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GREECE

Selected Issues

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Approved by the European Department

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A. Structure and Financial Environment

Structure of the Greek Financial Sector

1. During the 1990s, the Greek financial system was increasingly deregulated and liberalized; the remaining controls on bank credit and interest rates that prevailed in the 1980s were progressively abolished after Greece joined the European Monetary Union (EMU).[2] The commercial banking system is the main component of the Greek financial sector, with 76 percent of its assets, and is dominated by five large banking groups. Despite recent privatizations and merger activity, the state still controls directly and indirectly[3] about half of banking sector assets, down from 70 percent in 1995. Among state owned banks are the largest commercial bank (National Bank of Greece) and specialized banks that focus on specific sectors like agriculture. Other credit institutions include non-bank finance companies that are particularly active in consumer lending.

Structure of the Greek Financial Sector

	Asset (End 2003)		
	In Billion Euros	In percent of GDP	In percent of financial system
Greek banking sector	193.1	126.8	88.1
of which private commercial	*52.4*	34.4	23.9
of which state owned	*91.5*	60.1	41.7
of which foreign owned subsidiaries	*30.1*	19.8	13.7
of which foreign owned branches	*19.2*	12.6	8.7
Greek insurance sector 1/	*8.4*	5.5	3.8
Other credit institutions 2/	*17.7*	11.6	8.1

Source: Bank of Greece.
1/ Figure refers to end 2002.
2/ Include leasing companies and consumer credit companies.

2. The insurance sector is relatively small, with less that 4 percent of financial sector assets and the eighteenth position in the European Union (EU) in terms of total premium income.[4] With rising per capita income, this sector is likely to grow in the future[5] possibly

[1] Prepared by Laurent Bouscharain (MFD).

[2] In June 2003, the Bank of Greece (BoG) removed all remaining restrictions on personal loans. Restrictions included a €3,000 limit for personal loans per bank.

[3] Indirect control can result from State-run pension funds or other public entities holding the majority of the shares of a given bank.

[4] Premium income includes both life and nonlife insurance and is estimated at €2.6 billion per year, which compares to €220 billion in the United Kingdom, €130 billion in France, €5.4 billion in Poland and €2.0 billion in the Czech Republic.

[5] Per capita premia are estimated around €240 in Greece, which is roughly 11 percent of the EU average.

through closer links with the banking sector and the development of bancassurance. The Greek insurance sector is fragmented, with 102 companies at end-2002, possibly indicating the need for consolidation within the sector. As a result, the profitability and financial condition of Greek insurance companies is generally burdened by high fixed costs and low levels of activity. Overall, the insurance sector reportedly recorded losses in 2002 and profits in 2003, with respective return on assets (ROA) estimated at -2.5 and +1.2 percent.

3. The Greek financial system has limited exposure to international financial markets. However, some banks have formed strategic alliances with major European financial institutions to benefit from their operational and product sophistication. Greek banks have also expanded in the Balkans, following the advancement of structural reforms in these countries as well as the expansion of Greek corporations. Even if this move adds risk to the overall profile of Greek banks, it has so far proved beneficial.

4. In recent years, credit to the private sector expanded rapidly, albeit from a low base. This reflects the rapid decline in interest rates following EMU membership, the removal of several credit ceilings and the upbeat growth expectation of Greek borrowers in the context of economic convergence with the rest of the Euro zone. Despite this expansion, credit to the private sector is estimated at 66 percent of GDP, which remains modest when compared to the EU average and probably suggests further growth in the future.

Credit to the Private Sector

	Total	Enterprises	Households	of which: housing	of which: consumer credit
			In percent		
Share in total lending (end 2003)	100.0	60.3	39.7	26.2	12.3
Share in GDP (end 2003)	66.4	40.0	26.4	17.4	8.1
Growth rates					
Average (2000-03)	21.6	15.9	33.9	32.7	34.2
2000	27.6	24.6	35.5	31.2	42.7
2001	24.8	18.5	40.4	38.9	42.5
2002	16.9	9.6	32.2	35.6	24.2
2003	17	10.8	27.6	25	27.2

Source: Bank of Greece, Statistical Bulletin.

5. In view of the rapid credit growth, the Bank of Greece (BoG) decided to conduct several surveys in 2002, to assess the financial condition of households and enterprises. The BoG considers the results of these surveys to be generally reassuring regarding the ability of borrowers to service their obligations. These surveys found for example that, for 75 percent of individual borrowers, monthly debt service represents less than one third on monthly income, which suggests that these households can afford to service their obligations. For enterprises, available information suggests improvements in profitability on average, despite continuing weaknesses in specific sectors like textiles and ferries as well as increases in the value of bounced checks.

6. The Greek stock market fell sharply in the last two years, and remains at relatively depressed levels, as in many other countries. The financial system proved relatively resilient to this decline and were mainly affected through their investment subsidiaries. The Greek stock market now plays a limited role in fund raising, estimated at €0.4 billion in 2004,

significantly down from €8.8 billion in 2000. The brokerage industry suffers from these low levels of activity and will probably experience a period of contraction.

Supervisory Structure

Bank supervision

7. The BoG has the mandate to license and supervise credit institutions. It also supervises credit companies, leasing companies and exchange bureaus. BoG's approval is required in case of merger or acquisition involving a credit institution. It has the power to impose sanctions and can intervene whenever the conditions upon which authorization was granted are not fulfilled. In such cases, the BoG can withdraw the license and appoint a liquidator or a commissioner. The BoG's supervisory responsibility covers branches of Greek banks operating in other EU countries and, in addition to the host country responsibilities, the branches of Greek banks operating in the Balkans. It also oversees the operations of payment and securities settlement systems. Since 1992, all the directives of the EU Council regarding the operation and prudential regulation of credit institutions have been incorporated into Greek law.[6]

8. Given the increasing exposure of Greek banks to private sector credit, the BoG's bank supervision department strengthened its capacity to assess risks and the adequacy of banks' risk management tools. This is particularly timely given the need to examine the banks' internal risk measurement tools in the context of Basel II. To this end, the department has recruited 21 additional staff in the last year and focused on building a sound understanding of modern credit risk management principles.[7] The frequency of general inspection is estimated at once every two years on average; however, focused inspections, in particular on risk management issues have been more frequent in recent years with the aim of achieving one inspection per year in line with the priorities and the new organization of the department.

9. Bank supervision is conducted on a consolidated basis. When a bank is part of a group comprising financial institutions that are not supervised by the BOG, the three supervisors (bank, insurance, and stock market) exchange information in accordance with a set of MOUs. The authorities are currently considering the possibility of making these

[6] These include, the directive on own funds and solvency ratios, the directive on the supervision and monitoring of large exposures, the Second Directive on consolidated supervision of credit institutions by the Bank of Greece and the establishment of a deposit protection scheme to take into account the deposit guarantee directive.

[7] The bank supervision department has a total of 150 permanent staff.

exchanges of information more formal by creating a committee, to coordinate the actions of the three supervisors.[8]

Insurance supervision

10. Insurance supervision is currently performed by the Ministry of Development. Until 1996, tariff controls were imposed on the insurance sector. In this context, supervision tended to focus more on compliance than on a real assessment of risk. In 1996, the insurance sector was liberalized, without adequate supervision being established. The current supervisor lacks the capacity to assess the adequacy of technical reserves and does not regularly conduct on-site inspection of insurance companies. As a result, some insurance companies are reportedly conducting very aggressive pricing strategies to gain market share, which could lead to financial difficulties in the future.

11. A law passed in February 2004 provides for a new independent insurance supervisor to be established. However, implementation is lagging and critical decisions have yet to be made to define the internal procedures and the resources allocated to the new insurance supervisor. It is important to ensure that it has adequate manpower and human capital to properly assess the adequacy of reserves as well as the veracity of accounts presented by insurance companies through regular on site inspections.

Stock market supervision

12. The Hellenic Capital Markets Commission (CMC) is charged with capital markets regulation and supervision. It covers brokerage firms, investment services providers and mutual funds. It was formed in 1997 and appears to have adequate resources to conduct its duties. Current challenges include the implementation of various EU directives into Greek law and the need to help Greek stock market participants deal with a persistent decline in activity and find a strategy for future development.

Financial Environment and Markets

13. Disclosure practices by financial institutions could generally be improved. In particular, the definition of NPLs used in public financial statements can be inconsistent across banks: while some banks define NPLs as three months in arrears, some others still use the six-month rule. For supervisory purposes, the BoG uses internally the three-month rule. This situation limits the transparency of bank public financial statements. This problem is partly mitigated by the auditors' reports that generally include an assessment of the adequacy

[8] The legislative power to create such a committee lies within the jurisdiction of the Ministry of Foreign Affairs.

of banks' provisioning policies.[9] Those issues should be lessened by the implementation of International Accounting Standards (IAS) in 2005.

14. The complexity of the judicial and legal system can sometimes delay bankruptcy procedures and the seizure of collateral by banks. This partly contributes to the relatively high level of NPLs in Greece, and probably calls for simpler procedures and improvements in the legal framework to make the judicial process more efficient. However, the market players met by the mission consistently indicated that judicial procedures, albeit very lengthy and complex, generally produced satisfactory results.

15. The credit bureau will not provide fully adequate information to banks for some years. The existing system provides two sets of information: first, a "black list" of borrowers, that faced legal action by creditors, has been in place since the 1980s. A second list of information on borrowing by individuals was established in June 2003. This second list provides a critical input for modern risk management systems, but contains only information on new loans. Privacy laws prevent information on past loans being filed into the system, and the authorities saw little scope for changing this situation. This situation is not fully satisfactory, because it hinders the implementation of modern risk management tools by banks (since the data base needs some time to collect sufficient information on outstanding amounts), at a time when rapid credit growth makes it critical to have sound credit policies in place. Nevertheless, as time passes, credit histories will become more complete.

16. Systemic liquidity arrangements are mainly conducted at the level of national central banks. Within this framework, the BoG may make collateralized loans up to a certain threshold without prior authorization of the European Central Bank (ECB), whereas larger operations that could impact the conduct of monetary policy must be approved by the ECB. Systemic liquidity arrangements also include the deposit insurance system.

17. The deposit insurance scheme is jointly administered by the Bank of Greece and the Hellenic Banking Association, with participation and oversight of the fund by the MoF, as for other non- profit organizations. It began operations in September 1995. The Hellenic Deposit Guarantee Fund is a private legal entity funded by annual contributions from all financial institutions, with contributions for the first ten years based on a percentage of eligible deposits. Deposits are covered up to €20,000 per depositor per credit institution.

[9] Weaknesses in financial statements can be the result of lax accounting rules or unreliable auditing firms. When asked about the second possibility, the BoG insisted that this was probably a minor issue because the five largest commercial banks are audited by international auditing firms and some of them already report under IAS.

B. Financial Stability Assessment

18. The Greek banking sector appears adequately capitalized, with regulatory capital representing 12.0 percent of risk weighted assets at end-2003. It must be noted however that capital adequacy ratios (CARs) declined in recent years, because of the shift away from government bonds towards riskier forms of credit to the private sector. However, compared to end-2002, the CAR improved in 2003, partly reflecting the BoG's insistence on banks strengthening their capitalization levels.

Financial Soundness Indicators - Banking Sector
(In percent, unless otherwise indicated)

	1997	1998	1999	2000	2001	2002	2003	EU average
Regulatory capital to risk-weighted assets	10.3	10.2	16.2	13.6	12.4	10.5	12.0	11.4
Nonperforming loans to total gross loans 1/	11.1	8.7	11.2	7.2	5.6	5.5	5.1	3.1
Coverage ratio of NPLs by provisions	19.0	24.1	26.1	36.8	43.3	46.9	49.9	49.0
After-tax return on average assets	0.7	0.7	2.4	1.4	1.0	0.5	0.6	0.43
After-tax return on average equity	13.9	13.7	28.6	15.4	12.4	6.8	8.9	11.4
Staff cost to total assets	1.7	1.7	1.6	1.5	1.4	1.3	1.3	0.9
Interest rate margin 2/	2.2	2.1	2.1	2.4	2.7	2.6	2.9	...
Real estate lending to private credit	17.3	17.8	19.5	19.9	21.9	24.5	...	...
Foreign currency loans to total loans	30.6	31.9	34.4	34.9	10.2	7.4	...	...
Foreign currency deposits to total deposits	29.5	35.2	30.9	39.3	21.8	16.3	...	...
Liquid assets to total assets 3/	55.3	53.3	51.2	45.6	42.3	39.2	34.6	...

Sources: Bank of Greece and ECB.

Note: Some comparisons with EU averages must be done with caution, in particular for NPL ratios.
EU average statistics are as of end-June 2003.

1/ The Agricultural Bank of Greece is excluded from the statistics.
2/ Interest rate margin is defined as the difference between the average interest received on interest bearing assets and the average interest paid on interest bearing liabilities.
3/ Liquid assets include bank deposits with the BoG, Government and Other Securities, Claims on Credit Institutions and Fixed Yield Securities with a discount to reflect market price volatility.

19. The main risk facing the Greek banking system is credit risk.[10] Rapid credit growth in the last five years has been a challenge for banks, especially since their risk management systems have been only progressively implemented and since information on borrowers' creditworthiness remains incomplete. (The credit registry provides only partial information on total borrowing by individuals) The following table shows that the

Breakdown of Credit Quality (As of June 04)

	Amount Share in total lending	Growth rate Average, 00-03	NPLs Share of gross loans
Total	100.0	21.6	5.0
Loans to enterprises	68.2	15.9	4.8
Loans to households	31.8	33.2	4.5
Consumer loans	11.8	34.2	8.2
Mortgage loans	19.9	32.7	3.7

Source: Bank of Greece.

[10] The apparent decline in NPL ratios in recent years essentially reflects rapid credit growth, which inflates quickly gross loans while NPLs may be slower to materialize.

brisk pace of lending to households in specific sectors has already led to relatively higher rates of NPLs, as is the case for consumer lending. In addition, it must be noted that this rapid credit growth occurred during favorable economic times and remains so far untested in an economic downturn.

20. To confront these risks, the BoG has raised the provisioning ratios that are used for supervisory purposes.[11] These ratios are applied to the matured overdue and the nonmatured part of the loan and do not take into account any collateral that could reduce the exposure. This explains in part why unsecured loans like consumer loans are more conservatively provisioned than secured loans like mortgage loans. Overall, provisions represent 49.9 percent of NPLs at end-2003, which is close the EU average. If one excludes the Agricultural Bank of Greece (ABG) from the statistic (since this public bank has been so far been regularly bailed out by the government), the coverage ratio stands at 57.7 percent. It is estimated that the introduction of these new provisioning coefficients raised supervisory provisions by 17 percent in the first quarter of 2004, when compared to the old requirements.

Supervisory Provisioning Ratios

	Corporate loans	Mortgage 1/	Mortgage 2/	Consumer loans
		(In percent)		
Overdue by more than 3 months, up to 6 months	10	7	10	14
Overdue by more than 6 months, up to 12 months	25	18	25	35
Overdue by more than 12 months	50	35	50	70
Past due loans	50	35	50	70
Doubtful	60	42	60	84

Source: Bank of Greece.

1/ Refers to loans, up to 70 percent of tax value.
2/ Refers to loans, above 70 percent of tax value.

21. In addition to raising provisioning requirements, the BoG has required individual banks to improve their CAR, up to 11 percent on an ad hoc basis. Such decisions are made, when inspections suggest increased exposure to credit risk, and complement the higher provisioning ratios. This partly explains the increase in aggregate CAR observed in 2003.

22. The Agricultural Bank of Greece (ABG) faces financial difficulties; however, contagion risk appears limited. ABG represents 10 percent of banking sector assets and 82 percent of its capital is held by the government. This bank is also listed on the stock market. It suffers from high delinquency rates on its loans (NPLs are estimated around

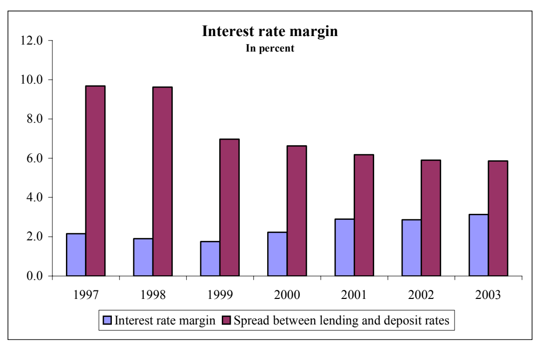
[11] The banks' provisioning policies can diverge from the BoG's recommendation. However, the BoG "recalculates" the provisions according to this matrix and deducts any shortfall from capital when estimating CARs.

25 percent of gross loans) and has so far benefited from recapitalization operations by its main shareholder. This support mitigates possible contagion risks to the rest of the banking sector. To improve its condition, the bank has moved into non-agricultural lending, which now represents now 80 percent of its loan portfolio. The latest restructuring plan for ABG, supported by the BoG, essentially focused on improvements in credit granting procedures and on organizational changes, and did not impose financial targets for the bank. Improved risk management should lead to lower delinquency rates on new loans.

23. To monitor other forms of risk, the BoG is developing its understanding of modern risk management techniques and its stress testing capacity, in cooperation with the banking sector.[12] Even if the BoG insists that existing stress test results should be considered preliminary, they suggest limited exposures to market and liquidity risk. In particular, exposure to interest rate risk is limited because the majority of bank assets are floating rates assets. It must be noted however that floating rates tend to shift the interest rate risk to the borrowers, and could increase (indirect) credit risk for the banks. According to the BoG's stress tests, liquidity risk is limited, despite a gradual decline in bank liquid assets to total assets since 1997. This decline reflects in part the gradual increase in private sector lending and the simultaneous decline in (liquid) government securities[13].

24. Greek banks have also developed an exposure to the Balkan region, through the establishment of subsidiaries or branches in recent years. This trend for banks follows the strategy of many Greek corporations that have developed their business in this region to benefit from the increased political stability and favorable growth prospects. The exposure of Greek banks to this region has proved successful so far and remains limited, estimated at 8 percent of assets.

25. Greek banks could also be affected by weak counterparts in the financial sector, notably in the insurance sector. The weakness of supervision when this sector was liberalized has probably led to excessive risk taking[14] and could lead to bankruptcies and future concentration in the sector. However, contagion risk from the insurance sector to the banking sector is not a



Source: Bank of Greece and staff calculations.

[12] Existing stress tests cover credit risk, interest rate risk, equity price risk, foreign currency risk and liquidity risk.

[13] At present, there is no prudential liquidity requirement, but the BoG is consulting with banks to introduce such a requirement in the future. The BoG's calculations suggest that current liquidity levels are comfortable.

[14] It is estimated that car insurance tariffs exhibit a very large dispersion, up to 100 percent, which suggests the possibility of mispricing by some insurers.

serious source of concern, because direct exposure is estimated below 10 percent of banking sector assets.

26. Looking ahead, banks capitalization levels should benefit from high levels of profitability, with ROA estimated at 0.6 percent in 2003, which compares favorably to 0.43 for the Euro area. This profitability stems essentially from net interest income that represents 74 percent of gross income.[15] The following graph shows that while the spread between lending and deposit rates shrank in recent years, the banks managed to maintain and even increase the average interest margin, by shifting the composition of their portfolio towards higher return (and riskier) lending like consumer credit.

27. Nevertheless, the profitability of Greek banks is hampered by large and relatively rigid staff costs that reflect in part a legacy of the past. They represent 1.3 percent of assets, which compares to 0.9 percent for the Euro area. When compared to gross income, these costs do not exhibit any downward trend in recent years, despite the strong increase in business activity. The various barriers to labor mobility have limited the ability of banks to reduce their large personnel expenses. As a result, banks have been forced to use less efficient methods like early retirement programs or to reduce unit labor costs by expanding their business volumes. It must be noted that early retirement schemes merely shift the burden to the already fragile pension system.

C. Challenges Facing the Greek Financial Sector

28. In the coming years, the Greek financial sector will be confronted with the implementation of IAS and Basel II.

Implementation of IAS

29. The implementation of IAS is scheduled to be effective in 2005, and will replace for many banks the Greek accounting standards. Specific areas of change include marked to market recognition of trading gains or losses on the trading book or the accrual treatment of pension liabilities. If one excludes the issue of pensions, a study conducted by the BoG suggests that the implementation of IAS should not strongly affect banks' capitalization levels. In fact, several large banks are already reporting under IAS accounting rules and provisions have been made over the years to prepare for the full implementation in 2005.

30. However, the accrual recognition of banks' large pension liabilities could have a significant adverse impact on bank capitalization levels. Greek banks are generally paying for their employees' pensions on a cash basis as a "personnel expense" and could experience difficulties paying for the (accrual) cost of their liability under IAS. While the government

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[15] Other sources of income like fee income or trading gains declined in recent years, reflecting the decline of the Greek stock market and lower activity levels.

has taken over the liabilities of some public banks, some other banks (in particular one state-owned bank) are still facing significant future pension expenses. This issue has to be clarified as a matter of urgency, in the broader context of pension reform, to help the banks prepare and to ensure a smooth and complete implementation of IAS in 2005.

Implementation of Basel II

31. The implementation of Basel II is expected before the end of 2006. The largest challenge for Greek banks consists in upgrading their risk management systems to meet the Accord's requirements and possibly adopt advanced approaches to measure credit risk. In this regard, the BoG cooperated with the banking industry to help improve and assess the banks' risk management systems. Challenges for implementation include internal risk rating systems, estimation of loss given default statistics (because of the lack of historical information) and electronic data processing.

32. It is estimated that large and sophisticated banks, representing 40–60 percent of banking sector assets, will use the FIRB approach at an initial or early stage for credit risk. Regarding operational risk, the lack of historical time series will prevent Greek banks from using the Advanced Measurement Approach. The QIS3 impact study estimates that minimum capital requirements will increase by 7.5 percent, as a result of a 2.5 percent decrease for credit risk and a 10 percent increase for operational risk. The BoG considers this increase as manageable, especially since large banks will in practice reduce their credit risk requirements by using FIRB instead of the standardized approach (as was assumed in the QIS3 study).

II. The Greek Tortoise and the Irish Hare[16]

A. Introduction

1. Greece has grown faster than the euro area since the mid-90s, as low interest rates, growth in investment, and financial sector reform—the by-products of the process of convergence—stimulated demand. Nevertheless, with real per capita incomes still lagging the euro area after almost a decade of strong growth, the economy will clearly need to continue to grow rapidly to achieve real convergence with the EU. Will this growth be forthcoming, and for how long? Which policies would need to be in place to deliver these growth rates after the short-term stimuli from euro adoption dry up? This paper looks at the Irish experience to shed light on these questions.

2. **The paper concludes that policies to strengthen the public finances and improve product and labor market performance are needed to lay the groundwork for Greece to follow the Irish path of high and sustained real income growth**. The most urgent task is to put public finances on a sustainable footing by reining in primary expenditure, especially the public sector wage bill, to make room for tax cuts and productivity-enhancing infrastructure investment. In addition, a substantial program of structural reforms are needed across a broad range of areas.

B. Can History Repeat Itself?

3. **In many respects Greece bears a striking resemblance to Ireland a decade ago**. Both enjoy strong growth and moderate inflation, but relatively low levels of per capita income and stubbornly high rates of unemployment. Public finances are parlous, with high general government deficits and public debt. Labor markets are characterized by low growth, modest participation rates, high wages, and low productivity. Investment rates are modest and foreign direct investment levels very low. In short, fundamentals do not seem promising for high growth over the medium-term.

Table 1. Ireland Then and Greece Now
(In percent; unless otherwise stated)

	Ireland in 1991	Greece in 2003
Real GDP growth 1/	8.3	4.2
Income per capita (in U.S. dollars) 1/	12500	11430
as a percent of the EU average	67	55
Inflation	3.1	3.4
Unemployment	14.7	9.0
Gross fixed capital formation (in percent of GDP)	17	26
Population rate of growth	0.6	0.6
Labor force growth	1.8	0.8
Labor productivity index (1995=100)	72	118
Hourly wage of manufacturing sector (1995=100)	86	121
Labor force participation rates	63	64
Labor force (percent of population)	38	41
Women (percent of labor force)	32	38
General government deficit (in percent of GDP)	-2.9	-4.9
General government debt (in percent of GDP)	96	110
Current account deficit (in percent of GDP)	-0.4	-5.7
Foreign direct investment (in billions of U.S. dollars)	1.4	0.5
Total capital inflow (in billions of U.S. dollars)	0.2	5.9

Source: World Economic Outlook, IMF, and OECD.
1/ Data for Ireland for 1990 and for Greece, 1998.

4. **Against these odds, Ireland enjoyed a period of sustained high growth in the 1990s**. Incomes converged, and ultimately surpassed the EU average. While broad-based, growth was primarily due to buoyant consumption by households and exports by large foreign-owned firms. Real GDP growth

[16] Prepared by Angana Banerji (EUR).

averaged almost 7 percent a year during the decade, labor productivity sky rocketed, and inflation, while higher than the euro area average, remained contained. Per capita income levels doubled and unemployment plummeted to levels far below the euro-area average. The government deficit was slashed and debt brought down

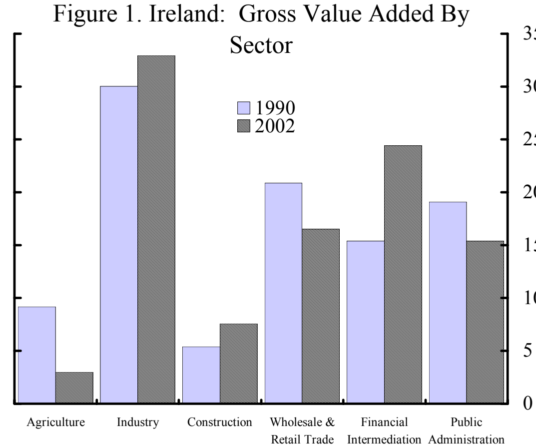
dramatically. The economy was transformed into one increasingly dependent on the manufacturing and financial sectors, while the shares of agriculture and government dwindled.

Table 2. Ireland Then and Now
(In percent; unless otherwise stated)

	1991	2003
Income per capita (in U.S. dollars) 1/	12500	22850
as a percent of the EU average	67	111
Inflation	3.1	4.0
Unemployment	14.7	4.7
Labor productivity index (1995=100)	72	253
Labor force participation rates	63	71
Labor force (percent of population)	38	48
General government deficit (in percent of GDP)	-2.9	0.2
General government debt (in percent of GDP)	96	33
Foreign direct investment (in billions of U.S. dollars) 1/	1.4	29.1
Total capital inflow (in billions of U.S. dollars)	0.2	0.9
Openness	111	152

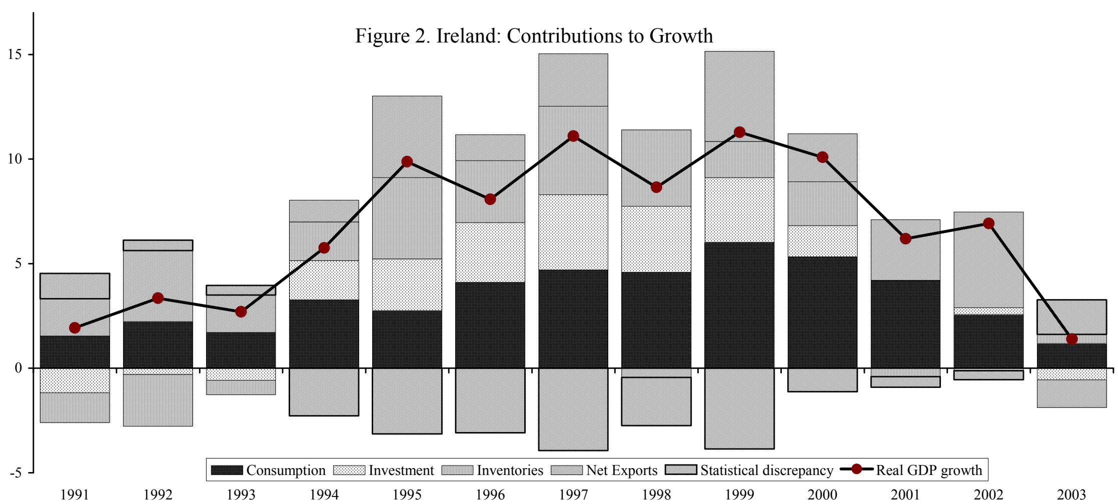
Source: World Economic Outlook, IMF, and OECD.
1/ Data for per capita income and foreign direct investment are for 2001 and 2002 respectively.

Figure 1. Ireland: Gross Value Added By Sector



Source: Eurostat.

Figure 2. Ireland: Contributions to Growth



Source: World Economic Outlook, IMF.

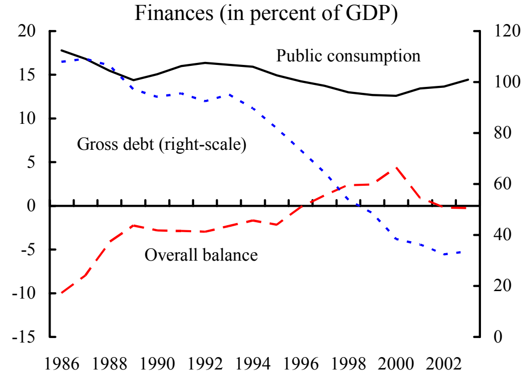
C. The Recipe for Ireland's Success

5. **There is no unanimous view about the reasons for Ireland's success**. The main factors identified in the literature are: the successful macroeconomic stabilization program which began in 1986 and continued during the 1990s; the favorable investment climate and openness of the economy which attracted large export-oriented multinational companies; government incentives for investors; EU structural funds which subsidized infrastructure investment; and a sharp improvement in labor market performance. These factors interacted to produce a virtuous cycle: fiscal retrenchment allowed room for tax cuts, which improved the business climate and generated employment; foreign investment and EU funds increased capital and helped transform the economy through an infusion of improved technology and business practices; and improvements in the labor force improved productivity and growth, which in turn, helped stabilize the public finances.

6. **Macroeconomic stabilization occurred in two phases**. The first phase—called the "failed stabilization"—began soon after Ireland committed to a nominal anchor in the form of a fixed parity with the ECU in 1979. Both monetary and fiscal policy were tightened significantly to reduce inflation and stabilize the economy. Inflation declined quickly, but at a substantial output cost as real interest rates remained high and taxes on labor and consumption were increased in order to reduce the fiscal deficit. While the deficit did decline, low growth and high real interest rates kept it at a still substantial 10 percent of GDP and government debt ballooned to over 125 percent of GDP in 1986. Low growth, rising debt levels and increasing unemployment rates threatened the sustainability of the stabilization program as the budget came under pressure to accommodate the growing costs of servicing debt and higher welfare bills associated with retrenchment, and unions pushed for higher pre-tax nominal wages.

7. **A successful phase of macroeconomic stabilization began in 1986**. With broad-based political backing, the reforms now focused on fiscal adjustment mainly through cuts in public expenditure—including a partial hiring freeze in the public sector to reduce the public sector wage bill, cuts in public investment, cash limits on public sector spending on goods and services—and tax reforms to widen the tax base and lower the marginal tax rate. Lower real interest rates, improved targeting of social benefits, and a fall in transfers due to declining unemployment also helped keep public expenditure in check (IMF 2001).

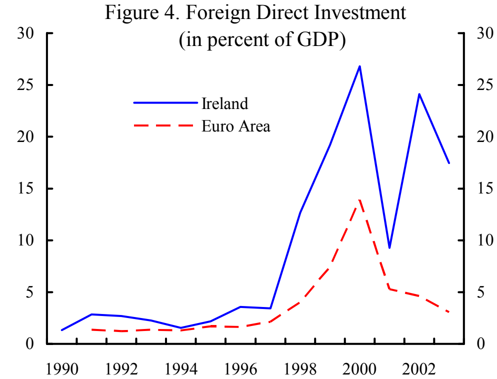
Figure 3. Ireland: General Government Finances (in percent of GDP)



Source: World Economic Outlook, IMF.

8. **Foreign investment, especially in key export-oriented sectors, rose sharply**. Foreign investors were attracted not only by Ireland's location within the European Union, and—in the case of US and UK investors—by common cultural and historical ties, the widespread use of English; and familiarity with the English legal system. The openness of the Irish economy—even by the standards of the euro area—provided a suitable climate for export-oriented foreign investment (Vamvakidis and Zanforlin (2002)). The Irish government also provided incentives for investors through a generous subsidy program based on the promise of jobs and rent subsidies, offsets against capital investment and a low tax rate for profits derived from manufacturing and qualifying services. Until 2003, such profits were taxed at a rate of only 10 percent while Irish profits derived from other activities as well as profits in most other European countries were taxed at more than double that rate. Tax rates on domestic and foreign firms were eventually unified at 12½ percent in 2003, with the 10 percent rate continuing to be available to eligible companies in Ireland's International Financial Services Center (IFSC) and Shannon region until 2005, and to the manufacturing sector until 2010 (Ernst & Young, 2002).[17] US multinational corporations were also attracted by the generous supply of low cost and high quality labor, the flexibility of the labor market and harmonious industrial relations due to the centralized wage bargaining system put in place in 1987 (Gunnigle and McGuire, 2001).[18]

Figure 4. Foreign Direct Investment
(in percent of GDP)

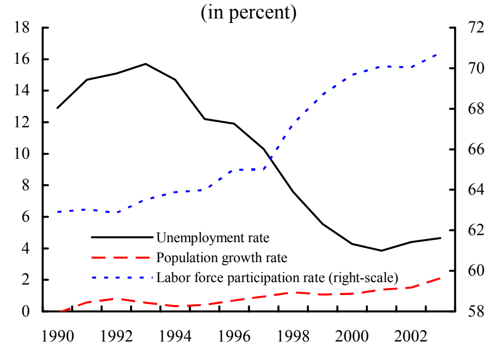


Source: World Economic Outlook, IMF.

9. **Irish labor market conditions improved significantly**.

- Relative to the euro area, Ireland enjoyed **robust growth in its labor force** during the 1990s (Honohan and Walsh, 2002). This was due to strong growth in population as the baby boom of the 1970s-80s generated a supply of educated young workers in the1990s, and a reversal of the

Figure 5. Ireland: Labor Market Indicators
(in percent)



Source: World Economic Outlook, IMF, and OECD.

[17] Honohan and Walsh (2002) argue that one effect of the very low tax rate was to inflate profits by multinationals in Ireland, and therefore productivity estimates.

[18] Gunnigle and McGuire (2001) find that the extent of labor regulation is an important filter used by investors when evaluating investment sites, suggesting that multinationals in the high-technology sectors are slow to locate in areas with a high degree of protection of employee rights and where it may be difficult to "downsize" or exit in an economic downturn.

historical pattern of emigration. Moreover, unemployment declined rapidly as employer-friendly labor market regulations and wage moderation (see below) gave firms the incentive to hire workers. Relatively low and gradually declining unemployment benefits increased labor force participation—especially of women—in the modern sector and, notably, outside of traditional agriculture.[19]

- **Labor costs stabilized** after 1987 when the first of successive multi-year centralized pay agreements was negotiated at the national level. The wage agreements, concluded in the context of a social partnership agreement among the government, employer federations, and labor unions, provided investors much-needed assurance about production costs after the escalating price-wage wars of the preceding years. The centralized coordinated wage bargaining system also promoted efficiency in the wage-setting mechanism by promoting industrial peace.[20]

Table 3. Ireland: Labor Costs

	1970s	1980s	1990-95	1995-01
Real labor cost in excess of productivity (annual average growth)	0	-2.3	-0.9	-2.7
Real wage growth in the business sector (in percent)	3.9	1.2	1.4	1.1

Source: OECD Employment Outlook, 2003.

- Concluding wage agreements within the context of a social partnership agreement also ushered in a period of **wage moderation**. Under this system, the government sought to protect real incomes by maintaining price stability, lowering taxes on employment,[21] linking pay agreements to changes in social welfare benefits and accepting some responsibility for job creation. In exchange, unions agreed to restrain their demand for pay raises, improving international competitiveness over time. While beneficial for exports, lower labor costs may not have been critical in the location decisions of multinational companies (Gunnigle and McGuire (2001)), especially since many high-tech companies locating in Ireland were willing to pay "above the norm" salaries to skilled employees.

[19] The relative generosity of unemployment benefits in Ireland increased from a low initial level, plateaued in the mid-80s and declined gently after that (Honohan, 2002).

[20] Union membership, which had grown rapidly since the 1960s, peaked in 1980, and declined steadily thereafter as the high unemployment rates of the 1980s reduced the power of the unions. The government did not intervene in this process. On the contrary, the role of unions was greatly strengthened by the revival and deepening of the centralized wage bargaining process. Nevertheless, union density never recovered, and continued to decline even more rapidly as most of the new jobs in the booming economy were created in the union-free work places.

[21] The personal income tax was lowered gradually, with the standard tax rate reduced from 32 percent in 1990 to 22 percent in 2000; the top rate from 56 percent to 44 percent over the same period (IMF 2000). In addition, tax bands were widened and the value of personal tax allowances increased.

- The availability of **highly skilled labor** was critical for fostering investment and sustained growth. A growing awareness of the need to develop human capital led to a policy of universal access to free secondary education in 1967. Investment in education increased, particularly at the secondary-level. Efforts to reform and modernize the Irish education system continued to be an important plank of national policy in the 1990s (OECD 2003). These efforts greatly improved the Irish educational system and educational attainment accelerated rapidly to deliver the highest levels of secondary and tertiary education among OECD countries.

Table 4. Ireland: Quality of Education System
(1 = poor, 7 = good)

	2000	2001-02	2003-04
Public schools	6.3	6.3	5.7
Education system	....	....	5.3

Source: Global Competitiveness Report.

Table 5. Ireland: Education Levels
(In percent of Labor Force)

	1989	1999
Primary	26	35
Secondary	56	28
Tertiary	18	34

Source: World Development Indicators.

10. **The Irish business climate was broadly on par with the euro-area average in a number of respects**. The high quality of institutions and infrastructure allowed investment to flourish by keeping the cost of doing business low. Moreover, financial liberalization and the removal of capital controls in the mid-1980s considerably expanded the ability of Irish consumers to borrow and improved the depth and efficiency of the financial system.

Table 6. Institutions and Infrastructure in Ireland

		2000	2001-02	2002-03	2003-04
Business cost of corruption	Ireland	...	5.3	6.3	5.1
(1 = large, 7 = small)	**Euro area average 1/**	**...**	**5.7**	**5.9**	**5.3**
Extent of bureacratic red tape	Ireland	2.8	1.8	2.9	2.4
	Euro area average 1/	**...**	**1.8**	**2.6**	**2.5**
Decisions of government officials	Ireland	...	4.9	3.7	3.5
(1 = favoritism; 7 = neutral)	**Euro area average 1/**	**...**	**4.4**	**4.2**	**4.3**
Regulation	Ireland	5.5	4.5	3.7	3.4
(1 = burdensome, 7 = not burdensome)	**Euro area average 1/**	**...**	**3.5**	**2.9**	**3.1**
Legal framework	Ireland	6.5	...	5.3	4.8
(1 = inefficient, 7 = efficient)	**Euro area average 1/**	**5.9**	**...**	**5.2**	**5.3**
Judiciary	Ireland	6.2	6.1	6.0	5.2
(1 = not independent, 7 = independent)	**Euro area average 1/**	**5.9**	**5.9**	**5.5**	**5.5**
Infrastructure quality	Ireland	3.5	3.7	3.4	3.2
(1 = poor, 7 = good)	**Euro area average 1/**	**5.5**	**5.8**	**5.7**	**5.7**

Source. Global Competitiveness Report.
1/ Excluding Ireland.

Table 7. Irish Financial Sector

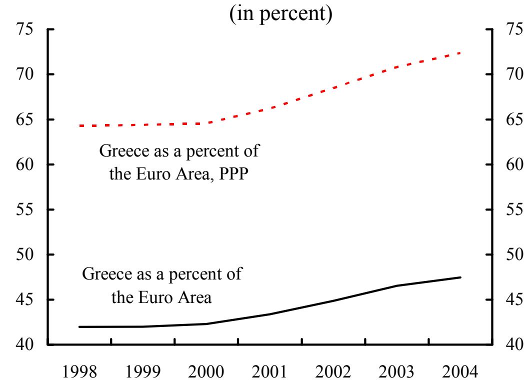
		1996	1997	1998	1999	2000	2001-02	2002-03	2003-04
Access to credit	Ireland	3.9	...	...	6.0	6.2	4.7	5.1	4.8
(1 = difficult, 7 = easy)	**Euro area average 1/**	**4.0**	**...**	**...**	**5.4**	**5.4**	**4.8**	**5.3**	**4.1**
Bank soundness	Ireland	4.2	6.4	6.5	6.4	6.7	6.7	6.5	6.6
(1 = insolvent, 7 = healthy)	**Euro area average 1/**	**4.0**	**5.3**	**5.6**	**5.7**	**6.3**	**6.4**	**6.2**	**6.2**
Financial market sophistication	Ireland	4.9	5.6	5.8	5.4	5.3	5.5	5.1	5.2
(1 = lower than, and 7 = higher than,	**Euro area average 1/**	**4.2**	**4.8**	**4.8**	**5.2**	**5.2**	**5.4**	**5.2**	**5.5**

Source: Global Competitiveness Report.
1/ Excluding Ireland.

D. Can Greece Implement an "Irish Strategy"?

11. **After six consecutive years of strong growth, per capita income levels in Greece still remain far behind the euro area average**. Convergence with the EU will require a number of years of high growth. Indeed, judging by the Irish experience, growth must accelerate from even the relatively high levels Greece has enjoyed in recent years. Some aspects of the "Irish strategy" cannot be implemented in Greece, others are already in place, and many reforms have yet to be implemented.

Figure 6. Real GDP Per Capita
(in percent)



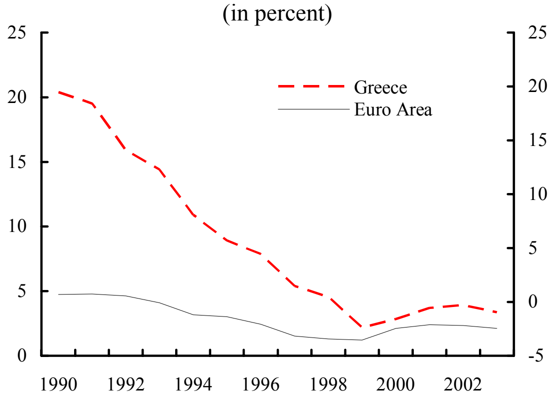
Source: World Economic Outlook, IMF.

12. **A number of the advantages ascribed to Ireland cannot be transferred to the Greek context**. The English language and legal system and the close links with the UK are not available, even though, Greece, situated at the south end of central Europe and the Balkans, has potential geographical advantages of its own. Some policies pursued by the Irish authorities—notably the discriminatory profits tax regime now being phased out—are also unavailable, though considerable scope for other tax reforms remains.

13. **Some policies that have been judged important in the Irish experience have already been implemented**.

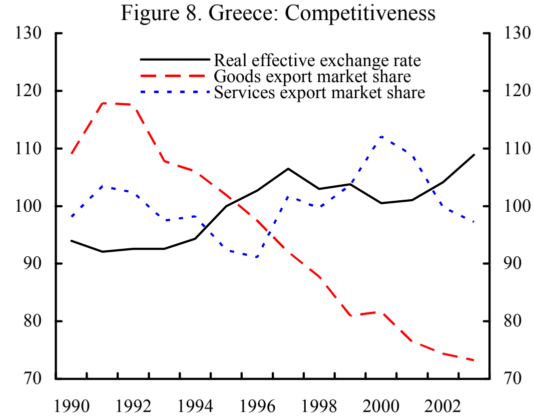
- **Chief among them is bringing inflation under control**. Inflation was initially reduced through tighter fiscal and monetary policies to support the exchange rate anchor provided by the central bank's hard drachma policy in 1989. Subsequently, the virtual peg to the ECU and monetary union have ensured a stability oriented monetary policy, albeit one directed by the ECB. Nevertheless, inflation has remained persistently above the euro-area average and consequently international competitiveness and export market shares have eroded.

Figure 7. Inflation
(in percent)



Source: World Economic Outlook, IMF.

Figure 8. Greece: Competitiveness



Source: World Economic Outlook, IMF.

- **The liberalization of the domestic credit market at the beginning of this decade has also been important**. Bank interest rates were liberalized, quantitative credit restrictions phased out, new financial products introduced, and restrictions on capital movements and current transactions lifted. The integration of European financial markets and major advances in information technology and telecommunications have allowed Greek banks to become more efficient and competitive. As in Ireland, the result has been a surge in consumer credit and a deepening of the financial sector.[22] Competition in the banking sector improved after several state banks were privatized in the second half of the 1990s, with the number of directly or indirectly state-controlled banks falling from ten in 1995 to three in 2003 (OECD 2004).

Table 8. Financial sector indicators

		1996	1997	1998	1999	2000	2001-02	2002-03	2003-04
Access to credit	Greece	3.6	...	...	5.3	5.4	5.1	4.9	4.8
(1 = difficult, 7 = easy)	**Euro area average (excluding Greece)**	**4.0**	**...**	**...**	**5.5**	**5.5**	**4.7**	**5.3**	**4.1**
Bank soundness	Greece	3.2	4.5	4.5	5.2	5.9	5.7	5.2	5.5
(1 = insolvent, 7 = healthy)	**Euro area average (excluding Greece)**	**4.0**	**5.4**	**5.7**	**5.8**	**6.4**	**6.5**	**6.3**	**6.2**
Financial market sophistication	Greece	3.7	3.0	2.9	3.7	3.8	3.8	3.9	4.1
(1 = lower than, and 7 = higher than, international norms)	**Euro area average (excluding Greece)**	**4.2**	**5.0**	**5.0**	**5.3**	**5.3**	**5.6**	**5.3**	**5.6**

Source: Global Competitiveness Report.

[22] As explained in Chapter 1 of this Selected Issues paper, however, these developments have also given rise to potential weaknesses that must be carefully watched by Greek supervisors.

- **Structural reforms have moved forward, with highly interventionist policies gradually replaced by a market-friendly approach**. The reliance on fiscal incentives, directed credit, wage controls, and extensive state ownership in "strategic" sectors (such as telecommunications, energy, banking) has given way to the privatization of large state companies, deregulation and privatization of banks, and the liberalization of financial markets and the telecom and energy sectors.

14. **However, a number of weaknesses remain.** Vamvakidis and Zanforlin (2002) examined the growth experience of Greece in comparison with the rest of the euro area and a large set of other economies and found that macroeconomic instability played a key role in determining growth in Greece, and that continuing macroeconomic imbalances and incomplete structural reforms—especially in the labor market—have raised questions about the sustainability of growth.

15. **The history of fiscal adjustment has been mixed**. The general government budget deficit was reduced from explosive levels of more than 10 percent of GDP in the early 1990s to somewhat over 3 percent of GDP by 1999, although it has since expanded to over 5 percent. However, the government's fiscal adjustment efforts have so far relied primarily on higher revenues due to robust growth and revenue-boosting measures including new taxes on interest income and stock exchange transactions, and improved tax administration. In this respect, they resemble more the Irish "failed stabilization" than the subsequent successful one. While sharply lower nominal interest rates have reduced debt service costs, primary expenditures have continued to rise due to higher social transfers, public employment and wages. Moreover, revenue collection faltered as the tax reform measures introduced in 2003 failed to sufficiently broaden the tax base and simplify the complicated tax structure. The deficit is expected to reach 5½ percent of GDP in 2004, and the primary surplus has fallen to about zero. Public debt, at about 112 percent of GDP, has changed little in recent years.

16. **Product markets are not sufficiently competitive**, leading to an inefficient allocation of resources and discouraging investors. Efforts to strengthen the Competition Committee so far have been hampered by difficulties in hiring qualified personnel and limitations in its ability to initiate investigations relative to best practices. Apart from the telecom sector, efficiency gains have been somewhat limited even in areas where state-owned enterprises have already been privatized because of the continued state control of commercial policies of public utilities, and weaknesses in the regulatory and institutional framework for liberalization which has left many company as vertically integrated firms. Finally, while liberalization in the energy sector is proceeding according to EU liberalization timetables, there is scope for improving competition in this sector.

17. **The investment climate—especially for foreigners—remains poor** for a number of reasons.

- **Corporations face high marginal tax rates and a complicated tax regime**. While the statutory rate of 35 percent is high by international standards, the effective rate of corporate income taxation remains fairly low, reflecting a wide range of tax incentives, exemptions and deductions. A first attempt to reform the complex tax system was made in 2003, and legislation for further reform, which among other things will lower profit tax rates, has been introduced for 2005. However, additional reforms are needed, including measures to lower the rate while broadening the tax base by eliminating or limiting many remaining exemptions and minor nuisance taxes and by reforming the local tax system (Lutz 2003).

- **The poor quality of infrastructure continues to be a bottleneck**. This is due to the glacial pace of product market reforms (see below), and—until recently—modest levels of public investment in infrastructure. The quality of infrastructure has improved in recent years, in part because of the 2004 Olympic Games and the inflow of EU structural funds. However, there is scope for further improvements, especially outside Athens.

Table 9. Greece: Quality of Infrastructure
(1 = poor, 7 = good)

	1997	1998	1999	2000	2001-02	2002-03	2003-04
Greece	2.5	2.9	3.5	3.5	3.5	3.7	3.8
Euro area average (excluding Greece)	4.9	5.0	...	5.5	5.8	5.6	5.6

Source: Global Competitiveness Report.

- Despite recent efforts to simplify procedures, **regulation continue to be excessive**. Weaknesses in the regulatory and judicial systems hamper productivity and efficiency, and increase production costs. While expenditure on public administration accounts for a higher proportion of total expenditures than in other OECD countries, little has been done to improve the efficiency and accountability of the civil service.

Table 10. Investment Climate

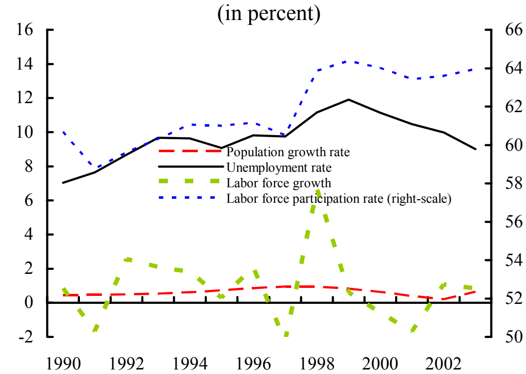
		2000	2001-02	2002-03	2003-04
National business environment (1= highest rank out of 80)	Greece	33	43	41	....
	Euro area average (excluding Greece)	**13**	**13**	**14**	**....**
Cost of corruption (1 = large, 7 = small)	Greece	....	4.3	4.9	3.5
	Euro area average (excluding Greece)	**....**	**5.8**	**6.0**	**5.4**
Favoritism in decisions of officials (1 = yes; 7 = no)	Greece	....	2.5	3	2.9
	Euro area average (excluding Greece)	**....**	**4.6**	**4.3**	**4.4**
Bureacratic red tape	Greece	3.3	2.4	2.7	2.5
	Euro area average (excluding Greece)	**....**	**1.8**	**2.6**	**2.5**
Regulation (1 = burdensome, 7 = not burdensome)	Greece	4.1	2.8	2.6	2.4
	Euro area average (excluding Greece)	**....**	**3.6**	**3.0**	**3.1**
Legal framework (1 = inefficient, 7 = efficient)	Greece	4.4	....	4	4.1
	Euro area average (excluding Greece)	**6.1**	**....**	**5.3**	**5.3**
Judiciary (1 = not independent, 7 = independent)	Greece	4.8	4.7	4.5	4.7
	Euro area average (excluding Greece)	**6.0**	**6.0**	**5.6**	**5.5**

Source: Global Competitiveness Report.

18. **Structural rigidities in the labor market also exert a drag on growth.**

- Despite a recent increase in immigrants, the Greek **labor force has remained stagnant** as population growth has slowed and structural rigidities and relatively high wages deter both new entrants to the labor market and prospective employers (Lutz 2003 and OECD 2004). As a result, unemployment has persisted at rates above 9 percent for the past decade.

Figure 9. Greece: Labor Market Indicators
(in percent)



Source: World Economic Outlook, IMF, and OECD.

- Strict employment protection legislations, high entry minimum wages, overly generous collective wage bargaining agreements with inflation catch-up clauses, high non-wage labor costs, impediments to labor mobility (such as high property transfer taxes), inefficient job-matching services provided by public employment agencies **reduce the flexibility** of the Greek labor market.

Table 11. Labor Market Flexibility

		1996	1997	1998	1999	2000	2001-02	2003-04
Labor-employer relations	Greece	4.5	3.4	3.7	3.9	4.4	4.1	4.1
(1 = confrontational; 7 = cooperative)	**Euro area (excluding Greece)**	**3.7**	**5.0**	**5.1**	**5.2**	**5.2**	**5.1**	**5.0**
Wage determintaion	Greece	3.6	3.1	3.4	4.3	4.0	....	3.5
(1 = centralized; 7 = decentralized)	**Euro area (excluding Greece)**	**2.8**	**3.5**	**3.7**	**4.9**	**3.6**	**....**	**3.6**
Hiring and firing practices	Greece	2.8	2.6	2.8	2.9	2.8	2.4	2.6
(1 = not flexible, 7 = flexible)	**Euro area (excluding Greece)**	**3.1**	**3.3**	**3.4**	**3.2**	**2.7**	**2.9**	**3.1**

Source: Global Competitiveness Report.

- While somewhat liberalized, the wage formation system continues to exert an **upward bias in wages**. This is because the public sector continues to maintain a large, generally indirect, role in the private sector wage formation process through a demonstration effect (OECD 2004). Moreover, sizeable increases in labor income taxation (until recently) as well as relatively compressed wage structures—a legacy of the government's more direct influence on wage formation in the past—also serve to push wages up.

Table 12. Greece--Labor Costs

	1970s	1980s	1990-95	1995-01
Real labor cost in excess of productivity (annual average growth)	1.1	0.8	-2.9	-0.9
Real wage growth in the business sector (in percent)	5.5	0.1	-1.9	2.1

Source: OECD Employment Outlook, 2003.

- **Skilled labor is at a premium in Greece**. Investment in human capital (as measured by secondary school enrollment) has increased over time and is close to the euro area average, and public expenditure on education is expected to converge to euro area levels over the next few years. Nevertheless, there are mismatches between the needs of the labor market and the education system which has resulted in an oversupply of graduates in some sectors and undersupply in some others (Lutz, 2001; Vamvakidis 2001a). The quality of education also remains low, a point which has been broadly recognized and has resulted in many Greeks going overseas for higher education. Ambitious plans to revamp and modernize the education system at all levels were launched in 1997, but implementation has faltered in the absence of broad-based support (OECD, 2003-4).

Table 13. Greece: Education Levels
(In percent of Labor Force)

	1989	1998
Primary	53	45
Secondary	25	29
Tertiary	11	25

Source: World Development Indicators.

Table 14. Greece: Quality of Education System
(1 = poor, 7 = good)

		2000	2001-02	2003-04
Public schools	Greece	2.9	3.6	3.7
	Euro area (excl. Greece)	**5.7**	**5.8**	**5.5**
Education system	Greece	....	....	3.4
	Euro area (excl. Greece)	**....**	**....**	**4.8**

Source: Global Competitiveness Report.

Table 15. Financial Sector Indicators

	1996	1997	1998	1999	2000	2001-02	2002-03	2003-04
				Access to credit (1 = difficult, 7 = easy)				
Austria	4.8	...	...	5.3	5.1	4.6	4.2	4.2
Belgium	4.1	...	...	5.1	5.3	4.1	5.8	3.3
Denmark	4.1	...	...	5.2	5.3	4.7	5.4	4.4
Finland	4.5	...	...	6.2	5.7	5.1	5.8	5.2
France	4.0	...	...	5.9	5.4	4.6	5.1	4.1
Germany	4.1	...	...	5.3	4.8	4.3	5.6	3.5
Greece	3.6	...	...	5.3	5.4	5.1	4.9	4.8
Ireland	3.9	...	...	6.0	6.2	4.7	5.1	4.8
Italy	2.3	...	...	4.9	5.0	5.7	4.5	4.3
Luxembourg	5.0	...	...	5.7	5.6	...	...	4.3
Netherlands	4.6	...	...	5.4	5.5	4.8	6.0	3.6
Portugal	3.4	...	...	5.8	5.7	4.6	4.7	3.3
Spain	3.6	...	...	5.8	6.0	5.0	5.0	4.4
Sweden	3.9	...	...	5.2	5.6	4.7	5.2	4.2
United Kingdom	4.4	...	...	4.9	5.4	4.5	6.8	4.0
				Soundness of banks (1 = insolvent, 7 = generally healthy)				
Austria	5.0	5.1	5.6	5.9	6.1	6.1	6.1	6.0
Belgium	4.1	5.4	5.9	5.8	6.4	6.6	6.6	6.3
Denmark	4.4	5.8	6.6	6.3	6.7	6.6	6.6	6.6
Finland	3.7	3.3	5.0	5.1	6.2	6.8	6.5	6.6
France	3.9	3.8	4.1	4.7	5.9	6.5	6.1	6.2
Germany	4.1	6.4	6.5	6.1	6.4	6.7	6.1	5.2
Greece	3.2	4.5	4.5	5.2	5.9	5.7	5.2	5.5
Ireland	4.2	6.4	6.5	6.4	6.7	6.7	6.5	6.6
Italy	2.7	3.6	3.8	4.5	5.4	5.9	5.6	5.5
Luxembourg	5.0	6.6	6.3	6.6	6.8	...	...	6.5
Netherlands	4.8	6.6	6.8	6.5	6.8	6.8	6.6	6.6
Portugal	3.7	5.6	5.6	5.8	6.1	6.2	5.8	5.8
Spain	3.6	5.1	5.8	6.0	6.6	6.5	6.0	6.5
Sweden	3.6	5.7	5.7	5.7	6.3	6.5	6.3	6.4
United Kingdom	3.7	6.4	6.3	6.3	6.6	6.8	6.8	6.6
				Financial market sophistication (1 = lower than, 7 = higher than, international norms)				
Austria	3.7	3.8	3.7	4.5	4.5	4.6	4.2	4.5
Belgium	4.3	4.5	4.7	5.1	4.9	5.2	5.8	5.7
Denmark	4.4	5.1	5.3	5.2	5.0	5.6	5.4	5.7
Finland	4.1	5.1	5.2	5.2	5.4	5.9	5.8	6.0
France	4.6	4.9	5.4	5.6	5.4	5.6	5.1	5.4
Germany	4.0	5.0	5.1	5.5	5.7	6.0	5.6	5.7
Greece	3.7	3.0	2.9	3.7	3.8	3.8	3.9	4.1
Ireland	4.9	5.6	5.8	5.4	5.3	5.5	5.1	5.2
Italy	2.8	3.2	3.2	3.7	4.2	4.9	4.5	5.1
Luxembourg	5.0	5.4	5.3	6.4	5.4	...	...	5.9
Netherlands	4.9	5.8	6.0	5.9	5.8	6.3	6.0	5.8
Portugal	2.8	4.1	4.1	4.7	4.8	4.8	4.7	4.7
Spain	4.2	4.3	4.2	4.8	4.8	5.3	5.0	5.3
Sweden	4.9	5.7	5.6	5.5	5.7	5.9	5.2	6.1
United Kingdom	5.1	6.7	6.7	6.7	6.7	6.8	6.8	6.7

Source: Global Competitiveness Report.

Table 16. Investment Climate

	2000	2001-02	2002-03	2003-04
	National business environment (1= highest rank out of 80)			
Austria	12	12	12	...
Belgium	13	14	15	...
Denmark	4	10	9	...
Finland	1	1	2	...
France	15	13	21	...
Germany	6	4	4	...
Greece	33	43	41	...
Ireland	22	22	22	...
Italy	26	24	24	...
Luxembourg	...	...	...	...
Netherlands	3	3	10	...
Portugal	27	28	32	...
Spain	23	23	25	...
Sweden	11	6	8	...
United Kingdom	9	8	3	...
	Cost of corruption (1 = large, 7 = small)			
Austria	...	6.2	6.0	5.4
Belgium	...	5.5	5.7	5.4
Denmark	...	6.4	6.8	6.7
Finland	...	6.6	6.9	6.6
France	...	6.2	5.0	4.9
Germany	...	5.6	5.9	5.3
Greece	...	4.3	4.9	3.5
Ireland	...	5.3	6.3	5.1
Italy	...	5.7	5.1	3.9
Luxembourg	...	...	...	5.2
Netherlands	...	5.5	6.0	5.8
Portugal	...	4.8	5.7	4.8
Spain	...	5.3	5.5	4.4
Sweden	...	6.4	6.2	6.4
United Kingdom	...	6.0	6.7	5.6
	Favoritism in decisions of officials (1 = yes; 7 = no)			
Austria	...	4.4	4.5	3.7
Belgium	...	4.1	4.4	4.0
Denmark	...	5.3	5.6	5.7
Finland	...	5.7	5.5	5.7
France	...	4.1	4.0	4.0
Germany	...	4.3	4.1	4.8
Greece	...	2.5	3.0	2.9
Ireland	...	4.9	3.7	3.5
Italy	...	3.3	3.2	3.4
Luxembourg	...	...	...	4.5
Netherlands	...	5.0	4.4	4.7
Portugal	...	3.7	3.8	3.7
Spain	...	4.4	3.4	3.5
Sweden	...	5.0	4.1	5.4
United Kingdom	...	5.0	4.7	4.6

Source: Global Competitiveness Report.

Table 16. Investment Climate (concluded)

	2000	2001-02	2002-03	2003-04
		Bureacratic red tape		
Austria	...	2.0	2.6	2.5
Belgium	...	1.5	3.6	2.3
Denmark	...	1.7	2.1	2.6
Finland	...	1.6	2.1	2.9
France	...	1.8	2.5	2.4
Germany	...	1.6	2.4	2.4
Greece	3.3	2.4	2.7	2.5
Ireland	...	1.8	2.9	2.4
Italy	...	2.6	2.3	2.3
Luxembourg	...	...	...	2.3
Netherlands	...	1.4	2.8	2.5
Portugal	...	2.1	3.1	2.7
Spain	...	1.8	2.2	2.1
Sweden	...	1.7	2.7	2.3
United Kingdom	...	1.8	2.2	2.6
		Regulation (1 = burdensome, 7 = not burdensome)		
Austria	...	3.2	3.0	3.7
Belgium	...	2.8	2.3	2.1
Denmark	...	3.1	3.1	3.6
Finland	...	5.3	4.4	4.7
France	...	2.7	2.4	2.1
Germany	...	3.4	2.3	3.2
Greece	4.1	2.8	2.6	2.4
Ireland	...	4.5	3.7	3.4
Italy	...	2.4	2.2	2.4
Luxembourg	...	...	...	3.6
Netherlands	...	4.4	2.8	2.7
Portugal	...	2.8	2.7	2.8
Spain	...	4.7	3.3	2.7
Sweden	...	4.0	2.9	3.8
United Kingdom	...	3.9	3.6	3.0
		Legal framework (1 = inefficient, 7 = efficient)		
Austria	6.4	...	5.8	5.8
Belgium	5.9	...	4.9	4.7
Denmark	6.7	...	6.2	6.2
Finland	6.3	...	6.2	6.3
France	5.8	...	4.5	4.9
Germany	6.5	...	6.0	6.0
Greece	4.4	...	4.0	4.1
Ireland	6.5	...	5.3	4.8
Italy	4.4	...	3.8	4.2
Luxembourg	6.8	...	...	5.5
Netherlands	6.7	...	5.9	6.0
Portugal	4.8	...	4.2	4.3
Spain	5.8	...	4.2	4.0
Sweden	6.0	...	5.8	5.7
United Kingdom	6.4	...	6.1	6.0
		Judiciary (1 = not independent, 7 = independent)		
Austria	6.4	6.3	6.0	5.5
Belgium	5.4	5.9	4.7	5.0
Denmark	6.6	6.5	6.6	6.4
Finland	6.8	6.6	6.3	6.6
France	4.8	5.7	4.3	4.4
Germany	6.6	6.7	6.2	6.1
Greece	4.8	4.7	4.5	4.7
Ireland	6.2	6.1	6.0	5.2
Italy	3.9	4.5	4.5	4.4
Luxembourg	6.8	...	...	5.5
Netherlands	6.7	6.6	6.4	6.3
Portugal	5.2	5.1	6.0	5.7
Spain	5.5	5.0	4.1	3.8
Sweden	6.2	6.5	5.6	6.0
United Kingdom	6.4	6.3	6.2	6.0

Source: Global Competitiveness Report.

Table 17. Greece: Doing Business--Selected Indicators, 2004

	Greece	Ireland	Italy	Portugal	Spain	U.K.	OECD Average
Starting a Business							
Number of procedures	15.0	4.0	9.0	11.0	6.0	6.0	6.0
Time (days)	38.0	24.0	13.0	78.0	108.0	18.0	25.0
Cost (% of income per capita)	35.2	10.3	16.2	13.5	16.5	0.9	8.0
Min. capital (% of income per capita)	125.7	0.0	11.2	39.5	16.9	0.0	44.1
Hiring and Firing Workers							
Difficulty of Hiring Index	78.0	28.0	61.0	33.0	67.0	11.0	26.2
Rigidity of Hours Index	80.0	40.0	60.0	80.0	80.0	40.0	50.0
Difficulty of Firing Index	40.0	20.0	30.0	60.0	60.0	10.0	26.8
Rigidity of Employment Index	66.0	29.0	50.0	58.0	69.0	20.0	34.4
Firing costs (weeks of wages)	133.0	52.0	47.0	98.0	68.0	25.0	40.4
Registering Property							
Number of procedures	12.0	5.0	8.0	5.0	4.0	2.0	4.0
Time (days)	23.0	38.0	27.0	83.0	20.0	21.0	34.0
Cost (% of property per capita)	13.7	10.3	1.3	7.3	7.1	4.1	4.9
Enforcing Contracts							
Number of procedures	14.0	16.0	18.0	24.0	23.0	14.0	19.0
Time (days)	151.0	217.0	1390.0	320.0	169.0	288.0	229.0
Cost (% of debt)	12.7	21.1	17.6	17.5	14.1	15.7	10.8
Closing a Business							
Time (years)	2.0	0.4	1.2	2.5	1.0	1.0	1.7
Cost (% of estate)	8.0	8.0	18.0	8.0	8.0	6.0	6.8
Recovery rate (cents on the dollar)	45.6	88.9	43.5	69.9	83.4	85.8	72.1

Source: World Bank.

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