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Greece – India
The benefits of reform driven growth

- In the past both Greece and India have posted impressive economic growth in the wake of strategic structural reforms and, for Greece, EU and EMU membership.

- Growth in Greece faltered, and turned into a severe and enduring crisis, in the wake of a persistent failure to build on initial reforms and to show fiscal restraint in the context of the favorable financing conditions created by the euro zone membership. Growth in India has been supported by a gradual liberalization of key aspects of the economy. In both countries the untapped growth potential from pending reforms remains substantial – actually OECD studies indicate that for Greece the upside is one of the largest in the OECD.

- In both countries the administrative burden and excessive regulation of markets, and the corruption that emerges in such environments, remain often unnecessarily high. Reducing legal complexity and vagueness, reducing administrative burdens to businesses and removing legislation that explicitly or implicitly curtails competition remains in both cases the most appropriate way to reduce corruption and to encourage innovation driven entrepreneurship that can make the benefits of growth accessible to a larger share of the population.

- Greece went ahead with the deregulation of significant sectors, like telecommunications and financial services, in the 90's and the positive impact of these reforms was enhanced by the macroeconomic stabilization that followed the EMU accession of the country. Yet important network industries, like energy, road transport and rail, remained regulated and closed to competition, along with other key product markets and professional services.

- Recently and in the wake of the conditionality program Greece has implemented numerous and important reforms, in the labour markets, in road haulage and recently in certain aspects of the business environment. The fact that many of there reforms were implemented after significant trepidations, often with delay and only under forceful pressure from the sovereign lenders on the Greek political establishment, has added to the fact that the notion of what has been implemented often is not accurately reflecting the extent of the reforms that have been implemented.

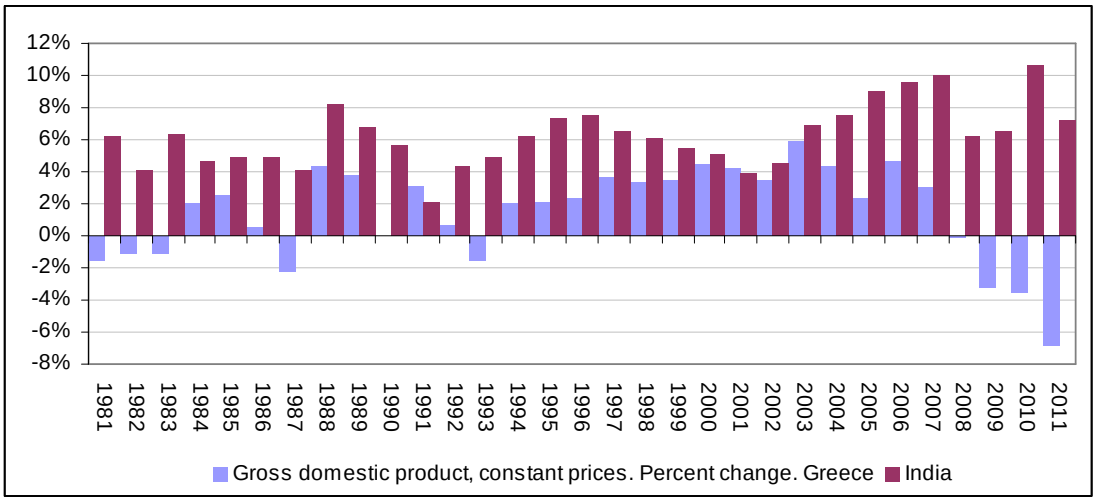
- Recent and pending reforms in Greece are set to facilitate a revival of manufacturing and an opportunity to make the most of an extensive research infrastructure. At the same time innovation driven entrepreneurship in India has the potential to spread towards the rural areas, thus affecting the lives of millions and creating significant opportunities.

Contents:

1. Macroeconomic Environment

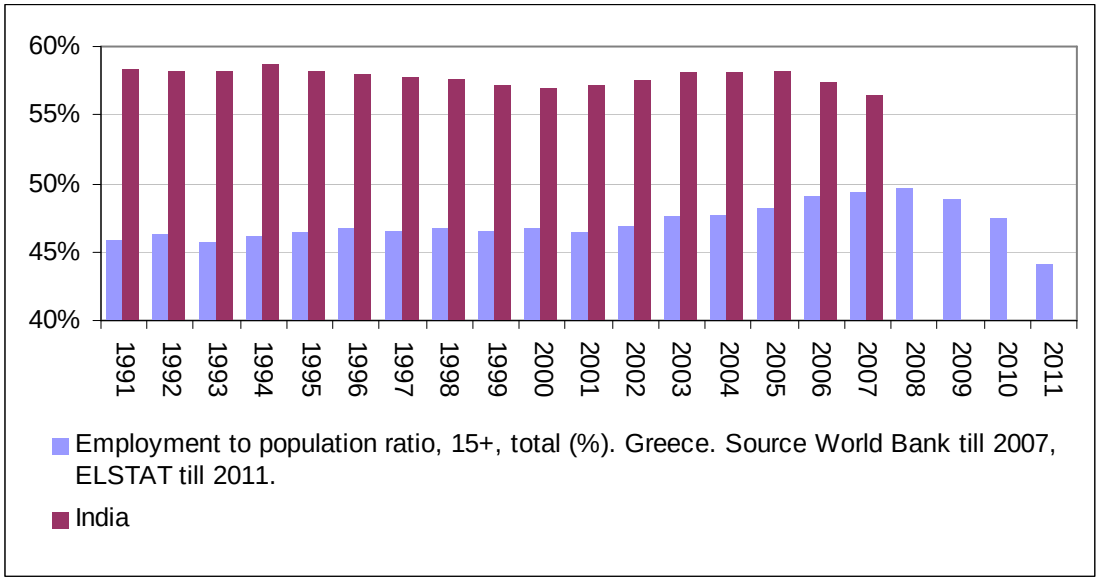
After almost two decades of strong growth, Greece has currently entered a prolonged crisis (Figure 1) that was caused by the inability to follow up on initial reforms and to consolidate public finances. Yet in spite of the rapid growth of the previous years, the employment rate remained relatively low (Figure 2), reflecting the increasing built-up of administrative obstacles to innovative, and job creating, business initiatives. This is also reflected by the relatively low share of the private sector payroll for salaried employment, relatively to GDP (Figure 3). India, on the other hand, has also built on past reforms to secure persistently strong growth, and without fiscal imbalances like the ones Greece built up in the past, and failed to reign in afterwards, does not face similar threats to the private economy. Yet the challenge to make growth more inclusive, especially through the increase of the employment rate, also is relevant for India and thus the focus of future reform efforts.

Figure 1: Real GDP growth



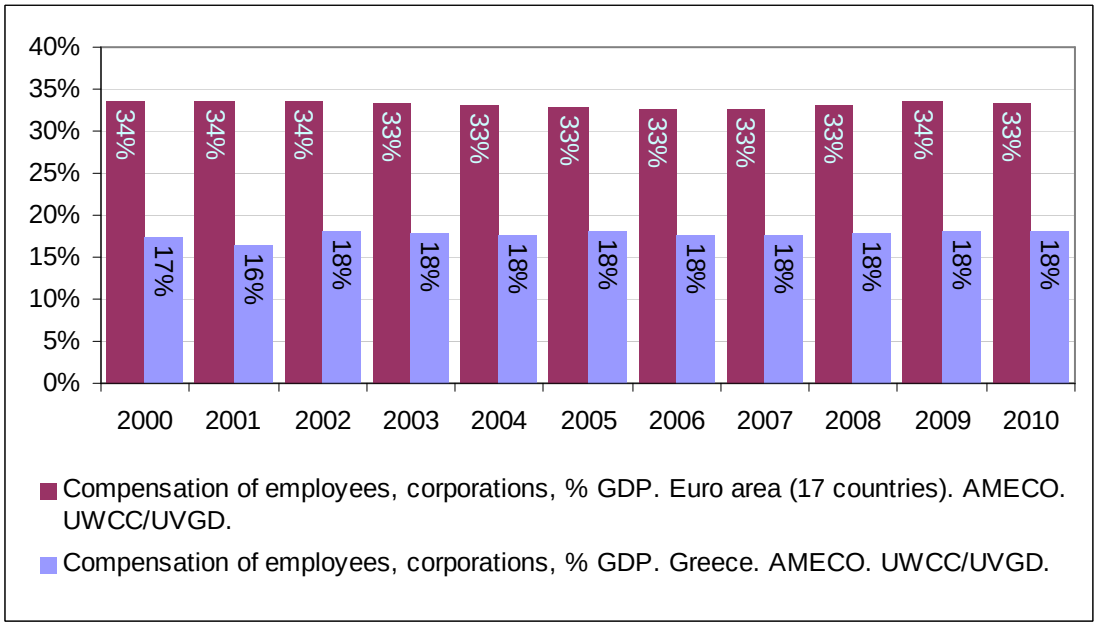
Source: International Monetary Fund, World Economic Outlook Database, April 2012

Figure 2: Employment rate



Source: Use of data on total population (National accounts) (NPTD) and Employment, persons: total economy (National accounts) (NETN) by AMECO

Figure 3: Compensation of employees in Greece



Source: AMECO database

Table 1: Macroeconomic policy comparison

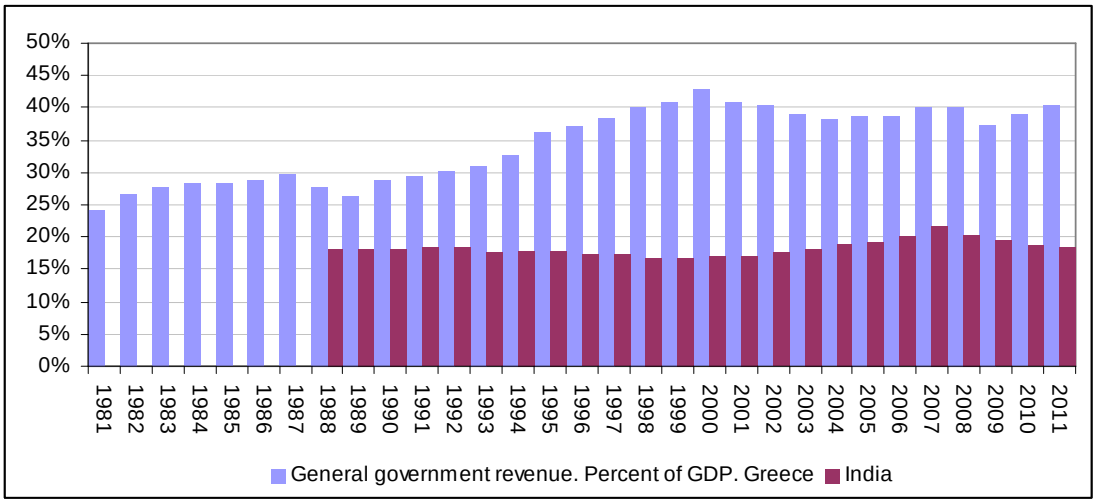
	India	Greece
GDP	Strong growth for the past 30 years	Strong growth from 1994 till 2008
Unemployment	Strong growth has not been as inclusive as possible.	The period of strong growth did not lead to a commensurate improvement in the job market, as private sector jobs remained scarce and relatively lowly paid. During the recent crisis employment in the private sector has declined forcefully, increasing unemployment dramatically undermining social coherence.
Government finances	While the debt of the central and regional governments remains at levels that do not give raise to immediate concern, government budget deficits need to be kept under control. Reforming the tax system as well as the system of subsidies, both of which are under discussion, should contribute significantly towards this goal.	Deficits and debt increases of the general government began to soar in the 80's. Inability to rein them in during the period of strong growth led to the current impasse. A reduction of outstanding privately held government debt essentially equals the accumulated deficits of the past 3 years. In spite of the progress of the past years, the appropriate determined, and balanced, reform effort still needs to be formulated.
Social evolution	In spite of the significant progress made during the past decades, reduction of poverty and universal access to health services remain significant challenges in a large and young population.	Significant challenges from rapid population ageing are paired with challenging debt numbers and public finance prospects. Social security reform, both implemented and pending, alleviates the largest pressures on future fiscal positions.

2. Public sector finances

For India significant fiscal challenges remain, and at the same time the fast growth of the economy remains a significant contributor to the ability to increase the government's, both central and local, revenue at a rate that matches the raise in expenditure. These challenges can be pinpointed on both the revenue and expenditure side. Regarding the revenue side, a current negotiation to introduce a Goods and Services Tax (analogous to the VAT) aims to replace the existing, complicated, tax system and thus expand the tax base and remove distortions that are introduced by the current system. The new system will also ensure that the appropriate distribution of the tax

revenue among the central and local government is maintained. Related is also the current negotiation for a new Direct Tax Code (DTC). Once implemented, the tax system can be expected to become much more transparent, simple and efficient. These reforms can contribute towards an increase in tax revenue, which as a percentage of GDP remains relatively low, (figure 4) due to the broadening of the tax base, in spite of a discussed reduction in rates.

Figure 4: General government revenue



Source: International Monetary Fund, World Economic Outlook Database, April 2012.

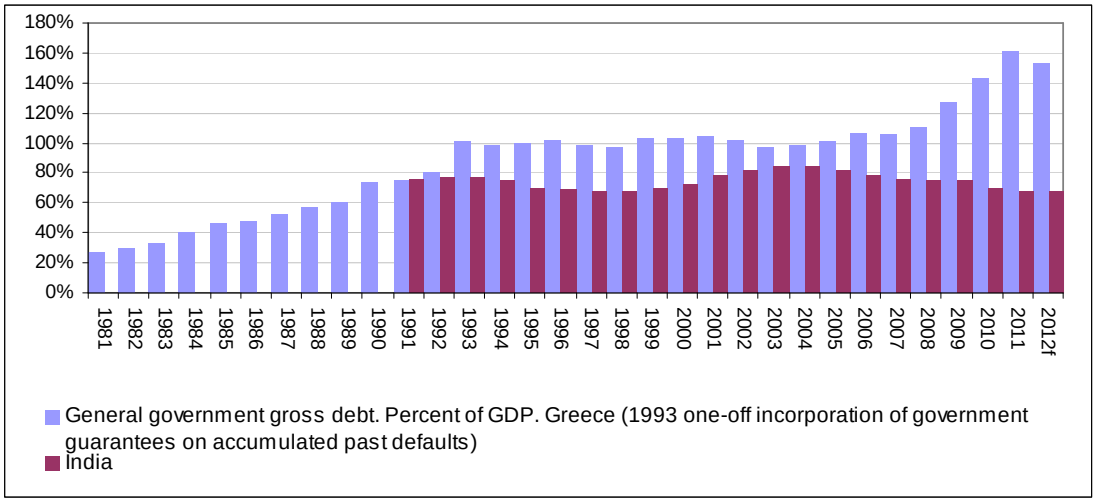
Regarding the expenditure side, India's Unique Identification program (UID), already the world's largest biometric database, is expected to facilitate the introduction of direct cash transfers and the reduction of fuel and fertilizer subsidies that currently form a significant expenditure item even though it performs poorly in its aim to support the neediest parts of society. The expected impact both on the fiscal balance and on the efficiency of social transfers is expected to be significant.

These and other related initiatives aim to keep the public finances on a sound path in spite of an aim to boost spending on public investment and PPP's, health, education, and food subsidies and ensuring sufficient capitalization of government controlled financial institutions.

For Greece, the high fiscal deficits and the renewed increase in the public debt (Figure 5) point to the urgency of improving the fiscal situation and efficiency of the public sector. The current situation looms heavily over the present and future of the economy, creating levels of macroeconomic uncertainly that have an increasing and material impact on the productive economy. The fiscal situation of the government will be difficult to improve as long as the ratio of public sector employees to private sector employment remains high, and as long as the average remuneration per public sector employee remains above the average remuneration per private sector employee – regardless of the absolute level of these. The latter situation can

be altered only to the extend that private sector employment, and employment terms, improve, which in turn requires a regulatory setting that will allow such a development. Increases in taxes, however large and frequent, on the, currently shrinking, tax base formed by private sector income and by aggregate consumption, cannot, on their own at least, match the fiscal imbalances at hand. In spite of these adverse circumstances, in the past years successive reforms regarding the social security system have lowered significantly the impeding costs related with the ageing of the population, thus removing a major threat to the soundness of the long term fiscal prospects of the country. Further reforms regarding the social security system now will have to focus on supplementary schemes, that often are underfunded and where, again often, contributions and benefits are not aligned. Finally it should be kept in mind that other countries have dealt effectively with similar challenges in the past. The legacy of the fiscal consolidation of countries like Ireland in the 80's and Finland in the 90's should be used as a case study for Greece today.

Figure 4: General government consolidated debt



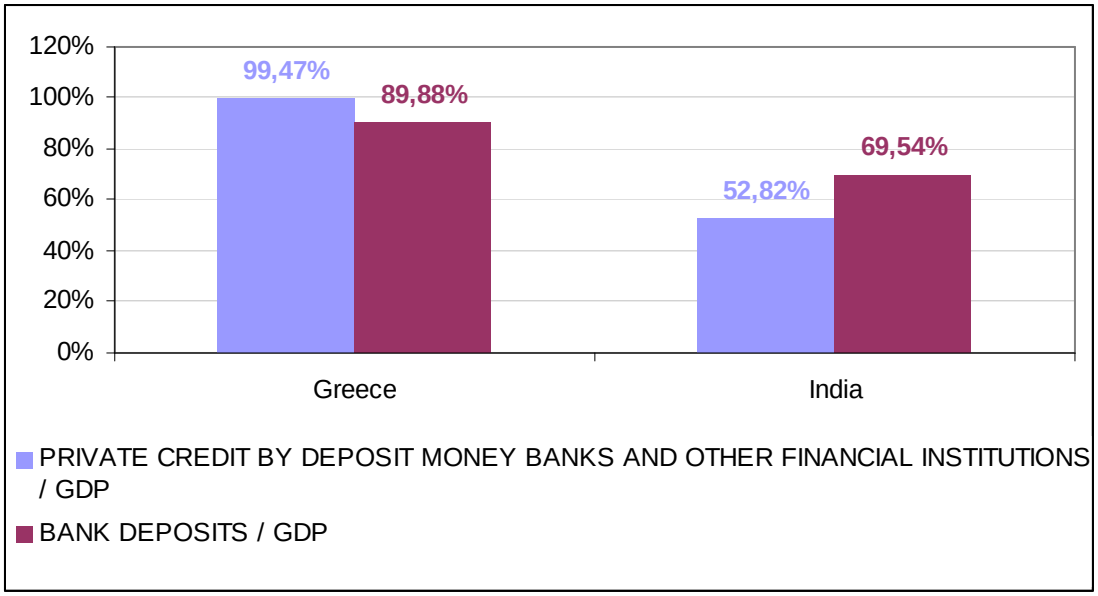
Source: International Monetary Fund, World Economic Outlook Database, April 2012.

3. Structural reform and the Business Environment

For India the main issues regarding the business environment include infrastructure bottlenecks (power supply, road and rail transportation) and the relatively high costs of doing business. International organizations like the IMF and the World Bank recommend reforms like simplifying procedures to issue business permits, making contracts more enforceable and facilitating land acquisition. Regarding energy, they call for a better allocation of domestic coal, bringing state electricity boards' finances onto a sustainable footing, and reforming coal pricing and electricity tariffs. At the same time, it is noted that ongoing reforms of the financial sector, labor market and agriculture as well as human capital development through education and training contribute to India's growth potential. According to the World Bank, Indian financial institutions should be allowed to reduce the predominance of government

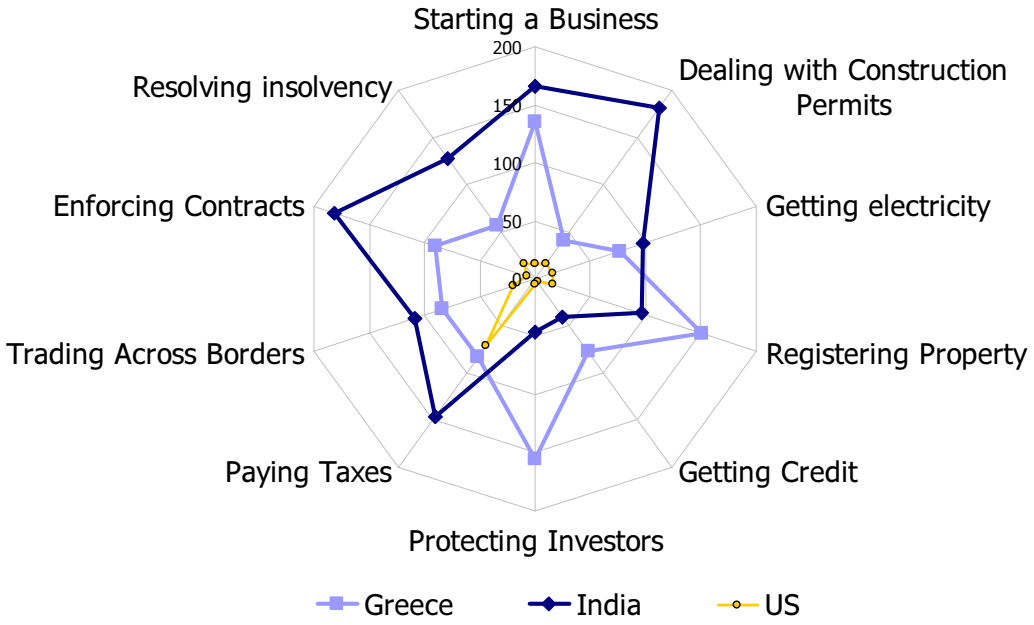
securities in their portfolios, and favor more private sectors financing (Figure 5).

Figure 5: Private credit and deposits



Source: World Bank, Financial Structure Dataset, 2010 revision, 2009 data.[1]

Figure 6: Doing Business 2012 rankings



Source: World Bank, Doing Business 2012. Ranking. If lower, it is better.

[1] Citation: Thortsen Beck and Asli Demirgüç-Kunt, "Financial Institutions and Markets Across Countries and over Time: Data and Analysis", World Bank Policy Research Working Paper No. 4943, May 2009

Table 3: Flagship reform comparison

	India	Greece
Financial sector deregulation	Yes, from the 90's, but certain issues remain as public ownership and certain regulatory restrictions.	Yes, from the 90's, currently put under severe strain by the challenges faced by the public finances.
Energy sector deregulation	Significant remaining obstacles in electricity market deregulation. Significant distortions introduced by subsidies, which should be addressed by plans currently discussed.	Not yet sufficient, in spite of opening up of LNG terminal to private users. Increases in energy taxes and fees for network users raise costs for exporting energy intensive industries.
Road freight sector deregulation	Deregulated.	Implementation of existing legislation regarding issuing of new licenses, and completion of legislative initiatives beyond baseline, pending. Deregulation of fares has led recently to their large decline.
Telecommunications deregulation	Relatively deregulated.	Yes. 90's but with some backtracking, especially regarding the regulatory framework of mobile communication base stations. High taxation of mobile communications.
Professional services	Significant remaining obstacles.	Remaining obstacles in spite of recent legislative acts to deregulate, whose implementation is pending.
Public sector and budget reform	Needed.	Needed.
Administrative burden	Remains at high levels.	Significantly lagging EU and OECD peers. Remains at high levels, but recently initiatives to reduce it have begun.

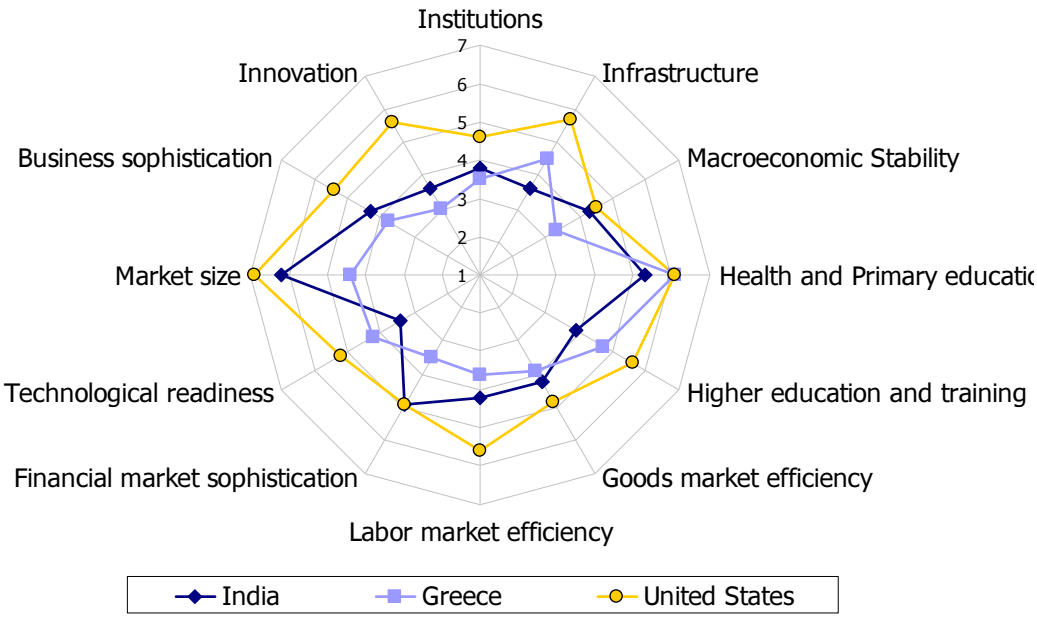
A comparison of the Doing Business rankings (Figure 6) reveals that both countries must strive to remove unnecessary impediments to doing business, and thus support growth and innovative entrepreneurial activity. Regarding India one can identify as areas where the country can improve its ranking the introduction of online filing of social security and related state insurance taxes, the high corporate tax rates and issues related with construction permits. In both countries the high cost of registering property – due to the high taxes involved – and the unnecessarily complex paperwork and cost involved in

certain steps of trading – including exports - stand out as to areas where gains should be easy to achieve. It should be added that the marks regarding "getting credit" refer to institutional aspects of the financial markets, and not the availability – or lack of – liquidity.

Regarding employment protection legislation, important legislative initiatives taken in Greece during the past years are not yet been captured by the benchmark indicators traced by the World Bank, which anyhow now presents the related data on a separate database that does not affect anymore the overall ranking.

As a result of these reforms the flexibility of the labour market in Greece has increased significantly. These changes have made entry in the job market easier, by lowering the minimum wage, and created a framework that facilitates the alignment of pay to productivity. Furthermore, the compulsory nature of the arbitration system was abolished, working time management has been facilitated and restrictions that hampered the use of temporary contracts, fixed-time contracts and part time work, were removed. Finally the limits on permitted layoffs have been raised and the excessive notice period for blue collar workers has been significantly reduced. Overall the cumulative effect of these changes, while not yet registered in international competitiveness surveys, should lead to the reclassification of the Greek labour market as very flexible by international surveys.

Figure 7: WEF: Global Competitiveness components

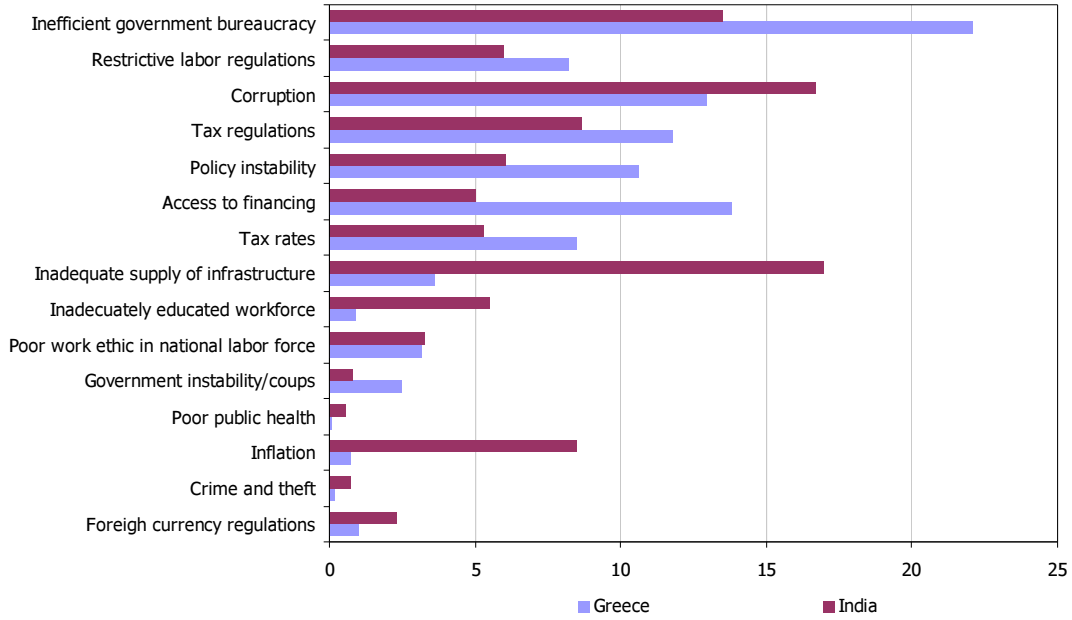


Source: World Economic Forum, Global Competitiveness Report 2011 – 2012. 1 lowest, 7 best.

The World Economic Forum, Global Competitiveness Report, (Figure 7) highlights for both countries the need to improve governance – as reflected by

the business community assessment of the government bureaucracy, tax regulations, corruption and policy instability. Tax rates are a concern in both countries, but come second when compared to the issues of governance (Figure 8). Access to finance in Greece reflects the current implications of the sovereign debt challenges while the benefits of euro area memberships are reflected in the assessment of inflation, relatively to India. An issue that stands out for India is the inadequacy of infrastructure, as a major impediment to business development, something that is also noted by many other reports on the country.

Figure 8: WEF: The most problematic factors for doing business 2011 – 2012



Source: World Economic Forum, Global Competitiveness Report 2011 – 2012

Again, for Greece, the impacts of numerous recent reforms are not yet reflected in these surveys (Figure 9). An indicative list includes:

Regarding network industries,

- The previously state owned airline has been privatized.
- Road haulage has been deregulated, and administratively set minimum prices abolished. While some related regulatory and – mainly – administrative obstacles remain regarding market entry, the deregulation of prices now leads to a significant fall of fares.
- Access to the LNG network has been allowed to private users.

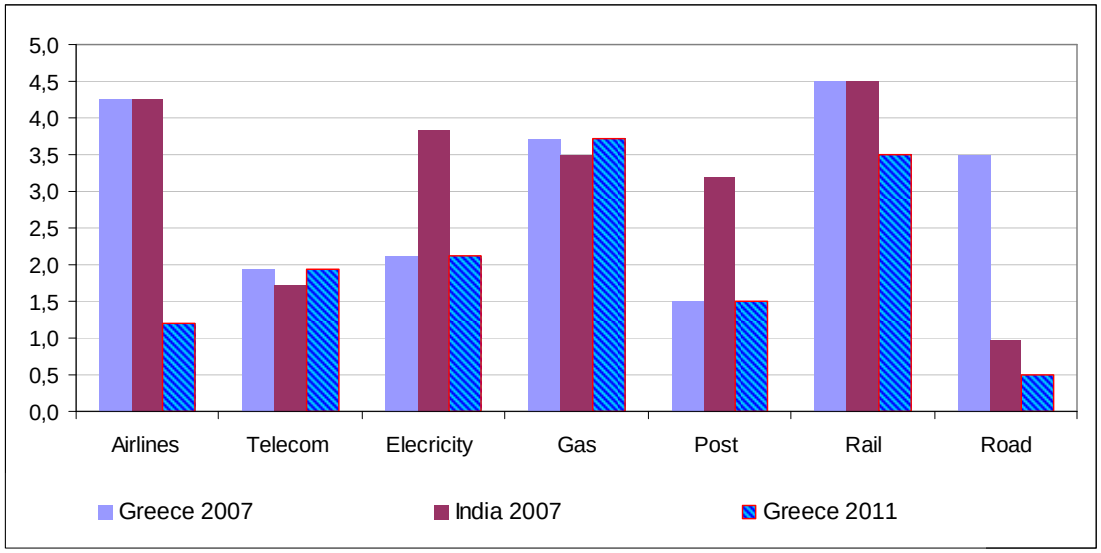
Regarding professional services

- Deregulation and open market access have been legislated in principle for the main professions, and numerous minor professions. Implementation is still pending though, but a gradual implementation is expected. Abolition of administratively set minimum fees in numerous professions has been legislated in principle, and implementation is anticipated.

Regarding the improvement of the business environment

- A significant simplification of process to license a new business establishment has been legislated, which amounts to the removal of a significant obstacle that hampered the revival of the Greek manufacturing base. A special fast track process for small production units and a streamlined process for larger units have been legislated, and already have lead to visible improvement on the ground. Related to this development, is an improvement in key legislative pieces regarding spatial planning and regarding the establishments of areas designated for production, business and logistics activities.
- A lift of unreasonable restrictions to modernize existing productive units in the area of Attica.
- Establishment of a one-stop shop to start a new business.
- Removal of obstacles for cruise ships with non-EU flags to start and end cruises in Greece as well as a welcome reform regarding of trainee naval officers in the merchant fleet.
- Removal of excessive restrictions for bake-off hot points in supermarkets.
- Abolition of requirement to publish annual accounts in newspapers.
- Numerous measures to accelerate the resolution of cases in Greek courts.

Figure 9: Regulation of product markets and professional services
Product Market Regulation, 2007/2008 *(Value of indicator[2])*



Source: OECD Indicators of Product Market and Professional Services Regulation for 2007 if not otherwise indicated /2008 if indicated. 2011 indicators for Greece extrapolated from OECD publications regarding Greece, 2011.

The fact that India has a large internal market, commensurate to a population that exceeds one billion, while Greece is a small country with 10 million inhabitants, is reflected in the Global Competitiveness Index. Respectively the macroeconomic challenges faced by Greece are also reflected in the survey, as is the to improve infrastructure in India and the relatively good

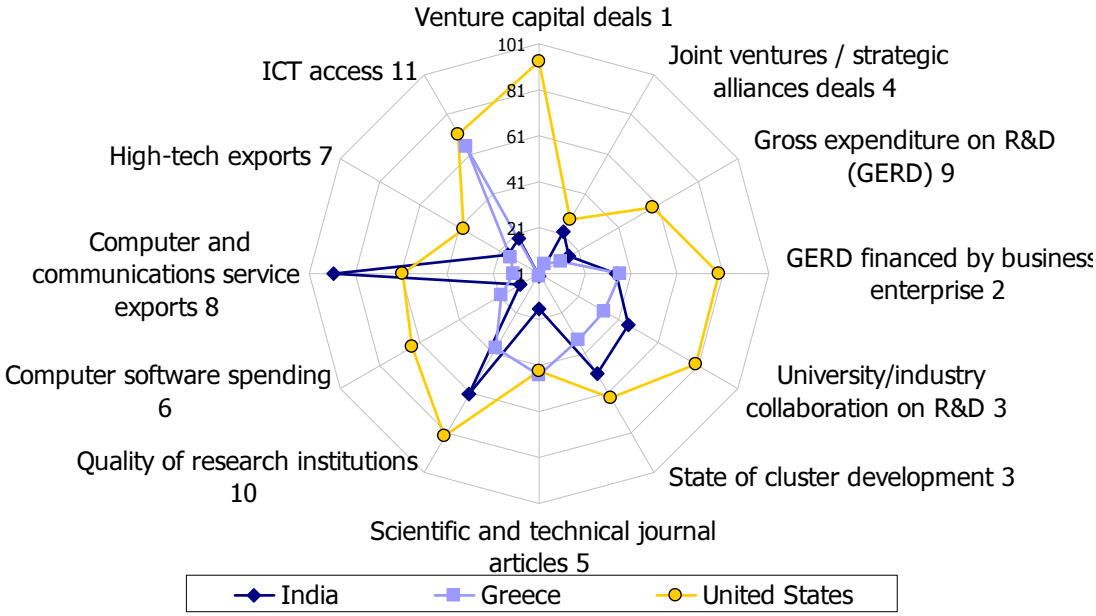
[2] The product market indicator of regulations is measured as a simple average of regulation in 7 non-manufacturing sectors: Rail, road, airlines, gas, electricity, telecom and post. The indicators are normalised, ranging from 0 to 6, expressed as percent of maximum score across OECD countries, where 6 reflects relatively most regulated product markets.

performance of education system in India (to which one should add the caveats of the OECD that it reflects islands of excellence in a system that needs improvement in areas that are less privileged).

The experience of countries like Ireland (in the80's) and Finland (in the 90's) that aggressively improved the business environment, and subsequently observed a strong rebound out of adverse economic circumstances should inspire related reforms in both countries. Also the experience of Greece, where some reforms were completed in the early 90's, but then the progress of business friendly reforms stalled, should be taken into account by India as it faces future prospects and challenges related with sustaining strong and inclusive growth.

4. Innovation landscape

Figure 10 Innovation statistics



Source: Global Innovation Index, INSEAD[3]. 2011.

Figure 10 reflects some salient aspects regarding the innovation landscape in both countries. So, it reflects the fact that Indian services exports are relatively sophisticated, even though the goods export sophistication has remained at lower levels. It should be noted though that there is a clear shift away from traditional exports (e.g. textiles, gems, and leather products) towards medium- and high-tech products (e.g. engineering goods). The sophistication of Indian services has benefited from the "reverse brain drain" that has formed over time a young population that is literate in cutting edge technologies, something especially evident in the fast growing and extrovert IT sector. The gradual inclusion of larger parts of the economy, and especially SME's, in the

[3] 1) per trillion of GDP, Thomson One Banker Private Equity Database. 2) % of total General Expenditure on Research and Development (GERD), UNESCO. 3) Index, min 1 max 7, WEF. 4) per trillion USD GDP, Thomson One Banker Private Equity Database. 5) articles per billion USD GDP, National Science Foundation. 6) % of GDP, World Bank World Development Indicators. 7) % of exports, excluding re-exports, UN 8) % of commercial services exports. 9) % of GDP. 10) Questionnaire answer, WEF. 1) composite index, International Telecommunications Union 12) Index, UN Public Administration Network.

community that invests in, and benefits from the use of, IT services, and where the country is still showing a deficit, is expected to contribute significantly to inclusive growth and the creation of new business opportunities. The specific challenges faced by the rural population in India imply both specific bottlenecks, as for example related to accessibility that is determined by infrastructure, and specific attributes of a field that favors grassroots innovations, as breakthroughs to solve problems like access to electricity, food stored and clean water in rural areas demonstrate. Is such an environment often innovation is created, and as the globalization of the Indian economy increases, it is then fed into global markets.

Developments in Indian financial markets, beyond the well-known case on micro-finance, increasingly facilitate initial funding of innovation in incubators and through the activity of venture capitalists, but the starting point are still very low. This also reflects the fact that many challenges remain, primarily regarding the ability to scale up innovative solutions especially in remote areas and in view of the often burdensome administrative environment. Thus, reforms in trade, investment in infrastructure and streamlining of logistics, can assist the drive towards innovative entrepreneurship, and build on the foundations set by developing business clusters and an increasing collaboration between universities and industries. It is at this point that one of the weakest spots of Greece is identified. A recent draft law that was offered for public consultation examined key aspects of the institutional framework that now discourages the collaboration between publicly funded research centers (that include by constitutional provision all research universities) and the private sector. As a result of these the collaboration of the research community and the private sector in Greece is limited, something reflected not only by the expenditure on R&D that originates from the private sector, but also the subjective assessment of their collaboration. In combination with restrictions regarding the governance of higher education institutions in Greece, which have been addressed by a recent law, these factors led to the low overall assessment of the quality of these institutions, in spite of the high quality of their scientific work. The potential and current trend is therefore to remove the obstacles to a deeper integration of the research institutions in the economy, something that is going to be facilitated by the development, in the past years, of an increasing number of clusters and incubators that are located around research institutions. These are located, or collaborate, with universities in Athens, Thessaloniki, Patras, Crete, Volos, Ioannina, Larissa, and host a broad spectrum of research and entrepreneurial activities.

Finally, legislative obstacles to venture capital activity in Greece could be removed in order to facilitate the financing of innovative entrepreneurial initiatives, especially now and given the impact that the situation of the public finances has on the ability of the financial sector to provide liquidity to an innovative business community.

Indicative list of science and business parks where the business and the research community in Greece collaborate closely
• Patras Science Park / University of Patras (broad support by the extensive curriculum of the university) www.psp.org.gr • Centre for Research and Technology Hellas in Thessaloniki (Focus on: Chemical Process Engineering Research, Informatics and Telematics, Transport, Agrobiotechnology, Solid Fuels Technology & Applications and Biomedical & Biomolecular Research) www.certh.gr • Thessaloniki ICT Business Park www.technopolis.gr • Foundation for Research and Technology in Crete (Focus on: Computer Sciences, Molecular Biology, Lasers, Telecommunications, Medical Engineering, Microelectronics, Robotics, Biotechnology, Materials, Chemical and Biological Engineering, Applied and Computational Mathematics, Biomedical Technologies, Bioinformatics) www.ite.gr • Corallia clusters initiative (Focus on: Nano/Microelectronics & Embedded Systems cluster) www.**corallia**.org • Scientific and Technological Park of Hepirous / University of Ioannina (broad support by the extensive curriculum of the university) www.step-epirus.gr • Centre for Research and Technology – Thessaly / Technology Park of Thessaly (Focus on: Mechatronics, Technology and Management of Agricultural Ecosystems, Biomedical Research & Technology and Human Performance & Rehabilitation) http://www.cereteth.gr www.tepathe.gr • National Centre for Scientific Research (NCSR) 'Demokritos' and Technology & Science Park of Attika "Lefkippos" (Focus on: Nuclear physics, radioisotopes and radio diagnostic products, materials science, ICT, microelectronics, physical chemistry, biology, nuclear technology and radiation protection) http://www.demokritos.gr • Lavrion Technological and Cultural Park / National Technical University of Athens (Focus on : information technology, electronics technology, telecommunications, robotics, technology laser, environmental technology, energy, shipbuilding , marine technology). http://www.ltp.ntua.gr