



EUROPEAN CENTRAL BANK

EUROSYSTEM

OCCASIONAL PAPER SERIES

NO 69 / AUGUST 2007

**FISCAL POLICY  
IN MEDITERRANEAN  
COUNTRIES**

**DEVELOPMENTS,  
STRUCTURES AND  
IMPLICATIONS FOR  
MONETARY POLICY**

by Michael Sturm and  
François Gurtner



EUROPEAN CENTRAL BANK

EUROSYSTEM



## OCCASIONAL PAPER SERIES

NO 69 / AUGUST 2007

# FISCAL POLICY IN MEDITERRANEAN COUNTRIES DEVELOPMENTS, STRUCTURES AND IMPLICATIONS FOR MONETARY POLICY<sup>1</sup>

by Michael Sturm and  
François Gurtner



In 2007 all ECB publications feature a motif taken from the €20 banknote.

This paper can be downloaded without charge from <http://www.ecb.int> or from the Social Science Research Network electronic library at [http://ssrn.com/abstract\\_id=977360](http://ssrn.com/abstract_id=977360).

<sup>1</sup> The paper was prepared for the High-Level Eurosystem Seminar with Mediterranean countries' central banks held on 28 March 2007 in Valencia. It has benefited from comments by an anonymous referee as well as from participants at the workshop of Eurosystem and Mediterranean countries' central banks held on 28/29 November 2006 at the ECB. The authors would like to thank P. Biraschi for valuable assistance in the preparation of the paper. The paper also benefited from helpful comments by J. Marin Arcas, F. Mazzaferro, A. Winkler, G. Pineau and F. Moss and from research assistance by A. Geis and K. Lambrias.

The views expressed in this paper do not necessarily reflect those of the European Central Bank.

© European Central Bank, 2007

**Address**

Kaiserstrasse 29  
60311 Frankfurt am Main  
Germany

**Postal address**

Postfach 16 03 19  
60066 Frankfurt am Main  
Germany

**Telephone**

+49 69 1344 0

**Website**

<http://www.ecb.int>

**Fax**

+49 69 1344 6000

**Telex**

411 144 ecb d

*All rights reserved. Any reproduction, publication or reprint in the form of a different publication, whether printed or produced electronically, in whole or in part, is permitted only with the explicit written authorisation of the ECB or the author(s).*

*The views expressed in this paper do not necessarily reflect those of the European Central Bank.*

ISSN 1607-1484 (print)  
ISSN 1725-6534 (online)

# CONTENTS

<b>ABSTRACT</b>	<b>4</b>	<b>BIBLIOGRAPHY</b>	<b>41</b>
<b>1 INTRODUCTION</b>	<b>5</b>	<b>BOXES:</b>	
<b>2 DEVELOPMENT OF KEY FISCAL INDICATORS: A LONG-TERM VIEW</b>	<b>6</b>	Box 1: Fiscal policy challenges in oil-producing countries	<b>17</b>
2.1 General government balance-to-GDP ratio	<b>6</b>	Box 2: West Bank and Gaza budget structure	<b>21</b>
2.2 Public debt-to-GDP ratio	<b>7</b>	Box 3: The structure of public debt in Mediterranean countries	<b>26</b>
2.3 Public expenditure-to-GDP ratio	<b>9</b>	Box 4: Fiscal dominance of monetary policy: the case of Turkey	<b>30</b>
2.4 Public revenue-to-GDP ratio	<b>10</b>		
2.5 Fiscal transparency and data quality	<b>13</b>		
<b>3 CURRENT BUDGETARY STRUCTURES OF MEDITERRANEAN COUNTRIES</b>	<b>14</b>	<b>EUROPEAN CENTRAL BANK OCCASIONAL PAPER SERIES</b>	<b>44</b>
3.1 Revenue structure	<b>14</b>		
3.2 Expenditure structure	<b>20</b>		
3.3 Challenges concerning the structure of budgets	<b>23</b>		
<b>4 KEY FISCAL POLICY CHALLENGES IN MEDITERRANEAN COUNTRIES AND IMPLICATIONS FOR MONETARY POLICY</b>	<b>25</b>		
4.1 Fiscal policy and macroeconomic stability	<b>25</b>		
4.1.1 Non-oil-producing countries: vulnerabilities resulting from high deficits and debt	<b>25</b>		
4.1.2 Oil-producing countries: vulnerabilities resulting from dependence on hydrocarbon revenue	<b>31</b>		
4.2 Implications of specific revenue and expenditure features for monetary policy	<b>32</b>		
4.3 The role of fiscal rules	<b>33</b>		
<b>5 CONCLUSIONS</b>	<b>36</b>		
<b>ANNEX</b>			
Summary of key fiscal characteristics and challenges in Mediterranean countries – A country-by-country view	<b>38</b>		

## ABSTRACT

Southern and eastern Mediterranean countries have many fiscal challenges in common with other emerging market and mature economies concerning deficit and debt reduction and the maintenance of fiscal discipline. However, most countries in the region also face some specific fiscal issues, such as relatively high public debt, dependence on some form or another of donor dependence or concessional financing, high budgetary exposure to fluctuations in hydrocarbon prices, high defence expenditure and weak tax bases. Against this background, this paper reviews fiscal developments and fiscal policy issues in the ten countries that are participants or observers in the EU's Barcelona process. The main focus is on the implications of these developments and issues for macroeconomic stability, given that countries in the region have made considerable progress in terms of macroeconomic stabilisation over the last two decades, which is reflected in particular in lower inflation rates. The analysis distinguishes between non-oil-producing and oil-producing countries in the region, as they exhibit different fiscal features and are confronted with different challenges. In the case of non-oil-producing countries, the key challenges stem from high deficits and debt levels, including implicit and contingent liabilities, notwithstanding some progress in fiscal consolidation in most of these countries over the last years. In the case of oil-producing countries, whose fiscal situation has significantly improved in recent years in the wake of high oil prices, the key challenges for fiscal management stem from the heavy reliance on an exhaustible source of revenues and a large exposure to fluctuations in international hydrocarbon prices. A shock originating from – or being transmitted via and exacerbated by – the fiscal sector appears to be the single most important macroeconomic risk in many countries.

## I INTRODUCTION

This paper reviews fiscal developments and fiscal policy issues in Mediterranean countries.<sup>1</sup> Fiscal policy is a crucial factor in determining a country's overall economic performance via its effects on allocation, stabilisation and distribution, and constitutes a key component of macroeconomic policies alongside monetary and exchange rate policy. There are at least two reasons why fiscal developments are of great relevance for central banks: (i) governments may resort to the central bank for the financing of public deficits rather than borrowing in capital markets. This is more likely the less developed the domestic capital markets, the more severe the impediments and disruptions in accessing international capital markets and the less independent central banks are, and thus appears particularly relevant for developing and emerging market economies; (ii) even in the absence of monetary financing, fiscal policy can have a large impact on the economy via its effects on interest rates, the exchange rate and aggregate demand, as well as on expectations, in particular as regards the sustainability of public debt. Perceptions of the sustainability of fiscal policy can have an impact on financial markets and, if they are negative, can interfere with the objectives of monetary and exchange rate policy, such as achieving and preserving price stability, financial stability or maintaining an exchange rate peg. In the extreme case, fiscal dominance of monetary policy can lead to a situation in which the central bank is no longer able to effectively use its instruments in order to achieve its objectives.

As a result, central banks in advanced and emerging market economies closely monitor fiscal developments. In many cases, they also publicly voice their opinion on fiscal policy issues even if these issues are not directly in the realm of central banking activities. Mediterranean economies have many features in common with other emerging market economies, such as a high exposure to real economy and financial shocks and susceptibility to financing constraints, but also exhibit a

number of specific fiscal issues and challenges. Although Mediterranean economies appear largely heterogeneous, including on fiscal issues, some challenges are common to most of the countries in this region. These include relatively high public debt, dependence on some form or another of donor support or concessional financing, high defence expenditure and weak tax bases. In addition, in most countries there is room to improve public finance management in order to achieve better fiscal outcomes. Notwithstanding progress in many countries, fiscal vulnerabilities appear as key risks to maintaining macroeconomic and financial stability in the region, and create a challenging environment for central banks. Against this background, the role of fiscal policy in Mediterranean countries' macroeconomic frameworks was discussed at the fourth High-Level Eurosystem Seminar with Mediterranean countries' central banks on 28 March 2007 in Valencia, Spain, for which an earlier version of this paper was prepared.

The paper is structured as follows: Section 2 reviews developments in key fiscal indicators in Mediterranean countries from a long-term perspective. Section 3 examines the structure of the budget on the revenue and the expenditure side and identifies the main features. Section 4 highlights important fiscal policy issues and their implications for monetary and exchange rate policy. Section 5 concludes. While the paper takes a horizontal view of fiscal issues across the region, a summary of key fiscal characteristics and challenges on a country-by-country basis is given in the Annex.

<sup>1</sup> Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Syria, Tunisia, and the West Bank and Gaza. These are the participants or observers (Libya) in the EU's Barcelona process.

## 2 DEVELOPMENT OF KEY FISCAL INDICATORS: A LONG-TERM VIEW

In order to assess Mediterranean countries' current fiscal policy issues and challenges, it is useful to look at the longer-term developments in key fiscal indicators, so as to put them into perspective. To this end, this section reviews the development of government balances, debt, expenditure and revenue (all as a percentage of GDP) over the past two decades. It compares developments in Mediterranean countries with those in ten new EU Member States,<sup>2</sup> in EU candidate and potential candidate countries<sup>3</sup> and in developing countries.<sup>4</sup> While any benchmark is to some extent imperfect and subject to many caveats, comparing Mediterranean countries with new EU Member States and EU candidate and potential candidate countries is relevant as these countries are geographically close to the euro area and are often seen as competing for financial flows and FDI from the euro area. In addition, like the new EU Member States and EU candidate and potential candidate countries, Mediterranean countries have a history of state intervention in the economy.<sup>5</sup> Developing countries as a whole constitute a broader benchmark, and comprise many economies with income levels comparable to Mediterranean countries.

The review of fiscal developments in this section distinguishes between oil-producing countries in the Mediterranean region – Algeria, Libya and to a lesser extent Syria – and non-oil-producing countries – the other seven countries under review –, given that hydrocarbon (oil and gas) revenue is an important feature of fiscal developments.<sup>6</sup>

### 2.1 GENERAL GOVERNMENT BALANCE-TO-GDP RATIO

The general government balance-to-GDP ratio of Mediterranean countries has on average improved from a long-term perspective (see Chart 1), although many countries continue to exhibit large deficits, in particular the non-oil-producing countries of the region (see Table 1).

The budget balance of the oil-producing countries has generally been in surplus since the beginning of this decade, with the exception of Syria. Deficits in the region were even more sizeable up to the early 1990s, when several countries embarked on a path of macroeconomic stabilisation, reducing both inflation and budget deficits, which often were at the root of inflationary pressures. The reduction of budget deficits was supported by higher real GDP growth in many countries in the first half of the 1990s as compared with the late 1980s.<sup>7</sup> The shift of the early 1990s is also reflected in improving primary balances. Most Mediterranean countries have run primary surpluses in most of the years since the early 1990s, in contrast to new EU Member States for example. After the deterioration observed in 2001 and 2002 – mainly reflecting a worsening of budget balances in oil-producing countries in view of lower oil prices and the recession in Israel in the context of the second intifada – overall deficits tended to decline.

The recent improvement is mainly explained by positive developments in the region's oil-

2 Countries which joined the EU in 2004: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia. As most of these countries are transition economies, a comparison of data is only meaningful after the beginning of transition, i.e. from the early 1990s onwards.

3 Albania, Bosnia-Herzegovina, Bulgaria, Croatia, FYR Macedonia, Romania, Serbia-Montenegro and Turkey (Bulgaria and Romania joined the EU in 2007). As with the new EU Member States, a meaningful comparison of data is only possible for the period after 1990. Due to the small size of most countries, the weighted average of this group is heavily influenced by fiscal developments in Turkey.

4 This group comprises "Other emerging market and developing countries" as classified in the IMF World Economic Outlook (WEO). These comprise 146 countries, i.e. all IMF members except those 29 countries classified as advanced economies. Data for this group as a whole can only be traced back to 1990, and data on public debt are not available.

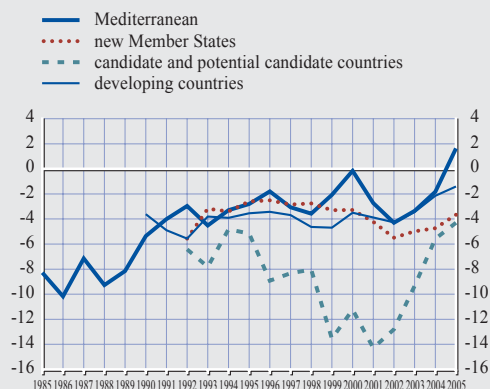
5 While none of the Mediterranean countries was a fully-fledged centrally planned economy, many were characterised by a high degree of state intervention, public ownership of enterprises, underdeveloped private sectors and little reliance on market mechanisms.

6 Egypt also produces oil and gas and has relied on hydrocarbon revenues, but the importance of hydrocarbons for the budget, exports and GDP is comparatively smaller. Thus, it is grouped in this paper as a non-oil-producing country.

7 Average real GDP growth for nine of the ten countries under review (excluding the West Bank and Gaza) was 1.9% on average p.a. in the years 1986-90, while it stood at 3.9% in the period 1991-95.

Chart 1 General government balance

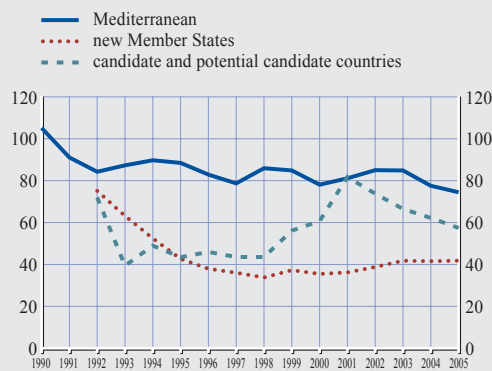
(percent of GDP)



Source: IMF and ECB calculations.  
Note: Number of countries included in the average may vary according to data availability.

Chart 2 General government gross debt

(percent of GDP)



Source: IMF and ECB calculations.  
Note: Number of countries included in the average may vary according to data availability.

producing countries, most notably in Algeria and Libya, which have accumulated large fiscal surpluses in the wake of higher oil prices.<sup>8</sup> This also explains why the fiscal balance for Mediterranean countries as a group currently looks more favourable than the one of new EU Member States, EU candidate and potential candidate countries and developing countries. Some non-oil-producing Mediterranean countries were also able to reduce deficits through consolidation efforts, supported by relatively strong global and regional growth. Nevertheless, in many countries fiscal deficits remain persistently high, in particular in Egypt and Lebanon, pointing to the pressing need for more active fiscal consolidation efforts. Furthermore, the official deficit figures include foreign grants and the budgetary situation of several Eastern Mediterranean countries would be even more precarious without the different forms of donor support. In some cases, donor support has amounted to around 10% of GDP over the last years.

Overall, cyclical developments – in terms of real GDP growth and in the case of oil producers oil prices – have played a prominent role in Mediterranean countries' fiscal balances. However, the fact that substantial overall

deficits persist in many countries even in view of relatively robust global and regional growth of recent years points to underlying fiscal problems. Thus fiscal imbalances do not seem to be just a symptom of broader economic problems, e.g. a weakness of economic growth, even though the growth performance of Mediterranean countries over the past decades is inferior to that of other emerging market economies, for example in Asia.

## 2.2 PUBLIC DEBT-TO-GDP RATIO

While public debt-to-GDP ratios have somewhat declined, on average, since 1990<sup>9</sup> (see Chart 2), many countries remain highly indebted, which creates significant vulnerabilities (see Table 2). Public debt continuously declined in oil-producing countries over the last years;

8 Notwithstanding significant fiscal surpluses, Algeria and Libya exhibit large non-oil deficit/non-oil GDP ratios, which are a better indicator of the fiscal stance in oil-producing countries than the overall budget balance-to-GDP ratio (see also Sub-section 4.3). Algeria's non-oil deficit/non-oil GDP ratio increased from 27.7% in 2003 to 35.3% in 2005, while that of Libya rose from 80.3% to 118.4% over the same period, pointing to expansionary fiscal policies in the two countries over recent years. The comparable ratio in Syria is lower at 15.3% (2005) and has declined since 2003. (Data from IMF Article IV reports.)

9 For earlier years, sufficient country data are not available.



**Table 1 General government balance**

(percent of GDP)

	1985	1990	1995	2000	2001	2002	2003	2004	2005
<b>Non-oil-producing countries</b>									
Egypt	-22.0	-12.6	-1.3	-1.2	-2.2	-9.2	-9.0	-8.3	-9.1
Israel	1.0	-4.8	-4.2	-2.0	-4.0	-4.3	-6.7	-5.1	-2.7
Jordan	-8.3	-6.2	-3.9	-4.7	-3.6	-4.9	-1.0	-1.7	-5.2
Lebanon	-35.8	-29.8	-18.0	-24.2	-18.5	-14.1	-13.2	-8.5	-8.0
Morocco	-7.7	-0.6	-5.5	-5.9	-6.0	-4.4	-4.9	-4.3	-5.5
Tunisia	-5.4	-5.4	-4.2	-3.3	-2.7	-2.8	-3.1	-2.5	-3.0
West Bank & Gaza	...	...	...	...	-8.4	-8.2	-7.4	-5.4	-8.8
<i>Non-oil producers (average)</i>	-12.6	-8.4	-4.3	-3.6	-4.4	-6.4	-7.0	-5.6	-5.3
<b>Oil-producing countries</b>									
Algeria <sup>1)</sup>	3.3	2.7	0.4	9.7	3.4	0.2	7.8	6.9	14.2
Libya	-13.4	1.3	4.2	14.4	-1.2	10.3	9.8	15.1	32.2
Syria	-13.9	-3.9	-3.8	-1.4	2.3	-2.0	-2.6	-4.3	-4.2
<i>Oil producers (average)</i>	-4.2	1.3	0.9	9.2	1.8	1.7	6.2	6.7	15.7
<b>Mediterranean</b>	<b>-8.3</b>	<b>-5.4</b>	<b>-2.8</b>	<b>-0.2</b>	<b>-2.7</b>	<b>-4.3</b>	<b>-3.4</b>	<b>-1.8</b>	<b>1.6</b>
<i>Memorandum items:</i>									
New Member States	...	...	-2.6	-3.3	-4.2	-5.5	-5.0	-4.7	-3.7
<i>(number of countries in average, max. 10)</i>	...	...	(10)	(10)	(10)	(10)	(10)	(10)	(10)
Candidate and potential candidate countries	...	...	-5.2	-11.2	-14.3	-12.8	-9.3	-5.6	-4.3
<i>(number of countries in average, max. 8)</i>	...	...	(7)	(8)	(8)	(8)	(8)	(8)	(8)
Developing countries		-3.6	-3.5	-3.5	-3.9	-4.3	-3.4	-2.1	-1.4

Source: IMF.

Notes: Averages weighted by nominal GDP in US dollars; due to data comparability problems, West Bank & Gaza is not included in the average.

1) Central government.

however, on average it remains close to 100% of GDP in non-oil-producing countries. The public debt of Mediterranean countries is higher than in new EU Member States and EU candidate and potential candidate countries, reflecting fiscal profligacy over an extended period of time as well as external shocks. The decline of public debt in several countries, in particular in the early 1990s, is the result of both debt rescheduling (inter alia in the framework of the Paris Club) and macroeconomic stabilisation programmes. At present, three countries – Egypt, Israel and Lebanon – have debt-to-GDP ratios above or around 100%, while Jordan and Morocco also have debt levels well above 60% of GDP. Lebanon faces a particularly challenging situation, as public debt is not only very high at 175% of GDP, but has also steadily increased in recent years. By contrast, the region's major oil-producing countries, Algeria and Libya,

have used part of the windfall profits resulting from high oil prices to repay public debt, which now appears very low. They are the only countries of the region for which public indebtedness is no longer a major issue.

The structure of public debt differs among Mediterranean countries. The vulnerability resulting from high debt, for example in Egypt and Israel, is somewhat mitigated by the fact that a large part of debt is domestic, long-term and partially non-tradable, while some countries have a significant external debt or debt with shorter maturities.<sup>10</sup> As a result of relatively high public debt, interest expenditure is a significant burden for most Mediterranean countries' budgets. Interest expenditure makes up around 4% of GDP on average, down from

10 See Box 3 in Section 4 on the structure of public debt.

Table 2 General government gross debt

(percent of GDP)								
	1990	1995	2000	2001	2002	2003	2004	2005
<b>Non-oil-producing countries</b>								
Egypt	100.0	60.3	75.4	83.2	97.7	111.4	109.9	112.5
Israel	134.7	104.5	87.0	92.1	99.8	102.3	100.9	97.0
Jordan <sup>1)</sup>	212.2	114.9	90.9	94.9	97.0	97.7	88.5	82.3
Lebanon	98.4	78.5	151.1	165.9	166.4	167.8	164.7	174.6
Morocco	89.1	90.6	80.8	74.7	71.3	68.9	65.8	70.5
Tunisia	...	58.5	60.7	62.7	61.5	61.0	57.6	56.9
West Bank & Gaza	...	...	...	...	...	...	...	...
<i>Non-oil producers (average)</i>	<i>111.8</i>	<i>85.8</i>	<i>84.4</i>	<i>89.6</i>	<i>97.0</i>	<i>100.6</i>	<i>97.5</i>	<i>98.0</i>
<b>Oil-producing countries</b>								
Algeria <sup>2)</sup>	...	116.2	69.4	63.0	53.5	43.8	36.6	28.5
Libya	77.8	79.4	48.0	46.2	33.7	27.4	1.6	1.2
Syria	73.7	71.1	59.3	60.2	60.1	61.9	57.0	60.2
<i>Oil producers (average)</i>	<i>76.6</i>	<i>95.1</i>	<i>60.6</i>	<i>57.4</i>	<i>51.1</i>	<i>43.9</i>	<i>32.6</i>	<i>26.9</i>
<b>Mediterranean</b>	<b>105.2</b>	<b>88.5</b>	<b>78.1</b>	<b>81.1</b>	<b>85.0</b>	<b>84.9</b>	<b>77.5</b>	<b>74.5</b>
<i>Memorandum items:</i>								
New Member States (number of countries in average, max. 10)	...	42.7	35.5	36.2	38.8	41.8	41.5	41.8
Candidate and potential candidate countries (number of countries in average, max. 8)	...	(7)	(9)	(9)	(9)	(9)	(9)	(9)
	...	43.5	60.7	81.7	73.8	66.5	62.2	57.4
	...	(3)	(6)	(6)	(6)	(6)	(6)	(6)

Source: IMF.

Note: Averages weighted by nominal GDP in US dollars.

1) Net debt.

2) Central government.

above 6% before 1990. However, in highly indebted Lebanon, it still accounts for 10% of GDP despite the relief brought about by several rounds of international donor assistance.

### 2.3 PUBLIC EXPENDITURE-TO-GDP RATIO

Public expenditure is relatively high in Mediterranean countries, although somewhat lower than in the late 1980s (see Chart 3). At 36-40% of GDP in the aggregate over the last years, the level of expenditure seems comparable to those of new EU Member States and EU candidate and potential candidate countries. The latter have relatively high public spending reflecting the legacy of the socialist past, for example in the form of a large public service. Public expenditure in non-oil-producing countries of the region, at around 40% of GDP, is significantly higher than in oil-producing countries (around 30% of GDP). The average

figures are driven up by two outliers, Israel and Libya, where public expenditure stands at around 50% and 40% of GDP, respectively (see Table 3). In most other countries, public expenditure accounts for 30% to 35% of GDP. However, even this level is well above the average for developing countries, where public expenditure accounts for slightly more than 25% of GDP.

Factors contributing to high expenditure levels are inter alia defence outlays (in Eastern Mediterranean countries) reflecting political tensions in the region, interest expenditure stemming from high debt (which partly explains the higher level of expenditure in non-oil-producing countries compared with oil-producing countries), energy subsidies, and expenditure on wages and salaries, partly attributable to attempts by governments to address high unemployment by job creation in

**Chart 3 General government expenditure**



Source: IMF and ECB calculations.  
Notes: Number of countries included in the average may vary according to data availability. Includes net lending (lending minus repayment for purposes of public policy).

the public sector.<sup>11</sup> The large government sectors in Mediterranean (and other Middle Eastern) countries have repeatedly been identified as one of the factors explaining the disappointing growth performance of the region as compared with other emerging market economies.<sup>12</sup>

#### 2.4 PUBLIC REVENUE-TO-GDP RATIO

Public revenue as a percentage of GDP has been broadly stable at around 35% over the last decades. The most recent increase to close to 40% mainly reflects higher hydrocarbon revenue in oil-producing countries (Algeria and Libya and to a lesser extent Syria). For these

11 See Section 3 for a more detailed analysis of public expenditure and revenue.

12 See for example Abed and Davoodi (2003) and Hakura (2004).

**Table 3 General government expenditure**

(percent of GDP)

	1985	1990	1995	2000	2001	2002	2003	2004	2005
<b>Non-oil-producing countries</b>									
Egypt	56.8	32.9	28.6	29.9	30.4	34.6	35.2	33.8	33.9
Israel	67.7	57.5	54.4	50.2	52.7	54.1	53.0	51.2	49.1
Jordan	37.3	42.9	38.3	34.7	33.9	34.5	35.8	38.4	38.2
Lebanon	53.9	39.4	35.2	43.5	36.7	35.1	35.2	31.3	30.2
Morocco	30.3	27.5	29.5	32.1	31.1	29.4	29.6	29.9	33.1
Tunisia	38.8	36.8	34.4	32.7	32.5	33.1	32.8	32.5	32.9
West Bank & Gaza	...	...	...	...	29.9	32.4	35.6	37.4	42.4
<i>Non-oil producers (average)</i>	<i>54.0</i>	<i>39.9</i>	<i>40.7</i>	<i>39.5</i>	<i>40.1</i>	<i>41.4</i>	<i>41.1</i>	<i>39.9</i>	<i>39.5</i>
<b>Oil-producing countries</b>									
Algeria <sup>1)</sup>	34.0	26.2	29.5	28.6	31.3	35.0	29.2	29.3	26.9
Libya	47.5	35.1	30.2	31.3	44.3	41.2	44.6	44.0	41.6
Syria	41.2	28.3	29.8	27.4	28.0	28.5	31.4	31.9	30.7
<i>Oil producers (average)</i>	<i>38.8</i>	<i>29.4</i>	<i>29.8</i>	<i>29.3</i>	<i>34.5</i>	<i>34.8</i>	<i>32.8</i>	<i>32.9</i>	<i>31.1</i>
<b>Mediterranean</b>	<b>46.1</b>	<b>36.6</b>	<b>37.6</b>	<b>36.7</b>	<b>38.6</b>	<b>39.7</b>	<b>38.8</b>	<b>37.7</b>	<b>36.6</b>
<b>Memorandum items:</b>									
New Member States	...	...	41.9	40.9	41.9	43.2	43.7	43.3	43.3
<i>(number of countries in average, max. 10)</i>	...	...	<i>(10)</i>	<i>(10)</i>	<i>(10)</i>	<i>(10)</i>	<i>(10)</i>	<i>(10)</i>	<i>(10)</i>
Candidate and potential candidate countries	...	...	29.2	41.4	46.0	43.4	46.3	41.6	40.5
<i>(number of countries in average, max. 8)</i>	...	...	<i>(7)</i>	<i>(7)</i>	<i>(7)</i>	<i>(7)</i>	<i>(7)</i>	<i>(7)</i>	<i>(7)</i>
Developing countries	...	29.8	25.2	26.3	27.2	27.7	27.2	26.4	26.6

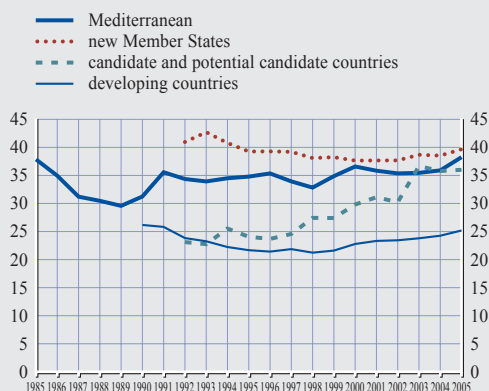
Source: IMF.

Notes: Averages weighted by nominal GDP in US dollars; due to data comparability problems, West Bank & Gaza is not included in the average. Includes net lending (lending minus repayment for purposes of public policy).

1) Central government.

Chart 4 General government revenue

(percent of GDP)



Source: IMF and ECB calculations.

Notes: Number of countries included in the average may vary according to data availability. Includes grants from abroad.

countries hydrocarbon revenues are by far the most important source of income, which distinguishes their budgetary structure and fiscal developments from other Mediterranean countries (Section 3). In non-oil-producing countries, public revenue as a percentage of GDP is lower and relatively stable at 31-34%. The level of total revenue broadly mirrors public expenditure, and is thus similar to levels prevailing in new EU Member States and EU candidate and potential candidate countries, but higher than in developing countries (see Chart 4). As with expenditure, Israel and Libya appear as outliers, with 46% and 70% revenue-to-GDP ratios respectively. This reflects high public expenditure and the existence of a developed tax system in Israel and high oil revenues in a non-diversified economy in the case of Libya. For most other countries the

Table 4 General government revenue

(percent of GDP)

	1985	1990	1995	2000	2001	2002	2003	2004	2005
<b>Non-oil-producing countries</b>									
Egypt	34.8	20.3	27.3	28.7	28.2	25.4	26.2	25.6	24.8
Israel	68.7	52.7	50.2	48.3	48.8	49.8	46.3	46.1	46.4
Jordan	29.0	36.7	34.4	30.0	30.3	29.6	34.7	36.7	33.0
Lebanon	18.1	9.7	17.2	19.3	18.2	21.0	22.0	22.8	22.3
Morocco	22.6	26.9	24.0	26.2	25.1	25.0	24.7	25.6	27.6
Tunisia	33.4	31.4	30.2	29.4	29.8	30.3	29.7	30.0	29.9
West Bank & Gaza	...	...	...	...	7.3	9.4	21.0	23.4	25.7
<i>Non-oil producers (average)</i>	<i>41.4</i>	<i>31.1</i>	<i>33.2</i>	<i>33.4</i>	<i>33.2</i>	<i>32.3</i>	<i>31.9</i>	<i>31.9</i>	<i>31.6</i>
<b>Oil-producing countries</b>									
Algeria <sup>1)</sup>	37.2	28.9	30.0	38.3	34.7	35.3	37.0	36.2	41.1
Libya	34.0	36.5	34.4	45.7	43.1	51.4	54.4	59.1	73.9
Syria	27.3	24.3	25.9	26.0	30.3	26.5	28.8	27.6	26.5
<i>Oil producers (average)</i>	<i>34.5</i>	<i>29.9</i>	<i>30.3</i>	<i>37.8</i>	<i>36.0</i>	<i>37.6</i>	<i>39.8</i>	<i>40.3</i>	<i>46.6</i>
<b>Mediterranean</b>	<b>37.9</b>	<b>31.2</b>	<b>34.8</b>	<b>36.6</b>	<b>35.8</b>	<b>35.4</b>	<b>35.5</b>	<b>35.9</b>	<b>38.3</b>
<b>Memorandum items:</b>									
New Member States	...	...	39.3	37.7	37.7	37.7	38.7	38.5	39.7
<i>(number of countries in average, max. 10)</i>	...	...	<i>(10)</i>	<i>(10)</i>	<i>(10)</i>	<i>(10)</i>	<i>(10)</i>	<i>(10)</i>	<i>(10)</i>
Candidate and potential candidate countries	...	...	24.1	29.8	31.1	30.2	36.7	35.8	36.0
<i>(number of countries in average, max. 8)</i>	...	...	<i>(7)</i>	<i>(7)</i>	<i>(7)</i>	<i>(7)</i>	<i>(7)</i>	<i>(7)</i>	<i>(7)</i>
Developing countries	...	26.2	21.7	22.8	23.3	23.4	23.8	24.3	25.2

Source: IMF.

Notes: Averages weighted by nominal GDP in US dollars; due to data comparability problems, West Bank & Gaza is not included in the average. Includes grants from abroad.

1) Central government.

public revenue-to-GDP ratio stands at around 25-30% (see Table 4). Lebanon stands out as the country with the lowest revenue in the region, pointing to difficulties in generating

sufficient revenue to cover public expenditure, which is one of the reasons for the country's high deficits over the last years and the accumulation of public debt.

**Table 5 Compliance with fiscal standards and data transparency**

	GDDS	SDDS	ROSC	GFSM (1986/2001)	Key findings on IMF Code on Fiscal Transparency (ROSC or Art. IV)
Algeria	-	-	2005 <sup>1)</sup>	-	Notwithstanding some improvements over recent years, major progress is needed to attain a satisfactory level of transparency in the fiscal sector. Quasi-fiscal activities of banks and public enterprises are still significant. Data mostly refer only to central government.
Egypt		X	2005 <sup>2)</sup>	2001	Egypt is well on its way to subscribing to the SDDS and macroeconomic statistics are of reasonably good quality, but several issues remain, for example some quasi-fiscal activities of state-owned banks and public enterprises are not included in the scope of general government.
Israel		X	2004 <sup>1)</sup>	2001	Israel meets the requirements of the fiscal transparency code in many areas. Improvements could be made in budgetary preparation, execution and expenditure classification. Israel's macroeconomic statistics are of generally high quality.
Jordan	X		2006 <sup>1)</sup>	2001	Notwithstanding recent significant progress toward greater fiscal transparency, Jordan fails to meet several requirements of the fiscal transparency code, and a broad and sustained effort will be required. For example, the definition of government is not fully consistent with the GFS format and excludes many government activities.
Lebanon	X		2005 <sup>1)</sup>	1986	Lebanon has made progress toward meeting the requirements of the fiscal transparency code in a few areas. In many other areas, however, Lebanon falls short of the requirements of the code. For example, there is no multi-year budget framework, significant extrabudgetary and quasi-fiscal activities remain, expenditure controls are overly complex and there is no external audit.
Libya	-	-	-	-	The fiscal information system remains fragmented and inconsistent with international standards, since it was designed for administrative reporting rather than for purposes of providing timely statistical information for economic planning and analysis.
Morocco		X	2005 <sup>1)</sup>	2001	Morocco's fiscal management system is essentially reliable and adequate for steering budget performance. Thanks to reforms over recent years, fiscal transparency is, for the most part, ensured. Despite the generally satisfactory overall picture, progress in some areas is still needed to meet the transparency standards of international best practices, for example with regard to budget coverage and the evaluation of fiscal risks.
Syria	-	-	-	-	Syria's government finance statistics suffer from major deficiencies with respect to definitions, coverage, classification, methodology, accuracy, reliability and timeliness that generate severe inconsistencies with monetary and balance of payments statistics. Budget data are available with very long lags. The authorities have decided to participate in the GDDS.
Tunisia		X	2006 <sup>2)</sup>	1986	The quality of macroeconomic statistics has improved over the past decade, and is broadly adequate for analysis and policy design and monitoring. Staff resources available for statistical work, especially for GFS, are not fully adequate, and statistics follow methodologies, which in most areas need to be updated.
West Bank and Gaza	X		-	-	

Source: IMF. Information as at mid-2006.

GDDS: General Data Dissemination System; SDDS: Special Data Dissemination Standard; ROSC: Report on the Observance of Standards and Codes.

GFSM 1986: A Manual on Government Finance Statistics 1986; GFSM 2001: Government Finance Statistics Manual 2001; GFS: Government Finance Statistics.

1) ROSC Fiscal Transparency Module.

2) ROSC Data Module.

## 2.5 FISCAL TRANSPARENCY AND DATA QUALITY

A key issue to be taken into account when looking at fiscal data in the Mediterranean region is the relatively low compliance with fiscal standards and the unsatisfactory level of transparency (see Table 5). Notwithstanding improvements over recent years, in many countries the quality of fiscal (and other economic) statistics is not in line with international standards and does not allow for in-depth macroeconomic and fiscal analysis. For example, cyclically adjusted budget deficits to analyse the underlying fiscal stance are not available. In some countries, transparency is in particular hampered by limited statistical coverage of government activities, and thus implies the existence of significant quasi-fiscal activities and contingent liabilities. In general, the non-oil-producing countries in the region have better fiscal statistics than the oil producers. Only six countries, all of them non-oil-producing, comply with the IMF fiscal reporting framework – the Government Finance Statistics Manual (GFSM).<sup>13</sup> Only four countries comply with the Special Data Dissemination Standard (SDDS) and three with the (less demanding) General Data Dissemination System (GDDS). The contrast between oil- and non-oil-producing countries is again observable as Algeria, Libya and Syria comply neither with the SDDS nor with the GDDS. As regards fiscal transparency, most countries agreed that the IMF conducts a Report on the Observance of Standards and Codes (ROSC), which contains a fiscal module.

13 There are two versions of GFSM (1986 and 2001). The major difference is that reporting according to GFSM 1986 is cash-based, while GFSM 2001 shifts the emphasis to accrual accounting.

### 3 CURRENT BUDGETARY STRUCTURES OF MEDITERRANEAN COUNTRIES

As already apparent from the previous section, Mediterranean countries are heterogeneous as regards key fiscal indicators. An important distinguishing feature is hydrocarbon revenue, grouping the region into oil-producing countries, particularly Algeria and Libya and to a lesser extent Syria, and non-oil-producing countries. Among non-oil-producing countries, Israel and especially the West Bank and Gaza appear as outliers with specific fiscal features: the former because of its higher GDP per capita, the latter because it is not a sovereign state (see Box 2).

Against this background, this section provides a closer look at the structures both on the revenue and the expenditure side of Mediterranean countries' budgets, and identifies

some key features and issues. A broad overview of budgetary structures in both non-oil-producing countries and oil-producing countries as regards the key revenue and expenditure items as a share of GDP is provided in Tables 6 and 7.

#### 3.1 REVENUE STRUCTURE

The revenue structure of oil-producing versus non-oil-producing countries differs significantly due to the importance of oil-related revenue in the budget of oil-producing countries. Starting the analysis with *non-oil-producing countries*, these are characterised in general by higher tax revenues than oil producers. Tax revenue as a share of total revenue is the highest in Morocco and Tunisia (90% for both) and the lowest in Jordan (less than 50%) due notably to Jordan's heavy dependence on foreign grants (see Table 8). The contribution of direct taxation (on

Table 6 Budgetary structure of non-oil-producing Mediterranean countries

Revenue	Egypt	Israel	Lebanon	Jordan	Morocco	Tunisia
(as % of GDP)						
<b>Tax revenues</b>	≈ 14	30	≈ 14	≈ 15	23	21
Direct taxation						
Taxes on income and profits	≈ 5	> 16	3	3	> 7	≈ 7
Other direct taxes	negligible	negligible	1	negligible	negligible	negligible
Indirect taxation						
(on domestic goods and services)						
VAT revenues or General Sales Tax	≈ 6	> 13	3	> 8	≈ 10 <sup>1)</sup>	> 8 <sup>1)</sup>
International trade-related taxes	2	n.a.	6	3	≈ 4	2
(incl. customs duties)						
Other tax revenue	< 1	< 1	< 1	< 1	< 1	≈ 3
<b>Non-tax revenues (excl. privatisation)</b>	≈ 10	≈ 5	7	≈ 10	2	< 3
<b>External grants</b>	1	≈ 2	negligible	< 8	n.a.	negligible
<b>Expenditure</b>						
(as % of GDP)						
<b>Current expenditure</b>	≈ 30	39	33 <sup>2)</sup>	≈ 30	≈ 24	20
Wages and salaries	8	≈ 9	11	≈ 6	> 12	11
Purchases of goods and services	< 3	n.a.	n.a.	< 3	negligible	< 2
Defence	< 3	10	3	≈ 10	≈ 4	< 2
Interest payments on debt	≈ 6	6	15	4	> 4	< 3
Subsidies and other transfers	≈ 8	14	n.a.	≈ 8	3	3
<b>Capital expenditure</b>	≈ 5	> 2	3	7	≈ 6	≈ 6

Sources: IMF and ECB staff calculations.

Notes: Data are averages for 2000-2004 or 2000-2005 (if 2005 included: preliminary estimate). Data for Egypt and Jordan refer to general government, for Israel, Lebanon, Morocco and Tunisia to central government. No data for West Bank and Gaza (see Box 2).

1) For Morocco and Tunisia the item VAT or General Sales Tax includes revenues from excise duties.

2) For Lebanon, data for subsidies and other transfers and purchases of goods and services are not available; they appear to be summarised in IMF data in the category "other current expenditure", which makes up around 4% of GDP.

Table 7 Budgetary structure of oil-producing Mediterranean countries

Revenue	Algeria	Libya	Syria
<i>(as % of GDP)</i>			
Hydrocarbon (oil and gas)	25	51	14
Non-hydrocarbon	11	11	> 14
Tax revenues	10	9	10
Direct taxation (on income and profits)	2	2	4
Indirect taxation (on goods and services)	5	n.a.	n.a.
International trade-related taxes (incl. customs duties)	3	4	2
Non-tax revenues (excl. privatisation)	1	2	4
External grants	negligible	negligible	negligible
<b>Expenditure</b>			
<i>(as % of GDP)</i>			
Current expenditure	≈ 22	30 <sup>1)</sup>	≈ 19
Wages and salaries	< 8	> 10	> 5
Purchases of goods and services	< 3	< 3	< 2
Defence	3	2	5
Interest payments on debt	< 3	negligible	< 1
Subsidies and other transfers	> 6	2	5
Capital expenditure	10	> 14	12

Sources: IMF and ECB staff calculations.

Notes: Data are averages for 2000-2004 or 2000-2005 (if 2005 included: preliminary estimate). Data for Libya and Syria refer to general government, for Algeria to central government.

1) There is considerable uncertainty as regards the classification of current expenditure for Libya. Current expenditure is around 30% of GDP according to IMF data. The sum of the sub-items of current expenditure, however, is only around 17%, i.e. current expenditure of around 13% of GDP, classified as "administrative expenditure", cannot be assigned to more detailed spending categories. Therefore, spending on wages and salaries, defence, and subsidies and transfers can be expected to be higher than shown in this table.

income and profit) to total revenue appears highly heterogeneous. It is highest in Israel (42%), which appears as an outlier in the region, and lowest in Jordan (8%). In general, the contribution of direct taxes to budgetary income is relatively low, reflecting inter alia problems with tax compliance and weaknesses in tax administration, as levying direct taxes tends to require more administrative capacity than raising indirect taxes.<sup>14</sup>

Indirect taxes are a more important source of revenue than direct taxes (except for Israel), and the contribution of indirect taxation (VAT and excise duties) to total revenues is higher than in oil-producing countries. In particular VAT, which has been introduced in all Mediterranean countries except Libya and Syria

<sup>14</sup> See Crandall and Bodin (2005) on reforms of revenue administration in Middle Eastern countries.

Table 8 Revenue structure of non-oil-producing countries

<i>(% of total revenue)</i>						
	Egypt	Israel	Jordan	Lebanon	Morocco	Tunisia
Tax	57	81	48	65	90	89
Direct	24	42	8	19	33	32
Indirect	24	36	28	26	40	40
Trade	6	n.a.	9	17	12	6
Other	negligible	2	3	3	5	11
Non-tax	41	13	22	34	10	11
Grants	2	6	30	1	negligible	negligible
Total	100	100	100	100	100	100

Source: IMF (2005 data, for Jordan 2004).



**Table 9 VAT revenue productivity in selected countries (2003)**

	Standard rate (%) (1)	VAT revenue (% of GDP) (2)	Revenue productivity (3) = (2)/(1)
<b>Mediterranean countries<sup>1)</sup></b>			
Algeria <sup>2)</sup>	17	3.1	0.18
Egypt	10	2.5	0.25
Israel <sup>2)</sup>	17	8.5	0.50
Jordan	16	8.5	0.53
Lebanon	10	3.8	0.38
Morocco	20	6.1	0.31
Tunisia	18	6.3	0.35
<b>Selected euro area countries</b>			
France	19.6	7.0	0.36
Germany	16	6.3	0.39
Italy	20	7.5	0.38
<b>Selected OECD countries</b>			
Australia	10	4.1	0.41
Canada	7	3.5	0.50
New Zealand	12.5	9.2	0.74

Sources: IMF, national sources and ECB staff calculations.

1) Libya and Syria do not have a VAT. West Bank and Gaza has a VAT but due to the specific features of collection it is not listed here (see Box 2).

2) Data refer to 2004.

over the past two decades, has become a relatively efficient revenue-raising instrument and a stable source of budgetary income. Nevertheless, the revenue-generating potential of VAT differs among countries, depending on specific VAT features. Revenue productivity, which can be measured by relating the standard VAT rate to revenue, tends to be higher in those countries in which VAT is relatively broad based with as few exemptions and reduced rates as possible (see Table 9).

The relative weight of taxes on foreign trade in total revenue also appears heterogeneous. It is highest at 17% in Lebanon, which seems to point to the country's limited progress regarding trade liberalisation. Foreign trade taxes continue to provide a non-negligible share of revenue to the budget also in the other Mediterranean countries, in particular Morocco and Jordan. The share of this formerly important source of revenue is however declining in most countries in line with trade liberalisation, for example in the context of Association Agreements with the EU.

The share of non-tax revenues appears significant in several countries, in particular in Egypt and Lebanon. In Lebanon non-tax

revenue stems mainly from entrepreneurial and property income, while in Egypt its main components are transfers from the petroleum authority, the Suez Canal Authority and the central bank.

The budget of several countries, in particular in the Eastern Mediterranean, continues to be dependent on foreign grants or other forms of donor assistance and concessional financing. In Jordan, grants have in recent years accounted for around 10% of GDP and 30% of total revenues. Although they decreased sharply in 2005 (after the end of the scheme for subsidised oil from Saudi Arabia), they still account for nearly 5% of GDP and 15% of total revenues. Israel is the other country for which grants are significant and which in addition benefits from US loan guarantees for part of its debt. While grants are low in Lebanon, the country benefits from the arrangements in the Paris II agreement, mainly from a significant reduction of interest expenditure.<sup>15</sup>

<sup>15</sup> In January 2007 further international assistance ("Paris III") was pledged to Lebanon in order to alleviate the aggravated economic and fiscal situation in the aftermath of the military conflict of summer 2006. The new assistance package includes a substantial share of direct budget support.

Privatisation has provided important revenues in most countries of the region, although proceeds differ from country to country, appear relatively volatile, and do not constitute a permanent source of income for funding current expenditure. Proceeds from privatisation have been high in Israel and Jordan, and in some cases have been boosted by the privatisation of the telecommunication sector. This was the case for example for Morocco in 2001 and Tunisia in 2006. Privatisation revenue is expected to provide an important source of income in those countries where the involvement of the state in the productive sectors of the economy remains significant and where the reform process is now accelerating (notably Algeria and Egypt).

In the *oil-producing countries*, hydrocarbon revenues constitute by far the largest source of budgetary income (see Table 10). In addition, the positive terms-of-trade shock experienced in the past several years has further increased the weight of hydrocarbon revenue in the budgets of these countries. In the case of Algeria and Libya, dependence on oil and gas is particularly high, as the revenues derived from these sources account for about 70% of total revenue in Algeria and more than 90% in Libya. As for Syria, reliance on oil revenues still remains at a significant level, at one-third of total revenue, although it is expected to decline in the coming years due to the depletion of oil reserves. The need to compensate for shrinking oil revenue with an alternative source of income will thus be an important challenge for the Syrian authorities (see also Sub-section 4.1.2).

The share of non-hydrocarbon – and in particular tax – revenues in the budgets of Mediterranean

**Table 10 Revenue structure of oil-producing countries**

(% of total revenue)			
	Algeria	Libya	Syria
Hydrocarbon	71	93	33
Non-hydrocarbon	29	7	67
Tax	26	4	40
Direct	7	1	14
Indirect	12	n.a.	n.a.
Trade	7	1	7
Other	-	2	19
Non-tax	3	2	27
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: IMF (2005 data).

oil-producing countries is comparatively low. Only in the Syrian budget do non-hydrocarbon revenues represent more than half of budgetary income, with a significant share of non-tax revenues (transfers of profits from state-owned enterprises).

The low revenue-to-GDP ratio outside the hydrocarbon sector reflects the difficulty of raising taxes with existing underdeveloped tax and customs systems and the (perceived) lack of a need for higher tax revenues in view of hydrocarbon wealth. Except for Algeria, the oil-producing countries in the region do not levy VAT. Even in Algeria, the revenue generated from this otherwise important source of budgetary income in the region is relatively low. In addition, taxes on foreign trade account for a sizeable share of tax revenue, which – like in non-oil-producing countries – can be expected to decline, for example in Libya (due to the import tariff reform of August 2005) and in Algeria (which is negotiating WTO entry).

#### Box 1

#### FISCAL POLICY CHALLENGES IN OIL-PRODUCING COUNTRIES

Fiscal policy in oil-producing countries faces specific challenges related to the fact that oil revenues are exhaustible, volatile, unpredictable and largely originate from abroad. These features of oil revenues pose challenges in both the long and the short term.<sup>1</sup> Their relevance

<sup>1</sup> See Barnett and Ossowski (2002).

### Hydrocarbon dependency of Mediterranean countries (2005)

Hydrocarbon share (%)	Algeria	Libya	Syria
Government revenue	71	93	33
Overall exports	98	97	66
GDP	45	73	28

Sources: IMF, Economist Intelligence Unit.

depends on the share of hydrocarbon (oil and gas) revenues in the government's overall revenues and in total exports and the weight of the hydrocarbon sector in the economy. In the Mediterranean region, these shares are relatively high in Algeria, Libya and Syria (see table above).

#### Long-term challenges

In the long term, the challenge derives from the exhaustibility of oil reserves and concerns the issues of budgetary sustainability and intergenerational resource allocation. To avoid a sharp adjustment of fiscal policy once oil reserves are exhausted and to secure the participation of future generations in this source of national wealth, oil-producing countries have to accumulate financial assets during the period in which they produce oil, in particular when prices are high. After the end of oil production, the revenues from these assets can be used to replace oil income and to maintain levels of expenditure. Oil wealth is thus gradually transformed into financial wealth, leaving the country's overall wealth unchanged and preserving it for future generations. Intuitively, this reasoning is straightforward and makes a strong case for persistent overall fiscal surpluses to accumulate assets. However, deriving concrete policy conclusions and making them operational is challenging. For example, estimating the oil wealth of a country, defined as the discounted present value of future oil revenues, is surrounded by significant uncertainty regarding the underlying assumptions, e.g. about the future path of oil prices, about oil reserves, and about the costs of extracting them, which supports a generally cautious approach to fiscal policy. Uncertainty also prevails regarding the role of government capital expenditure in preserving overall wealth. In principle, capital expenditure and the accumulation of real assets could represent an alternative to the accumulation of financial assets, thereby reducing the need for persistent fiscal surpluses. However, the uncertainties surrounding the effects of public capital expenditure on productivity, future output and government revenues, and the difficulties in distinguishing between capital expenditure and current expenditure, warrant caution in this regard. Indeed, due to governance and institutional deficiencies, which can be observed in some oil-producing countries, the ex-post real return of public investment may be lower than the return on financial assets offered by mature economies.

#### Short-term challenges

The main short-term challenge for fiscal policy in oil-producing countries stems from the unpredictability of oil prices. Public finances are highly dependent on a volatile variable that is largely beyond the authorities' control. This poses a problem with regard to both macroeconomic management and fiscal planning. The volatility of oil prices, and hence government revenues, tends to contribute to a pro-cyclical pattern and abrupt changes in government spending, as experienced in many countries during the 1970s and 1980s, which may translate into macroeconomic volatility and reduced growth prospects. Thus, there is a case for smoothing public expenditure in oil-producing countries, which is further reinforced

by the other potential fiscal costs of volatile expenditure policies. These may include a reduction in the quality and efficiency of spending due to constraints in the administrative capacity or the realisation of projects with little marginal value added during periods of high oil prices, and difficulties in containing and streamlining expenditure following an expansion. The planning of a fiscal stance by targeting a particular level of the overall budget balance is rendered difficult by oil price volatility. Therefore, other indicators are needed to guide fiscal policy and to assess the underlying fiscal stance, such as the non-oil balance/non-oil GDP ratio, an indicator which isolates the budget balance from oil price developments. This is all the more needed if the depletion of oil reserves is no longer a distant prospect (see also Sub-section 4.3).

### Stabilisation and savings funds<sup>2</sup>

Several countries deriving substantial export and fiscal revenue from oil (or other non-renewable resources) have set up stabilisation and savings funds to deal with both the long-term and short-term challenges for fiscal policy. The savings function of such funds is meant to address the long-term issue of intergenerational equity and fiscal sustainability by accumulating assets, while the stabilisation function addresses the short-term issues of fiscal planning and macroeconomic stability by absorbing and injecting revenue from/into the budget. However, such funds pose a number of problems in themselves, for example as regards governance, transparency and accountability. They are not a substitute for explicit fiscal policy decisions or (numerical or procedural) fiscal rules and political commitment both to smoothing expenditure and to ensuring long-term fiscal sustainability. Furthermore, their contribution to sound fiscal policies depends on the general quality of institutions and public financial management.

Oil-producing countries could in principle also deal with the unpredictability of oil prices and revenues by using market instruments to hedge oil market risks. However, financial derivatives are sparsely used by oil-producing countries. This may be due to, among other things, so far underdeveloped markets for such products and to political economy and institutional constraints.<sup>3</sup>

In the Mediterranean region, both Algeria and Libya have established oil funds. In 2000, Algeria established an off-budget hydrocarbon stabilisation fund (*Fonds de régulation des recettes*) in order to: (i) reconstitute the cushion of external reserves that had previously declined; (ii) service the stock of public debt; and (iii) smooth the longer-term profile of expenditures. The fund does not have an intergenerational transfer purpose. Hydrocarbon revenues in excess of those budgeted (usually on very conservative oil price assumptions) are deposited in the fund. The operational features of the fund leave significant room for discretion. Libya has an oil reserve fund (ORF) since 1995, which is a government account managed by the central bank. It accumulates oil revenue in excess of the level determined by a budgetary oil price. Withdrawals from the ORF, mostly for current expenditure, take place on a discretionary basis. The ORF is not integrated into the budget, and its operations are considered as not being transparent.

<sup>2</sup> See Davis, Ossowski, Daniel and Barnett (2001). Stabilisation and savings funds are also referred to as sovereign wealth funds.

<sup>3</sup> For a discussion of hedging against oil price volatility, see IMF (2007) and Daniel (2001).

### 3.2 EXPENDITURE STRUCTURE

While differences between oil-producing and non-oil-producing countries are also observable on the expenditure side of the budget, they are less pronounced than on the revenue side. The major differences refer to the relative weight of capital expenditure (higher in oil-producing countries) and interest expenditure (higher in non-oil-producing countries).

In *non-oil-producing countries*, the relative weight of current expenditure is much higher, accounting for at least three-quarters of total expenditure in all countries and more than 90% in Lebanon and Israel (see Table 11). In the latter two cases, the comparatively high weight of current expenditure is largely explained either by high interest payments on debt (Lebanon) or the importance of defence expenditure (Israel). Capital spending is thus comparatively low in both countries, standing at less than 10% of total expenditure.

Current expenditure can be split into key items: wages and salaries, transfers and subsidies, interest payments and also defence expenditure as it appears significant for several Eastern Mediterranean countries.

Tunisia and Morocco are characterised by the very high share of the wage bill, which absorbs more than 40% of total expenditure, although in Morocco the recent voluntary retirement programme is expected to better contain the

wage bill in the medium term. By contrast, the share of the wage bill is very low in Jordan.

Although the share of transfers and subsidies is surprisingly low in Morocco (given the prevalence of poverty), it is generally much higher than in oil-producing countries (excluding Algeria). In Israel transfers and subsidies stand at one-third of total expenditure, but in contrast with other countries in the region most expenditures covered under this item are transfers (not subsidies), reflecting the features of the social system which are similar to European countries. In the other Mediterranean countries, explicit and implicit subsidies are prevalent as a key instrument of social policies, in particular for petroleum products and food items.

The weight of interest payments appears heterogeneous but it is far higher than in oil-producing countries. In all countries except Jordan, interest payments account for more than 10% of total expenditure. In Lebanon interest payments constitute one-third of total expenditure and absorb nearly half of total revenue.

A key feature on the expenditure side in particular in Eastern Mediterranean countries is high defence outlays, which for instance account for more than 20% of total expenditure in both Israel and Jordan.

In the *oil-producing countries*, the relative weight of capital expenditure is comparatively high (see Table 12). This is most strikingly the

Table 11 Expenditure structure of non-oil-producing countries

(% of total expenditure)						
	Egypt	Israel	Jordan	Lebanon	Morocco	Tunisia
<b>Current</b>	86	91	75	93	78	76
Wages & salaries	24	20	14	23	42	45
Transfers & subsidies	24	32	27	29	6	14
Interest payments	18	16	7	34	13	11
Defence expenditure	n.a.	21	21	n.a.	15	n.a.
Other expenditure	20	2	6	6	2	6
<b>Capital</b>	14	9	25	7	22	24
<b>Total</b>	100	100	100	100	100	100

Source: IMF (2005 data, for Jordan 2004).

**Table 12 Expenditure structure of oil-producing countries**

(% of total expenditure)			
	Algeria	Libya <sup>1)</sup>	Syria
<b>Current</b>	<b>66</b>	<b>46</b>	<b>62</b>
Wages & salaries	24	24	20
Transfers & subsidies	34	6	18
Interest payments	5	-	4
Defence expenditure	n.a.	5	16
<b>Capital</b>	<b>34</b>	<b>54</b>	<b>38</b>
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: IMF (2005 data).

1) See footnote 2 in Table 7 on the uncertainty as regards the classification of current expenditure in Libya.

case for Libya where capital expenditure appears to even exceed current expenditure (although the current expenditure-to-GDP ratio is very high at around 30%). The high level of capital expenditure is largely due to the implementation of a number of extraordinary projects, notably the gas pipeline connecting Italy to Libya (half of which was financed by Libya). As for Algeria and Syria, the relative share of capital expenditure is lower, accounting for about one-third of total expenditure. The high hydrocarbon prices of recent years have

not led to spending booms so far. However, capital expenditure is expected to further increase in the coming years, in particular in Algeria, as the government plans to develop physical infrastructure and to address the population's housing needs. It is also expected to remain at a high level in Libya as basic infrastructure deteriorated significantly under the international sanctions imposed on the country until recently.

Concerning current expenditure items, the share of wages and salaries is at similar levels in all countries. However, it is expected to rise in Algeria and Libya following recent significant increases in public sector wages. As for subsidies and transfers, they are notoriously high in Algeria, accounting for more than one-third of total expenditure. In all countries interest payments on public debt stand at a low level. They are expected to decrease in Algeria following recent early debt repayments to foreign creditors. As for Libya, the budget no longer includes any interest payment since public debt has been entirely repaid. Finally, defence expenditure accounts for a significant share of total spending in Syria.

## Box 2

### WEST BANK AND GAZA BUDGET STRUCTURE<sup>1</sup>

The budgetary structure of the West Bank and Gaza exhibits some very special features which make it different from other countries in the region. These concern most specifically the way trade-related taxes are collected (by another country), the weight of the wage bill in total expenditure and the reliance on external budget support from foreign donors, the latter two of which are even higher than in other countries of the region.

#### Revenue and expenditure

The Palestinian Authority (PA) has three main sources of revenue (see table below): first, the so-called "clearance revenues" (the Israeli authorities collect and remit to the PA taxes levied in Israel on merchandise destined for the West Bank and Gaza), which represent about one-third of total revenue; second, the revenue from other taxes raised domestically; and third, foreign donor assistance, which is very high (representing more than half of total revenue, although it

<sup>1</sup> The information contained in this box is drawn from various World Bank and IMF documents and covers only the period until end-2005. The situation changed dramatically in the course of 2006.

## Sources of revenues in the PA budget

(% of total revenue)

	2003 Budget	2004 Budget	2005 Budget
Clearance revenue	25	30	30
Other domestic taxes	16	17	18
External financing	58	53	53

Source: Ministry of Finance.

is technically treated as a financing item in the official PA budget). On the expenditure side, the budget structure of the PA is characterised by the predominant weight of the wage bill, absorbing nearly all domestically raised revenue.

### External financing

The PA has been able to maintain delivery of core services thanks to extensive foreign assistance in the form of direct budget support. The main budget support instrument is the multi-donor trust fund administered by the World Bank (12 donors had contributed to this trust fund by end-2005). The PA and the World Bank agree every six months on a set of specific reform benchmarks that, upon fulfilment, trigger disbursements. Other donors, mostly from the Gulf countries, provide budgetary assistance on a bilateral basis.

### Budget deficit

The budget deficit reached USD 777 million in 2005 (17% of estimated GDP), up from USD 576 million in 2004 (14% of estimated GDP). This was due to higher spending (+30%) stemming from large increases in public sector wages (breaching in the second half of 2005 the Wage Bill Containment Plan agreed with the World Bank) and net lending (to the Gaza Electricity Distribution Company and municipalities in the West Bank for the payment of utilities). Only USD 349 million were received in budget support, roughly half the USD 654 million that had been foreseen in the budget. The resulting gap was financed mainly by borrowing from domestic banks. Although the PA budget does not foresee any borrowing from domestic banks (as shown in the table above), the effective budget gap has consistently led to the necessity to increase indebtedness vis-à-vis the domestic banking sector (funded with a relatively stable deposit base).

### Budget management, transparency and accountability

Considerable progress has been made in budget management, transparency and accountability in the period 2002-05. All PA revenues are now paid into a single Treasury account (eliminating previous non-transparent and discretionary spending from various off-budget accounts); an orderly system of budget appropriation is now in place; the budget and monthly budget execution reports are posted on the website of the Ministry of Finance (MOF); the annual budget is approved by the Palestinian Legislative Council (PLC); internal and external audit functions have been strengthened; public sector salaries are deposited in individual bank accounts and no longer paid in cash; the establishment of a Palestinian Investment Fund (PIF) has brought all PA equity holdings under MOF oversight; and the management of the PA's petroleum monopoly has been taken over directly by the MOF.

### Overall assessment

The PA budget is following a path that is clearly unsustainable in the medium term as the wage bill is increasing rapidly and donor support falls far short of commitments (even before the 2006 events). Thus, the deficit is financed by additional borrowing from domestic banks, liquidation of PIF assets, and accumulation of arrears including towards the pension fund and private suppliers. Given the share of the wage bill in the PA budget, restoring fiscal sustainability implies first of all strict containment of hiring and salary adjustments (in particular in the security forces). It also necessitates a reduction in net lending through higher compliance in the payment of utility bills at the municipal level. Finally, it hinges on both the regular transfer by Israel of clearance revenue to the PA and high foreign assistance by the donor community.

### 3.3 CHALLENGES CONCERNING THE STRUCTURE OF BUDGETS

The review of the revenue and expenditure structure reveals some key features and challenges in Mediterranean countries' budget structure.

On the revenue side, a key feature appears to be the low weight of tax revenue, as witnessed by a relatively low ratio of tax to GDP. For example, direct tax revenues account for only 7% of GDP in Morocco and Tunisia, for around or less than 5% in Egypt, Jordan, Lebanon and Syria, and for 2% in Algeria and Libya. This compares with 11-14% in euro area countries like Germany, France and Italy, and with around 8% in Turkey, which may be a more appropriate benchmark. While indirect taxes provide more revenue than direct taxes in most Mediterranean countries, with a share of around or below 10% of GDP, indirect tax revenues lag for example those of Turkey (around 15% of GDP). In addition, the part of the indirect tax revenue in the form of international trade-related taxes has already declined – and will likely further drop – in the wake of ongoing trade liberalisation.

Thus, one challenge for the authorities of most Mediterranean countries is to guarantee the sustainability of public finances by generating sufficient tax revenue to cover essential public expenses, while trying to minimise at the same time the disincentives to work, save and invest. To achieve this goal, increases of tax rates are

usually counterproductive as they tend to increase distortions in the economy and incentives for tax evasion. A broadening of the tax base by limiting or even eliminating exemptions seems to be a more promising way to increase revenue, while keeping rates at relatively lower levels. Increasing tax revenue also requires combating tax evasion through a further strengthening of tax administrations. Some Mediterranean countries have started to follow this route, for instance Egypt, where income tax rates have recently been cut in half while revenue administration has improved.

The degree of donor dependence is also high and appears as a key revenue component in the budget of several Eastern Mediterranean countries. Dependence on external aid makes a country vulnerable to the extent that foreign grants may be volatile and thus not easily predictable. Furthermore, they lessen the incentives to develop domestic sources of revenue or to cut unproductive expenditure. In the past, foreign grants to Mediterranean countries have been relatively stable, but in the most recent period they have decreased in some countries like Jordan, thereby raising fiscal pressure.

On the expenditure side, the budgetary cost of subsidies (mostly on energy and food items) is high in most Mediterranean countries. In addition to the enormous fiscal drain, subsidies are questionable both from a distributional and an allocation perspective. From a distributional



perspective, subsidies in most Mediterranean countries appear largely ill-targeted or even universal (i.e. not targeted at all), and have a regressive effect, as – while also benefiting the most vulnerable segments of the population – recipients of higher incomes usually consume more of the subsidised products in absolute terms.<sup>16</sup> Thus, most of the subsidy goes to higher-income groups. From an allocation perspective, subsidies cause price distortions. Oil subsidies are particularly questionable given that artificially low prices result in energy inefficiency and excessive consumption, thus also contributing to environmental damage. Phasing out these subsidies, however, is challenging from a political point of view and thus the authorities of many Mediterranean countries appear reluctant to address this issue, notwithstanding recent progress in this regard (for instance in Egypt – a country in which fuel subsidies account for 7% of GDP – energy subsidies were reduced in July 2006, and also Jordan has significantly cut subsidies since 2005). Political resistance might be alleviated by compensating the most vulnerable segments of the population with better-targeted direct transfers, which provide a more cost-effective approach to social protection and thereby might also contribute to budgetary savings.

The budget of some countries, in particular of non-oil producers in the region, appears to display a relatively low degree of flexibility, which leaves little margin for manoeuvre for the authorities, for instance to address balance of payments pressures or new spending priorities. Flexibility is increased when the share of “pre-committed” spending outlays in overall expenditure is as low as possible. Typically, certain categories of spending appear more rigid than others, in particular in the short run. Indeed, it is usually more difficult to reduce the share of wages and salaries (as shown in the case of Tunisia and Morocco) and of interest payments (as shown in the case of Lebanon) than to freeze some capital outlays.<sup>17</sup> Thus, limiting rigidity in the budget is also a challenge for the authorities of many Mediterranean countries.

Overall, while countries in the region face challenges both on the revenue and the expenditure side of their budgets, the key issue appears to be comprehensive expenditure reform. This is evidenced both by the high share of public expenditure in GDP relative to countries at similar levels of income per capita (Section 2), and by relatively high spending on wages and salaries and in particular on subsidies.<sup>18</sup>

16 See e.g. World Bank (2006) for the distributional effects of oil subsidies in Egypt.

17 Wages and salaries account for more than 10% of GDP in Tunisia, Morocco, Lebanon and Libya, and thereby exhibit levels similar to euro area countries like Germany, France and Italy, despite a lower income per capita.

18 Analysis of public expenditure reforms in industrialised countries over the past two decades suggests that ambitious expenditure retrenchment and reform, accompanied by improvements in fiscal institutions, coincided with large improvements in fiscal and growth indicators for those countries that underwent such reforms. See Hauptmeier, Heipertz and Schuknecht (2006).

**4 KEY FISCAL POLICY CHALLENGES IN MEDITERRANEAN COUNTRIES AND IMPLICATIONS FOR MONETARY POLICY**

The main channels, through which fiscal policy can affect monetary policy and price stability (as well as macroeconomic and financial stability), are interest rates and sovereign spreads, the exchange rate, aggregate demand, and expectations.<sup>19</sup> Against this background, it is worthwhile elaborating upon the extent to which the issues identified and examined in Sections 2 and 3 have implications for the monetary and exchange rate policies of Mediterranean countries' central banks. Therefore, this section focuses on the role of fiscal policy in achieving and maintaining macroeconomic stability and on specific features on the revenue and expenditure side and their potential implications for monetary policy. Furthermore, it also discusses fiscal rules and the potential contribution they can make to improve fiscal policy outcomes and thereby the environment in which monetary policy is conducted.

**4.1 FISCAL POLICY AND MACROECONOMIC STABILITY**

**4.1.1 NON-OIL-PRODUCING COUNTRIES: VULNERABILITIES RESULTING FROM HIGH DEFICITS AND DEBT**

Mediterranean countries have achieved a relatively high degree of macroeconomic stability in recent years, best evidenced by generally low inflation. While this is part of a global trend observable in many emerging market economies over the 1990s, it also reflects deliberate policy efforts in the region, for example the strengthening of monetary frameworks and structural reforms, in many cases underpinned by IMF programs.<sup>20</sup> Fiscal consolidation has been an important element of macroeconomic stabilisation, as high fiscal deficits were at the root of instability in many Mediterranean countries during the 1980s. Examples are Israel before the stabilisation programme of 1985, Egypt before 1992 and Jordan before the currency crisis of 1989.

Compared with the 1980s and early 1990s budget deficits have come down in most countries and in the region as a whole (Section 2).

Notwithstanding these successes in bringing down inflation and reducing budget deficits and public debt, many non-oil-producing countries still exhibit relatively high deficits, and remain highly indebted. In some cases, the debt structure also appears fragile (see Box 3). Most studies indicate that the sustainable level of public debt for emerging market economies – while varying among countries – is relatively low, and according to all recent studies below 50% of GDP.<sup>21</sup> With the exception of Algeria and Libya, public debt of all Mediterranean countries was above this threshold in 2005. In addition to recorded public debt, some countries appear to face contingent liabilities, for instance in the form of non-performing loans of state banks. Furthermore, implicit liabilities of pay-as-you-go pension systems could pose additional challenges for some countries in the region.<sup>22</sup> As a result, these countries face continued vulnerabilities and a limited capability to absorb shocks without jeopardising macroeconomic stability and debt sustainability. Little scope exists for policy slippage or for accommodating external shocks resulting in expenditure increases or revenue losses.

19 For an overview of the channels through which fiscal policy can affect monetary policy in emerging market economies and the existing literature on the topic, see Zoli (2005).

20 Abed (2006) characterises the reforms between the mid-1980s and the mid-1990s as “reforms by necessity”, as opposed to the “reforms by choice” which were implemented after 2000 in many Mediterranean countries.

21 See IMF (2003) and the overview of studies on public debt in emerging markets given there.

22 See Robalino (2005). While – unlike in most industrialised countries – demographic trends are still favourable with regard to the financing of pension systems, many systems in the region appear financially unsustainable, reflecting high implicit rates of return on contributions. These result from a misalignment of retirement ages, benefits and contribution rates, implying large and unaffordable pension promises. Implicit liabilities are estimated as high as 175% of GDP in Jordan, 130% in Morocco, and in the range of 50-100% in Algeria, Egypt, Libya, Tunisia and the West Bank and Gaza. Thus, even with favourable demographics pension systems might eventually run into trouble in the absence of reforms. A number of countries, such as Egypt, Jordan and Morocco, are in the process of implementing important pension reforms.

Accordingly, a continuous debt reduction is warranted, requiring constant fiscal discipline and sustained economic growth.

Vulnerability is highest in those countries combining a high debt level, a high share of external debt (or foreign currency-denominated debt), an open capital account and an exchange rate peg. This is in particular the case for Lebanon and Jordan, which share all four features, and in addition exhibit large current account deficits. Concerns about debt sustainability are most pressing for Lebanon, given the level, the trend and the structure of

public debt.<sup>23</sup> Moreover, the strong linkage between the public sector and the financial system via the banks' holding of government securities, together with a high share of foreign currency-denominated debt (almost 50% of total public debt, equivalent to around 80% of GDP), represent a large vulnerability. In case of a sharp exchange rate depreciation and/or difficulties in servicing public debt, financial stability and the banking system might be threatened.

<sup>23</sup> This was the case even before the military operations of summer 2006, which exacerbated the fiscal situation and led to further international donor support (see also footnote 15, Section 3).

### Box 3

#### THE STRUCTURE OF PUBLIC DEBT IN MEDITERRANEAN COUNTRIES

The structure of public debt in Mediterranean countries is an indication of the degree of macroeconomic vulnerability which, in case of an adverse macroeconomic shock, could negatively affect economic growth and financial stability. The analysis takes into account several features of public debt including domestic versus external composition, foreign currency composition of external debt, maturity, fixed versus floating interest rates and loans versus securities (see table below).

The most relevant aspects can be summed up as follows:

- (a) *External versus domestic debt.*<sup>1</sup> The highest dependency on external debt is found in Jordan, where almost three-quarters of total public debt is external, and also in Algeria, Syria and Tunisia more than half of total public debt is external. A common feature in most countries is the predominance of (long-term) loans in external debt as a result of bilateral or multilateral agreements (with the exception of Israel and Lebanon, which regularly issue foreign currency-denominated securities on the international market, and partially also Tunisia). In order to support their efforts to tap international financial markets, a number of Mediterranean countries have received a rating by a rating agency, mostly in the 1990s. Looking at Standard & Poor's data, only two countries – Israel and Tunisia – experienced an upgrade in the course of their rating history, while the four others were downgraded at some point in time (see Charts A and B).

Domestic debt plays a major role in Lebanon (80% of total public debt), in Egypt and Israel (about three-quarters of total public debt), as well as in Morocco. The lion's share of Lebanese domestic debt (mainly made up of tradable bills and Eurobonds) is held by the financial system (commercial banks) and the central bank. A specific feature of Lebanon's domestic debt is that a significant share is denominated in foreign currency. As a result,

<sup>1</sup> Domestic or internal debt is defined as the share of total public debt owed to lenders within the country, while external debt refers to the share owed to foreign lenders.

The structure of public debt in Mediterranean countries (2005)

	External vs domestic debt		Currency composition of external debt	Maturity of public debt <sup>1)</sup>	Fixed vs floating rate debt	Loans vs securities <sup>2)</sup>
	as percent of GDP	as percent of total public debt				
<b>Algeria</b>	20.3/16.3	55.4/44.6	45% USD, 40% EUR, 10% JPY	External: 2% ST, 98% M/LT; Domestic: < 20% ST, > 80% M/LT	-	62.5/37.5
<b>Egypt<sup>4)</sup></b>	35.2/76.7	29.9/70.1	Predominantly USD, and EUR	Domestic: 75.8% M/LT, 24.2% ST; External: ≈ 93% M/LT, 7% ST	Domestic: predominantly fixed rate	53.5/46.5
<b>Israel</b>	25.4/76.4	25/75	90% USD, 5% EUR, 1% GBP, 4% other	≈ 12% < 5 years, ≈ 88% > 5 years	Predominantly fixed rate	4.4/95.6
<b>Jordan</b>	61.1/22.8	72.8/28.2	Predominantly USD, and EUR	External: no short-term debt (as at 2004)	-	77.1/22.9
<b>Lebanon</b>	35/140	20/80	84% USD, 12% EUR, 3% KWD (Kuwaiti dinar), 1% other	All domestic debt < 5 years. Most external debt M/LT	-	9.3/91.7
<b>Morocco<sup>4)</sup></b>	15.9/49.9	33.1/66.9 (EIB) 23.8/76.2 (IMF)	59% EUR, 22% USD, 8% JPY, 11% other	Domestic: predominantly M/LT. All external debt M/LT	External: 68% fixed rate, 8% semi fixed rate and 24% floating rate	32.2/67.8
<b>Syria</b>	25.0/13.2 <sup>3)</sup>	65.4/35.6	-	-	-	100/0
<b>Tunisia</b>	37.7/21.3	63.9/36.1	53.5% EUR, 21.5% USD, 17.8% JPY, 4.6% KWD, 2.6% other (2004 data)	Total: 12% ST, 88% M/LT	-	51.7/48.3

Sources: IMF, EIB and national Ministries of Finance.

Note: No data on Libya, as the country has almost completely repaid public debt in 2003 and 2004, and on West Bank and Gaza.

1) Maturity < 1 year: short-term (ST); maturity 1-5 years: medium-term (MT); maturity > 5 years: medium- to long-term (M/LT).

2) Data on loans vs securities refer to central government only and to December 2004 (Egypt: June 2004, Jordan: March 2005).

3) Net debt.

4) 2004 data.

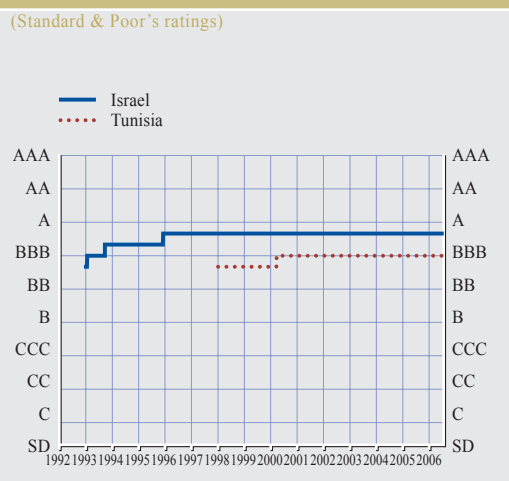
nearly half of the country's total public debt (or public debt equivalent to around 80% of GDP) is foreign currency denominated. This means that exposure to potential exchange rate variations is much higher than implied by the share of external debt in total debt. In Egypt and Israel, a large share of domestic debt consists of non-tradable securities (around one-third) held by the central bank, state-owned enterprises and households (Egypt), and pension funds and insurance companies (Israel). In Egypt, less than 25% of domestic debt is fully tradable and more than 40% is partially tradable (only among financial institutions), while Israeli tradable domestic debt is characterised by the distinction between non-indexed, CPI-indexed and US dollar-indexed securities. In general the share of domestic debt in total public debt has increased over the past years, reflecting also the development of domestic debt markets, e.g. in Morocco.

(b) *Currency composition of external debt.* The US dollar remains the predominant foreign currency in most Mediterranean countries' external debt. However, the share of the euro has been increasing in recent years. Diminishing the exposure to US dollar-euro exchange rate movements is possibly one motive for diversifying the currency composition of

external debt in the region. Morocco and Tunisia are two exceptions, as the bulk of external debt (more than 50%) is in euro, while the US dollar and Japanese yen account for 20% and 15% respectively. This reflects their direction of trade towards the euro area. In Algeria, the weight of the euro is nearly as high as that of the US dollar. Other currencies play a minor role in the region. For example, the Kuwaiti dinar is possibly used to target investors in the Gulf region.

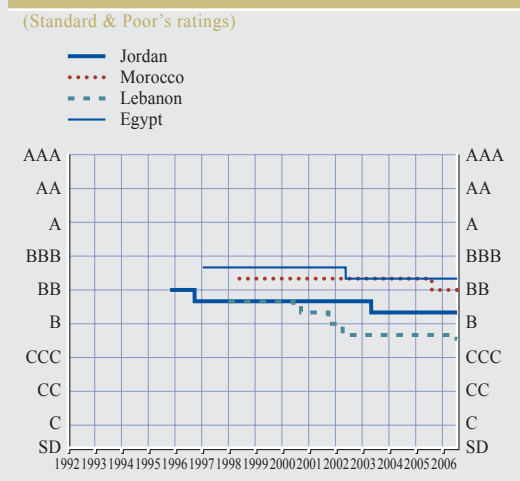
- (c) *Maturity of public debt.* A high share of short-term liabilities increases vulnerability as a large proportion of debt needs to be rolled over in a short period of time and is thus sensitive to increases in interest rates. As for external debt, short-term liabilities are either negligible (Algeria, Egypt and Israel) or non-existent (Morocco and Jordan). As for domestic debt, the share of short-term obligations tends to increase, but remains below 20% for all countries except Egypt, where it stands at 24%. Lebanon is a peculiar case as the maturity of total domestic debt is equal to (or less than) five years, posing a serious problem in terms of costs of funding and rollover requirements.
- (d) *Fixed rate versus floating rate debt.* Although consistent data are available only for a few countries, it appears that fixed rate liabilities play a prominent role both in the domestic and external debt, for example in the case of Egypt and Israel.
- (e) *Loans versus securities.* In Israel, Lebanon and Morocco the securities component is prevalent, while the share of loans is more significant in Algeria and Egypt or even dominant in Jordan and Syria. To some extent, this feature can be interpreted as a proxy for the degree of development of domestic financial markets, as more efficient and well-functioning financial markets are usually associated with a higher share of issued securities than loans.

**Chart A Rating history upgrades**



Source: Bloomberg.

**Chart B Rating history downgrades**



In the presence of these fiscal vulnerabilities, monetary policy is confronted with the risk of adverse macroeconomic and fiscal developments which could interfere with monetary policy objectives and potentially undermine macroeconomic and financial stability. Adverse fiscal developments, whether triggered by policy slippage or external shocks, can rapidly raise doubts about debt sustainability. These could then lead to an increase in interest rates/sovereign spreads and inflation expectations, to downward pressure on the exchange rate, and ultimately to higher inflation. In countries with exchange rate pegs, the credibility of the external anchor may be undermined.

While there are currently no immediate concerns about debt sustainability in the region, with the exception of Lebanon, and no case of extreme fiscal dominance of monetary policy is observable (such as experienced for example in Turkey after the crisis of 2000-01; see Box 4), continued vulnerability implies that monetary policy is conducted in the shadow of fiscal problems. In such an environment, central banks face the risk of being pressured into accommodating fiscal policies, thereby reducing emphasis on keeping inflation in check. Indeed, empirical evidence indicates that the response of interest rates to inflation in emerging market economies weakens with debt-to-GDP and external debt-to-GDP ratios: the higher the debt ratios, the lower the response. This tends to

support the view that higher levels of public debt may end up constraining the response of central banks to changes in inflationary pressure.<sup>24</sup>

The direct role of central banks in the region in financing budget deficits has diminished over the last decades, also as a result of the strengthening of monetary frameworks. In some countries, central bank credit to the government is legally forbidden (e.g. in Israel, where in 1985 the so-called “no printing law” was enacted), while most central bank laws limit credit to the government to overdrafts. Nevertheless, lending to the government is a significant item in some Mediterranean countries’ central bank balance sheets (see Table 13).

Overall, government lending accounts for 26% of assets on the central banks’ balance sheets in Mediterranean countries.<sup>25</sup> The central banks of Egypt, Lebanon and Syria stand out as significant net lenders to the government, which as in the case of Egypt may reflect high lending in the past and does not necessarily point to the provision of credit to the government in recent

24 See Baig, Kumar, Vasisstha and Zoli (2006).

25 In the euro area, the comparable figure stands at 5%, as the EC Treaty and the independence of the Eurosystem central banks prohibit granting further credit to the government.

Table 13 Assets in Mediterranean central banks’ balance sheets (2004)

(% of total assets)

	Euro area	MED total	AL	EG	IS	JO	LE	MO	SY	TU
<b>Assets</b>										
Lending to banks	39	4	0	0	2	7	5	7	16	5
Net foreign assets	38	62	94	7	90	82	60	84	15	74
Lending to the government	5	26	6	78	3	11	35	5	35	11
Other domestic assets	18	8	1	16	4	0	-1	4	34	10
<b>Memorandum:</b>										
Total assets as % of GDP	11	40	48	34	25	71	115	35	76	15

Sources: National central banks, ECB.

Notes: Average monthly data (end of month), annual data for Morocco and Tunisia, quarterly data for Syria, no data for Libya.

times. In the other countries the share is much lower. In the absence of clear legal provisions ruling out central bank lending to the government, the existence of fiscal vulnerabilities implies that, in a situation of fiscal stress, governments may put pressure on the central bank to finance public deficits, to

the detriment of monetary policy objectives. This may all the more be the case when access to international financial markets is difficult, when domestic financial markets are less developed and when fiscal rigidities complicate budgetary adjustments (see Sub-section 4.2).

#### Box 4

##### FISCAL DOMINANCE OF MONETARY POLICY: THE CASE OF TURKEY<sup>1</sup>

The case of Turkey before and in the aftermath of the 2000-01 financial crisis embodies interesting lessons for the interaction of fiscal and monetary policy in emerging market economies with high public debt. Turkey has been characterised for decades by high inflation (on average 40% p.a. in the four decades preceding the crisis). A major cause for high inflation was undisciplined fiscal policy, with high deficits being partially monetised by the central bank. The crisis in 2000-01 led to a sharp increase in net public debt (from 58% of GDP in 2000 to 91% of GDP in 2001) as a result of (i) a devaluation of the Turkish lira (Turkey was forced to abandon a crawling peg to a basket that was introduced in 1999 in an attempt of macroeconomic stabilisation), which increased external and foreign currency-denominated domestic debt, (ii) the restructuring of the banking sector (i.e. previous contingent liabilities became public debt), and (iii) the recession following the crisis. The average maturity of domestic public borrowing in 2002 had fallen to nine months and more than half of the debt stock was either indexed in some form or denominated in foreign currency; domestic interest rates and bond spreads increased sharply, reflecting concerns about debt sustainability.

Following the crisis, fiscal policy was significantly tightened, with primary surpluses of 6.5% of GNP set as targets in the IMF program. Monetary policy was geared towards an internal anchor in a strategy called “implicit inflation targeting” pursued by the Central Bank of the Republic of Turkey (CBRT), before introducing a formal inflation targeting regime in 2006. Moreover, a new central bank law was adopted in 2001 immediately after the crisis, granting the CBRT a relatively high degree of independence and forbidding lending to the government. Subsequently, Turkey embarked on a rapid disinflation process, with inflation falling from 54% in 2001 to 25% in 2003 before stabilising at around 10% since 2004. At the same time, Turkey recorded strong growth, averaging 7.5% p.a. in 2002-05.

Notwithstanding the strengthening of the monetary framework, enhanced fiscal discipline and a rapid disinflation process, the concerns about debt sustainability cast a shadow over monetary policy in the aftermath of the crisis. The ability of the CBRT to raise interest rates was effectively constrained under the prevailing circumstances at that time: higher interest rates would immediately increase public borrowing costs, given the short maturities of government debt, and thus would exacerbate doubts about debt sustainability. This in turn would lead to capital outflows and a depreciation of the currency, thus further increasing external debt and fuelling inflation, given that the exchange rate pass-through was very high. Accordingly the central

<sup>1</sup> See Emir, Özatay and Şahinbeyoğlu (2004), Celasun, Gelos and Prati (2004), Özatay (2005) and Kara (2006).

bank was faced with a “perverse” transmission channel of monetary policy in the shadow of high public indebtedness and concerns about debt sustainability: increasing interest rates to counter inflationary pressure would “backfire” and lead to higher inflation via the exchange rate channel. Put in different words: under these circumstances inflation targeting is asymmetric; cutting policy rates is not a problem, while raising them is.<sup>2</sup>

The case of Turkey contains at least five lessons with regard to the interaction of fiscal and monetary policy:

1. Undisciplined fiscal policy and the monetisation of public deficits was a key factor for Turkey’s chronically high inflation rate prior to the successful macroeconomic stabilisation after the 2000-01 crisis.
2. Given this track record, fiscal variables such as the primary surplus and the debt burden and expectations regarding fiscal policy were key to forming inflation expectations in Turkey.
3. Against this background, enhanced fiscal discipline was the major anchor of the disinflation process in Turkey, alongside a strengthened monetary policy framework lending credibility to the CBRT.
4. Notwithstanding significant fiscal tightening and enhanced central bank credibility, monetary policy was constrained by concerns about debt sustainability and could not use its instruments in the same way as a central bank not operating in the shadow of public (over-)indebtedness. This has been one of the key reasons why the CBRT operated under an “implicit” inflation targeting regime in the initial years after the crisis and refrained from moving to a fully-fledged inflation targeting framework until fiscal dominance had receded.
5. Turkey’s record over the last five years is an example of non-Keynesian effects of fiscal policy. Rapid disinflation and tight fiscal policies were accompanied by buoyant economic growth. Actually, fiscal discipline was a precondition for growth, given that any relaxation of fiscal policy would have translated into higher (nominal and real) interest rates in view of the concerns about debt sustainability and the significance of fiscal variables for inflation expectations.

<sup>2</sup> See Blanchard (2004) who analyses a similar situation for Brazil in 2002-03 and uses a formal model demonstrating that raising interest rates against inflation pressures can “backfire” when debt sustainability is at risk, as rising interest rates increase the default risk and lead to capital outflows, and thus to a depreciating currency, which in turn causes inflation to increase, in particular when exchange rate pass-through is high.

#### 4.1.2 OIL-PRODUCING COUNTRIES: VULNERABILITIES RESULTING FROM DEPENDENCE ON HYDROCARBON REVENUE

Fiscal vulnerabilities and their potential impact on monetary policy in oil-producing Mediterranean countries are of a different nature than in non-oil-producing countries (see also Box 1 in Section 3). Given that public debt

has recently been significantly reduced in Algeria and eliminated in Libya, these two countries have more room for manoeuvre and are in a much better position to cope with potential shocks. Because of their high dependency on hydrocarbon revenues, their main source of vulnerability is a sharp fall in hydrocarbon prices. Non-hydrocarbon deficits



are still high (e.g. around 30% of non-hydrocarbon GDP in Algeria) and point to the need to develop alternative sources of government revenue. This is particularly relevant for Syria, which faces dwindling oil reserves and where oil-related revenues are projected to fall by half over the next ten years. The country is even expected to become a net oil importer by the end of this decade. As Syria has not accumulated financial assets, there is a pressing need for a major fiscal adjustment, both on the expenditure side, in particular by cutting oil subsidies, which currently account for more than 10% of GDP, and on the revenue side, by developing alternative sources of revenues (e.g. by the introduction of VAT). Otherwise, the country could face severe fiscal pressure in the near future, which could jeopardise macroeconomic stability.

Managing large fiscal surpluses resulting from high oil prices poses some challenges of its own for monetary policy. In Algeria, for example, the banking sector is characterised by surplus liquidity originating from high hydrocarbon revenues. While tariff cuts and good harvests have so far helped to keep inflation in check, M2 growth appears relatively high, driven by a rapid build-up of net foreign assets, and the central bank has been struggling to sterilise liquidity. To reduce the impact of oil price fluctuations on monetary growth, oil receipts would need to be kept out of the domestic banking system, e.g. by depositing them in a special account with the central bank or a separate oil fund. Moreover, in economies with limited absorption capacity, a massive increase in public expenditure, as currently planned in Algeria, needs to be carefully implemented in order to avoid inflationary pressure.

#### **4.2 IMPLICATIONS OF SPECIFIC REVENUE AND EXPENDITURE FEATURES FOR MONETARY POLICY**

Apart from the vulnerabilities stemming from high deficits and debt levels and, for oil producers, from a high dependence on hydrocarbon revenue, some of the specific

features of Mediterranean countries' budgets as identified in Section 3 may have implications for monetary policy.

An important issue in this context is the large role of subsidies (and regulated prices) in many countries' budgets, in particular with regard to food items and oil products. From a fiscal, a distributional and an allocation perspective, a reduction and final elimination of subsidies and a liberalisation of prices would be warranted. However, phasing out subsidies and liberalising prices inevitably exerts upward pressure on prices. Given the magnitude of subsidies in many countries of the region, the potential for price increases as a result of cuts in subsidies is significant. This is illustrated by the recent reduction in subsidies in Jordan, where inflation increased from 3.5% in 2005 to 6.3% in 2006. This inflationary pressure is mainly a result of cuts in oil subsidies, which were urgently needed in view of their rising budgetary cost. In Syria, this could also become an important issue in the near term, as declining oil revenues may – and should – lead to a reduction in subsidies and to the introduction of VAT, as recommended e.g. by the IMF. There is a broad consensus that the direct impact (or first-round effects) on inflation are inevitable and should not necessarily be counteracted by a monetary tightening. However, central banks need to remain vigilant and ensure that the initial spike in the price level does not translate into a deterioration of inflation expectations and second-round effects, e.g. with regard to wage developments. Against this background, the timing of decisions on a reduction in subsidies and on the liberalisation of prices appears to be important, and a consultation with the central bank may be useful in order to ensure that inflation expectations remain well-anchored and second-round effects are avoided.<sup>26</sup>

The relatively limited role that automatic stabilisers tend to play in most Mediterranean countries in addressing cyclical developments

<sup>26</sup> The issue of the impact of administered price adjustments on inflation is equally relevant for Mediterranean and transition countries.

might be another issue of concern for monetary policy. Automatic or built-in stabilisers in the budget mainly work via taxes, in particular direct taxes, and transfers related to unemployment and other income support schemes, which are sensitive to cyclical developments. In most countries of the region, in particular direct taxation and transfers play a much more limited role than for example in EU countries. As a result, automatic stabilisers can be expected to be relatively weak. In the face of cyclical fluctuations this leaves countries with two policy options: (i) to resort to discretionary fiscal policies for stabilisation purposes, which pose severe problems of their own; or (ii) to assign a more active role to monetary policy, which again is problematic, *inter alia* as it may at times conflict with price stability as the primary objective of monetary policy. The latter is not even an option for those countries having a fixed exchange rate. In view of the weak automatic stabilisers and the difficulties inherent in active stabilisation policies, countries might ultimately have to refrain from any stabilisation policies and accept even large fluctuations of output. For example, large output fluctuations in Morocco, triggered by the volatility of agricultural output, could be seen as an expression of this dilemma with regard to stabilisation policy.

The prevalence of fiscal rigidities in the budget structure of many countries (due to the relatively high share of “pre-committed” spending outlays such as interest payments and wages and salaries, and difficulties to raise higher tax revenues; see Section 3) also hampers the implementation of discretionary fiscal adjustments for stabilisation purposes. In a similar vein, low budgetary flexibility, resulting from both difficulties to raise revenues and to cut expenditure, leaves relatively little room for fiscal policy to react to external shocks or to address new spending priorities. It makes the option of tightening fiscal policy more complicated, if such an adjustment is needed to address widening external imbalances, as is currently the case, e.g. in Jordan. The relatively low degree of budgetary flexibility may lead to

calls for a more active role of monetary policy and possibly pressure on central banks.

#### 4.3 THE ROLE OF FISCAL RULES

Many countries – in the Mediterranean region and elsewhere – find it difficult to consolidate their budget and pursue sound fiscal policies notwithstanding the well-known negative consequences of high fiscal deficits. This is primarily the result of political economy factors. Governments have a tendency to finance public expenditure via debt issuance to a greater extent than is warranted from a purely economic point of view.<sup>27</sup> This leaning towards excessive public deficits is due to the intertemporal redistribution involved in deficit financing, which shifts part of the fiscal burden from present to future generations. A large body of economic literature has provided theoretical and empirical evidence for this bias in favour of deficit financing.<sup>28</sup>

The experience with the “deficit bias” driven by political economy factors has drawn attention to fiscal rules as a possible remedy. Two types of rules can be distinguished:

- (i) quantitative (numerical) fiscal rules. Such rules provide numerical benchmarks for one or more key parameters of fiscal policy. They aim at limiting political discretion and

27 Financing public investment, tax smoothing and smoothing business cycles are the major normative arguments proposed by economic theory in favour of budget deficits.

28 The seminal contribution on the deficit bias from a political economy point of view is that of Buchanan and Wagner (1977). Later literature has increasingly looked at specific features of democratic systems that are particularly conducive to excessive deficits, such as individual election systems and the degree of political polarisation, etc. (see, for instance, Roubini and Sachs (1989), Grilli, Masciandaro and Tabellini (1991), Corsetti and Roubini (1993) and Alesina and Perotti (1995)). For a recent overview of the literature, see Schuknecht (2004). Most of this literature concerns countries with democratic political systems, where elections, and the efforts of competing parties to win electoral support through expenditure-enhancing or revenue-reducing fiscal measures, are the driving force behind the deficit bias. Much less is known about the political economy with regard to public deficits in political systems where elections are not the ultimate source of political power and legitimacy. While this topic would deserve further research, there is sufficient evidence to suggest that also in such systems persistent and high fiscal deficits are mainly driven by political economy factors.

can act as a commitment device to prevent short-sighted political considerations leading to excessive spending and deficits; and

- (ii) procedural or institutional fiscal rules. Such rules may be conducive to fiscal discipline by improving budgetary institutions and management. For instance, the control of the Treasury over the budgetary process could be enhanced, the role of the finance minister within the government strengthened, or independent fiscal councils established to play a role in fiscal policy. Quantitative and procedural fiscal rules can to a certain extent be substitutes.<sup>29</sup> At the same time, sound budgetary institutions and procedural rules facilitate the implementation of quantitative rules and may thus also be complementary.

Fiscal transparency and medium-term fiscal frameworks can be seen as prerequisites for both quantitative and procedural rules to be effective. This encompasses broad coverage of fiscal reporting and adopting a forward-looking approach to budget formulation, e.g. via multi-year budgets, based on reasonable macroeconomic assumptions. These elements combined create a more predictable fiscal environment and increase the accountability of fiscal policy-makers. More transparency and accuracy in fiscal reporting, a comprehensive coverage of the public sector and a medium-term-oriented fiscal policy are clearly in the interest of the central bank, which needs to take into account the current and expected fiscal stance when formulating monetary policy.

Fiscal rules are not a panacea and involve many problems of their own. These include appropriately balancing simplicity and transparency on the one hand against flexibility and room for discretion on the other, ensuring effective enforcement and avoiding incentives for creative accounting to artificially meet numerical targets. However, it is increasingly acknowledged that carefully designed fiscal rules can constitute a useful device to foster fiscal discipline. Indeed, over the last decade,

many countries have adopted some sort of fiscal rule.<sup>30</sup>

In the Mediterranean region, fiscal rules are not widespread at present despite the vulnerabilities stemming from fiscal policy as identified above. Very few countries are using quantitative targets for key fiscal indicators over a medium-term horizon. Israel is the sole country which has recently moved to a more rule-based fiscal policy. The Deficit Reduction Law (DRL), as amended in 2004, limits the annual increase in central government real expenditure to 1% and the budget deficit to 3% of GDP.<sup>31</sup> Jordan and Tunisia have no fully-fledged fiscal rules, but they adopted medium-term targets to reduce public debt-to-GDP ratios (Jordan: to 60% by 2010; Tunisia: to 45% by 2011). In the same vein, Egypt mapped out a multi-year consolidation plan designed to reduce the deficit by more than 1% of GDP annually over the next four years to 3-4% of GDP. Among oil-producing countries, only Algeria has some elements of a rule-based policy, by transferring those hydrocarbon revenues that are generated if oil prices are above USD 19 per barrel to the stabilisation fund. As regards procedural rules, the institutional strength of the finance minister in the preparation and execution of the budget

29 Hallerberg, Strauch and von Hagen (2004) refer to procedural rules as a “delegation” approach to fiscal governance, where significant strategic powers are delegated to a decision-maker who is less bound to special interests, typically the finance minister. By contrast, quantitative rules are consistent with a “contract” approach, where parties involved in the budgetary process agree on and later on respect a set of key budgetary parameters. Which of the two approaches is more appropriate depends on key characteristics of the political process in a country.

30 The most prominent example is the EU’s Stability and Growth Pact. In the United Kingdom, budgetary policy is subject to the so-called golden rule, which limits deficits over the economic cycle to capital expenditure. Several countries, such as New Zealand and Australia, have adopted fiscal responsibility laws that typically combine procedural rules with quantitative rules.

31 The 2004 amendment of the DRL came after this law, enacted in 1991, was seen as little successful in controlling fiscal outcomes on a multi-year basis and anchoring fiscal policy; see Flug (2006). The ceiling for the annual increase of real expenditure has recently been lifted from 1% to 1.7% from 2007 onwards, as 1% was considered as overly tight, also in view of the demographic development. It is too early to judge the extent to which the 2004 move to a more rule-based policy has been conducive to more fiscal discipline in Israel.

and in effectively controlling all public expenditure seems to differ among countries.

One of the reasons for the limited role of fiscal rules in the region may be relatively low fiscal transparency (see Sub-section 2.5). A high degree of fiscal transparency is a necessary – albeit not sufficient – prerequisite for effective implementation of fiscal rules. Accordingly, transparency and data quality would need to be improved in most countries before a fiscal rule could become a meaningful device to guide fiscal policy.

Furthermore, the specific challenges for fiscal policy in oil-dominated economies (see Box 1) have to be taken into account when formulating fiscal rules in oil-producing countries. This applies in particular to the choice of appropriate fiscal indicators in the design of quantitative fiscal rules. For instance, the overall deficit, and thus the deficit-to-GDP ratio, has to be interpreted with even greater caution than in non-oil economies, and cannot be considered a reliable indicator of the fiscal stance. For example, in a period of rising oil prices the deficit-to-GDP ratio may decline in spite of expansionary fiscal policies featuring expenditure increases or a reduction in non-oil revenue. Higher oil revenues (and higher oil GDP) would conceal fiscal expansion. Conversely, in a period of falling oil prices, the deficit-to-GDP ratio may rise in spite of budgetary consolidation in the form of expenditure reductions and an increase in non-oil revenue. An assessment of the underlying fiscal policy stance on the basis of the overall deficit could therefore be misleading; and a fiscal rule based on an unqualified deficit-to-GDP ratio could even exacerbate and institutionally enshrine pro-cyclical behaviour, a major problem of public finances in oil economies. Thus, other indicators insulating the budget balance from oil price developments appear more appropriate as a basis for numerical fiscal rules in oil-producing countries, in particular the non-oil budget balance/non-oil GDP ratio.<sup>32</sup>

Central banks have much to gain from effective fiscal rules, notably in the Mediterranean region. This applies to both non-oil-producing countries, given the pressing need for budget consolidation in many of them, and to oil-producing countries, given revenue volatility and intergenerational equity issues. Anchoring fiscal policy by using an effective fiscal rule may not only be conducive to reducing fiscal deficits but can also help to make fiscal policy more predictable. Central banks face in any event many uncertainties when conducting monetary policy. Thus, effective fiscal rules could help reduce at least to some extent those uncertainties stemming from the fiscal sector.

32 See Barnett and Ossowski (2002) on the non-oil budget balance/non-oil GDP ratio as a fiscal indicator in oil-producing countries. See Sturm and Siegfried (2005) for a discussion on fiscal rules in oil-dependent countries in the Gulf region.

## 5 CONCLUSIONS

High fiscal deficits have characterised the economic history of many developed as well as developing countries, including in the Mediterranean region and in the euro area. While Mediterranean countries exhibit some specific fiscal features and challenges, they also face others that are common to many euro area (and other) countries, in particular concerning deficits and debt reduction and the maintenance of fiscal discipline. The consequences of high public deficits for their economies have often been harmful. By contributing to aggregate demand stimulation, high deficits can add to inflationary pressure and/or put a strain on the balance of payments. If sustained, high deficits can also result in the accumulation of large public debts, which eventually put pressure on interest rates and/or prices, the latter in particular in countries that monetise public debt. High and persistent deficits often are detrimental to long-term growth because they tend to crowd out private investment via reduced available resources, and higher taxes and/or interest rates. They also limit the room to accommodate unexpected fiscal shocks and to use fiscal policy for cyclical stabilisation purposes. Forced fiscal adjustments in the wake of high deficits are often implemented mainly at the expense of public investment because capital outlays are often easiest to cut, also from a political economy point of view.

In the Mediterranean region, most countries have made some progress in reducing budget deficits and public debt, but many still face daunting fiscal challenges. This is particularly true for countries still exhibiting very high deficits and debt levels, for countries facing a sharp decrease in foreign grants or for oil-producing countries facing a depletion of reserves. Other specific features of the budgetary structure displayed by many countries in the region, both on the revenue and the expenditure side, also constitute challenges. These include the difficulty to generate tax revenue, in particular for direct taxes, and

rigidities on the expenditure side due to the high share of wages and salaries, subsidies, military spending and interest expenditure.

Fiscal policy appears to have played a too limited role to underpin lasting and sustainable macroeconomic stability in the region. Indeed, in most countries a shock originating from, or being transmitted via and exacerbated by, the fiscal sector is the single most important risk that could potentially undermine macroeconomic stability. This is particularly the case for countries combining a high debt level, a high share of external debt (or foreign currency-denominated debt), an open capital account and an exchange rate peg, which together increase vulnerability. For countries still in the process of capital account liberalisation, vulnerability may actually increase unless public indebtedness is brought down.

Reducing vulnerabilities and fiscally-driven threats to macroeconomic stability requires a reduction of public indebtedness, encompassing contingent liabilities. This can only be achieved via the reform of public finances, continued fiscal discipline and sustained economic growth. Enhancing and maintaining fiscal discipline will be facilitated by improving the institutional framework in which fiscal policy operates, e.g. via more effective budgetary management and transparency, and eventually via fiscal rules, which so far are not being widely used in the region.

From a central bank perspective, fiscal policy on the one hand lies outside central banks' area of responsibility, but on the other hand has a significant impact on the environment in which monetary policy is conducted.

Evidence from both advanced and developing economies suggests that a monetary policy credibly committed to price stability based on a sound monetary framework is the best contribution that central banks can make to macroeconomic and financial stability, to better fiscal outcomes and ultimately to economic growth. A monetary policy aimed at achieving

and maintaining price stability, which is fully credible in the commitment to this primary objective, is conducive to low nominal and real interest rates. Lower interest rates alleviate the burden of interest expenditure in the budget and create room for deficit reduction, more productive expenditure or tax reduction. This is particularly important in countries with high debt levels such as those in the Mediterranean region. In addition, such a policy conducted by an independent central bank makes it clear to fiscal policy-makers that no monetary accommodation of unsound fiscal policies can be expected. This may, in turn, contribute to fiscal discipline. The availability of monetary financing of government deficits clearly has the opposite effect, and should thus be firmly restricted or ideally ruled out.

## ANNEX

### SUMMARY OF KEY FISCAL CHARACTERISTICS AND CHALLENGES IN MEDITERRANEAN COUNTRIES – A COUNTRY-BY-COUNTRY VIEW

#### ALGERIA

##### DEBT/DEFICITS

Public debt no longer a major issue as significantly reduced recently in the wake of high oil prices (2000: 69% of GDP; 2005: 29% of GDP). Large budget surpluses recently (2005: 14% of GDP), but non-hydrocarbon deficit remains high.

##### EXPENDITURE/REVENUE

High capital expenditure to upgrade infrastructure and high subsidies. Heavy reliance on hydrocarbon revenue (2005: 71% of total revenue), low tax revenues.

##### OTHER CHARACTERISTICS/KEY CHALLENGES

Oil stabilisation fund, in which hydrocarbon revenues in excess of those budgeted are deposited. Relatively low degree of fiscal transparency. Sound long-term management of hydrocarbon revenue required. High exposure to changes in international hydrocarbon prices is key risk. Impact of recent expenditure increase on inflation to be closely monitored in view of limited absorption capacity. Reform of tax administration.

#### EGYPT

##### DEBT/DEFICITS

High public debt (2005: 112% of GDP), even though net public debt is significantly lower than gross debt due to large government deposits in the banking sector. High budget deficits since 2002 in spite of relatively solid GDP growth.

##### EXPENDITURE/REVENUE

High subsidies notwithstanding recent cuts. Relatively low tax revenues by non-oil-

producing countries' standards. Some hydrocarbon revenues.

##### OTHER CHARACTERISTICS/KEY CHALLENGES

Some progress in fiscal transparency and budgetary management in recent years. Fiscal consolidation urgent in view of high deficits and debt. Contingent liabilities in the banking system. Strengthening tax and customs regimes. Raising the productivity of expenditure, and improving the targeting of pro-poor spending.

#### ISRAEL

##### DEBT/DEFICITS

High public debt (2005: 97% of GDP), but on a declining path. Budget deficits declining since 2003 due to solid growth and fiscal consolidation.

##### EXPENDITURE/REVENUE

High expenditure level (at around 50% of GDP, high by regional, but also OECD, standards), driven by high military and interest expenditure and a relatively developed welfare state. Developed tax system with highest reliance on direct taxes in the region.

##### OTHER CHARACTERISTICS/KEY CHALLENGES

Recently moved to more rule-based fiscal policy (real expenditure increase limited to 1.7% p.a., ceiling for deficit-to-GDP ratio of 3%). Fiscal consolidation remains exposed to shocks originating in the domestic political arena and to external geopolitical developments.

#### JORDAN

##### DEBT/DEFICITS

High public debt (2005: 82% of GDP), which is predominantly external, but long-term and mainly owed to public creditors. Increased deficits after 2002 as a result of high oil prices and a reduction in grants, subsequent fiscal tightening to contain deficits.

**EXPENDITURE/REVENUE**

High military expenditure, previously high oil subsidies to be phased out in 2007. Low direct tax revenues. High dependence on foreign grants, which recently have declined.

**OTHER CHARACTERISTICS/KEY CHALLENGES**

High external debt is combined with open capital account, fixed exchange rate peg and large current account deficit. High implicit liabilities in pension system. Exposure to geopolitical risk. Adjusting to the decline in grants.

**LEBANON****DEBT/DEFICITS**

Very high public debt (2005: 175% of GDP) and fragile debt structure (high share of foreign currency-denominated domestic and external debt, short/medium-term debt), exacerbated by contingent liabilities in pension system. Debt sustainability at risk. Continuously high deficits, after decline to 8% of GDP in 2005 expected to rise again as a result of military conflict in 2006.

**EXPENDITURE/REVENUE**

Very high interest payments (2005: 15% of GDP, 34% of total expenditure) and high expenditure on wages and subsidies. Low tax revenues, but relatively high reliance on trade-related taxes.

**OTHER CHARACTERISTICS/KEY CHALLENGES**

Debt sustainability is jeopardised without far-reaching fiscal reforms and external support/concessional financing. High foreign currency-denominated and external debt combined with open capital account, exchange rate peg and large current account deficit create vulnerability. Fiscal reforms difficult due to domestic political instability and high exposure to geopolitical risk.

**LIBYA****DEBT/DEFICITS**

Public debt has been eliminated in the wake of high oil prices. Large budget surpluses (2005: 32% of GDP), but widening non-hydrocarbon deficit.

**EXPENDITURE/REVENUE**

Large size of public sector. High capital expenditure to upgrade infrastructure. Heavy reliance on hydrocarbon revenue (2005: 93% of total revenue), very low tax revenue, one of two countries in the region that do not levy VAT.

**OTHER CHARACTERISTICS/KEY CHALLENGES**

Oil stabilisation fund, with non-transparent features, reflecting the generally very low level of fiscal transparency. Strengthening the management of oil wealth. High exposure to changes in international hydrocarbon prices is key risk. Impact of recent expenditure increase on inflation to be closely monitored in view of limited absorption capacity.

**MOROCCO****DEBT/DEFICITS**

Relatively high public debt (2005: 70% of GDP) and high budget deficits of 4-6% of GDP since 2000, deficits sensitive to GDP growth, which in turn depends strongly on agricultural output/weather conditions. Share of domestic debt in total debt increased over last years, now accounting for more than two-thirds of total debt.

**EXPENDITURE/REVENUE**

High expenditure on wages and salaries (>40% of total expenditure and 12% of GDP) expected to decline with the implementation of the early retirement programme for civil servants. Expenditure on subsidies lower than in other countries of the region. Relatively high tax revenues by regional standards.



#### **OTHER CHARACTERISTICS/KEY CHALLENGES**

High privatisation revenues and improvements in fiscal transparency and budgetary management over recent years. Reducing persistently high deficits, mainly by reining in expenditure on wages and salaries, is key challenge notwithstanding recent efforts in this regard. Implicit liabilities in pension system. Tax reform, e.g. simplifying the VAT system.

#### **OTHER CHARACTERISTICS/KEY CHALLENGES**

Reducing high deficits, mainly by reining in expenditure on wages and salaries, is key challenge. In the longer term, Tunisia will be the first country in the region facing the fiscal challenges of an ageing population.

#### **WEST BANK AND GAZA (SEE BOX 2)**

### **SYRIA**

#### **DEBT/DEFICITS**

Public debt stable at around 60% of GDP since 2000. Budget deficits of above 4% of GDP in 2004-05 despite high oil prices.

#### **EXPENDITURE/REVENUE**

Relatively high capital expenditure and military expenditure. Significant hydrocarbon revenues (2005: 33% of total revenue), but declining. One of two Mediterranean countries which do not levy VAT.

#### **OTHER CHARACTERISTICS/KEY CHALLENGES**

Depletion of hydrocarbon reserves is key challenge which puts sustainability of public finances at risk. Diversifying sources of revenue and expenditure reform are key challenges. Low fiscal transparency.

### **TUNISIA**

#### **DEBT/DEFICITS**

Public debt slowly declining (2005: 57% of GDP), with more than 60% of total debt being external. Deficits hovering around 3% of GDP since 2000.

#### **EXPENDITURE/REVENUE**

High expenditure on wages and salaries (45% of total expenditure and 11% of GDP). Relatively high tax revenues by regional standards.

## BIBLIOGRAPHY

- Abed, G. T. (2006), "Economic and financial developments and challenges in Mediterranean countries", paper prepared for the Eurosystem seminar with Mediterranean countries' central banks, 25 January 2006, Nafplion, Greece (mimeo).
- Abed, G. T. and H. R. Davoodi (2003), "Challenges of Growth and Globalization in the Middle East and North Africa", IMF, Washington, D.C.
- Alesina, A. and R. Perotti (1995), "The Political Economy of Budget Deficits", IMF Staff Papers, Vol. 42, No 1, pp. 1-31.
- Alier, M. and M. Kaufman (1999), "Nonrenewable Resources: A Case for Persistent Fiscal Surpluses", IMF Working Paper No 99/44, Washington, D.C.
- Baig, T., M. S. Kumar, G. Vasishtha and E. Zoli (2006), "Fiscal and Monetary Nexus in Emerging Market Economies: How Does Debt Matter?", IMF Working Paper No 06/184, Washington, D.C.
- Bank for International Settlements (2003), "Fiscal issues and central banking in emerging economies", BIS Paper No 20, Basel.
- Barnett, S. A. and R. J. Ossowski (2002), "Operational Aspects of Fiscal Policy in Oil-producing Countries", IMF Working Paper No 02/177, Washington, D.C.
- Bjerkholt, O. (2003), "Fiscal Rule Suggestions for Economies with Non-renewable Resources", paper presented at the IMF/World Bank Conference on Rules-based Fiscal Policy in Emerging Market Economies, Oaxaca, 14-16 February 2002.
- Blanchard, O. (2004), "Fiscal dominance and inflation targeting: lessons from Brazil", NBER Working Paper No 10389, Cambridge, MA.
- Buchanan, J. M. and R. E. Wagner (1977), *Democracy in Deficit - The Political Legacy of Lord Keynes*, New York: Academic Press.
- Celasun, O., R. Gaston Gelos and A. Prati (2004), "Obstacles to Disinflation: What is the Role of Fiscal Expectations?", IMF Working Paper No 04/111, Washington, D.C.
- Chalk, N. (1998), "Fiscal Sustainability with Non-renewable Resources", IMF Working Paper No 98/26, Washington, D.C.
- Chalk, N. and R. Hemming (2000), "Assessing Fiscal Sustainability in Theory and Practice", IMF Working Paper No 00/81, Washington, D.C.
- Corsetti, G. and N. Roubini (1993), "Tax Smoothing Discretion versus Balanced Budget Rules in the Presence of Politically Motivated Deficits: The Design of Optimal Fiscal Rules for Europe after 1992", CEPR Discussion Paper No 682, London.

- Crandall, W. and J.-P. Bodin (2005), “Revenue Administration Reform in Middle Eastern Countries, 1994-2004”, IMF Working Paper No 05/203, Washington, D.C.
- Daniel, J. A. (2001), “Hedging Government Oil Price Risk”, IMF Working Paper No 01/185, Washington, D.C.
- Davis, J., R. J. Ossowski, J. A. Daniel and S. A. Barnett (2001), “Stabilization and Savings Funds for Nonrenewable Resources. Experience and Fiscal Policy Implications”, IMF Occasional Paper No 205, Washington, D.C.
- De Bolle, M., B. Rother and I. Hakobyan (2006), “The Level and Composition of Public Sector Debt in Emerging Market Crises”, IMF Working Paper No 06/186, Washington, D.C.
- Eifert, B., A. Gelb and N. Borje Tallroth (2002), “The Political Economy of Fiscal Policy and Economic Management in Oil Exporting Countries”, World Bank Policy Research Paper WPS 2899, Washington, D.C.
- Emir, O. Y., F. Özatay and G. Şahinbeyoğlu (2004), “High Public Debt and Effects of News on Interest Rates”, Central Bank of the Republic of Turkey Research Department Working Paper No 04/03, Ankara.
- Engel, E. and R. Valdes (2000), “Optimal Fiscal Strategy for Oil Exporting Countries”, IMF Working Paper No 00/118, Washington, D.C.
- European Investment Bank (2005), “Sovereign Debt Markets in the EU Mediterranean Partner Countries”, Luxembourg.
- Fabrizia, S. and A. Mody (2006), “Can Budget Institutions Counteract Political Indiscipline?”, IMF Working Paper No 06/123, Washington, D.C.
- Fasano, U. (2000), “Review of the Experience with Oil Stabilization and Savings Funds in Selected Countries”, IMF Working Paper No 00/112, Washington, D.C.
- Flug, K. (2006), “The Bumpy Road towards Fiscal Consolidation: What is the Role of Fiscal Rules? – Fiscal Policy in Israel since the 1990s” (mimeo).
- Grilli, V., D. Masciandaro and G. Tabellini (1991), “Political and Monetary Institutions and Public Financial Policies in the Industrial Countries”, *Economic Policy: A European Forum*, 6 (2), pp. 341-392.
- Hakura, D. (2004), “Growth in the Middle East and North Africa”, IMF Working Paper No 04/56, Washington, D.C.
- Hallerberg, M., R. Strauch and J. von Hagen (2004), “The design of fiscal rules and forms of governance in European Union countries“, ECB Working Paper No 419, Frankfurt am Main.
- Hauptmeier, S., M. Heipertz and L. Schuknecht (2006), “Expenditure reform in industrialised countries“, ECB Working Paper No 634, Frankfurt am Main.

- International Monetary Fund (various years), Article IV country reports, Selected Issues reports, Reports on the Observance of Standards and Codes, World Economic Outlook reports.
- International Monetary Fund (2003), “World Economic Outlook, Chapter III: Public Debt in Emerging Markets: Is it too high?”, September, Washington, D.C.
- International Monetary Fund (2007), “World Economic Outlook, Box 1.4: Hedging against oil price volatility”, April, Washington, D.C.
- Kara, A. H. (2006), “Turkish Experience with Implicit Inflation Targeting”, Central Bank of the Republic of Turkey Research Department Working Paper No 06/03, Ankara.
- Nashashibi, K. (2002), “Fiscal Revenues in South Mediterranean Arab Countries: Vulnerabilities and Growth Potential”, IMF Working Paper No 02/67, Washington, D.C.
- Özatay, F. (2005), “Monetary Policy Challenges for Turkey in the European Accession Process”, Central Bank of the Republic of Turkey Research Department Working Paper No 05/11, Ankara.
- Robalino, D. A. (2005), “Pensions in the Middle East and North Africa – Time for Change”, Orientations in Development Series, World Bank, Washington, D.C.
- Roubini, N. and J. D. Sachs (1989), “Political and Economic Determinants of Budget Deficits in the Industrial Democracies”, *European Economic Review*, No 33, pp. 903-933.
- Schuknecht, L. (2004), “EU fiscal rules – Issues and lessons from political economy”, ECB Working Paper No 421, Frankfurt am Main.
- Sturm, M. and N. Siegfried (2005), “Regional monetary integration in the Member States of the Gulf Cooperation Council (GCC)”, ECB Occasional Paper No 31, Frankfurt am Main.
- World Bank (2006), “Middle East and North Africa Economic Developments and Prospects 2006”, Washington, D.C.
- Zoli, E. (2005), “How does fiscal policy affect monetary policy in emerging market countries?”, BIS Working Paper No 174, Basel.

**EUROPEAN CENTRAL BANK  
OCCASIONAL PAPER SERIES**

- 1 “The impact of the euro on money and bond markets” by J. Santillán, M. Bayle and C. Thygesen, July 2000.
- 2 “The effective exchange rates of the euro” by L. Buldorini, S. Makrydakis and C. Thimann, February 2002.
- 3 “Estimating the trend of M3 income velocity underlying the reference value for monetary growth” by C. Brand, D. Gerdesmeier and B. Roffia, May 2002.
- 4 “Labour force developments in the euro area since the 1980s” by V. Genre and R. Gómez-Salvador, July 2002.
- 5 “The evolution of clearing and central counterparty services for exchange-traded derivatives in the United States and Europe: a comparison” by D. Russo, T. L. Hart and A. Schönenberger, September 2002.
- 6 “Banking integration in the euro area” by I. Cabral, F. Dierick and J. Vesala, December 2002.
- 7 “Economic relations with regions neighbouring the euro area in the ‘Euro Time Zone’” by F. Mazzaferro, A. Mehl, M. Sturm, C. Thimann and A. Winkler, December 2002.
- 8 “An introduction to the ECB’s survey of professional forecasters” by J. A. Garcia, September 2003.
- 9 “Fiscal adjustment in 1991-2002: stylised facts and policy implications” by M. G. Briotti, February 2004.
- 10 “The acceding countries’ strategies towards ERM II and the adoption of the euro: an analytical review” by a staff team led by P. Backé and C. Thimann and including O. Arratibel, O. Calvo-Gonzalez, A. Mehl and C. Nerlich, February 2004.
- 11 “Official dollarisation/euroisation: motives, features and policy implications of current cases” by A. Winkler, F. Mazzaferro, C. Nerlich and C. Thimann, February 2004.
- 12 “Understanding the impact of the external dimension on the euro area: trade, capital flows and other international macroeconomic linkages” by R. Anderton, F. di Mauro and F. Moneta, March 2004.
- 13 “Fair value accounting and financial stability” by a staff team led by A. Enria and including L. Cappiello, F. Dierick, S. Grittini, A. Maddaloni, P. Molitor, F. Pires and P. Poloni, April 2004.
- 14 “Measuring financial integration in the euro area” by L. Baele, A. Ferrando, P. Hördahl, E. Krylova, C. Monnet, April 2004.

- 15 “Quality adjustment of European price statistics and the role for hedonics” by H. Ahnert and G. Kenny, May 2004.
- 16 “Market dynamics associated with credit ratings: a literature review” by F. Gonzalez, F. Haas, R. Johannes, M. Persson, L. Toledo, R. Violi, M. Wieland and C. Zins, June 2004.
- 17 “Corporate ‘excesses’ and financial market dynamics” by A. Maddaloni and D. Pain, July 2004.
- 18 “The international role of the euro: evidence from bonds issued by non-euro area residents” by A. Geis, A. Mehl and S. Wredenburg, July 2004.
- 19 “Sectoral specialisation in the EU: a macroeconomic perspective” by MPC task force of the ESCB, July 2004.
- 20 “The supervision of mixed financial services groups in Europe” by F. Dierick, August 2004.
- 21 “Governance of securities clearing and settlement systems” by D. Russo, T. Hart, M. C. Malaguti and C. Papathanassiou, October 2004.
- 22 “Assessing potential output growth in the euro area: a growth accounting perspective” by A. Musso and T. Westermann, January 2005.
- 23 “The bank lending survey for the euro area” by J. Berg, A. van Rixtel, A. Ferrando, G. de Bondt and S. Scopel, February 2005.
- 24 “Wage diversity in the euro area: an overview of labour cost differentials across industries” by V. Genre, D. Momferatou and G. Mourre, February 2005.
- 25 “Government debt management in the euro area: recent theoretical developments and changes in practices” by G. Wolswijk and J. de Haan, March 2005.
- 26 “The analysis of banking sector health using macro-prudential indicators” by L. Mörntinen, P. Poloni, P. Sandars and J. Vesala, March 2005.
- 27 “The EU budget – how much scope for institutional reform?” by H. Enderlein, J. Lindner, O. Calvo-Gonzalez, R. Ritter, April 2005.
- 28 “Reforms in selected EU network industries” by R. Martin, M. Roma, I. Vansteenkiste, April 2005.
- 29 “Wealth and asset price effects on economic activity”, by F. Altissimo, E. Georgiou, T. Sastre, M. T. Valderrama, G. Sterne, M. Stocker, M. Weth, K. Whelan, A. Willman, June 2005.
- 30 “Competitiveness and the export performance of the euro area”, by a Task Force of the Monetary Policy Committee of the European System of Central Banks, June 2005.
- 31 “Regional monetary integration in the member states of the Gulf Cooperation Council (GCC)” by M. Sturm and N. Siegfried, June 2005.

- 32 “Managing financial crises in emerging market economies: experience with the involvement of private sector creditors” by an International Relations Committee task force, July 2005.
- 33 “Integration of securities market infrastructures in the euro area” by H. Schmiedel, A. Schönenberger, July 2005.
- 34 “Hedge funds and their implications for financial stability” by T. Garbaravicius and F. Dierick, August 2005.
- 35 “The institutional framework for financial market policy in the USA seen from an EU perspective” by R. Petschnigg, September 2005.
- 36 “Economic and monetary integration of the new Member States: helping to chart the route” by J. Angeloni, M. Flad and F. P. Mongelli, September 2005.
- 37 “Financing conditions in the euro area” by L. Bê Duc, G. de Bondt, A. Calza, D. Marqués Ibáñez, A. van Rixtel and S. Scopel, September 2005.
- 38 “Economic reactions to public finance consolidation: a survey of the literature” by M. G. Briotti, October 2005.
- 39 “Labour productivity in the Nordic EU countries: a comparative overview and explanatory factors – 1998-2004” by A. Annenkov and C. Madaschi, October 2005.
- 40 “What does European institutional integration tell us about trade integration?” by F. P. Mongelli, E. Dorrucci and I. Agur, December 2005.
- 41 “Trends and patterns in working time across euro area countries 1970-2004: causes and consequences” by N. Leiner-Killinger, C. Madaschi and M. Ward-Warmedinger, December 2005.
- 42 “The New Basel Capital Framework and its implementation in the European Union” by F. Dierick, F. Pires, M. Scheicher and K. G. Spitzer, December 2005.
- 43 “The accumulation of foreign reserves” by an International Relations Committee Task Force, February 2006.
- 44 “Competition, productivity and prices in the euro area services sector” by a Task Force of the Monetary Policy Committee of the European System of Central banks, April 2006.
- 45 “Output growth differentials across the euro area countries: Some stylised facts” by N. Benalal, J. L. Diaz del Hoyo, B. Pierluigi and N. Vidalis, May 2006.
- 46 “Inflation persistence and price-setting behaviour in the euro area – a summary of the IPN evidence”, by F. Altissimo, M. Ehrmann and F. Smets, June 2006.
- 47 “The reform and implementation of the stability and growth pact” by R. Morris, H. Ongena and L. Schuknecht, June 2006.

- 48 “Macroeconomic and financial stability challenges for acceding and candidate countries” by the International Relations Committee Task Force on Enlargement, July 2006.
- 49 “Credit risk mitigation in central bank operations and its effects on financial markets: the case of the Eurosystem” by U. Bindseil and F. Papadia, August 2006.
- 50 “Implications for liquidity from innovation and transparency in the European corporate bond market” by M. Laganá, M. Peřina, I. von Köppen-Mertes and A. Persaud, August 2006.
- 51 “Macroeconomic implications of demographic developments in the euro area” by A. Maddaloni, A. Musso, P. Rother, M. Ward-Warmedinger and T. Westermann, August 2006.
- 52 “Cross-border labour mobility within an enlarged EU” by F. F. Heinz and M. Ward-Warmedinger, October 2006.
- 53 “Labour productivity developments in the euro area” by R. Gomez-Salvador, A. Musso, M. Stocker and J. Turunen, October 2006.
- 54 “Quantitative quality indicators for statistics – an application to euro area balance of payment statistics” by V. Damia and C. Picón Aguilar, November 2006
- 55 “Globalisation and euro area trade: Interactions and challenges” by U. Baumann and F. di Mauro, February 2007.
- 56 “Assessing fiscal soundness: Theory and practice” by N. Giammarioli, C. Nickel, P. Rother, J.-P. Vidal, March 2007.
- 57 “Understanding price developments and consumer price indices in south-eastern Europe” by S. Herrmann and E. K. Polgar, March 2007.
- 58 “Long-Term Growth Prospects for the Russian Economy” by R. Beck, A. Kamps and E. Mileva, March 2007.
- 59 “The ECB Survey of Professional Forecasters (SPF) a review after eight years’ experience”, by C. Bowles, R. Friz, V. Genre, G. Kenny, A. Meyler and T. Rautanen, April 2007.
- 60 “Commodity price fluctuations and their impact on monetary and fiscal policies in Western and Central Africa” by U. Böwer, A. Geis and A. Winkler, April 2007.
- 61 “Determinants of growth in the central and eastern European EU Member States – A production function approach” by O. Arratibel, F. Heinz, R. Martin, M. Przybyła, L. Rawdanowicz, R. Serafini and T. Zumer, April 2007.
- 62 “Inflation-linked bonds from a Central Bank perspective” by J. A. Garcia and A. van Rixtel, June 2007.
- 63 “Corporate finance in the euro area – including background material”, Task Force of the Monetary Policy Committee of the European System of Central Banks, June 2007.



- 64 “The use of portfolio credit risk models in central banks”, Task Force of the Market Operations Committee of the European System of Central Banks, July 2007.
- 65 “The performance of credit rating systems in the assessment of collateral used in Eurosystem monetary policy operations” by F. Coppens, F. González and G. Winkler, July 2007.
- 66 “Structural reforms in EMU and the role of monetary policy – a survey of the literature” by N. Leiner-Killinger, V. López Pérez, R. Stiegert and G. Vitale, July 2007.
- 67 “Towards harmonised balance of payments and international investment position statistics – the experience of the European compilers” by J.-M. Israël and C. Sánchez Muñoz, July 2007.
- 68 “The securities custody industry” by D. Chan, F. Fontan, S. Rosati and D. Russo, August 2007.
- 69 “Fiscal policy in Mediterranean countries – Developments, structures and implications for monetary policy” by M. Sturm and F. Gurtner, August 2007.

ISSN 1607148-4



9 771607 148006