

1-1-2012

Tackling Ancient Problems: Higher Education Reform in Greece

William Dearden
Lehigh University

Follow this and additional works at: <http://preserve.lehigh.edu/perspectives-v30>

Recommended Citation

Dearden, William, "Tackling Ancient Problems: Higher Education Reform in Greece" (2012). *Greece: the epic battle for economic recovery*. Paper 9.
<http://preserve.lehigh.edu/perspectives-v30/9>

This Article is brought to you for free and open access by the Perspectives on Business and Economics at Lehigh Preserve. It has been accepted for inclusion in Greece: the epic battle for economic recovery by an authorized administrator of Lehigh Preserve. For more information, please contact preserve@lehigh.edu.

TACKLING ANCIENT PROBLEMS: HIGHER EDUCATION REFORM IN GREECE

William Dearden



Introduction

In August 2011, after decades of failed attempts, the Hellenic Parliament enacted substantial reforms to higher education in Greece (Kyriazis and Asderaki). Both major parties, the socialist PASOK and center-right New Democracy, supported this extraordinary legislation in spite of political instability caused by the debt crisis and the impending national elections. According to Alexandra Mitsotaki, founder of ActionAid Hellas, in her article in *Kathimerini*, “[The political parties] resist undertaking the overriding structural reforms that Greece needs, preferring instead to pursue profoundly unjust horizontal pension and salary cuts.” Greece may implement austerity measures in response to external pressures, but it does not appear to have the political will required for substantial reform. A rarely recognized fact, however, is that 260 of 300 members of Parliament voted in favor of the August 2011 reforms, which represents an unprece-

ented mandate for education reform (Mavrogordatos, 2012).

The 2011 reforms address long-standing issues in higher education and even remove the asylum law, which banned police from university campuses without the permission of university rectors. Because these are the deepest reforms implemented in Greece since the onset of the financial crisis, their outcome will provide the first indications of the potential long-term success of political and economic reform in Greece and its impact on current economic conditions. Results thus far are mixed.

The Greek higher education system was founded on lofty ideals, and these aspirations are founded in the nation’s constitution. Article 16 states, “Education constitutes a basic mission for the State and shall aim at the moral, intellectual, professional and physical training of Greeks, the development of national and religious consciousness and at their formation as free and responsible citizens.” To this end, the higher education is structured as follows by the constitution:

Higher education is provided solely by institutions which are public entities with full autonomy. These institutions shall operate under the supervision of the State and are entitled to financial assistance from it; they shall operate on the basis of statutorily enacted by-laws. [. . .] Professors of university level institutions shall be public functionaries. The remaining teaching personnel likewise perform a public function, under the conditions specified by law.

Students and professors who protest current reforms often cite these ideas encoded in the constitution.

Despite its seemingly high-minded aspirations, the Constitution has become an impediment to improvements in higher education in Greece (Psacharopoulos, 2003). Today, the Greek higher education system, instead of being an ideal academy free from market pressures, has become a classic monopoly with all of the attendant consequences and lost welfare (Mitsopoulos and Pelagidis, 2006). In this paper, I explore the consequences of the Greek state monopoly of higher education set forth by the constitution. Some of these consequences are highly restricted admissions requirements for students, low research output by faculty, and high spending for low quality in education. Despite historical problems in Greece, the higher education reforms of August 2011 bring reason for hope by addressing some of the difficult issues of Greek higher education. I explain the theoretical and empirical conditions necessary for the success of these reforms.

Historical Background and Structure

The original universities of modern Greece, the National and Kapodistrian University of Athens and the National Technical University of Athens, were both founded in 1837. From the beginning, university students were active politically. In 1843, students and professors participated in protests that forced King Otto to accept a Greek Constitution, and, in 1862, their clashes with police led to King Otto's abdication. Greece also had a relatively large university enrollment in the 19th century. In 1885, it led a sample of six western European countries with 10.9 university students per

10,000 inhabitants (Kyriazis and Asderaki). In 2009 it placed fifth in that same group (OECD). Greece eventually lost its lead partly because of the introduction of the *numerus clausus* system established in 1954 to stem the growing demand for education (Kyriazis and Asderaki; Psacharopoulos). In the *numerus clausus* system, universities negotiate the number of slots available in each department with the education ministry; students are then placed in universities based on exam scores and preferences (European University Association). The Greek higher education system and student numbers continued to grow through the twentieth century, though more slowly than in other European countries. Mostly, the system grew in the countryside, increasing student access to education in rural areas. In 1954 there were nine universities in Greece, six of which were located in Athens. Since then, Greece has added 14 universities with 32 campuses, including only one in Athens.

In 1967, a right-wing military junta took control of Greece in a *coup d'état*, an event that proved disruptive to higher education. The junta suspended freedom of thought and freedom of the press, and revoked the right of assembly. On November 17, 1973 the military was sent to quell a student protest. A tank charged onto the campus of the Polytechnic and killed 28 students in a crowd of protesters, causing an uproar that accelerated the downfall of the junta and ultimately led to the introduction of the asylum law in 1982. Under this law, Greek universities became safe places for protestors and anarchists, allowing them to assemble and plan protests.

Politics

Various groups benefit from the higher education monopoly in Greece. These groups include not only many students and tenured faculty, but also entrance exam tutors and cram school teachers. Because university admission is highly restricted in Greece, a cram school system emerged to prepare students for the notoriously difficult entrance exams. Private spending on tutors and cram schools in Greece is as large as public spending on secondary education (Psacharopoulos and Papakonstantinou, 2005). Not only do tutors and cram school teachers

benefit from this monopoly, but university professors also benefit from low expectations for research and teaching (Mitsopoulos and Pelagidis, 2006). While many students are hurt by the higher education monopoly, those who are admitted to universities can benefit from the system. For example, inactive students can remain in the universities without sitting for exams and still enjoy privileges associated with student status, such as discounted public transportation fares (Psacharopoulos and Papakonstantinou, 2005). Because over half of Greek youth are unemployed, students have low opportunity costs for remaining in school. Even though degree programs last four years, forty percent of undergraduates continue as students beyond six years (Mavrogordatos). Before the 2011 reforms, there was no limit on the length these “eternal students” could remain in the universities or any requirement that students make progress toward a degree. When free tuition is threatened, students protect it by exercising their substantial power on university boards and through protests and university shutdowns. This higher education monopoly persists in a democracy because faculty and certain students, while a small portion of the population, are willing to devote time and resources to resisting reforms that threaten their monopoly.

Entrance Examinations

The inefficiency of the Greek higher education system starts with the entrance examinations taken by students before they matriculate (Psacharopoulos and Tassoulas, 2004). The Panhellenic examinations require rote memorization and, because universities have a twenty percent acceptance rate, are very competitive. More than four out of five university students attend private cram schools (*frontistiria* in Greek), fifty percent have private tutoring, and one-third utilize both forms of preparation. The cram schools and tutoring add approximately twenty hours to the regular school week. Private spending on test preparation is 1.44 times larger than public spending on secondary education (Psacharopoulos and Papakonstantinou, 2005). Students observe that, though their public education is required, their real education comes through the cram schools. One

student says of her cram school education, “We know that the only way to pass the exams is to go to *frontistiria*. For us, school is *frontistiria* and not the public school” (*Athens News*, 2010).

The Ministry of Education rations university seats using *numerus clausus*, a system that determines in advance the number of spots for degrees within each university. Students then fill these spots based on their scores on entry examinations (Tsakloglou and Cholezas, 2005). This system, however, gives little regard to demand. Psacharopoulos and Tassoulas (2004) label the admission system as the Procrustean approach.¹ While only forty percent of students are accepted to universities or technical schools, the OECD cites departments such as the Fisheries and Aquaculture Department in Epirus, which are at fifteen to twenty percent of capacity according to the *numerus clausus* system (OECD, 2011).

Free Education

Psacharopoulos (2003) identifies Article 16 of the Constitution, which guarantees free education at all levels, as the reason for the high admissions standards. He argues that this law restricts access to education and subjects the quantity and quality of education offered to the limitations of short-term budgets. For example, the number of students admitted to all universities and technical educational institutes dropped from 84,690 in 2010 to 74,440 in 2011 (*Athens News*, 2011). This drop is more likely associated with fiscal austerity than with a drop in demand. Psacharopoulos lists other effects of Article 16: quality degradation, graduate unemployment, student exodus abroad, foreign exchange loss, misallocation of resources, and reduced human capital investment. In addition, Jacobs and Van Der Ploeg argue that higher education subsidies are always regressive (2006, p. 569). That is, the poor pay for the education of the rich. Tsakloglou and Cholezas (2005) find that wealthier students are more likely to seek supplementary private education and that this

¹Procrustes was a robber of Greek legend who either stretched or cut off the legs of his victims to fit his iron bed. “Procrustean” refers to the use of arbitrary standards in needs assessment.

extra education is effective in gaining admission to universities, even when controlling for wealth and parental education. So the effect of this “free” education is in fact an increase in inequality. According to Psacharopoulos and Papakonstantinou (2005), only the highly educated understand the argument that “free” higher education can increase inequality. Educated Greeks support this arrangement because they enjoy privileges such as less competition for civil service positions.

Greeks in general fear reform (Mitsopoulos and Pelagidis, 2011, p. 13). Because of the high incidence of tax evasion and the vast informal economy, Greeks fear the short-term losses of regulation without fully realizing the benefits of reform. This argument applies to higher education where the loss of free tuition is an immediate cost of reform while introducing fees has more uncertain benefits. However, this paper argues in a later section that the recent reforms (though they introduce tuition fees for only a small proportion of students) will eventually gain support as the benefits are realized.

Autonomy

The lack of autonomy in the Greek higher education system is well documented. Mitsopoulos and Pelagidis (2008) compare the administrative and financial autonomy of higher education in seven EU countries. The authors develop an index to measure autonomy with a minimum of zero and a maximum of seven by using seven categories. Greece has the lowest index at .5, significantly lower than even Italy and Spain, whose higher education problems were covered in previous volumes of this journal (Lynch, 2005 and Rheinauer, 2003). Financial and administrative decisions are almost entirely centralized. The ministry decides academic staff openings, though universities do make hiring decisions through a complicated set of procedures. Budgets are not given by lump sum; instead, the Ministry decides how to allocate the budget incrementally for each university.

Mitsopoulos and Pelagidis find a high correlation between this autonomy index and the rate of highly cited faculty publications. Similarly, Martins et al. (2007, p. 66) formulate measures of input and output flexibilities for a larger

set of 29 wealthy countries. Input flexibility includes student selection, budget autonomy, and staff policy. Output flexibility includes course content, the availability of short studies, student choice, regional mobility, and the existence of *numerus clausus*. Greece ranks last in the input flexibility index and second to last in the output flexibility index.

Accountability

With autonomy, universities need performance incentives and accountability standards for funding. By several measures, Greece’s university system lacks accountability. Martins et al. (2007, p. 66) created a measure of accountability for university systems, basing their accountability measurements on external evaluation, transparency, and the determinants of public and private funding. Of the 38 European and North American university systems they studied, Greece scored ahead of only Turkey. Greece did, however, enact laws in 2005 and 2007 to address the lack of accountability. In 2005 Greece founded the Hellenic Quality Assurance Agency (HQAA), which publishes data on universities and ensures that institutions meet quality assurance standards. The 2007 law requires universities to develop four-year funding plans that include private funding. Universities must meet HQAA standards to receive funding according to their plans. However, the OECD noted that, as of 2011 this law has not yet been fully implemented.

Competition

The Ministry of Education traditionally imposes a system of top-down accountability for universities. The Greek people would institute bottom-up accountability if they had the power to choose between education suppliers. The Greek Constitution prevents this form of accountability by banning private universities. Therefore, we can understand Greek education as a regulated monopoly. One symptom of this monopoly is the restriction on quality education. The university system has very low admission rates, and Greece therefore sends more students abroad per capita than any other country worldwide (Psacharopoulos, 2003; OECD, 2011). Additionally, while overall

unemployment in Greece is quite high at 23.1 percent, youth unemployment is an astonishing 54.9 percent as of May 2012 (Hannon and Bouras). Though this situation is partly due to the state of the economy and the Greek laws that reduce labor mobility, youth unemployment has traditionally been relatively high in Greece.

New Reforms

Though insufficient funding is a long-standing problem for Greek universities, the larger problem is inefficiency. The reform bill passed by the Hellenic Parliament in August 2011 includes measures to improve efficiency. While time will judge the effectiveness of the reforms, this bill is the most far-reaching higher education reform in Greece since the higher education law of 1982. The most important measures of this bill are intended to:

1. Reduce the number of “eternal students” by charging tuition three years after a student matriculates. In addition, tuition will be charged in more graduate programs.
2. Curb student protests; the asylum law will be replaced with a looser “academic freedom” clause, which allows limited police presence on university campuses.
3. Prevent overlap of courses; some power to design curricula will be transferred from departments to colleges.
4. Base faculty pay on productivity as determined by teaching loads and research output, instead of by national pay scales.
5. Base university funding to a larger extent on output. For example, the Hellenic Quality Assurance Agency, established in 2007, will tie university funding to graduates’ success on the job market.
6. Require that the fifteen-member university boards include six external members.
7. Tighten the role students play in faculty decisions and university administration elections.
8. Attempt to bring in more private funding.

Reactions to the Reform

The reactions to the reforms in 2011 were fierce and polarized, resulting in street protests on one side and exuberant praise on the other. Students and faculty protested immediately. Academics from 43 countries petitioned against the bill. The larger issue, however, is that university administrations have failed to implement the law. Every single part of the reform has been hotly contested. The principal sticking point for students is their loss of power; for the administration, it is the inclusion of external members on boards. University rectors have appealed to the Constitutional Court, arguing that the inclusion of external members is unconstitutional. For now, only the University of Crete has chosen to comply with the reforms. Though the universities in Athens are generally regarded within Greece as the flagships of the university system, the University of Crete is the only Greek institution ranked in the top 400 of the *Times* Higher Education rankings. It is possible that openness to reform is one reason that the University of Crete is ranked the best in Greece.

One of the most surprising aspects about the new bill is not its content, but that it passed so overwhelmingly, with 90 percent of Members of Parliament voting in favor. Considering the strong disagreements between the socialist and conservative parties, this large majority is unprecedented and required only small compromises. Higher education in Greece is static and the issues rarely change. The following sentence from an article published in 1981 would apply today simply by replacing “1976” with “2011”:

It is now time to come back to the basic contradiction that marks the recent history of Greek education. It can be summarized in a few words: while the developmental imperatives of Greek society clearly required educational reform, while extensive reform of the educational system was proposed by international organizations and foreign advisers, while it was formally supported by both government and opposition political parties, such reform did not materialize until 1976 (Frangoudakis, p. 13).

The leading conservative newspaper in Greece, *Kathimerini*, applauded the strong consensus

in several editorials and described the law as forward-looking and courageous (Athanasίου, 2011; Lakasas, 2011; Tsoukalis, 2011). Furthermore, the reform is supported by influential international organizations, including the OECD and the EU; in fact, the OECD proposed many of the reforms included in the new law (OECD, 2011).

Since the initial political consensus, however, the elections and political disruptions of 2012 have stalled implementation of the reforms. From March 2012 to July 2012, there have been four different education ministers. Anna Diamantopoulou was education minister from October 2009 to March 2012 and played an instrumental role in passing the reforms. Georgios Babiniotis replaced her in the coalition government of Lucas Papademos. He cleared funding for universities that had not implemented the new law (Mavrogordatos, 2012). Angeliki-Efrosini Kiaou replaced him in the interim government and then Konstantinos Arvanitopoulos replaced her in the Samaras coalition government. Arvanitopoulos has supported proposed amendments that will repeal parts of the reform bill (Marseilles, 2012).

Unlike the other parts of the reform, implementation of the repeal of the asylum law should not be held up by extraneous obstacles. However, George Mavrogordatos, a professor at the University of Athens, reports that police still refrain from entering university campuses. The fact that such a straightforward change has not prevailed does not bode well for other reforms.

Prospects for the Success of this Reform

The educational reform law can be assessed in several ways. At the lowest level, it will succeed if it is implemented and accepted, which is not guaranteed. Then, most importantly, the reform will succeed if:

- It contributes to the improvement of the Greek economy
- The school year ceases to be cut short by protests and strikes
- The universities produce more research and offer higher-quality education

While this new law is part of continuing reform in Greece, it was spurred by the finan-

cial crisis and external pressure from the Troika for reform. However, unlike other economic reforms, passage of this bill was not split along party lines. It was also designed, through input from a constitutional-court judge, to avoid legitimate challenges to its constitutionality (Abbott, 2012). Therefore, as with previous education reforms, the chances are high that it will ultimately be implemented.

The larger question of ultimate success will depend on the future state of the Greek economy and several other factors. Protests are likely to continue because they have become such an established part of modern Greek culture, since the overthrow of the junta, that any government intervention in higher education is likely to provoke demonstrations (Tsakonias 2007, p. 5).

Economists have long known and agreed on the principles of good education reform (Jacobs and Van Der Ploeg, p. 536) and generally concur on which policies will improve life for Greek citizens. The problem is that reforms are traditionally more beneficial to some groups of people than to others, and it is difficult to predict which groups will benefit and which will not. Furthermore, the success of reforms is not only a matter of economics but also of political economy. The Greek public is uncertain about the future and typically open to populist arguments, but after good policies are implemented, they will naturally be accepted and supported (Rodrik, p. 571). The time delay between passage of reform legislation and successful implementation is often what impedes good economic policy. If the educational reforms ultimately prove successful, however, future reform efforts may have an easier path. Education reform in Greece may eventually contribute to the evolution of a new equilibrium in Greek society with a stronger potential for political consensus (Mitsopoulos and Pelagidis).

Suggestions for Further Reform

Though the current system of free education is inefficient, tuition is unconstitutional in Greece. If free tuition continues, the funding structure must be changed in ways that are both constitutional and more efficient. An alternative to the current *numerus clausus* system would be to issue vouchers to students that

would entitle them to enroll at any university that accepts them. Universities would then receive funding based on the number of students who choose to enroll. Under this system, university funding would be competitive and less political. Most importantly, this system would give students legitimate power within the system. Universities would be judged based on the value of the education they offer students as reflected in students' choices. Furthermore, students would have less reason to protest their loss of power in administrative decisions because they would have ultimate control, based on their own enrollment choices (Jacobs and Van der Ploeg, p. 571).

The current reforms take a small step toward making the funding of universities more efficient by tying funding to student success and faculty research output. The problem is that this system is not strategy-proof, i.e. universities have the incentive to "game" the system without making real improvements. For example, simplistic measures of research output can lower output quality. American economist Richard Thaler said of one unsuccessful job candidate, "What his resume lacked was five bad papers" (Frank, 2012). Thaler implies here that the candidate could have increased his "research output" by adding several poor papers. This is the fundamental issue described in Hayek's "The Use of Knowledge in Society." Applied to the higher education system in Greece, Hayek's argument suggests that, since one person can attain only a limited understanding of the information available on Greek universities, the hundreds of thousands of Greek students can evaluate each university more effectively than can the limited staff of the Ministry of Education. The Ministry of Education is bound to a limited perspective in evaluating universities and cannot avoid the influence of political pressure.

Another step the system can take is to replace the entrance examinations with an aptitude test such as the Scholastic Aptitude Test (SAT). The aptitude test would allow for consistent measurement of students across schools so that students' grades, which already factor into admissions, would measure how much a student has learned. Such a test would reduce the need for cram schools. Then families would not need to spend twice as much on cram schools as the government does on public secondary education. Georgios Babiniotis, the Education Minister sworn in on March 6, 2012, said that the Ministry's priorities must be "to overhaul senior high school and university entrance exams" (*Kathimerini*, 2012).

Finally, the least likely, but the most effective, reform would be to break up the higher education monopoly by charging tuition and allowing private universities. The government could offer student loans with repayment rates tied to income after graduation or offer financial aid to students in need. Such a major Constitutional amendment would be unprecedented in Greece but would emphasize the importance of reform.

Greece will have a difficult recovery from the economic crisis. Nevertheless, the Greek Parliament has seized the opportunity presented by the crisis to enact serious education reform. Though the reform bill passed with a strong consensus, implementation has been held up by budget crises, protests, and the turmoil of Greek politics. Each new education minister has chipped away at and delayed implementation. These recent developments certainly do not bode well for the ultimate success of the reforms. Nevertheless, I have argued that, while they do not go far enough, these reforms are an unprecedented step and can provide a measure of improvement for the students and economy of Greece.

REFERENCES

- Abbott, Alison. "Greek Science on the Brink." *Nature* 481 (2012), pp. 123–24.
- Athanasiou, Athanasios. "A democratic victory." *Kathimerini*, Athens, September 5, 2011.
- "Education Minister Is a Long-term Post, Says Babiniotis." *Kathimerini*, Athens, March 15, 2012.
- "Education Ministry Announces Number of Students to Be Admitted to Higher Education Institutions." *Athens News*, May 10, 2011.
- European University Association. Online. www.eua.be. Accessed June 2012.
- Frangoudakis, Anna. "The Impasse of Educational Reform in Greece: An Introduction." *Journal of the Hellenistic Diaspora* 8.1–2 (1981), pp. 7–18.
- Frank, Robert H. "The Prestige Chase Is Raising College Costs." *New York Times*, March 10, 2012.
- Hannon, Paul and Stelios Bouras. "Greek Unemployment a Record 23.1%." *Wall Street Journal*, New York, August 10, 2012, p. A7.
- Hayek, Friedrich. "The Use of Knowledge in Society." *The American Economic Review*, Vol. 35, No. 4. (September, 1945), pp. 519–30.
- Jacobs, Bas and Frederick Van Der Ploeg (2006). Guide to reform of higher education: a European perspective. *Economic Policy*, 21, pp. 535–92. doi: 10.1111/j.1468-0327.2006.00166.x.
- Karapatsia, Anastasia. "Question of the Week." *Athens News*, September 27, 2010.
- Kyriazis, Athanasios and Foteini Asderaki. *Higher Education in Greece*. Bucharest: UNESCO-CEPES, 2008.
- Lakasas, Apostolos. "University reform law looks to the future." *Kathimerini*, Athens, September 5, 2011.
- Lynch, Nick. "Facing New Challenges: Reforms in Spain's Public University System." *Perspectives on Business and Economics* (2005), pp. 37–44.
- Marseilles, Makkii. "New Minister Signals Readiness to Tone down Higher Education Reforms." *University World News*. July 30, 2012.
- Martins, Joaquim Oliveira, Christine De La Maisonneuve, Hubert Strauss, and Romina Boarini. "The Policy Determinants of Investment in Tertiary Education." *OECD Journal: Economic Studies* 2009.1 (2010), pp. 1–37.
- Mavrogordatos, George. "Styx and Stones." *Times Higher Education*, London, May 24, 2012.
- Mitsopoulos, Michael S. and Theodore Pelagidis. "Comparing the Administrative and Financial Autonomy of Higher Education Institutions in 7 EU Countries." *Intereconomics* 43.5 (2008), pp. 282–88.
- Mitsopoulos, Michael S. and Theodore Pelagidis. "State Monopoly in Higher Education as a Rent Seeking Industry" (March 2006). Available at SSRN: ssrn.com/abstract=890541 or <http://dx.doi.org/10.2139/ssrn.890541>. Accessed June 2012.
- Mitsopoulos, Michael S. and Theodore Pelagidis. *Understanding the Crisis in Greece: From Boom to Bust*. Houndmills: Palgrave Macmillan, 2011.
- Mitsotaki, Alexandra. "Is Greece a Failed State?" *Kathimerini*, Athens, June 13, 2012.
- OECD (2011). *Education Policy Advice for Greece*, Strong Performers and Successful reformers in Education, OECD Publishing.
- Psacharopoulos, George. "The Social Cost of an Outdated Law: Article 16 of the Greek Constitution." *European Journal of Law and Economics* 16 (2003), pp. 123–37.
- Psacharopoulos, George and G. Papakonstantinou. "The Real University Cost in a 'free' Higher Education Country." *Economics of Education Review* 24.1 (2005), pp. 103–108.
- Psacharopoulos, George and Stergios Tassoulas. "Achievement at the Higher Education Entry Examinations in Greece: A Procrustean Approach." *Higher Education* 47.2 (2004), pp. 241–52.
- Rheinauer, Laura. "Reforming Italy's University System: Hoping for a Better Grade." *Perspectives on Business and Economics* (2003), pp. 77–85.
- Rodrik, Dani. "Understanding Economic Policy Reform." *Journal of Economic Literature* 34.1 (1996), pp. 9–41.
- Tsakoglou, Panos and Ioannis Cholezas. "Education and Inequality in Greece." *IZA Discussion Paper Series* (2005).
- Tsakonas, Francis. "A Greek Tragedy: Higher Education Reform in Greece" Lecture presented June 14, 2007, at the 3rd LSE PhD Symposium on Modern Greece. Online. www.lse.ac.uk. Accessed June 2012.
- Tsoukalis, Loukas. "Cutting the Gordian Knot." *Kathimerini*, Athens, September 5, 2011.