally focuses on the mainstream 'sun & beach' theme and past efforts to promote Classical tourism have been few and of relatively limited global reach.

To effectively develop Classical tourism, Greece could consider several changes and reforms such as: (i) *immediately addressing infrastructure and service gaps* and developing a comprehensive 3-5 year site development plan; (ii) *securing opening schedule flexibility and higher quality operating standards* by establishing a new framework for the opening hours and introducing the role of site manager; (iii) *developing attractive experience propositions* with the state facilitating the development of attractive 'packages' (to be offered by the private sector) and developing a smartphone/tablet PC application covering prominent sites; (iv) reinforcing the country's global position with "Classical Greece", effectively integrating and promoting the "Classical Greece" concept within the 'umbrella' Greek tourism campaign and developing a dedicated website (e.g., "Classical-Greece.com", "Greek-Heritage.com"); (v) *generating revenues* (ticket and product) for *re-investment* into *"Classical Greece"* and closing the gap between Greece and its European peers who manage to extract three times more revenue per visitor; and (vi) *developing the necessary capabilities* through focused training programs for site personnel and the injection of market talent into the Ministry of Culture and the Archaeological and Expropriations Fund (Ταμείο Αρχαιολογικών Πόρων & Απαλλοτριώσεων – ΤΑΠΑ).

Developing Greece as a pre-eminent 'Classics Hub' featuring international Classical postgraduate programs and a new concept for Classical tourism would have a major strategic and symbolic impact for Greece. It would also have a small yet accountable economic impact for the country. In a 10 year horizon, the incremental GVA and employment impact for the Greek economy could be €25-30 million and 500-750 new jobs respectively.

4.2.7.2. Greek Specialty Foods

Fourteen (14) Greek Specialty Foods have been prioritized, based on their unique association with a Greek origin and their uniqueness as traditional Greek products, as well as their attractive standing as growth products, given recent international trends. Greek Specialty Foods include a variety of products, from niche ones (e.g., mastiha) to widely available categories of food (e.g., honey), including both industrially produced products (e.g., ouzo) and manually processed ones (e.g., crocus-saffron). The total production value of these prioritized products exceeds €600 million per annum.

An initial investigation into the factors potentially constraining the growth of Greek Specialty Foods identifies two main issues, related to marketing and sales, and production capacity. On the former, Greece has not so far succeeded to position its Specialty Foods at the high-end of international food markets, facing competition from lower cost and seemingly inferior quality products. On the latter, there appear to be structural capacity issues hindering scaling up of production in Greece, as well as an unsophisticated supply chain. To address these shortcomings, Greece 10 Years Ahead outlines six possible reforms and improvement measures grouped under three main strategic priorities:

- *Defining clear strategic directives and a detailed end-to-end strategy for Greek Specialty Foods.* This would entail the clustering of this diverse set of products into consistent categories according to characteristics such as production scalability and supply chain sophistication. For those Specialty Foods with an export potential, the focus should be given on penetrating high-potential international market clusters based on their size, growth prospect and receptiveness to Greek products (market clusters share common retailer networks and therefore have significant synergies in terms of commercial approach). Priority 1 market clusters would include the US, Canada, the UK, Germany and Austria, Scandinavia, and the Balkans. Priority 2 market clusters would include France & Belgium, Italy, Russia, Australia and selected Central European countries.

- *Ensuring production and supply chain efficiency.* This would entail actively supporting producers (especially small size) to increase their production and efficiency, through provision of technical know-how and enhanced collaboration. It would also be important to integrate the category in the "Made in Greece" origin certification platform, complemented by a more diligent auditing process to ensure differentiation versus lower cost and potentially inferior quality international products.

- *Ensuring market access.* This involves the creation of a 'Delicatessen Unit' within the "Greek Foods Company" (as defined in the 'Food Manufacturing' and 'Agriculture' sections) for the international promotion of these products and representing producers in their export activities. Equally important would be the adoption of multiple, efficient distribution channels, a task to be undertaken both by the "Greek Foods Company" and by market participants in the sector. Such channels could be categorized into: (i) domestic channels, with a preference in tourists' entry, exit and accommodation points; (ii) international channels, focusing on high-end delicatessen stores, or shops-in-shop in major multi-national retailers; (iii) e-commerce allowing global access to consumers, supported by an efficient and effective supply chain and logistics infrastructure.

In a 10 year horizon, the incremental impact on Greece's GVA could be in excess of €100 million per annum, including growth effects on adjacent sectors. In addition, more than 3,000 new jobs could be created.

McKinsey & Company, Athens
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