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Greek Budget 1999: Gateway to EMU

- **The probability that Greece will participate in EMU by the January 2001 target date is higher than markets currently discount**
- **Large off-budget shifts imply that the fiscal stance is less tight than suggested by the budget figures; nevertheless, the fiscal criteria are likely to be met as the headline deficit will remain below the 3% required for EMU entry and the debt ratio will decline in 1999**
- **Inflation rather than the fiscal deficit is the most challenging EMU requirement; falling core inflation and indirect tax cuts will lower headline inflation to the 2% end-1999 target**
- **We retain our recommendation of long drachma positions funded in Deutschemarks, as the priority attached to inflation suggests that the drachma will depreciate by less than the uncovered interest parity over the next 12 months**
- **Greek government bonds are expected to offer exceptional returns in the next two years as yield spreads collapse**

Summary

Greece's participation in EMU in 2001 is more likely than markets discount

Greece has made considerable efforts toward nominal and real convergence in the 1990s with the objective of **EMU participation**, now targeted for January 2001. Next year, 1999, will be key to Greece's efforts to join EMU, as the examination by the EU for compliance with EMU criteria will be requested for the spring of 2000 based on performance in 1999. With the policies now in place, and in the absence of renewed turbulence in world financial markets, we expect Greece to join EMU in 2001 or, at the very latest, in 2002.

Policy priorities are shifting toward inflation reduction

Having achieved the **fiscal deficit criterion for EMU** already in 1998 (general government deficit below 3% of GDP), policy priorities are shifting away from further fiscal adjustment towards satisfying the criterion of an inflation rate that does not exceed that of the best three performers by more than 1.5 percentage points. Thus, the 'dividend' of past fiscal consolidation efforts is now being used to cut indirect taxes so as to help achieve the 2% inflation target at end-1999. The tax cuts are estimated to reduce headline inflation by about one percentage point in 1999, at a cost of Dr180 billion (0.5% of GDP) in foregone tax revenues.

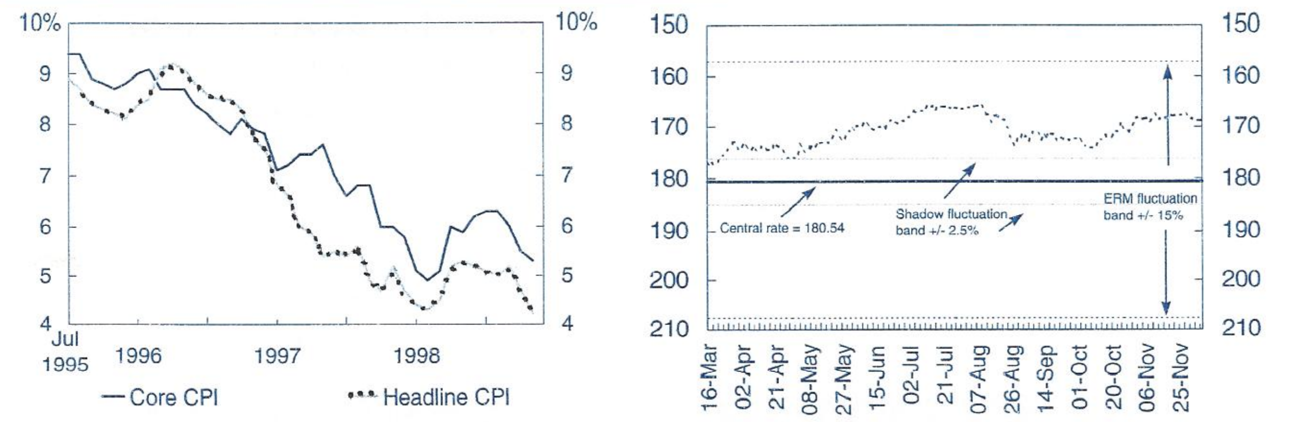
Short-term rates will decline only slowly, keeping the drachma strong

Despite the seemingly austere budget stance, the Bank of Greece has been slow in cutting official interest rates following the devaluation and ERM entry in March 1998. The **Bank of Greece's hawkish stance** reflects a number of concerns: (a) core inflation is receding less rapidly than the headline rate; (b) stop-gap measures such as indirect tax cuts are unlikely to have a lasting impact on inflation; (c) large off-budget shifts imply that the fiscal stance is less tight than suggested by the budget figures, with adverse consequences for inflation; and (d) credit to the private sector is still growing rapidly. For these reasons, we expect short-term interest rates to decline only slowly next year.

Both the currency and the bonds represent good value

In view of the priority attached to inflation, we expect final interest rate and exchange rate convergence to be delayed to 2000. The implication for **currency strategy** is that the drachma is likely to remain on the strong side of the ERM intervention band during 1999, rather than move to central parity as forex forwards suggest (see Figures 1 and 9). In terms of **bond strategy**, Greece's EMU entry in 2001 is not fully discounted by the market. We expect yield spreads over Germany to collapse over the next two years, providing Greek bonds with superior returns. With almost 200 basis points of forward yield differential against Germany in January 2001, 10-year paper offers good value.

Figure 1. Inflation (Jul 95-Nov 98) and Drachma versus DM Exchange Rate (Mar 98-Dec 98)



Note: Core CPI excludes food and fuels
Source: Bank of Greece.

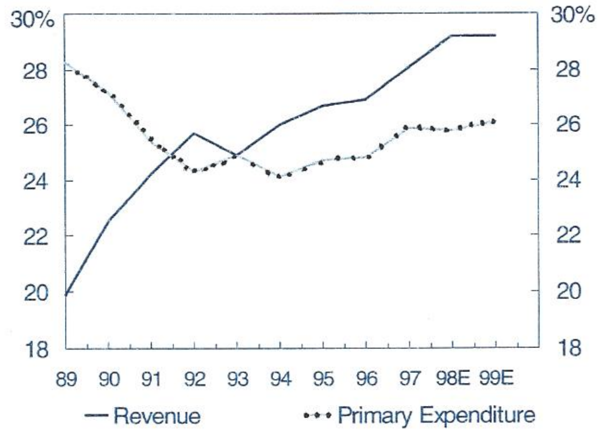
Source: Datastream.

The 1998 budget is on track

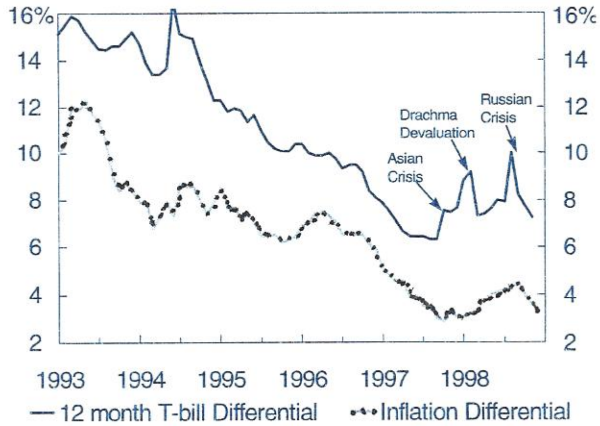
The fiscal imbalance has been largely corrected

Considering that the central government deficit/GDP ratio was in the double digits until 1995, significant progress in reducing the deficit has been achieved. The **central government deficit** (the budget definition) declined from 9.8% of GDP in 1996 to 6.1% of GDP in 1997, and fell further to 4.2% of GDP — just below the budget target — in 1998. The 1998 outcome reflects slightly better-than-expected revenues due, in part, to a tax amnesty. New **revenues** were raised from a number of sources, including a rise in the withholding tax on interest on Treasury paper from 7.5% to 10%, indirect tax increases on cigarettes and liquor, and a one-off revenue increase as the date of income tax collection was brought forward by bringing the withholding tax closer into line with the income tax. Additional revenues of about Dr300 billion (0.9% of GDP) estimated from the above sources were partly offset by the indexation of personal income tax brackets for inflation, the absence of which had caused considerable bracket creep in previous years.

Figure 2. Central Government Revenues and Primary Expenditures (1989-99E) and Inflation and Interest Rate Differentials (Against Germany Jan 93-Nov 98)



Note: Primary expenditure includes capital transfers and other adjustments.
Source: Ministry of Finance.



Sources: Bloomberg and Salomon Smith Barney calculations.

Structural reforms are the key to improving public finances on a sustained basis

On the **expenditure** side, current expenditure overruns and the negative impact of the March 1998 devaluation on debt service costs were offset by cuts in the investment budget, keeping total expenditure within the budget target. The main area of slippage was the wage bill, which rose by 7.3% compared with the 4% budgeted, reflecting wage drift and higher benefits. The bulk of the fiscal adjustment in recent years has come from revenue enhancement and falling interest rates, while primary expenditures are on a mildly rising trend (see Figure 2). The key to improving public finances on a sustained basis is the implementation of structural reforms outlined in Greece's convergence program. In particular, privatization and restructuring of loss-making companies will result in significant efficiency gains and help increase net revenues for the government.

The fiscal stance is mildly expansionary in 1999

After declining by 2%-4% of GDP in 1997-98, the central government deficit is budgeted to edge down by barely 0.2% of GDP in 1999. The budget, submitted to Parliament in November for approval by end-December, targets a decline in the central government deficit to 4.0% of GDP from 4.2% in 1998.

Despite significant cuts in indirect taxes to help achieve the inflation target, estimated to cost Dr180 billion on a full-year basis (0.5% of GDP), total **revenue** is projected to remain unchanged relative to GDP, reflecting a pickup in GDP growth, fiscal drag, collection of tax arrears under the tax amnesty introduced in 1998, and further efforts to broaden the tax base.

Figure 3. Greece: Central Government Budget, 1996-99F (in % of GDP)

	1996 Revised	1997 Revised	1998 Budget	1998E Prelim	1999F Budget
Expenditure	**36.7%**	**35.7%**	**35.0%**	**35.0%**	**34.9%**
Primary expenditure	24.8%	25.9%	26.0%	25.8%	26.1%
Ordinary budget	21.1%	20.9%	20.3%	20.5%	20.3%
Investment budget	3.7%	5.0%	5.7%	5.3%	5.8%
Interest payments	11.8%	9.8%	9.1%	9.2%	8.8%
Revenue	**26.9%**	**28.0%**	**29.0%**	**29.2%**	**29.2%**
Ordinary budget	25.0%	25.9%	26.4%	26.6%	26.5%
Tax	22.4%	23.2%	24.0%	24.2%	24.0%
Nontax	2.6%	2.6%	2.4%	2.4%	2.5%
Investment budget	1.9%	2.2%	2.5%	2.6%	2.8%
Deficit	**–9.8%**	**–6.1%**	**–4.4%**	**–4.2%**	**–4.0%**
Ordinary budget	–8.0%	–4.9%	–3.0%	–3.2%	–2.7%
Investment budget	–1.8%	–2.8%	–3.1%	–2.7%	–3.0%
Capital increases	NA	1.3%	1.7%	1.5%	1.6%
Other adjustments	NA	0.3%	NA	0.2%	NA
Primary surplus	**2.1%**	**3.7%**	**4.7%**	**5.0%**	**4.8%**
Public debt	**122.0%**	**119.2%**	**NA**	**116.1%**	**115.2%**

F = Ministry of Finance forecast.
Source: Ministry of Finance, 1998 and 1999 Budgets.

Fiscal policy is shifting to an expansionary stance

Spending is budgeted to remain broadly stable relative to GDP, as an increase in investment spending is offset by a decline in interest payments. To some extent, the 1999 budget 'cashes in' the dividend of previous fiscal consolidation efforts, by reversing the previous trends toward higher indirect taxes and higher primary surpluses, as policy priorities shift toward inflation. Indeed, fiscal policy is shifting to a **mildly expansionary stance**, as the primary surplus is budgeted to shrink to 4.8% of GDP from 5% in 1998 (see Figure 3). After adjusting for the cyclical position and off-budget shifts (see below), the fiscal stance is even more expansionary.

Growth assumption optimistic; interest rate realistic

The **assumptions** underlying the budget are a pickup in growth to 3.7% in 1999 from 3.5% in 1998, and a decline in inflation to 2.5% on average in 1999 from 4.5% in 1998. Cost-of-living adjustments for public sector salaries are projected at 2% in 1999 after 2.5% in 1998 (but the wage bill typically increases by far more due to wage drift and higher benefits). The average interest cost on the benchmark 12-month T-bill is projected at 7.5%, compared with 10.5% in the most recent auction (end-November). Even if growth were to decelerate in 1999, in line with developments in the rest of the EU, the budget target is likely to be met as Greek budgetary expenditures are not highly cyclical. The average T-bill rate assumption appears optimistic, as it implies a decline in the T-bill rate to about 5% at end-1999. Nevertheless, the deficit is likely to remain well within the limits stipulated in the Maastricht Treaty even if expenditures overshoot the target to some extent.

General government versus central government deficit

The general government deficit is targeted to decline to 1.9% of GDP in 1999

Greece's revised EU convergence plan, approved by the Ecofin Council in October, projects a decline in the **general government deficit** (Maastricht Treaty definition) from 2.4% of GDP in 1998 to 2.1% in 1999. In view of the better-than-expected outturn in 1998 (2.2% of GDP), and to provide room for maneuver in the event of unforeseen external or internal disturbances, the budget targets a general government deficit of 1.9% of GDP in 1999 (see Figure 4).

The general government includes the central government plus public entities (mainly the pension funds and hospitals) and the local authorities. Subsidies to the two main funds that have large deficits (IKA and NAT) are already included in the central government budget. The remaining funds are in surplus (even though they have unfunded future liabilities), and thus help reduce the general government deficit.

Figure 4. General versus Central Government Deficit, 1998-99F

	1998		1999F	
	Billion Dr	% GDP	Billion Dr	% GDP
Central government: borrowing requirement	2,085	5.9	2,155	5.7
Minus:				
Capital increases	525	1.5	620	1.6
Other adjustments[1]	62	0.2	–	–
Central government deficit	1,498	4.2	1,535	4.0
Minus: Public entities surplus[2]	725	2.0	800	2.1
General government deficit	773	2.2	735	1.9

Notes: [1] Consists of expenditures incurred in the current year but shifted to past budgets (eg retroactive public sector pay and benefit increases based on court decisions). [2] Includes 'other adjustments'.
Source: Ministry of Finance, 1999 Budget.

Off-budget shifts understate fiscal impact on demand, inflation

Although the fiscal numbers look good, there is some concern about the underlying fiscal trend

Although Greece's fiscal numbers look good, there is some concern about the underlying trend. The budget data for 1999 and previous years understate the size of the fiscal imbalance and its impact on aggregate demand and inflation due primarily to large off-budget shifts. These accounting practices, though accepted by Eurostat and also used by other member states, imply that the fiscal stance is less tight than suggested by the published budget figures, with adverse consequences for inflation.

The focus on meeting EMU criteria in 1999 has given rise to an unbalanced policy mix

The focus on achieving the EMU criteria in 1999 has given rise to an **unbalanced policy mix**, consisting of tight money and a somewhat looser fiscal stance as expenditures are shifted off-budget and indirect taxes are cut to help reduce headline inflation temporarily. A more orthodox approach would have required a tightening of the fiscal stance to help reduce inflation on a lasting basis by withdrawing fiscal stimulus while achieving a more balanced fiscal/monetary policy mix.

Published figures understate the deficit for a number of reasons:

1. **Capital transfers** to public enterprises matched by equal equity participations are considered a below-the-line financial transaction rather than expenditure.

Such transactions, first introduced in 1997, have increased from 1.3% of GDP in 1997 to 1.5% in 1998, and are budgeted to increase to 1.6% in 1999. The bulk of capital transfers in fact consist of subsidies to loss-making public enterprises, such as the railroads and urban transport, which help sustain domestic demand and add to inflation pressures (Budget, p.101). A subsidiary issue is whether the state will ever realise a profit from this 'investment'.

Figure 5. Greece: General Government Deficit and Adjusted Deficit, 1998-1999F

			1999F	
	Billion Dr	**% of GDP**	**Billion Dr**	**% of GDP**
Deficit	**773**	**2.2**	**735**	**1.9**
Adjustments	**994**	**2.8**	**891**	**2.3**
Capital transfers	525	1.5	620	1.6
Interest on zero-coupons	160	0.5	–	–
Interest capitalization	27	0.1	–	–
Shifts to past budgets	62	0.2	–	–
Loan guarantees	220	0.6	286	0.8
Adjusted deficit	**1,767**	**5.0**	**1,626**	**4.4**

Source: Ministry of Finance, 1999 Budget.

2. **Loan guarantees** extended to public enterprises also constitute demand-sustaining off-budget shifts. According to the Budget (p.114), new loan guarantees to be extended in 1999 amount to Dr286 billion (0.8% of GDP), the bulk of which are granted (again!) to the railroads and urban transport. In the absence of restructuring plans for the debtors, these guarantees are certain to be called and add to the future debt burden of the general government.

3. **'Shifts to past budgets'** consist of expenditures incurred in the current year but shifted to past years' budgets. These include, in particular, retroactive public sector pay and benefit increases based on court decisions. These, too, add to demand and inflation pressures.

4. **Interest capitalization** refers to capitalised interest on so-called consolidation bonds (see below) issued to state banks to cover the cost to guaranteed loans that have been called. After a small amount in 1998, the authorities plan to end this practice in 1999. There are, however, unconfirmed rumors of much larger amounts of interest being capitalised under bilateral agreements between the government and state-controlled banks. In contrast to off-budget shifts, interest capitalization and imputed interest on zero-coupons does not add to demand pressures but may cause liquidity problems for state banks.

5. Imputed **interest on two-year zero-coupon bonds**, first issued in 1997, is estimated at Dr160 billion (0.5% of GDP) in 1998 but is not included in the deficit according to Eurostat rules. Maturing zero-coupons issued in 1997 will add to the debt service burden in 1999. Even so, interest payments are projected to decline from 9.2% of GDP in 1998 to 8.8% in 1999.

Adjusting for the above factors, the 'true' general government deficit amounted to 5% of GDP in 1998 and is budgeted to fall to 4.4% of GDP in 1999, assuming no further interest capitalization and shifts to past budgets.

Two further issues need to be considered in assessing the fiscal stance:

1. A new entity, **DEKA**, was created in 1997 to collect privatization revenues and extend transfers to the government and to public enterprises. To the extent that government transfers to public enterprises is shifted off-budget (to DEKA, which is outside the definition of the general government), the deficit is understated. The revenue side is not affected because privatization revenues are not included in budgetary receipts (just as equity participations by the state are not included in expenditures). According to the budget, privatization receipts amounted to Dr1 trillion (3% of GDP) in 1998, of which Dr780 billion (2.2% of GDP) were used to retire central government debt (p.168). It is not clear whether the remaining receipts went to the government or to public enterprises, as DEKA accounts are not published. It should be noted that the Dr780 billion debt-reduction figure includes Dr290 billion (0.8% of GDP) of bonds issued in September 1998 convertible to equity in companies to be privatized. The convertible bonds are considered equity rather than debt even though they are not yet converted.

2. Freezing public tariffs in 1999 to help reduce headline inflation increases the deficit of **public enterprises**, which are outside the definition of the general government. Such an increase would only be avoided if costs also were frozen, which is not the case. The freeze thus represents a disguised fiscal loosening.

Public debt ratio falling but still above 100% of GDP

The debt dynamics have been reversed

Sizable primary surpluses in recent years have helped reverse the dynamics of rising debt. The debt ratio has been on a declining trend since 1997, with a significant further fall recorded this year as privatization revenue was used to retire debt through DEKA (2.2% of GDP). The general government debt fell from 112.2% of GDP in 1996 to 109.5% in 1997 and 105.5% in 1998 (see Figure 6). Whereas Greece's public debt ratio far exceeds the 60% benchmark stipulated in the Maastricht Treaty, the precedent of Belgium's and Italy's acceptance in EMU from the outset with a debt ratio exceeding 100% of GDP makes it unlikely that the debt criterion will be a formidable challenge.

Figure 6. Central and General Government Debt, 1996-98 (Trillion Drachmas)

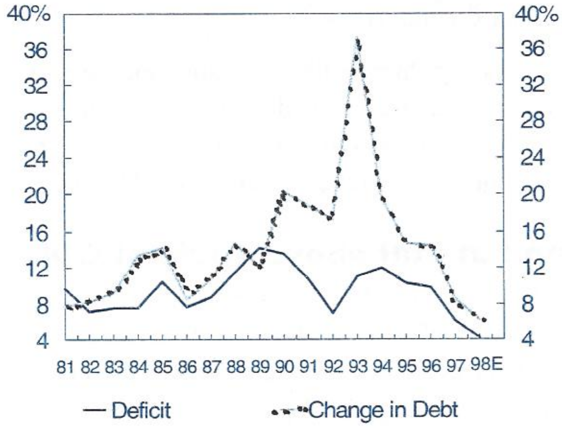
	1996	1997	1998
Central government debt	**36.2**	**39.0**	**41.2**
(% of GDP)	**(122.0%)**	**(119.2%)**	**(116.1%)**
Domestic	**29.0**	**30.7**	**32.0**
T-bills	10.0	6.8	5.1
Bonds[1]	14.7	19.6	22.4
Bank of Greece	3.9	4.0	4.2
Loans	0.3	0.3	0.3
External	**7.2**	**8.3**	**9.2**
Bonds & loans	6.4	7.5	8.3
Defense-related loans	0.9	0.9	0.9
Minus:			
Inter-governmental debt[2]	**2.9**	**3.1**	**3.7**
General government debt[3]	**33.3**	**35.9**	**37.5**
(% of GDP)	**(112.2%)**	**(109.5%)**	**(105.5%)**

Notes: [1] Includes 'consolidation' bonds. [2] Includes other adjustments. [3] The 1998 figure excludes Dr290 billion (0.8% of GDP) of bonds issued in September 1998 convertible to equity in companies to be privatised. The convertible bonds are considered equity rather than debt even though they are not yet converted.
Source: Ministry of Finance, 1999 Budget.

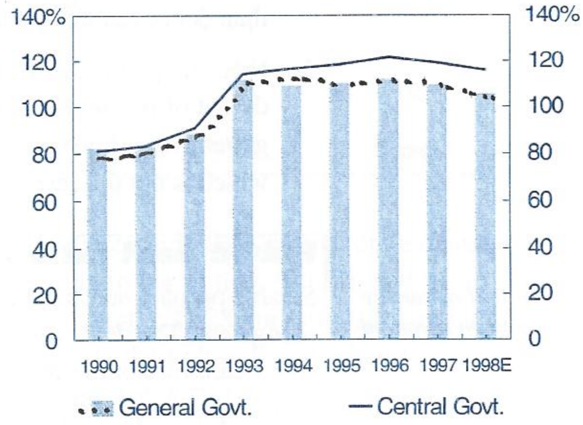
The focus on deficits encouraged off-budget, debt-creating operations

The debt dynamics would have been reversed sooner in the absence of the takeover of bad debts of the broader public sector by the government. The focus on deficits encouraged off-budget, debt-creating financial engineering. As a result, public debt has increased substantially more than the sum of the deficits (see Figure 7). Contingent liabilities of the central government and capitalised interest account for this stock-flow discrepancy. Since 1990, the government has been issuing bonds ('consolidation bonds') to assume bad debts of public enterprises and entities, and to inject capital to state banks. A portion of the interest was capitalised or postponed, adding further to the debt burden. The recent practice of excluding from budgetary expenditures any transfers matched by equal equity participations by the state will further increase the stock-flow discrepancy.

Figure 7. Central Government Deficits and Changes in Debt (1981-98E) and Central and General Government Debt (1990-98)



Note: Includes military debt.
Source: Ministry of Finance.



Note: Includes military debt.
Sources: Bank of Greece, Ministry of Finance.

Guaranteed debt and other contingent liabilities are declining

Progress has been made in recent years in containing the issuance of new guarantees. A legally binding limit was imposed on the issuance of guarantees in 1995, equal to 3% of budget appropriations. At end-1998, the outstanding stock of guaranteed debt amounted to Dr2.1 trillion (6.1% of GDP), a portion of which will be taken over by the government in future years (see Figure 8). Beyond the guaranteed debt, contingent liabilities include the debts of agricultural cooperatives and the state holding company, Industrial Reconstruction Organization. Debt consolidation operations give rise to moral hazard as debtors and creditors expect to be bailed out year after year.

Figure 8. Greece: Guarantees Issued and Called, 1988-98E

	Guarantees Issued		Guarantees Called		Outstanding Guarantees	
	In billion drachmas	In % of GDP	In billion drachmas	In % of GDP	In billion drachmas	In % of GDP
1988	501.8	5.5	53.9	0.6	2,440.3	26.6
1989	650.5	6.0	107.7	1.0	2,824.9	25.9
1990	513.0	3.9	385.7	2.9	2,507.7	19.1
1991	395.2	2.4	795.5	4.9	2,332.6	14.4
1992	362.3	2.0	435.3	2.3	2,269.4	12.2
1993	309.1	1.5	346.0	1.6	2,233.5	10.6
1994	250.7	1.1	227.3	1.0	2,265.0	9.4
1995	350.4	1.3	114.0	0.4	2,285.6	8.5
1996	354.0	1.2	118.0	0.4	2,332.0	7.9
1997	272.5	0.8	115.0	0.4	2,199.8	6.7
1998E	220.0	0.6	112.0	0.3	2,150.0	6.1

Sources: Ministry of Finance, 1999 Budget.

Implications for monetary and exchange rate policies

The key challenge for EMU is inflation rather than the fiscal criteria

As discussed in the Summary, the key obstacle to EMU entry is meeting the inflation target. With the fiscal stance less tight than suggested by the published budget figures, and with credit to the private sector still growing at a high rate, the Bank of Greece continues to carry most of the burden of disinflation. Since the drachma devaluation and ERM entry on 16 March, the Bank of Greece has kept official rates above market rates and let the exchange rate appreciate within the band, signaling its intention to maintain its tight monetary policy stance until inflation is firmly on a downward path towards the 2% target for end-1999. The Bank of Greece cut the Lombard rate in three steps from 23% in March to 15.5% currently. More significantly, the 14-day depo rate was gradually cut from 14.75% before the March devaluation to 12.75% in October and to 12.25% on 9 December.

To some extent, the persistence of inflation reflects the impact of off-budget shifts on aggregate demand

The Bank of Greece's hawkish stance reflects concern about meeting the inflation criterion to qualify for EMU entry on the targeted January 2001 date. The Bank of Greece's concerns are based on the still-high core inflation (excluding the volatile food and fuel), estimated at 5.3% year on year in November (versus 4.2% headline inflation), and rapid credit growth to the private sector (13.2% year on year on September). Core inflation is receding more slowly than the headline rate, which is more influenced by indirect tax cuts introduced in September. To some extent, the persistence of inflation reflects the impact of off-budget shifts on aggregate demand. Until these concerns recede, significant interest rate cuts by the Bank of Greece are unlikely to materialise.

The drachma is likely to remain strong within the ERM intervention band in 1999

At the current pace of disinflation, and in the absence of any exogenous shocks emanating from renewed turbulence in world financial markets, we expect the 14-day depo rate to be cut by some 300bps next year to about 9.25% at end-1999. In view of the priority attached to disinflation, we expect final interest rate and exchange rate convergence to occur later rather than sooner, probably in the year 2000. The implication for the currency is that the drachma is likely to remain on the strong side of the ERM intervention band during 1999, rather than move to central parity (180.54/DM) as forex forwards suggest.

EMU convergence would bring superior asset returns

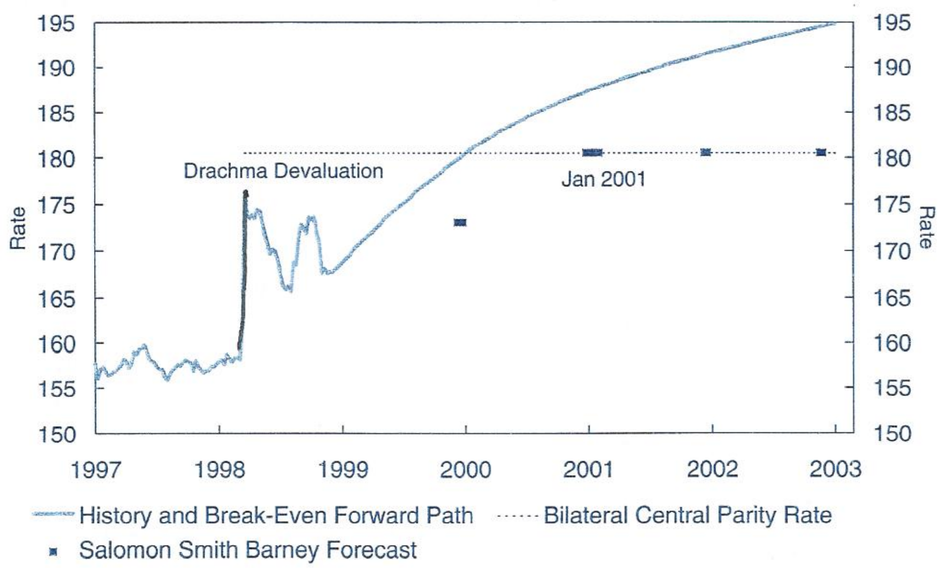
EMU convergence would provide Greek bonds with high returns from three sources:

In our base case, Greece succeeds in its quest to join EMU in January 2001 at the current central parity rate. If we are right, Greek bonds will by far outperform euro-area bonds in 1999-2000.

(1) Attractive currency: pre-2001 interest rate advantage more than offsets projected exchange rate depreciation

The next two graphs illustrate the **bullishness of our convergence view** by comparing our forecasts with the breakeven forward paths. The first graph focuses on pure currency view; the second one on pure (currency-hedged) bond market view. In Figure 9, the fact that our drachma forecast is stronger than the forward level indicates that we favour the currency. We expect the drachma to depreciate by 7% to the central parity level (180.5/DM) in two years, while the market implies that the drachma reaches this central parity level in one year. Thus, Greek assets' **yield advantage would more than offset the projected depreciation**.

Figure 9. Prospects for Drachma/DM Exchange Rate, 1997-2003F



Note: The breakeven path of the exchange rate is computed based on Greek-German deposit rate and swap interest rate differentials.
Source: Salomon Smith Barney.

(2) Remaining swap spreads over Germany (>1%) would disappear upon EMU entry

The yield spread between Greek and German 10-year swaps is 240bps (see Figure 10). The breakeven forward line shows how much this spread must narrow to offset the negative carry of a *currency-hedged* convergence trade. The fact that we forecast faster spread narrowing than forwards imply — down to zero in 2001 — means that we also find value in currency-hedged Greek bonds. **Market forwards still imply a 10-year cross-country swap spread of 113bps for January 2001, indicating that Greece's EMU entry is not yet fully discounted. Once Greece joins EMU, these swap spreads should disappear.**

We assign a higher probability than the market to Greece's timely EMU entry. We can estimate the market's view of EMU probability by comparing the post-2001 forward yield spread between Greece and Germany with an estimate of Greece's (swap) yield spread over Germany if Greece stayed outside EMU. For example, the one-year ahead forward yield spread for January 2001 of 230bps and an 'outside-EMU' yield spread of 400bps (reflecting both an expected inflation differential and a real yield gap) imply an EMU probability of 42%. This market probability increases over time (to 54%, 67% and 72% for years 2002-04, respectively) as the forward yield spread narrows[1].

(3) The cheapness of government bonds versus swaps should dissipate

Since we like both the currency and hedged fixed-income assets separately, we also favour unhedged purchases that benefit from both views. **As an icing on the cake, government bonds are very cheap in Greece relative to swaps.** Government bonds in Greece trade more than 60bps *above* the swap curve, while 10-year Bunds trade about 40bps *below* the swap curve. This cheapness reflects the negative impact of withholding tax, Greek government's low credit rating (BBB), and unfavourable supply/demand situation (in particular, international position liquidations during the recent turmoil).

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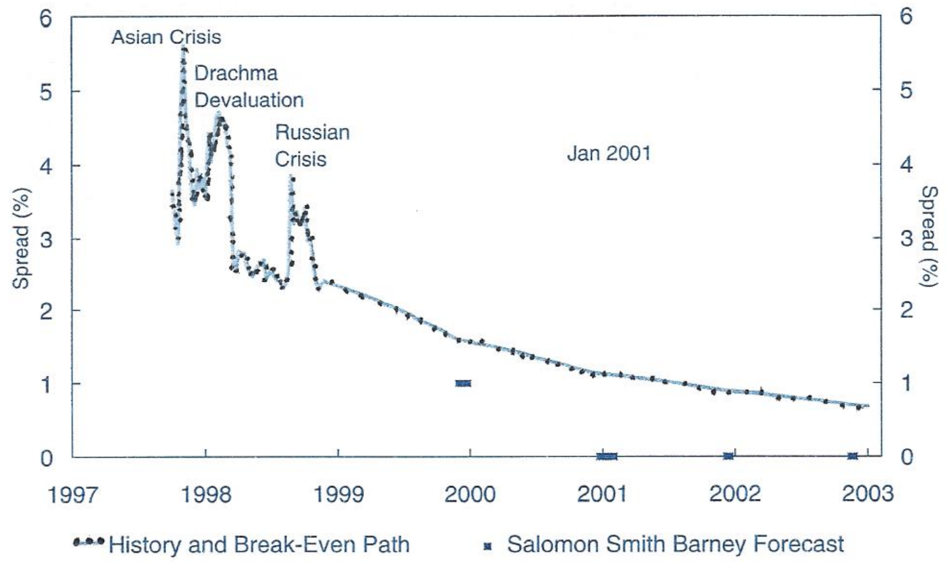
[1] However, such EMU probabilities are not unique because they depend on subjective estimates of a country's 'outside-EMU' spread (as well as on the forward rate estimates). Specifically, the post-2001 swap forward yield spread between Greece and Germany should be a probability-weighted average of expected spreads for 'in' and 'out' scenarios. Thus, forward spread = probability of Greece in EMU X cross-country spread in EMU + probability of Greece outside EMU X cross-country spread outside EMU. Because the cross-country spread for the 'in' scenario is zero, we can simplify and see that the probability of Greece outside EMU = forward spread/cross-country spread outside EMU, or 230/400 = 0.58, implying 42% EMU probability.

There could be positive news on all three fronts during 1999, which would result in a significant narrowing of the Greek government-swap spread. For example, there are widespread rumours of an imminent abolition of the withholding tax. In any case, the relative swap spread between 10-year Greek and German government bonds is likely to narrow from above 100bps to 40-50bps by the time Greece joins EMU — a fair credit/liquidity premium within a single currency. **Given liquidity concerns, we would recommend concentrating purchases on the largest issues, 8.6% 2008 or 8.7% 2005.**

Figure 10. Prospects for Greece-Germany Yield Spread, 1997-2003F



Note: Swap rates and their breakeven path are based on Salomon Smith Barney calculations. The forecast path is based on our forecast of the 10-year yield spread between Greek and German government bonds (collapsing from the current 350bps to 170bps by end-1999 and to 45bps by end-2000), adjusted for the narrowing government-swap spread.
Source: Salomon Smith Barney.

Greek bonds are projected to perform best among industrial countries in 1999, (unhedged or hedged)

Greece also appears attractive in international comparison. Based on our economists' currency and yield forecasts[2], Greek bonds offer the highest projected return in 1999 among all industrialised-country markets, both on currency-hedged and on unhedged basis. The projected local-currency return of 10-year Greek bonds is almost 18%, reflecting 7.5% yield and 10% capital gain (due to a projected bond yield decline of 150bps). On a currency-hedged basis, Greek bonds would earn 10% return for euro-area investors, based on our forecasts. Currency gains would raise the unhedged return of Greek bonds to 14% (in euro); the 4% currency gain reflects the 7% deposit rate advantage over euro assets that more than offsets the 3% projected exchange rate depreciation.

Risks to Greek assets are both domestic and International

These high expected returns are not riskless, of course. **Policy failure is the main domestic risk** because any slippage could undermine market confidence in early EMU entry. Financial markets will monitor closely the government's commitment to the structural reforms and privatizations, as outlined in the convergence program Greece has committed to the EU to undertake[3]. **International contagion is another major risk, as Greek assets remain very vulnerable to global turmoil**, such as devaluation of a major emerging market or a credit crunch in developed markets.

[2] See *Managing Through the Crisis. Prospects for Financial Markets*, December 1998. Since the publication, Greek 10-year yield has declined to 7.2%, while the spread to Bunds has narrowed only by 10bps.

[3] For details, see *Greece: Downsizing the Public Sector is Key to EU Convergence*, manifold EC442, 30 September 1998.

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