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ABBREVIATIONS USED IN THE TEXT

BoP	Balance of Payment
CBS	Central Bureau of Statistics
CPI	Consumer Price Index
EU	European Union
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
HBS	Household Budget Survey
IMF	International Monetary Fund
ISMF	Institutional and Sector Modernization Facility
LFS	Labour Force Survey
SETB	Syrian Economic Trends Bulletin
SME	Small and Medium size Enterprises
SNA	System of National Accounts
SPC	State Planning Commission
SYP	Syrian Pound
USD	United States dollars
WTO	World Trade Organization

PREFACE

We are delighted to present the second issue of the Syrian Economic Trends Bulletin, in which we give a summary picture of the recent developments of the Syrian economy from various perspectives. We would like to thank all the agencies and persons who provided us by a great deal of help and advice in the preparation of this issue. In particular we thank his Excellency Mr. Abdallah Al Dardari, Deputy Prime Minister for Economic Affairs, whose support was essential in facilitating access to the needed data and information in the Syrian agencies. In addition, we would like to acknowledge the great support by the EU Delegation in Damascus and the ISMF programme which made possible the preparation and the publication of this report. Moreover, special thanks go to the government and private sector agencies that provided data and information, in particular the Central Bureau of Statistics, the State Planning Commission, the Central Bank, the Chamber of Commerce: all the members of those institutions we met were very cooperative in discussing several issues of the Syrian economy.

We reiterate our invitation to Syrian economists to participate in the next issue of the bulletin by contributing with policy papers and economic analysis from all points of view. We are willing to receive their papers at the following address: ismf@scs-net.org, or on the following postal address: 3, Fardos St. - Third floor - Sate Planning Commission Building - P.O.Box 34962 - Damascus - Syria - Fax: (00963-11) 231 65 93.

The present issue contains five chapters. The first one is a general introduction presenting the current state of the Syrian economy. The second one discusses the GDP measurements and growth rate issues. Foreign relations are discussed in chapter three with a focus on the balance of payments. We devote the fourth chapter to an assessment of inflation in Syria. Finally, the fifth chapter concentrates on labour issues, unemployment, and living standards of the Syrian population.

Prof. Gerard Duchene and Dr. Osama Noujoum

CHAPTER I

RECENT ECONOMIC DEVELOPMENTS IN SYRIA

As forecasted in the last issue of SETB, the second half-year of 2007 has been much less successful than the first: consumer prices in December 2007 are up 5.1% compared to December 2006. But in June 2007, prices were 4% below their level of December 2006, which means that prices rose by 9% in six months, from June to December 2007*. On the one hand, such an evolution creates a feeling of high inflation, which is perfectly relevant, though there is a sizable seasonal influence in that matter, as prices in fruits and vegetables should decrease over the next months of 2008. On the other hand, rumours about a mis-measurement of inflation by official bodies are less relevant. When comparing the average price level in 2007 (over the whole year) and the average price level of 2006, the result is that prices rose by 4.3% overall. That figure is fully consistent with the 9% price rise between June and December 2007. There is no reason to criticize the Central Bureau of Statistics on that matter. As is often said, it is not because there is fever that one should break the thermometer. This issue of SETB dedicates a full chapter to the very important question of inflation, which extends well beyond rumours and perceptions, requiring us to address hard realities.

The GDP outcome for the year 2007 has been calculated by SETB authors the same way as it was calculated last year (using the income method). Our result points to a 5.7% increase (2007 against 2006), whereas the CBS released figure for growth is 6.5%. Those figures are close and testify to the continuation of the growth trend. As in 2006, high world oil prices together with economic liberalisation boosted growth. However, the subsidisation policy aimed at keeping refined oil products prices low for all consumers hampered exports and enhanced domestic consumption as well as imports. As a result, overall economic growth was marred with growing trade disequilibrium and budget deficit. That twin deficit is not sustainable anymore, and the government will be forced to impose measures aimed at restoring a more balanced situation.

The growth rate of money supply has been constantly decreasing throughout 2006. In 2007, the trend reversed and, at least until November, money supply rose at increasing rates. As pointed out in the previous SETB issue, prices follow the evolution of money supply with a delay of four to six months. Inflation thus decreased until July 2007 and began rising again until the end the year (and later, in the first two months of 2008), following the evolution of money supply. This is a possible explanation of inflation. Other factors are discussed in the Chapter on inflation in the present issue.

One of the most serious problems with the Syrian economy remains foreign trade evolution: in 2007, according to Central Bank estimates, imports rose very significantly and deepened both trade and current account deficit. The degradation of foreign balances is a rather long term trend, which began in 2003. The year 2006 stood out, with a positive current account balance at +2.7% of GDP, but by 2007 the balance fell back to -3.9%, in line with the past evolution. What is disturbing is that the oil balance itself was negative, due to a huge growth in imports. More than ever, domestic prices in oil products have to be adjusted

* *Notice that 9% growth over six months is equivalent to 19% on a yearly basis.*

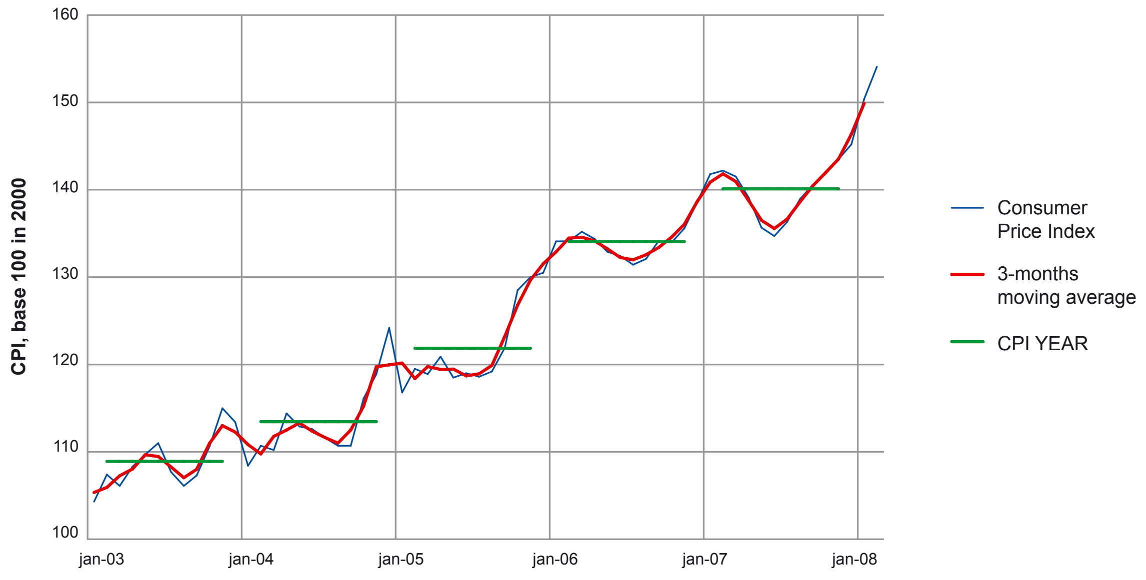
upwards in order to avoid subsidising oil imports, which are then smuggled to neighbouring countries. This might be difficult to achieve in the present context of rising world inflation, but it has to be addressed urgently.

Unemployment rate decreased in 2007. On average for the first three quarters of 2007 (the last quarter is not available as of printing), unemployment reached 8.2% of the labour force, compared to at least 8.6% for the same period in 2006. However, the available data remains provisional.

1) 2007: A YEAR OF CONTRASTS FOR INFLATION

Graph 1.1 shows the evolution of the consumer price level over five years, from January 2003 to January 2008. The way the CPI is calculated by the Central Bureau of Statistics is described in details in Chapter 4. The graph may explain why there is a feeling of contradiction between officially released statistics on inflation and what people feel prices are. The blue and red curves show the level of price at a given point in time: for instance, the end of the red curve is at 150 in January 2008, with 100 being the average price level in 2000. In December 2007, the index was at 145.

Graph 1.1
Evolution of the Consumer Price Index
January 2003 - January 2008, base 100 in 2000

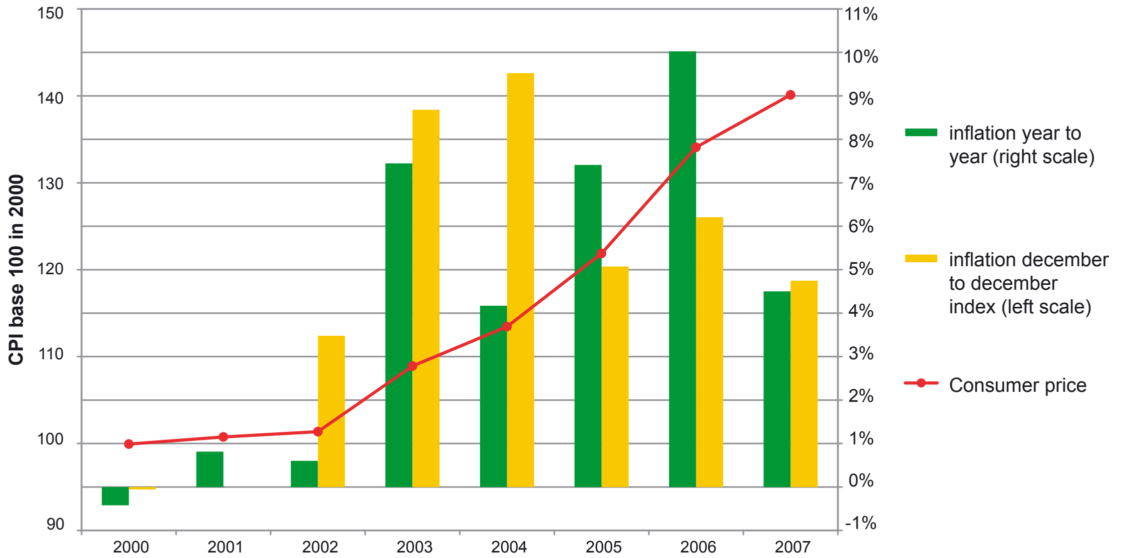


Source : Authors calculation on the basis of CBS data

However, it is clear from reading the graph that the level of prices was approximately at 138 in December 2006, and at 134 in June. Based on those observations, we may say that prices rose by approximately 5% between December 2006 and December 2007, and by 12% between June 2007 and January 2008.

There are two ways of measuring inflation: either December to December of the previous year, or average prices over the year to average prices over the previous year. Graph 1.2 shows the two measures of CPI inflation since 2000: green bars show its evolution from average year to average year, while yellow bars show its evolution from December to

Graph 1.2
CPI and INFLATION
Yearly data 2000 to 2006 and estimate for 2007

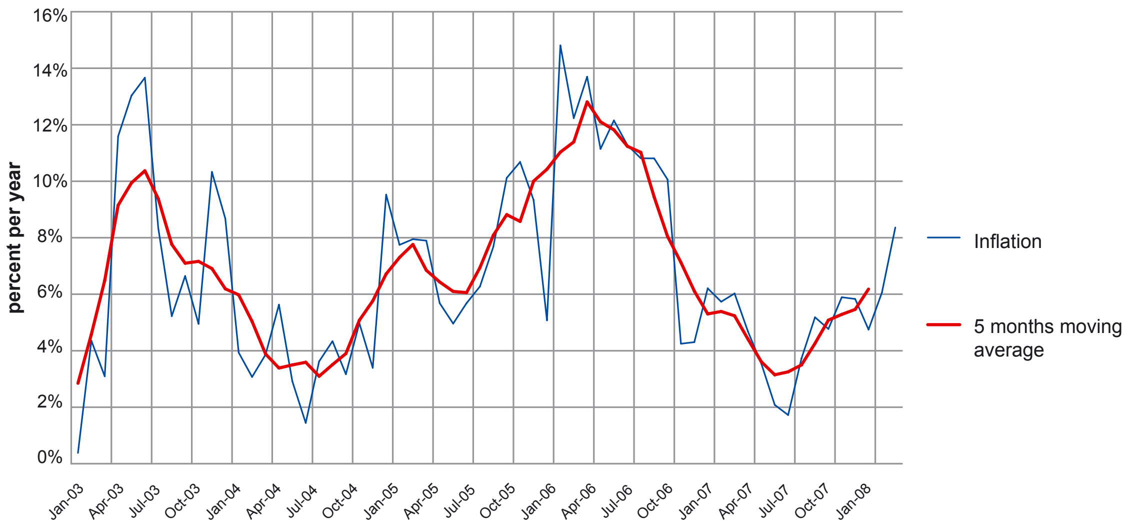


Source : Authors calculation on the basis of CBS data

December (both measured on the right hand scale). Red bullets show the CPI itself, measured on the left-hand scale.

One of the advantages of the December to December measure of inflation is that it may be observed not just in December, but for every month, thus allowing us to follow inflation trends. As a matter of fact, one may also observe inflation from January to January, from February to February, and so on. The monthly observation of inflation, with prices of a given month compared to prices the same month a year ago, is represented on Graph 1.3.

Graph 1.3
Trend of inflation 2003-2008, percent per year
(month to the same month of previous year)



Source : Authors calculation on the basis of CBS data

Unlike graph 1.1, the blue and red curves do not represent levels of prices, but the growth rates of price levels. Those rates are yearly, for instance May 2008 to May 2007 etc. The red curve (moving average) is simply a way to smooth the volatile blue line (which is the actual one).

However, if we take a closer look at the blue line over the last months on the right, we see that inflation went from a low in June 2007 at 1% to much higher levels in January and February 2008. Inflation reached approximately 5% in December 2007, 7% in January 2008 and 9% in February 2008.

This trend is probably going to accelerate further in 2008, both because of the inflation drive on world market commodities and because of the price adjustments realised or expected in Syria. Despite the seasonal decrease on prices of fruits and vegetables which one may expect from March or April, higher prices on *mazout* and expected wage compensations promised to public sector employees will push inflation upward during the year, and it is not excluded that Syria comes back to such inflation rates as in 2003-2006, or more. In respect to inflation, 2007 was a year of exception.

2) GROWTH REMAINS ON TRACK

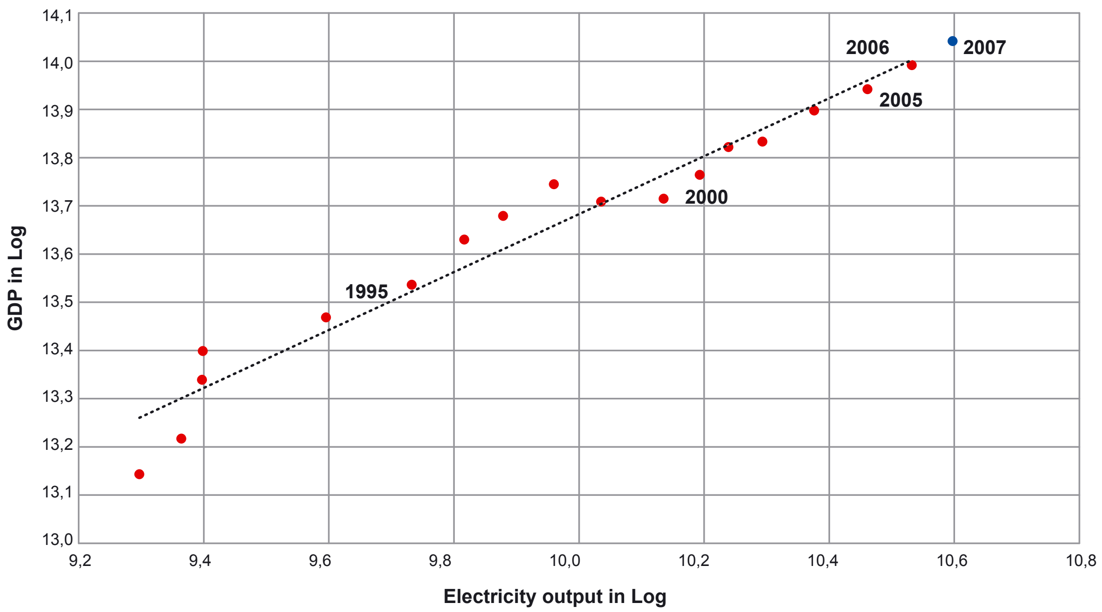
The officially released figure for GDP growth in 2007 is 6.5%, compared to 5.1% in 2006 and 4.5% in 2005. Growth may be computed by two alternative methods in order to check whether this posted performance is realistic: the so-called “electricity method” and the recalculation of GDP through the income method. The income determination of GDP is presented in more details in Chapter 2, together with a presentation of 2006 National Accounts; it leads to a growth rate of 5.7%, based – inter alia – on a slightly decreasing oil production (380 thousands bpd against 400 in 2006) and an average price of Dubai oil of 68.4 dollars per barrel (against 61.4 in 2006).

As for the determination of GDP growth through the electricity output method, we use the well-known assumption of a constant elasticity of total production with regard to electricity consumption. In the case of Syria, we are forced to assume that electric power consumption is in proportion with electric power production. This assumption amounts to say that losses are a constant share of production (exports and imports are also neglected). Graph 1.4 compares GDP and electric power output from 1990 to 2006. Both magnitudes are measured in logarithms, in order to determine the elasticity of GDP to electricity as a constant.

Graph 1.4 shows a strong relationship between GDP growth and electricity production. By regressing the (Log of) GDP on the (Log of) electricity production over the past 17 years, we are able to determine the real GDP in 2007 on the basis of electricity production in that same year. So doing, we obtain a growth rate of 5.1%, close to the 5.7% growth rate resulting from the other method of approximation.

Estimating the GDP growth rate is always a shot in the dark. Our calculations lead to a growth rate of 5 to 6% for 2007. Although it is slightly lower than the CBS estimate, such a performance is evidence of the continuation of the growth episode that started in 2004, after significant reforms were implemented. Whether strong growth remains sustainable will depend on further liberalisation reforms (allowing further limitation of oil subsidies), as well as on the worldwide economic situation. Moreover, the economic boom has come with a burden of growing social inequalities. As a result, it is necessary to provide better protection for the poorest and most vulnerable part of the population, as well as to improve governance in the public sector (including curbing corruption).

Graph 1.4
GDP compared to electricity output in Log



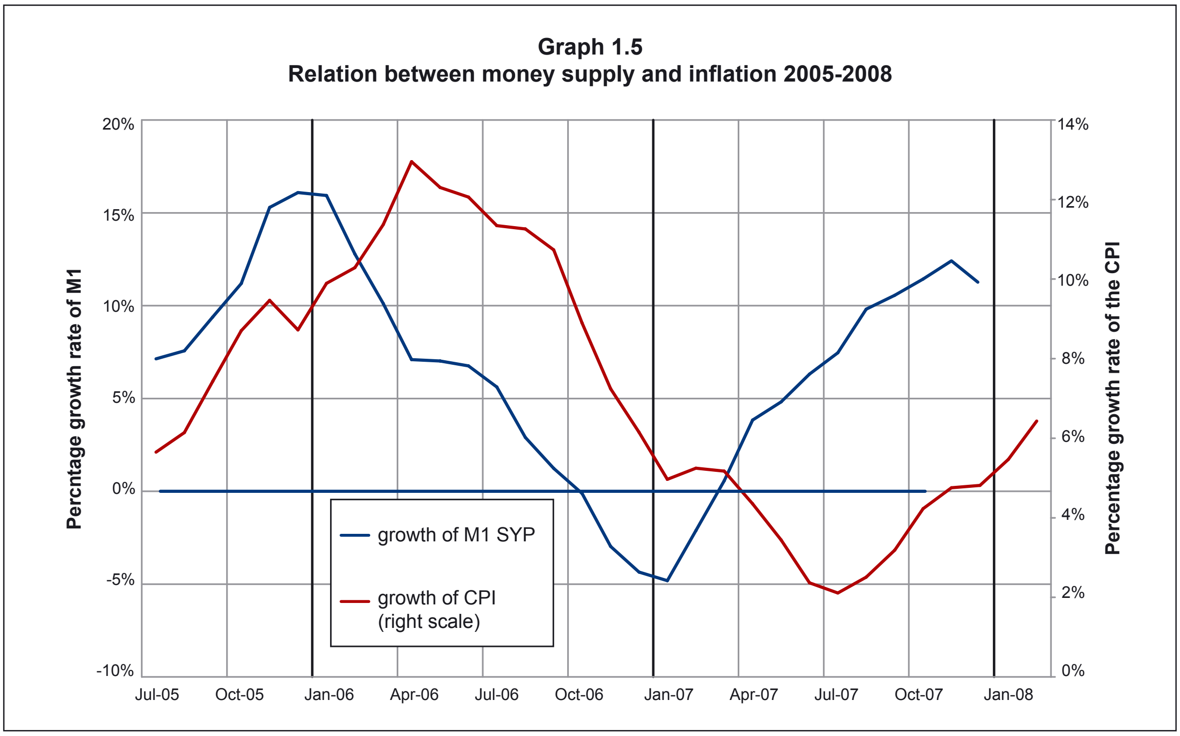
Source : Authors calculation on the basis of CBS and Ministry of Electricity data

3) MONEY-DRIVEN INFLATION?

Throughout 2006, the growth rates of money supply – defined as M1, or cash in circulation plus demand deposits in Syrian pounds – have been decreasing. They even became negative during the last quarter of 2006, meaning that money supply was not just stabilised, but it decreased in nominal terms. That trend reversed in 2007: the growth rates of M1 went back up in January, then became positive in March, and crossed the 10% threshold in August. Graph 1.5 shows (blue curve) the evolution of the growth of money supply until November 2007 (last figure available). In order to level the curve, three-month moving averages have been used.

What is remarkable is that the fluctuation of prices mirrors the fluctuation of M1 money supply rather closely. The red curve on Graph 1.5 has been built the same way as the money curve, using three-month moving averages of the CPI. Oddly enough, the inflation curve matches the money supply curve with a 4-to-6 months delay. That phenomenon was already brought up in the previous issue of SETB, as attention was drawn on the risk that higher money supply growth would translate into higher inflation rates.

Our forecast has now been confirmed by observation. Of course, there are many causes for inflation and the movement of prices cannot be entirely explained by the quantity of money available. In particular, a growing economy needs more money, just as a car needs more fuel to keep moving forward. The ongoing price surge on world commodity markets



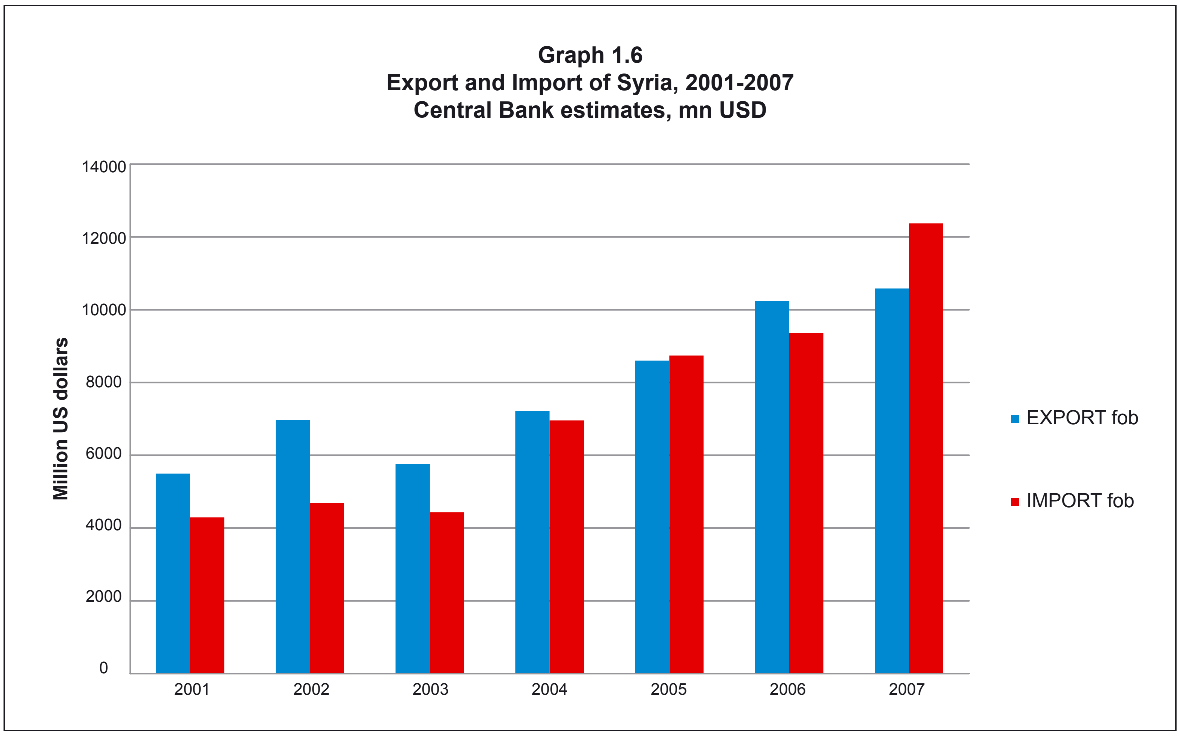
Source : Authors calculation on the basis of Central Bank of Syria data

(energy, food) is bound to have an impact on Syrian inflation; still the mere observation of facts revealed by Graph 1.5 is puzzling. The explanation for that might be found in a strong relationship that prevails in most economies of the world: as long as the velocity of money remains constant, total money supply should keep in constant proportion to the total value of production. That means that the growth rate of money supply should approximately equal the sum of the growth rate of prices and the growth rate of real GDP. That rule holds as long as prices are relatively free, which appears to be more or less the case in Syria since 2004. Unfortunately, monthly indicators for GDP and industrial output are unavailable, thus it is impossible to test that assumption precisely or to check that money velocity remains constant over time.

4) AN URGENT NEED TO BOOST EXPORT AND REDUCE IMPORT

Foreign trade is one of the weaknesses in Syrian statistics. There are several estimates of export and import, and referring to products composition or to geographical destinations only brings more uncertainty into the picture. Usually, foreign trade estimates may be verified through "mirror statistics", i.e. through transactions registered by partner countries. This is what the IMF does with its well-known Direction of Trade Statistics publication. Unfortunately, the figures presented for Syria in that publication look rather strange, especially for the year 2004. Other estimates provided by institutions using mirror statistics all differ from one to another. As it happens, the most reliable figures for Syrian foreign trade are issued by the Central Bank of Syria in its Balance of Payments, as presented on graphs 1.6 and 1.7. Let's note that the Balance of Payments keeps track of both export and import "free on board" (fob), as transport and insurance costs – usually included in import statistics – are imputed to the services balance.

Graph 1.6 shows the evolution of exports and imports "fob" from 2001 to 2007. Figures start rising from 2004 onwards, the year Syrian economy really opened up to international



Source : Authors calculation on the basis of CBS data

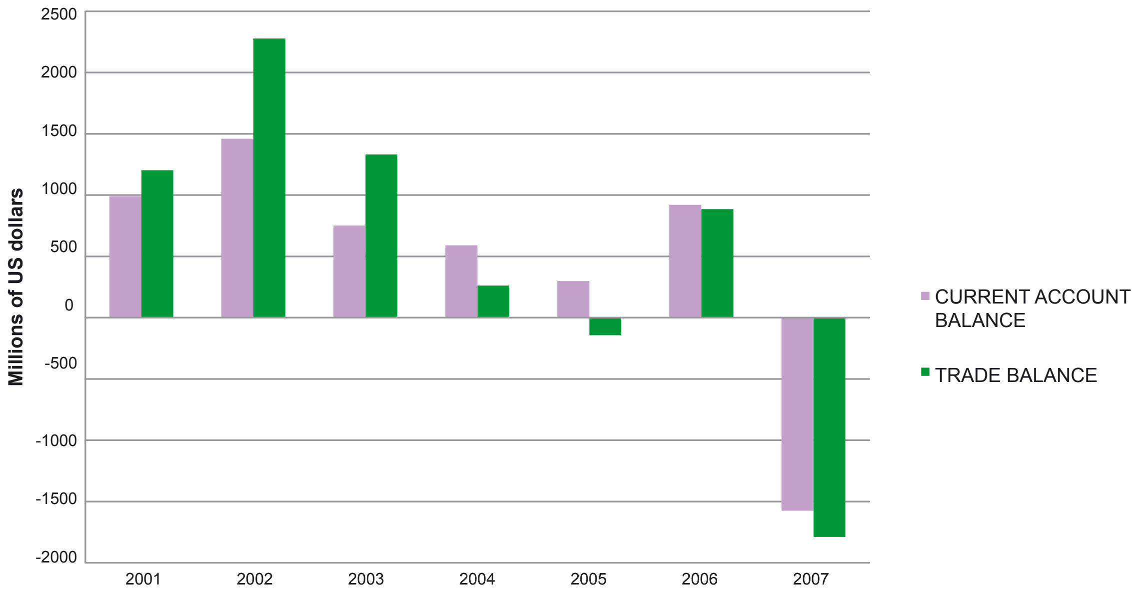
trade. As in previous years from 2004, both exports and imports grew in 2007. However, as shown by Graph 1.6, exports rose by a mere 3%, whereas import went up a remarkable 32%.

High rates of growth of export and import are not exceptional in Syria. Export grew by 25% in 2004 and by 19% in 2005 and 2006. Such figures are typical of an economy in the process of trade liberalisation, and there are many countries following that same pattern. Import grew by 57% in 2004 and by 26% in 2005. There was a relative slowdown in imports in 2006 (+7%), which might be part of the explanation for the high performance registered in 2007. As for exports, the performance of 2007 might also be just a temporary slump. The convergence of a spectacular progress of import together with a slower growth in exports might thus explain the strong deterioration of the trade balance, featured on Graph 1.7.

However, such a rosy picture is doubtful. Much of the trade balance of Syria relies on oil: in recent years, oil accounted for approximately 4 billion USD every year (higher prices made up for decreasing output volumes), but oil import has been growing spectacularly from next to nothing in 2003 to 1 billion in 2004 to 2 billion in 2005 and 2006, and eventually to close to 5 billion in 2007. Until 2006, the quickly increasing private sector exports compensated for the increase in imports. In 2007 however, private sector exports did not rise as much as in the previous years. In order to narrow the trade balance gap, both a boost in private sector exports and a cut down on oil imports are required.

Boosting private sector export can only be achieved by improving productivity and reducing production and distribution costs. There is no point in counting on a depreciation of the Syrian pound since that depreciation already took place vis à vis the euro, as a result of the dollar fall. In turn, reducing costs requires innovation, investments and further liberalisation of the economy. As for cutting down on oil import, the solution is as simple as this: ending the absurd system where fuel is bought domestically at a subsidised price and then smuggled out of the country to be sold at the market price.

Graph 1.7
Current Account Balance and Trade Balance
(Central Bank estimates, mn USD, 2001-2007)



Source : Authors calculation on the basis of CBS and Central Bank of Syria data

5) TRANSFORMATION OF THE EMPLOYMENT STRUCTURE

This last section addresses the situation of the labour market in Syria. Relatively detailed information on the labour market is available from the Labour Force Survey conducted on a quarterly basis by the Central Bureau of Statistics. Presently only the first three quarters of 2007 have been compiled and results are still being processed. Moreover, the Survey is not designed to produce quarterly results and its validity should be appreciated on a yearly basis. The data presented the next page in table 1.1 should thus be taken cautiously and should not be interpreted as showing quarterly trends. As an alternative, we suggest considering the average of the three quarters of 2007 and comparing them to 2005 and 2006 final yearly results.

The table is built the following way: the starting total is the total population aged 15 and over. This population is growing approximately by 2% yearly, and it is understandable that one of the most challenging problems facing Syria is employment. The total population of adults is itself divided into two parts: the labour force (approximately 45%) and the population out of the labour force (55%). *(See table on the next page)*

The population out of the labour force includes several major categories: housekeepers (mostly ladies), the youth (students), aged persons (retirees) and disabled. One category has been cancelled in the 2007 Survey: persons “temporary not working”, which has been split between other categories of the population out of the labour force and unemployed.

The labour force itself comprises two categories: the population having an occupation and the unemployed. In compliance with international standards, the labour force includes the unemployed, defined as the persons who are actively looking for a job, who are available for immediate work, and who have not worked more than one hour during the week before

Table 1.1
Structure of the population aged 15 and more
(thousands persons, provisional data)

	2005	2006	2007 Q1	2007 Q2	2007 Q3
Total population aged 15 and more	**11,373**	**11,609**	**11,785**	**12,234**	**12,128**
Persons working for a wage	2,657	2,699	2,710	2,632	2,698
Other persons having an occupation	2,036	2,181	2,248	2,411	2,201
Total population having an occupation	4,693	4,880	4,958	5,043	4,900
Unemployed, worked before	59	67	90	42	40
Unemployed, never worked before	353	365	361	358	440
Total unemployed	413	432	451	400	480
Labour Force	**5,106**	**5,312**	**5,409**	**5,443**	**5,380**
Temporary not working	163	116	-	-	-
Housekeepers	3,448	3,660	3,834	4,075	3,967
Students	1,710	1,748	1,817	1,967	1,900
Rentiers ("moktafi")	292	186	173	173	231
Retired	233	279	282	297	279
Disabled	422	316	266	277	370
Others	0	0	3	2	0
Out of the Labour Force	**6,267**	**6,305**	**6,374**	**6,789**	**6,748**
Unemployment rate	8.1%	8.1%	8.3%	7.3%	8.9%

Source : Authors calculation on the basis of CBS data

the survey. The unemployment rate is defined as the ratio of the unemployed to the total labour force. It stands at 8.2% if we consider the average of the available three quarters. In 2006, the matching quarterly figures for the three first quarters were 9.8%, 8.5% and 7.5%, leading to an average of 8.6%. This comparison points to an improvement on the labour market, even though the performance of the third quarter of 2007 looks disappointing when compared to its counterpart in 2006.

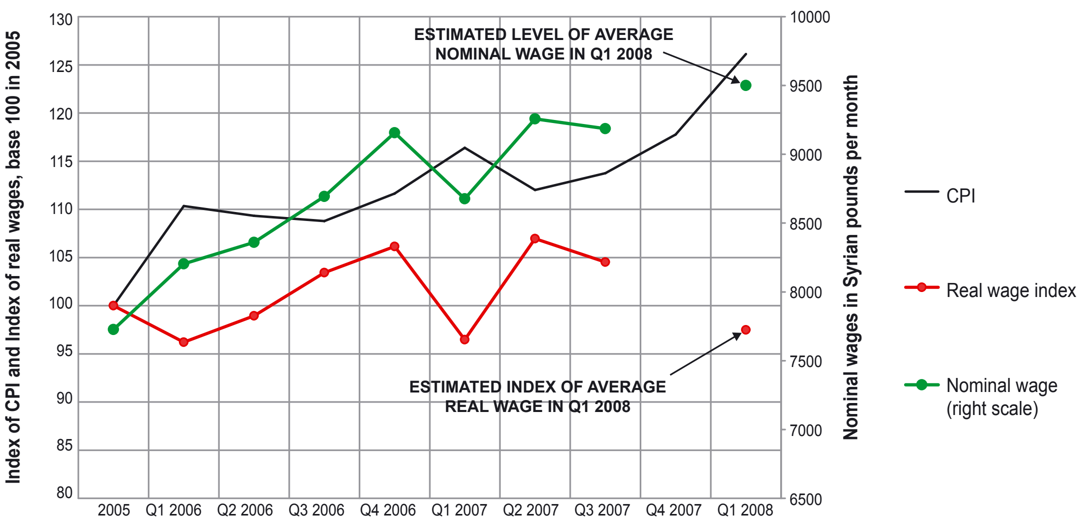
As for the population with an occupation, there is a striking stability in the number of people working for a wage (at approximately 2.7 million) and a relative increase of the "other persons having an occupation", mostly self-employed and entrepreneurs. On average for the three first quarters of 2007 (compared with the same period in 2006), that population has risen by 7% (or 150 thousands persons), absorbing the largest part of the "new" population aged 15 and over. This should be interpreted as a sign of dynamism of the Syrian economy and society.

6) EVOLUTION OF NOMINAL AND REAL WAGES

One of the dispositions of the current price reform is to link expected price rises on *mazout* (diesel fuel) {and already implemented price rises on electricity, water and *benzin*(gasoline)} with a compensation not only under the form of coupons (quotas sold at a fixed price together with freeing the market for above quotas), but also with wage increases in the public sector. It is planned to implement together the partial liberalisation of *mazout* prices and a wage increase of 25%.

There is no easily available statistics on average wages in Syria. Graph 1.8 tries to fill this gap using data from the Labour Force Surveys, which are delivered on a quarterly basis,

Graph 1.8
Quarterly evolution of the real wage since 2005
based on Labour Force Survey and CPI



and a CPI recalculated on the same basis. Data are available for nominal wages only until the third quarter of 2007; however we represented the evolution of CPI until the first quarter of 2008. Nominal wages (public and private taken together) reached probably 9,500 SYP in the first quarter of 2008, meaning that the real wage has gone back below its 2005 level. It seems therefore legitimate to increase nominal wages in order that the public sector employees have their share of the growth performance of the Syrian economy. If such a measure is adopted, it will trigger more inflation, which should be considered the price to be paid for gradual price liberalisation.

CHAPTER II

MACRO-ECONOMY AND THE REAL SECTORS

The purpose of this Chapter is to update the presentation of National Accounts as compiled by the Central Bureau of Statistics until 2006 (Section 1), and to draw a picture of the GDP and its structure for 2007, using the income method (Section 2). As shown in the previous issue of SETB, the income method of calculating the nominal GDP is the most simple. It leads to results that are not very different from those obtained by the CBS through different methods (mostly the production method, and marginally the method of end-uses).

SECTION 1
NATIONAL ACCOUNTS 2000-2006

National Accounts in Syria are limited to a calculation of the GDP by the production method, with a distribution of the overall product by main end-uses. There are no accounts by institutional sectors, and research on building an input-output table is still in progress. Some inconsistencies might be easily corrected. For instance; SETB 1 pointed to the fact that the construction sector, one of the fastest-growing sectors in Syria in recent years, had a contribution to GDP that is widely below what it should be. Table 2.1 shows that the construction sector has a value added of 45 billion SYP in 2006, whereas the transport and telecommunication sector had 192 billion SYP. But that same year, there were 395 000 persons working for a wage in the construction sector, and 180 000 in the transport sector; there were 213 000 self-employed in the construction sector and 144 000 in the transport sector. How is it possible that a sector hiring twice as many people has an added value four times smaller? Since productivity in both sectors is approximately the same and their technological and equipment levels are similar, the estimated output in the construction sector is obviously incorrect.

The Central Bureau of Statistics runs GDP accounts both in current and in constant prices. Estimates in constant prices are used in particular to measure the growth rate of the economy. For constant prices, the year 2000 is taken as base: all sales and purchases of productive units are priced at 2000 prices. However, this poses a serious problem since, in 2000, energy prices were not far from a historical low. Using those prices to estimate the oil sector contribution to GDP will of course lead to a significant underestimation. In turn, the costs of energy-intensive sectors will be under-estimated and the added value of these sectors will in turn be over-estimated. If only prices of each previous year were used, the contribution of all sectors to the growth of the Syrian economy would dramatically change, and so would the overall growth of the real GDP.

With those reservations in mind, we will review the presentation of GDP estimates in both systems of prices.

1) PRESENTATION IN CURRENT PRICES

The calculation of the GDP in current prices is not flawed with the limitations of constant prices estimates. The CBS begins by estimating the total output of each industry and then takes intermediate consumptions off that total in order to get the added value by sectors. Results are presented in Table 2.1.

Table 2.1
GDP of Syria at market prices by sectors of production and final uses, in current prices, billion SYP

	2000	2001	2002	2003	2004	2005	2006
Agriculture	223.7	246.4	254.2	264.8	281.2	305.3	347.4
Industry including mining	272.5	264.6	265.1	259.7	332	418.5	466.9
Construction	28.9	28.8	31.1	39.4	36.2	40.3	45.4
Trade	134.4	171.5	178.8	177.7	221.4	300.0	349.4
Transport & communications	113.8	122.6	135.0	151.0	141.6	160.8	192.5
Banking & insurance	32.4	31.6	33.5	38.7	53.3	74.0	103.4
Social and personal services	21.2	23.0	25.3	28.2	31.4	37.2	42.5
Government services	76.4	85.0	92.9	107.0	154	159.5	175.8
Non profit / non-govt services	0.4	0.5	0.6	0.6	0.7	0.8	0.9
Customs duties					22.6	22.9	17.2
Imputed bank services					-11.2	-28.5	-32.5
TOTAL GDP	**903.9**	**974.0**	**1016.5**	**1067.1**	**1263.2**	**1490.8**	**1708.9**
Final private consumption	572.8	591.7	605.2	643.6	810.0	993.1	1127.4
Final government consumption	112.2	121.7	124.8	144.1	197.9	206.6	218.8
Gross fixed capital formation	156.1	198.2	206.6	248.8	301.0	359.9	365.7
Public sector	99.3	117.2	125.2	160.1	141.3	167.2	188.4
Private sector	56.8	81.0	81.4	88.6	159.7	192.7	177.2
Machinery & equipment	79.4	114.9	120.1	134.0	153.9	187.2	188.5
Building & construction	76.7	83.3	86.5	114.8	147.1	172.7	177.2
Inventory change					-81.1	-98.3	-66.3
Export of goods & services	326.7	359.3	404.1	346.0	512.4	618.3	684.6
Import of goods & services	-263.9	-296.9	-324.2	-315.1	-477.2	-588.9	-621.4
TOTAL GDP	**903.9**	**974.0**	**1016.5**	**1067.4**	**1263.0**	**1490.7**	**1708.8**

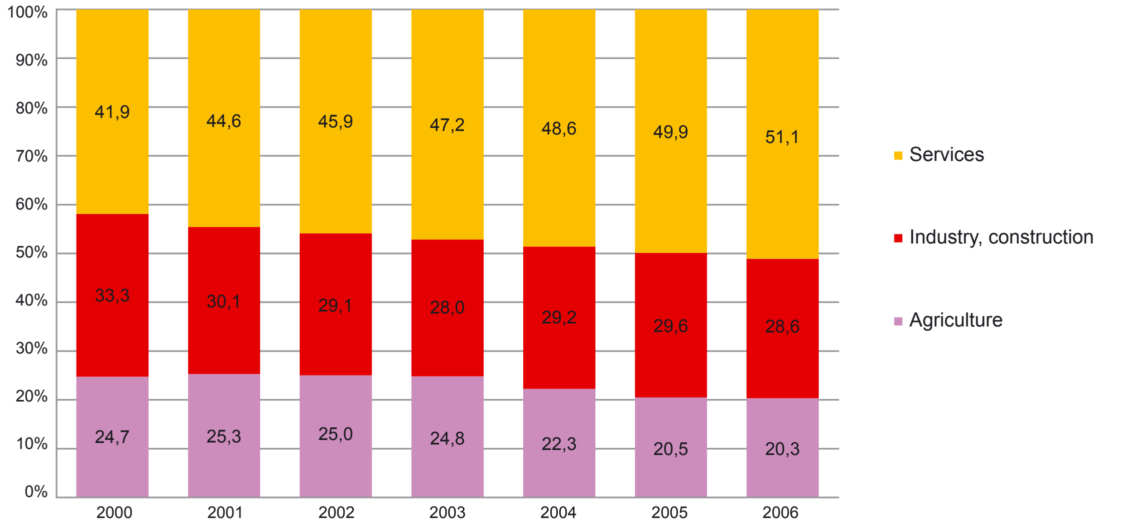
Source: CBS Abstract. Differences in totals are due to rounding errors.

The information used for the determination of each sector added value is supplied to the CBS by clusters of companies in a given sector, or by branch ministries. These entities directly calculate gross output, intermediate consumption and net output (added value) for the sector they oversee. The CBS issues methodological instructions regarding the selection of relevant indicators. At the same time, various sources provide the CBS with information on the end-uses components of the GDP, as compiled in the lower part of Table 2.1. Inventory change is featured mostly as a balancing item.

Graph 2.1 shows the evolution of the sector structure of the GDP from 2000 to 2006. Clearly, there is an increase of the share of services, from 42% of the GDP to 51%. On the 9 points of percentage gained by services, 5 come from a decrease in the agriculture share, and 4 from the shrinking share of industry and construction.

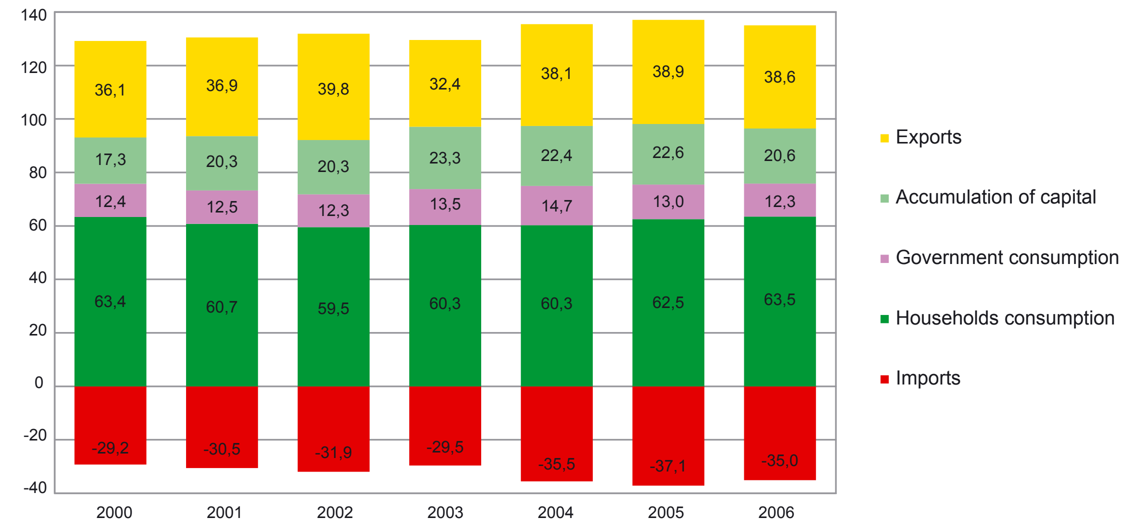
Graph 2.2 shows the breakup of GDP end-uses. The lengths of the bars do not add up to 100%, because imports are counted negatively: in 2006, for instance, the total of positive

Graph 2.1
Structure of the GDP by sector of production in percent of total GDP



Source: CBS Abstract

Graph 2.2
Structure of the GDP by final uses in percent of GDP (excl. change in inventories)



Source: CBS Abstract

end-uses reaches 135%, as imports (-35%) should be deducted from that total.

The largest share of end-uses is household consumption (63.5% in 2006), followed by exports (38.6%) and imports (-35%). Gross accumulation of fixed capital accounts for 20.6%, and government consumption for 12.3%. Let's note that inventory change is excluded from these percentages. Among recorded components, household and government consumption remain relatively stable over the period. Export and import as well as gross investment (accumulation of capital) follows a growing trend, even if the year 2006 shows a decline.

2) PRESENTATION IN CONSTANT PRICES

Table 2.2 has the same structure as Table 2.1, but in prices of 2000. As has been stated earlier, the use of 2000 prices may give a distorted picture of the structural evolution of Syria. This is due to the spectacular change in oil prices during the period of observation, from 26 US dollar per barrel in 2000 to 61 in 2006 (average yearly price at Dubai). This price declined in 2001 and 2002 and came back close to 26 USD in 2003, and then started growing quickly to 35 and 49 in 2004 and 2005.

Table 2.2
GDP of Syria at market prices
by sectors of production and final uses,
in constant prices of 2000, billion SYP

	2000	2001	2002	2003	2004	2005	2006
Agriculture	223.7	241.9	261.0	254.1	246.3	265.5	292.5
Industry including mining	272.5	275.1	265.0	248.9	295.4	293.8	295.9
Construction	28.9	28.8	28.9	39.2	32.5	36.4	39.7
Trade	134.4	149.0	168.5	163.9	194.6	210.1	221.8
Transport & communications	113.8	121.5	132.5	147.4	114.5	125.5	138.4
Banking & insurance	32.4	31.8	33.5	37.7	47.1	56.6	58.2
Social and personal services	21.2	22.7	27.2	27.5	27.6	31.3	35.6
Government services	76.4	78.9	89.2	98.4	117.7	120.8	124.4
Non profit / non-govt services	0.4	0.5	0.6	0.6	0.5	0.6	0.7
Customs duties					19.5	17.5	11.9
Imputed bank services					-9.6	-23.2	-26.5
TOTAL GDP	**903.7**	**950.2**	**1006.4**	**1017.7**	**1086.1**	**1134.9**	**1192.6**
Final private consumption	572.8	579.8	599.7	641.0	712.4	807.4	867.2
Final government consumption	112.2	114.4	120.0	132.4	156.1	159.1	161.3
Gross fixed capital formation	156.1	178.1	196.4	234.8	281.4	309.6	329.9
Public sector	99.3	115.9	121.1	147.1	135.8	146.7	164.9
Private sector	56.8	62.3	75.3	87.7	145.6	162.9	165.0
Machinery & equipment	79.4	123.4	116.2	128.6	147.7	161.3	203.1
Buildings & construction	76.7	54.7	80.2	106.2	133.7	148.3	126.8
Changes in inventories					-27.0	10.1	-166.6
Export of goods & services	326.7	369.1	401.3	307.7	381.1	375.4	528.5
Import of goods & services	-263.9	-291.2	-311.0	-298.3	-418.1	-526.8	-527.7
TOTAL GDP	**903.9**	**950.2**	**1006.4**	**1017.6**	**1085.9**	**1134.8**	**1192.6**
Growth rate of the GDP		5.1%	5.9%	1.1%	6.7%	4.5%	5.1%

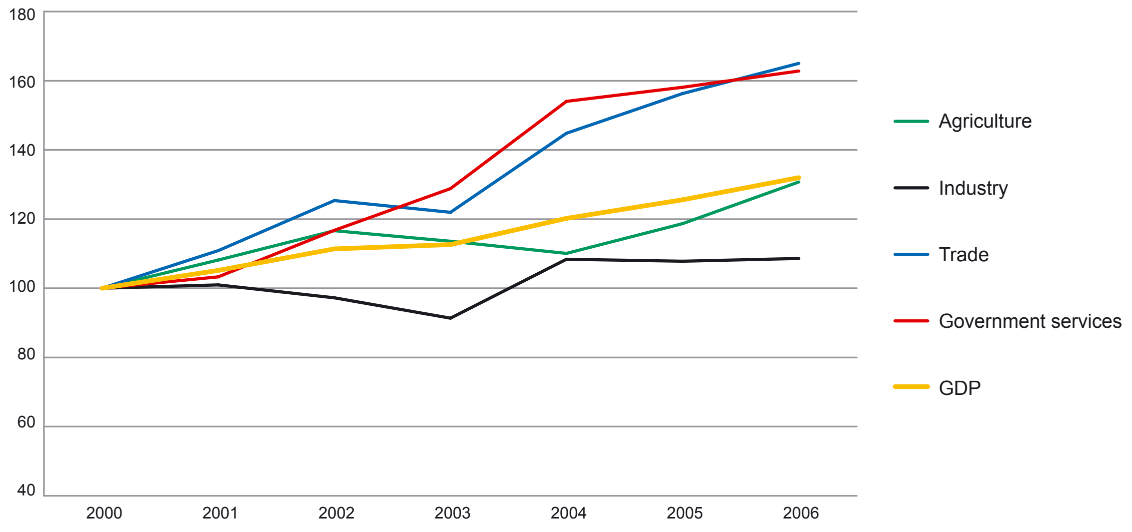
Source: CBS Abstract

Such fluctuations affect the profitability of sectors in current prices, thus their added value, depending on their relative energy intensity. Using constant prices of 2000 amounts to writing off those changes in order to answer the question: “what would be the GDP of Syria if oil price was 26 dollars instead of 61”? This is of course different from determining the growth rate of the real GDP. When price changes are substantial, a more accurate picture of real growth is obtained by re-basing the prices every year, for instance using the prices of 2000 to estimate real GDP growth in 2001, using 2001 prices to estimate the real growth in 2002, and so on. Section 2 of this chapter addresses that question in further details.

Graph 2.3 below takes figures from Table 2.2 and shows the evolution of some sectors added values over time (starting from the same basis 100 in 2000). The yellow curve in the middle represents the total real GDP. Two sectors, trade (together with restaurants and hotels) and government services grow more than the GDP; over the whole period, agriculture grows approximately at the same rate as the GDP, whereas industry appears relatively stagnant.

It is possible to compare the evolution of outputs with available employment figures. Between 2003 and 2006, total employment in industry has increased by 19% and agriculture employment has decreased by exactly the same percentage 19%. For industry, the figure matches exactly the evolution of output recorded on graph 2.3 over the same time frame. However, output in agriculture rose by 15% over 2003-2006 which would imply a spectacular improvement of productivity (by 42%). Further research is necessary to explain those discrepancies. Employment in government services increased by 10% in 2004-206, and the corresponding output rose by 6%. Even if employment is not the only growth factor, those counter-checks are useful because they may point in certain cases to inconsistencies in the statistical methodology.

Graph 2.3
Evolution of sectors contributions to GDP
constant prices, base 100 in 2000

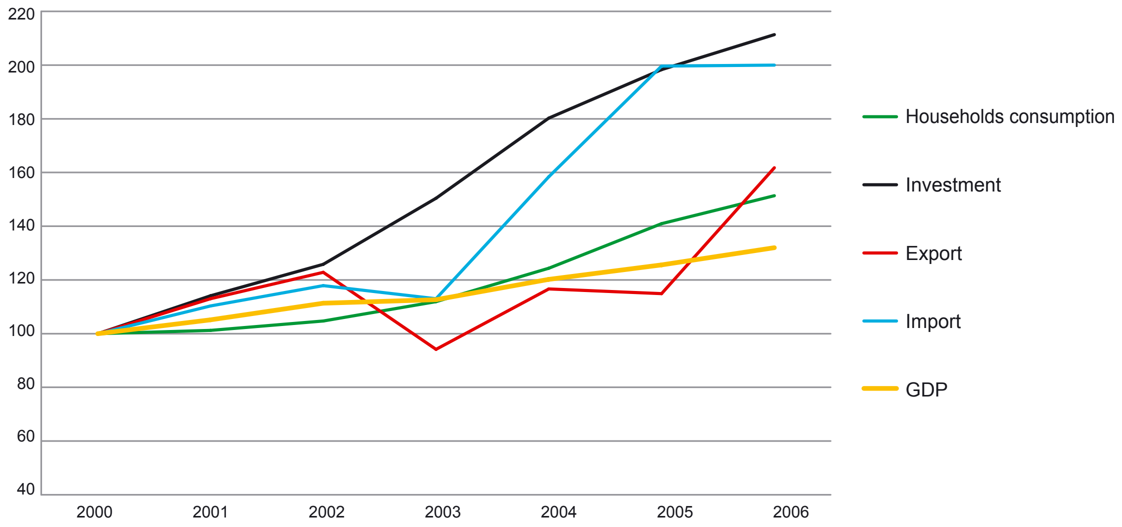


Source: CBS Abstract

Graph 2.4 features the evolution of GDP main end-uses. All components appear to be higher than the total GDP, which might be seen as a paradox. In fact, import is a negative component of end-uses, balancing all other positive components. Household consumption grows at a slightly higher rate than total GDP. The most conspicuous increase is investment, which more than doubled (in constant prices) between 2000 and 2006.

A closer look at investment on Table 2.2 shows that Gross Fixed Capital Formation may be separated in two ways. First, one may draw a line between public and private sectors: public sector investment was predominant between 2000 and 2003, then private sector took the lead in 2004 and 2005, but in 2006 the two sectors levelled off. Second, one may separate equipment and construction parts of investment: over the whole period, machinery

Graph 2.4
Evolution of uses of GDP
constant prices, base 100 in 2000



Source: CBS Abstract

and equipment represented the largest share of total investment; however, as said earlier, construction might be under-estimated in those accounts. Let's note that construction of housing is a component of gross investment, and that the number of square metres built in 2006 is 9 times higher than in 2000, an increase that is not reflected in the construction share of gross investment.

SECTION 2
RECALCULATION OF THE GDP FOR 2007

As we did for section 1, we suggest that the reader refer to the first issue of SETB in order to get the detailed methodology of calculation of the GDP in current prices, using the income method. Recall that the estimates given below are very rough: they would need for instance detailed treatment of various industries contributions, fed by more precise information. Thus, the results presented below should be considered mere order of magnitude rather than exact aggregates.

Let's note that there are four main types of income to take into account for that exercise: employees' compensation, gross mixed income, gross operating surplus, and net taxes on production and import. We review those four components, with slight adjustments, for years 2004 to 2006, and give new estimates of the 2007 GDP. A fifth paragraph presents the overall results and compares them with official GDP statistics. The final paragraph offers an alternative way for calculating the GDP deflator in order to determine the real growth rate of the economy.

1) EMPLOYEES COMPENSATION

Table 2.3 shows the calculation of employees' compensation, which concerns that part of the population which is working for a wage. Figures are taken from the Labour Force Survey of the CBS. Social contribution and taxes are added on the basis of existing regulations.

Table 2.3
Employee compensations

	2004	2005	2006	2007
Number of persons working for a wage	2,609,698	2,657,430	2,699,159	2,645,195
Average wage net (SYP / month)	6,815	7,727	8,693	9,232
Total wage fund net (bn SYP)	213.4	246.4	281.6	293.0
20% charge social contributions, taxes (bn SYP)	42.7	49.3	56.3	58.6
Total compensation of employees (bn SYP)	**256.1**	**295.7**	**337.9**	**351.7**

Source: authors calculation on the basis of CBS data

2) GROSS MIXED INCOME

Table 2.4 shows the three components of Gross Mixed Income, i.e. the income that households draw from their productive activity as entrepreneur. It is made up of (i) the agricultural production which is produced by households for their own use (estimated on the basis of an assumption of the average productivity in family plots and gardens); (ii) the income derived from renting homes: those include both rentals in money terms, when there is really a payment received from another household, and “imputed” rentals, i.e. rentals that landlords fictitiously pay to themselves when they are the owners of their home*; (iii) the third and most important part of gross mixed income is the income derived from small-scale individual and family businesses. This concerns self-employed, which are quite numerous in Syria: approximately 1.45 million persons, plus 450 thousand family workers, for a total of 1.9 million persons, compared to 2.7 million of persons working for a wage. We estimate their current income on the basis of an assumption of the corresponding average income of small-scale businesses in the base year (2004), and then raising that base income with the consumer price index. Overall, the 2007 Gross Mixed Income for Syria is 637 billion SYP, or nearly twice as much as employee compensation. *(See table on the next page)*

3) GROSS OPERATING SURPLUS

Table 2.5 shows Gross Operating Surplus and its components. An important specificity of Syria is that it is an oil country, which derives significant revenues from that sector. Those revenues, especially in a globalized economy, are much higher than the value created by the basic factors of production (labor and capital), making that sector a source of rent. The added value of that sector should thus be determined in a specific way, assessing the gross output of the oil sector, from which an estimate of average costs is then deducted.

The same method is applied to the financial sector. For the remaining enterprises, gross operating surplus (or profit) is determined by applying an average profit per worker to the number of employees working for a wage in corporations. This is especially a rough

** Note that approximately nine out of ten Syrian households are owner of their home.*

Table 2.4 Gross Mixed Income	2004	2005	2006	2007
Self consumption in agriculture				
Number of persons occupied in agriculture	814,845	957,997	972,807	980,664
Average productivity in agriculture (th SYP/year)	515	472	483	512
Average productivity on family plots, th SYP/year	39.6	36.4	37.2	39.4
Total output for personal use (bn SYP)	32.3	34.8	36.2	38.6
Rentals of houses, including imputed				
Number of households (mn)	3.0	3.1	3.2	3.3
Average rental per home (th SYP/year)	37.0	39.7	43.7	45.7
Total rentals, including imputed (bn SYP)	111.0	122.8	139.1	149.7
Small-scale business of self-employed				
Number of self-employed in LFS	870,951	1,225,907	1,293,082	1,453,833
Average net income of a self-employed (th SYP)	250.0	268.5	295.4	308.6
Total income from small-scale business (bn SYP)	217.7	329.2	381.9	448.7
Total Gross Mixed Income (bn SYP)	361.0	486.8	557.2	637.1

Source: authors calculation on the basis of CBS data

treatment; there should be more detailed accounting of productivity in various sectors. For that last component, we get a profit of 551 billion SYP, which is half of the total gross operating surplus of the three components taken together (1110 billion SYP).

Of course, a more precise calculation should take into account that various industries – in particular agriculture versus industry – have different labour productivities. In the same time, exogenous factors – such as bad crops due to climate, or world price changes, like in 2008 – might change the nominal productivity over time. That would modify the overall result of gross operating surplus. More detailed calculations will be proposed in the next issue of SETB.

Table 2.5 Gross Operating Surplus	2004	2005	2006	2007
Oil rent				
Output of crude oil in million cubic metres	25,721	24,494	22,933	22,053
Price of Dubai crude oil on world mkt, USD/barrel	33.64	49.35	61.40	68.40
Estimated profit per tonne in Syria (USD per tonne)	204	313	396	444
Total profit of oil extraction (bn SYP)	225	329	389.6	437.8
Financial sector				
Value added of the financial sector (bn SYP)	50.5	73.7	103.4	130.0
Wages paid in the financial sector (net, bn SYP)	4.5	4.8	4.6	7.0
Gross wages paid in the financial sector (bn SYP)	5.8	6.2	5.9	9.0
Gross surplus of the financial sector (bn SYP)	44.7	67.5	97.5	121.0
Standard corporations				
Total working for a wage in corporations	1,554,167	1,565,107	1,589,412	1,532,230
Average nominal productivity in corporations	1.000	1.147	1.323	1.440
Avg. profit per worker in corporations, th SYP/year	250.0	286.9	330.6	359.9
Total profit of standard corporations (bn SYP)	388.5	449.0	525.5	551.5
Total gross operating surplus (bn SYP)	**658.5**	**845.3**	**1,012.6**	**1,110.2**

Source: authors calculation on the basis of CBS data

4) NET TAXES ON PRODUCTION AND IMPORTS

The last income component of the GDP is government revenue, net taxes on production and import (to obtain net taxes, subsidies are deducted from "gross" taxes). However, not all taxes are included here: for instance, the income tax – whether on household income or private sector income – is not taken into consideration, because it's included in other components of the GDP (there is no need to deduct them from those components and add them to government revenue). Only taxes and subsidies on production and import have thus to be determined. Taxes of this kind are rather well documented in official budget data and may be drawn from there. Subsidies are more difficult to appraise

Table 2.6
Net taxes on production and imports

	2004	2005	2006	2007
Taxes on production and imports (bn SYP)	43.8	55.7	57.2	69.3
Subsidies on production and imports (bn SYP)	-49.7	-159.4	-247.2	-268.7
Net taxes on production and imports (bn SYP)	-5.9	-103.7	-190.0	-199.4

Source: authors calculation on the basis of CBS data

5) TOTALS AND COMPARISON

Table 2.7 draws the balance of all income components of the GDP and compares the total with the outstanding GDP presented by the CBS (see Table 2.1). The results are very close for the years 2004 to 2006. For the year 2007, the total GDP obtained using the income method is close to 1,900 whereas the primary official figure is 2,030.

Table 2.7
Comparison between calculated and official GDPs

	2004	2005	2006	2007
TOTAL CALCULATED GDP (bn SYP)	**1,269.8**	**1,524.0**	**1,717.7**	**1,899.6**
OFFICIAL GDP (current prices, bn SYP)	**1,263.0**	**1,490.7**	**1,708.8**	**2,030.0**
Official GDP in relation to calculated, %	99.5%	97.8%	99.5%	106.9%

Source: authors calculation on the basis of CBS data. Official GDP for 2007 is a provisional figure.

Table 2.8 presents the structure of GDP according to categories of income. The largest category is Gross Operating Surplus (58.4% in 2007). The second category is Gross Mixed Income (33.5%), and the third one is Compensation of Employees (18.5%). Net taxes on production and import are negative (-10.5%). Looking at the evolution of those shares from 2004 to 2007, one may note that Employee Compensation is on a decreasing trend, with a two percentage points drop, whereas Gross Operating Surplus and Gross Mixed Income are growing significantly, respectively by 6 and 5 percentage points.

The balance is reached thanks to the huge increase in (negative) net taxes, which are in fact (positive) net subsidies to be deducted from the other components.

Dealing with the key component of GDP, there are four large blocks to be considered: (i) the gross surplus of standard corporations (29% of total GDP in 2007); (ii) the gross mixed income of small-scale business activities (24% of the total); (iii) the oil-related rent (23%); (iv) employee compensation (18%).

Table 2.8
Structure of the GDP by type of income
(in percentage to total GDP)

	2004	2005	2006	2007
COMPENSATION OF EMPLOYEES				
Total compensation of employees	**20.2**	**19.4**	**19.7**	**18.5**
GROSS MIXED INCOME				
Self consumption in agriculture	2.5	2.3	2.1	2.0
Rentals of houses, including imputed	8.7	8.1	8.1	7.9
Small-scale business of self-employed	17.1	21.6	22.2	23.6
Total Gross Mixed Income	**28.4**	**31.9**	**32.4**	**33.5**
GROSS OPERATING SURPLUS				
Oil-related rent, gross	17.7	21.6	22.7	23.0
Gross surplus of the financial sector	3.5	4.4	5.7	6.4
Standard corporations total gross profit	30.6	29.5	30.6	29.0
Total Gross Operating Surplus	**51.9**	**55.5**	**59.0**	**58.4**
INDIRECT TAXES MINUS SUBSIDIES				
Net taxes on production and imports	**-0.5**	**-6.8**	**-11.1**	**-10.5**
TOTAL CALCULATED GDP	**100.0**	**100.0**	**100.0**	**100.0**
GDP in US dollars (bn USD)	25.4	30.5	34.4	38.8
GDP per capita in US dollars	1,417	1,668	1,835	2,022

Source: authors calculation on the basis of CBS data

6) GDP DEFLATOR AND GDP REAL GROWTH RATE

So far, we have concentrated on the nominal GDP. We propose now to "deflate" that nominal GDP in order to get an estimate of the real growth rate. Unlike the CBS methodology, we calculate a deflator (one can describe it as a price index of the GDP) according to the methodology presented in the first issue of SETB. Based on several price indexes (CPI, wholesale prices, wages, import and export prices), we calculate deflators for each end-use component of the GDP. Those component deflators are eventually averaged according to the weight of each end-use component of nominal GDP for the previous year. Basic information and results are presented in Table 2.9. *(See table on the next page)*

The two last lines of Table 2.9 show the GDP deflator as calculated with the above method, and the GDP deflator in the CBS National Accounts tables, as presented in Tables 2.1 and 2.2 (by comparison of GDPs in current and in constant prices). The discrepancy between these two deflators is minor, yet it has a significant impact on the growth rates of the GDP. *(See table on the next page)*

Table 2.9
Calculation of the GDP deflator

	2000	2001	2002	2003	2004	2005	2006	2007
PRICE INDICES								
Consumer price index	100.0	100.8	101.4	109.0	113.5	121.9	134.2	140.2
Wholesale prices Fisher index	100.0	97.0	101.5	105.0	107.0	111.0	112.5	116.0
Index of wages	100.0	105.3	116.6	123.5	128.6	145.8	164.0	174.2
Import alternative price index	100.0	102.5	105.1	107.7	110.4	113.1	116.0	118.9
Index of oil price	100.0	87.1	90.6	102.2	128.4	188.4	234.4	261.1
PRICE OF GDP END-USES								
Price of private consumption	100.0	100.8	101.4	109.0	113.5	121.9	134.2	140.2
Price of gov-nt consumption	100.0	98.9	101.5	107.0	110.3	116.5	123.3	128.1
Price of investment	100.0	101.4	106.3	110.0	113.0	119.0	124.5	129.1
Price of exports	100.0	90.7	95.0	103.8	119.1	150.7	163.7	177.2
Price of imports	100.0	101.9	104.6	107.5	112.9	131.2	148.0	161.5
GDP price index	100.0	96.7	99.1	107.4	115.0	128.4	136.9	143.2
Official GDP deflator	100.0	102.5	101.0	104.9	116.3	131.4	143.3	159.7

Source: authors calculation on the basis of CBS data. Official GDP deflator for 2007 is provisional.

Table 2.10
Determination of the real GDP and the real growth rate

	2004	2005	2006	2007
Nominal GDP (current prices, bn SYP)	**1,269.8**	**1,524.0**	**1,717.7**	**1,899.6**
GDP Deflator, base 100 in 2000	**115.0**	**128.4**	**136.9**	**143.2**
GDP in constant prices, base 2000 (bn SYP)	**1,104.5**	**1,187.4**	**1,254.5**	**1,326.5**
GDP real growth rate (see text)		7.5%	5.7%	5.7%
GDP real growth rate (official CBS data)	6,7%	4,5%	5,1%	6.6%

Source: authors calculation on the basis of CBS data. Official real GDP growth rate for 2007 is provisional.

CHAPTER III

FOREIGN ECONOMIC RELATIONS

In this chapter, we discuss foreign economic relations. The first section deals with the Balance of Payments data in US dollars according to the Central Bank of Syria. The second section presents the structure of trade in goods by countries. Section 3 compares the Syrian foreign trade data with so-called "mirror statistics": IMF, WTO, Eurostat, and Comtrade statistics are used in that comparative exercise.

SECTION 1
BALANCE OF PAYMENTS

The first paragraph describes the overall balance of Syrian economy; the second one presents the current account, with a focus on the comparison between FDI, and workers remittances.

1) OVERALL BALANCE

It is noteworthy that the data of BOP for 2007 is very preliminary and that some figures are missing. Therefore, the 2007 analysis should be treated cautiously, and we hope that in issue 3 of SETB we will be able to present a complete and final table of the BOP for 2007. Table 3.1 shows the evolution of the BOP of Syria in 2003-2007 in millions of dollars. It shows that the overall balance for the country has been declining since 2004, and that it turned negative in 2006, which led to a huge decrease in net official reserves in 2006 (701 million dollars). The remarkable improvement in the current account balance in 2006 was caused by the surplus of the trade account (exports outweighed imports). In 2007, it was followed by a huge deterioration that was caused by an unprecedented deficit in the trade account: imports noticeably increased following the lifting of trade restrictions and the dollar exchange rate appreciation during 2007. Other items in the current account slightly improved: the services balance recovered after the decline in 2006, while the income balance deficit slightly decreased. Surprisingly, the capital account balance posted remarkable surpluses in 2006 and 2007, owing to the substantial increase in migrants' transfers. On the financial side, the marked shift in net short-run loans from positive in 2005 to negative in 2006 led to a significant deficit in the financial account balance, despite an increase in net inflows of foreign direct investment (FDI) and a slight decrease in net long run loans. Nonetheless, the improvement of the FDI balance smoothed the deficit of the financial account in 2007. *(See table on the next page)*

2) CURRENT ACCOUNT BALANCE

As can be seen from table 3.1, the increase in public sector net exports* was the main cause of the trade surplus in 2006: public sector exports outweighed imports. However,

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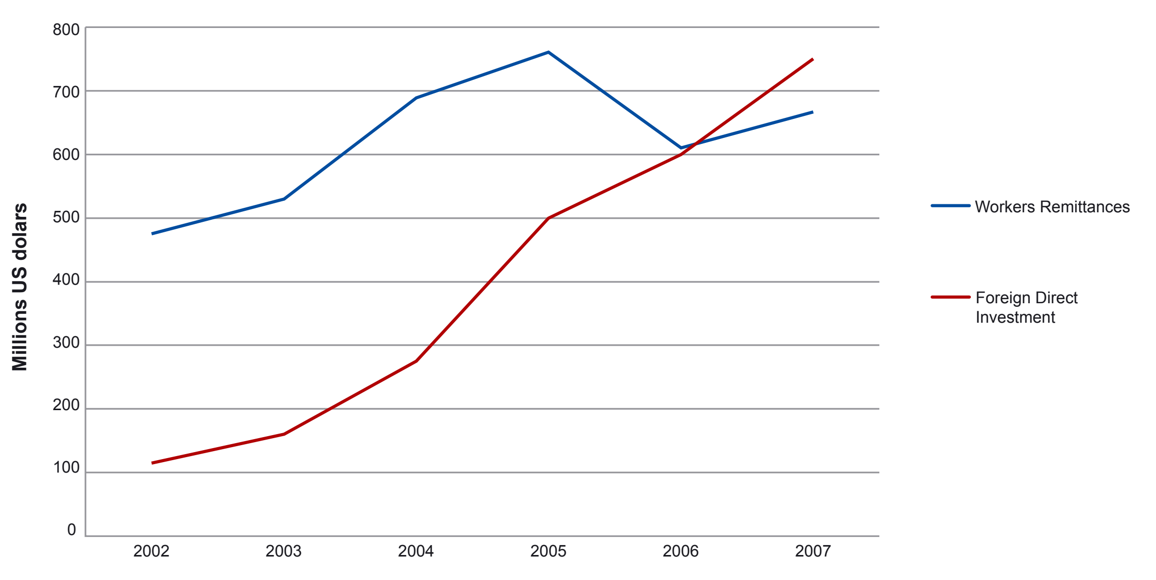
** Net exports are defined as exports minus imports ; net imports are defined as imports minus exports.*

Table 3.1: Balance of payments
2003-2007 million USD

	2003	2004	2005	2006	2007
Current account balance	752	590	299	920	-1574
(in percentage of GDP)	3.5	2.4	1.1	2.8	-3.9
Trade and Services balance	1070	640	411	1290	-1338
Trade balance	1332	262	-141	885	-1789
Exports, f.o.b.	5762	7219	8600	10244	10583
Public sector	4566	3879	4360	4649	4783
of which: Oil	4111	3471	3851	4082	4301
of which: Non-oil	455	408	509	567	482
Private sector	1196	3340	4240	5595	5800
Imports, f.o.b..	-4430	-6957	-8741	-9359	-12371
Public sector	-1038	-1950	-2945	-3853	-6234
of which: Oil	-167	-972	-2100	-2500	-4702
of which: Non-oil	-871	-978	-845	-1353	-1532
Private sector	-3392	-5007	-5796	-5506	-6137
Services balance	-262	378	552	404	451
Receipts	1544	2613	2910	2924	3440
Of which :Travel and tourism	286	1150	1944	2025	2375
Payments	-1806	-2235	-2359	-2520	-2989
Income balance	-857	-729	-863	-935	-893
receipts	282	385	395	428	485
payments	-1139	-1114	-1258	-1363	-1378
current transfers(net)	539	679	751	565	657
Capital and financial account	-118	-79	-144	255	721
Capital account	20	18	18	1307	1291
Migrants' transfers	-	-	-	1307	1291
Financial account	-138	-96	-162	-1052	-570
(in percentage of GDP)	-0.6	0.4	-0.6	-3.2	-1.4
Direct investment	160	275	500	600	750
Of which: oil - Gas project-related	90	150	151	125	126
currency and deposits	0	237	524	733	400
Long-term loans	2	-187	-473	-414	-420
Receipts	224	215	138	86	100
Payments	-222	-402	-611	-500	-520
Short-term loans (net)	-300	52	335	-505	-500
Receipts	986	1602	1761	950	700
Payments	-1286	-1550	-1426	-1455	-1200
Current and capital and financial account	634	512	155	1175	-853
Errors and omissions	85	-310	-137	-1876	853
Overall balance	719	202	18	-701	n/a
(in percentage of GDP)	3.1	0.8	0.06	-2.1	n/a
Financing	-719	-202	-18	701	n/a
Net change in reserves (increase= -)	-719	-202	-18	701	n/a
Convertible	-719	-202	-18	702	n/a
Central Bank	-672	-465	-739	-591	n/a
Commercial Bank	-47	263	721	1293	n/a
GDP in current prices (bn USD)	**21.69**	**24.30**	**28.00**	**33.40**	**40.80**

Source: Balance of Payments, Central Bank of Syria

Graph 3.1
Foreign Direct Investments and Workers' remittances
(mn US dollars, 2002-2007)



Source: Balance of Payments, Central Bank of Syria

the oil balance posted a surplus, whereas the non-oil balance posted a deficit. Over the same time frame, the improvement in private sector net exports slightly contributed to the surplus of trade account. By contrast, the increase in net imports of both the private and public sectors led to a significant deficit in the trade account balance in 2007; both the oil and non-oil balances of the public sector posted negative figures, and the private sector imported more than it exported.

The decrease in the current transfers surplus in 2006 is due to the decline in workers' remittances. However, those remittances bounced back in 2007, as shown in graph 3.1. The graph shows that FDI stayed on their rising course through 2006 and 2007, reflecting the growing attractiveness of the Syrian economy for foreign investments. Nonetheless, the FDI inflow is still lower than what is needed to support economic growth, particularly when we look at FDI into other countries of the region. According to the UNCTAD Investment Brief 2008, the FDI inflow to Egypt reached 10 and 10.2 billion dollars in 2006 and 2007, and 20.1 and19.4 billion dollars in Turkey. The persistent efforts by the Syrian government to attract foreign investors through the simplification of rules and regulations and tax exemptions are still undermined by a number of factors, among which red tape and the inefficiency of some government agencies stand out. The WEF competitiveness reports for 2006 and 2007 indicate that government bureaucracy is the most hindering factor for business environment in Syria. On the same note, in the World Bank Doing Business report, which ranks 178 countries, Syria dropped from rank 134 in 2007 to 137 in 2008 for the business climate. As for dealing with licenses, Syria dropped from 83 to 86. That means that more serious efforts and measures should be carried out to ensure full implementation of the new rules and regulation. Our meetings with business community representatives suggest that they are currently not enforced as they should, despite the efforts by the Syrian government to improve the business climate. In many cases, misinterpretations by the executive agencies limit the efficiency of these rules and regulations and negatively affect business procedures.

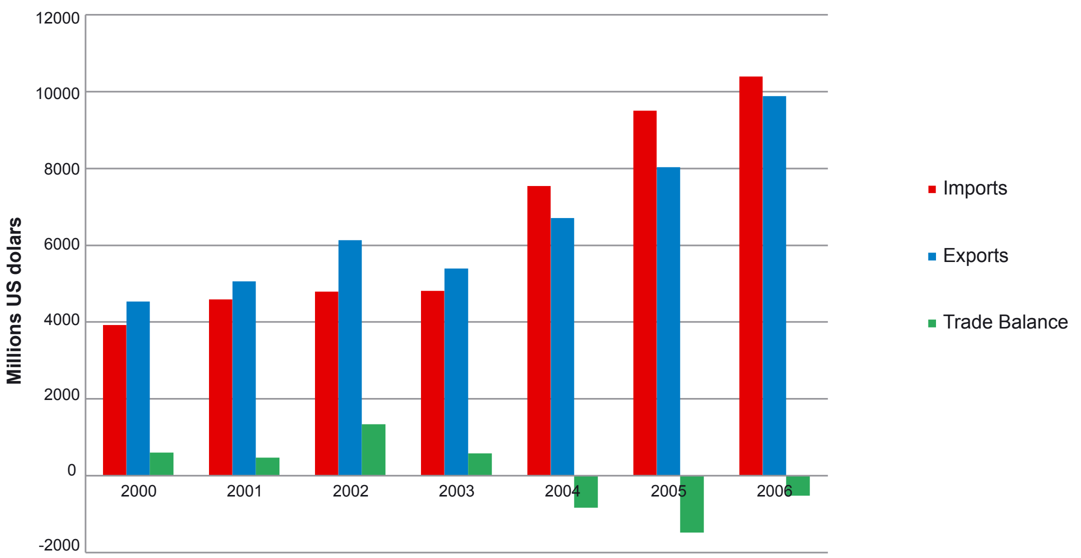
SECTION 2
TRADE IN GOODS, GEOGRAPHIC STRUCTURE

This section addresses the evolution of trade in Syria. First, it presents the evolution of exports and imports during 2000-2006, and then it discusses the geographic structure of trade.

1) THE SYRIAN ECONOMY CONTINUOUS OPENING UP

Syrian government continued the lifting of import restrictions and customs tariffs through 2006 and 2007. CBS statistics show that the share of foreign trade in the GDP averaged about 60% in 2004-2006, following the increase in world oil prices and the implementation of trade liberalization reforms. Of course, it is expected that the real appreciation of the Syrian currency against the Dollar in 2007 helped boosting imports*. However, because of the inefficiency of customs authority in producing and transferring accurate trade figures to the CBS on time and within specific deadlines, we could not obtain recent trade figures

Graph 3.2
Imports, exports and trade balance based on CBS trade statistics (mn US dollars)



Source: Own calculation based on CBS Trade Statistics

to assess the trends in exports and imports and the impact of the exchange rate appreciation of trade deficit in 2007. As a result, we decided not to discuss external trade in details in this volume; we will do it in the next volume, once complete 2007 trade figures are available.

** Although some would argue that the appreciation of the Syrian currency against the dollar came along with a depreciation of the Syrian currency against the Euro, which would negatively affect the size of imports. However, trade statistics indicate that Syrian imports are more diversified than exports; the share of imports from EU countries averaged 31% in 2005-2006.This means that the size of Euro-denominated imports is much less significant than the size of dollar-denominated imports. This conclusion is in line with the results of an unpublished study by the Central Bank of Syria, which shows that the weight of dollar -denominated imports averaged about 57% of total non-oil imports in 2005, compared with 16% for Euro- denominated imports and 4.7% for Yen- denominated imports. Furthermore, this study concluded that the pattern of movements of the real effective exchange rate during 2000-2006 followed the pattern of the dollar against the Syrian Pound.*

Graph 3.2 shows the evolution of Syrian exports and imports through 2002-2006. It is clear that since 2004 the value of imports has increased much more than the value of exports, in particular in 2005, when imports grew by 57%, and exports grew by 25%. By contrast, exports grew by 23% and imports by 9% only in 2006. This explains the decrease in the trade balance deficit in 2006*.

2) GEOGRAPHIC DISTRIBUTION OF SYRIAN TRADE

First, we present Syrian trade trends (trade is the sum of exports and imports) according to regions of the world, then we take a separate look at exports and imports trends with regions of the world. In both cases, we give a detailed study of the trade structure evolution over time.

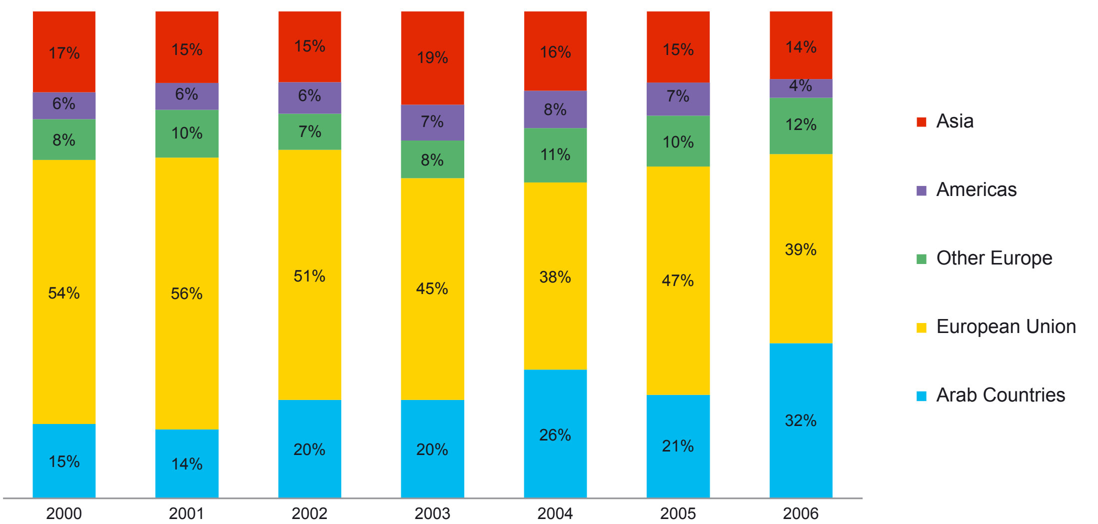
a) Regional structure of Trade

As in the first volume, let's remind the reader that the group of "other countries" has been excluded from the scope of this study for clarity purposes.

1) Trade trends

Graph 3.3 shows that the share of the European Union declined from 54% in 2000, to 38% in 2006. The share of Asia also decreased over the same time frame. The trade with Arab countries doubled between 2000 and 2006, a consequence of the implementation of the

Graph 3.3
Evolution of the geographical distribution of Syria foreign trade, 2000-2006, "other countries" excluded



Source: Own calculation based on CBS Trade Statistics

Arab free trade zone. However, the Intra-Arab trade still faces a serious challenge with the falsification of the tracking label for imported products from other parts of the world. Those

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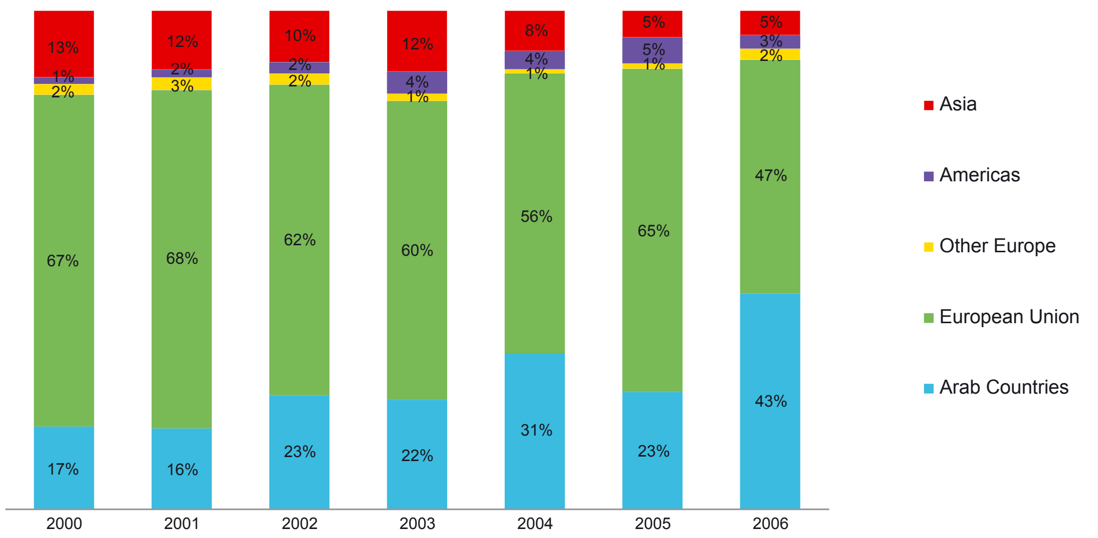
* *For proper assessment of trade deficit we would present some trade mirror statistics at the end of this chapter*

products are still marketed as coming from Arab countries, and so far, no practical solution has been found. On a separate note, Syrian trade with American countries and other European countries was stable throughout the time frame, with no significant changes.

2) Exports trends

Graph 3.4 shows the evolution of exports in 2000-2006 without factoring “other countries” in. It shows that the European Union was the major destination for Syrian exports, but that the share of Arab countries in Syrian exports nearly matched it up in 2006. Last, Syrian exports to Asia have declined by 8% in 2000-2006.

Graph 3.4
Evolution of the geographical distribution of Syrian exports 2000-2006, "other countries excluded"



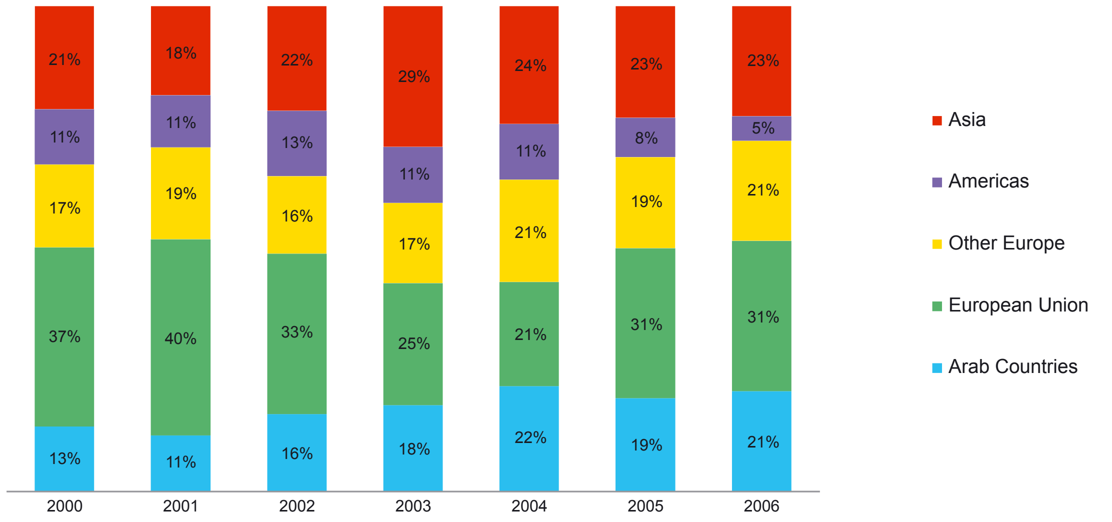
Source: Own calculation based on CBS Trade Statistics

3) Import Trends

With “other countries” left aside, there are no changes in the shares of European Union and Asia in total Syrian imports between 2005 and 2006 (graph 3.5). The share of Arab countries and Other Europe slightly increased between 2000 and 2006, at the expense of Americas share.

To sum-up, the European Union is still Syria’s most important trading partner for exports, and much less so for imports. Arab countries are still in the second place for exports, but quickly moving up to the first place. The group “Other Europe” attracts a significant share of imports (20%), making them much more diversified than exports. *(See graph on the next page)*

Graph 3.5
Evolution of geographical distribution of imports 2000-2006, "other countries excluded"



Source: Own calculation based on CBS Trade Statistics

SECTION 3
MIRROR STATISTICS

This section presents a comparison of trade statistics between local and international sources. It compares trade figures published by the CBS and those published by the IMF, WTO, and Comtrade*. In addition, we offer a comparison of trade data between EU and Syria as recorded by Syrian official authorities and by the EU statistical agency (Eurostat).

1) TRADE DATA

In line with the growing debate over the inefficiency of the Syrian trade statistical database, we would like to further the analysis that we initiated in volume one of SETB by looking at "mirror statistics" from several sources. Tables 3.2 and 3.3 show Syrian export and import statistics in totals and according to regions of the world, based on the CBS (in local currencies and converted into US dollars) and the IMF Direction of Trade Statistics (DoTS) in US dollars. Clearly, DoTS figures in totals and according to regions for both exports and imports are larger than CBS figures. *(See table on the next page)*

Table 3.4 compares Syria trade figures from CBS with WTO and Comtrade in 2001-2006. Although there are differences in exports and imports figures between the three databases, they all indicate that the trade balance has posted a deficit since 2004. According to CBS and Comtrade, the deficit narrowed in 2006, while WTO figures suggest it kept growing. *(See table on the next page)*

Table 3.5 shows trade figures between Syria and European Union countries according to CBS and Eurostat in 2003-2006. Eurostat figures have been converted from millions of

** The trade database of the United Nations, Comtrade is considered the widest database for trade in the world. Eurostat is a programme of the European commission located in Luxembourg.*

Table 3.2
Geographical distribution of Syrian Exports according to the CBS and the IMF (Million US Dollars)

	2003		2004		2005		2006	
	CBS	DoTS	CBS	DoTS	CBS	DoTS	CBS	DoTS
ARAB WORLD	1124	1190	1445	6642	1297	6103	3693	7415
EU COUNTRIES	3074	3143	2598	11944	3582	3288	4000	3952
OTHER EUROPE	75	59	40	183	59	85	192	96
AMERICAS	228	336	167	769	289	393	231	215
ASIA	625	484	374	3250	297	316	419	271
OTHER COUNTRIES	259	686	2083	797	2502	123	1338	146
TOTAL	**5386**	**5897**	**6707**	**23586**	**8027**	**10308**	**9873**	**12094**

Table 3.3
Geographical distribution of Syrian imports according to the CBS and the IMF (Million US Dollars)

	2003		2004		2005		2006	
	CBS	DoTS	CBS	DoTS	CBS	DoTS	CBS	DOTS
ARAB WORLD	646	636	1047	4814	1187	5823	1802	7154
EU COUNTRIES	914	2765	1032	4747	1909	3786	2715	4020
OTHER EUROPE	604	808	1018	4679	1162	1537	1804	1701
AMERICA	417	334	551	1936	502	413	440	509
ASIA	1057	1539	1174	6524	1424	2947	1987	3816
OTHER COUNTRIES	1174	2516	2715	3631	3325	1454	1639	1578
TOTAL	**4811**	**8598**	**7538**	**26331**	**9504**	**15961**	**10388**	**18779**

Table 3.4
Syrian trade with the world according to CBS, WTO, and Comtrade 2001-2006 (million US dollars)

	2001	2002	2003	2004	2005	2006
Exports (CBS database)	5053	6132	5386	6707	8027	9873
Imports (CBS database)	4587	4794	4811	7538	9504	10388
Trade Balance (CBS database)	**466**	**1338**	**575**	**-830**	**-1477**	**-515**
Exports (WTO database)	5248	6536	5731	7378	8708	8750
Imports (WTO database)	4752	4488	5111	7594	9520	9670
Trade Balance(WTO database)	**496**	**2048**	**620**	**-216**	**-812**	**-920**
Exports (Comtrade database)	-	6536	5731	5383	6450	10919
Imports (Comtrade database)	-	4488	5111	7049	7898	11488
Trade Balance (Comtrade database)	**-**	**2048**	**620**	**-1666**	**-1448**	**-569**

Euros into millions of dollars using the yearly average exchange rate (Euro/dollar) according to the EU commission in Brussels. While the differences in exports figures are small (except for 2004), Eurostat imports figures are much larger than their CBS counterparts, which, in turn, makes the surplus of the trade balance between Syria and European countries much smaller. This discrepancy underscores our concerns about the inefficiency of the agency in charge of monitoring commodities inflows and outflows, namely the Syrian Customs Authority.

Table 3.5
Syrian trade with EU countries according to CBS and EuroStat
2003-2006 (million US dollars)

	2003	2004	2005	2006
Exports (CBS database)	3434	2598	3582	4000
Imports (CBS database)	914	1032	1909	2715
Trade Balance (CBS database)	2520	1566	1673	1285
Exports (Eurostat Database)	3434	3153	3745	4564
Imports (Eurostat database)	2465	2896	3478	3814
Trade Balance (Eurostata database)	969	257	267	750

Through detailed discussion of trade figures with several government agencies during the preparation of this volume, it became clear to us that the inefficiency of the Syrian customs authority in monitoring, supervising and recording exports and imports is the major explanation for the scattered and inconsistent trade data in Syria. A thorough overhaul of this agency should be a priority of the Syrian government in order to obtain an accurate picture of the trade account balance and the balance of payments.

CHAPTER IV

INFLATION : RUMOURS, PERCEPTIONS, REALITIES

At the end of 2007, the prices of gasoline, electricity and water changed dramatically, which affected the inflation rate. The purpose of this chapter is to assess the situation of inflation in Syria through an outsider perspective, so as to disentangle rumours, perceptions and realities.

1) RUMOURS

According to rumours, inflation – as measured by the growth of the Consumer Price Index – would be much higher than officially stated by the Central Bureau of Statistics. Recently released figures point to 4.3% on average (average prices of year 2007 to average prices of year 2006), and to 5.1% from December 2006 to December 2007. Rumours say that this is widely underestimated and that "actual" inflation is in the range of 10 to 15%, sometimes more. The underlying idea is that official figures are manipulated, that information released by government agencies is not reliable, that the government itself lost control of the economic situation and eventually that Syria is on the brink of collapse. What is the reality?

As usual, rumours are not very precise; they don't require any measurement to post a round figure which should be impressive. However, they need some kind of justification. Recent inflation rumours, which are circulated mostly in the small circle of middle-level officials and academics dealing with economic affairs, rely on two types of justifications: (i) "all people 'on the street' know that inflation is higher than officially stated". (ii) since "all countries around us have high inflation rates in 2007, due to higher world prices on materials and commodities, how can it be that Syria would be the only country in the region with such a low inflation? We should have more inflation than in 2006, not less".

Although the second argument seems to be underscored by stronger evidence than the first one, it is very easy to crosscheck and eventually to dismiss, by looking at the figures released by other countries as shown in table 4.1. *(See table on the next page)*

It is plain to see that, among the above sample of fifteen countries (except Syria), six have a 2007 inflation rate significantly lower than Syria, one has an inflation rate very close to Syria (Saudi Arabia) and eight have an inflation rate significantly higher than Syria. Among these eight countries, at least three have a "history" of inflation, making a comparison with Syria rather difficult: Turkey had more than 50% inflation in 2000-2002, while Yemen had an inflation rate of more than 10% every year since 2000, as did Iran. If we compare 2006 and 2007, only six countries had rising inflation in 2007, whereas ten (including Syria) had a declining inflation rate. To sum up, Syria is somewhere in the middle of this sample of countries, and it cannot be said honestly that "all countries have more inflation than Syria".

As to the first argument, it is a mix of fantasy and truth. The fantasy is that "people on the street" have of course no idea of what the official rate of inflation is in Syria, nor, for that

Table 4.1
Inflation rates in the Middle East and North Africa
(% per year)

	2000	2001	2002	2003	2004	2005	2006	2007
Saudi Arabia	-1.1	-1.1	0.2	0.6	0.3	0.7	2.3	4.1
Jordan	0.7	1.8	1.8	1.6	3.4	3.5	6.3	5.4
Turkey	54.9	54.4	45.0	25.3	8.6	8.2	9.6	8.8
Egypt	2.8	2.4	2.4	3.2	8.1	8.8	4.2	10.9
Yemen	10.9	11.9	12.2	10.8	12.5	11.7	18.2	12.5
UAE	1.4	2.7	2.9	3.2	5.0	6.2	9.3	8.0
Oman	-1.2	-0.8	-0.3	0.2	0.7	1.9	3.2	3.8
Qatar	1.7	1.4	0.2	2.3	6.8	8.8	11.8	12.0
Libya	-2.9	-8.8	-9.9	-2.1	-2.2	2.0	3.4	16.2
Lebanon	-0.4	-0.4	1.8	1.3	1.7	-0.7	5.6	3.5
Kuwait	1.6	1.4	0.8	1.0	1.3	4.1	2.8	2.6
Iran	12.6	11.4	15.8	15.6	15.2	12.1	13.6	19.0
Bahrain	-0.7	-1.2	-0.5	1.7	2.3	2.6	2.9	2.9
Tunisia	2.9	2.0	2.7	2.7	3.6	2.0	4.5	3.1
Morocco	1.9	0.6	2.8	1.2	1.5	1.0	3.3	2.0
Syria	-0.4	0.8	0.6	7.4	4.2	7.4	10.0	4.3

Source: World Bank Development Indicators, National Central Banks web sites

matter, of what the concept of inflation means in macroeconomic theory, or how the inflation rate is calculated. Therefore, the argument that they know that "actual inflation is more than officially stated" is pure imagination, yet with an element of truth to it, as there is no doubt that the population – and especially the poorest part of the population – can experience higher prices in everyday's life. There might be a clear perception that prices have gone up on average, just because people feel a loss in their purchasing power.

2) PERCEPTIONS

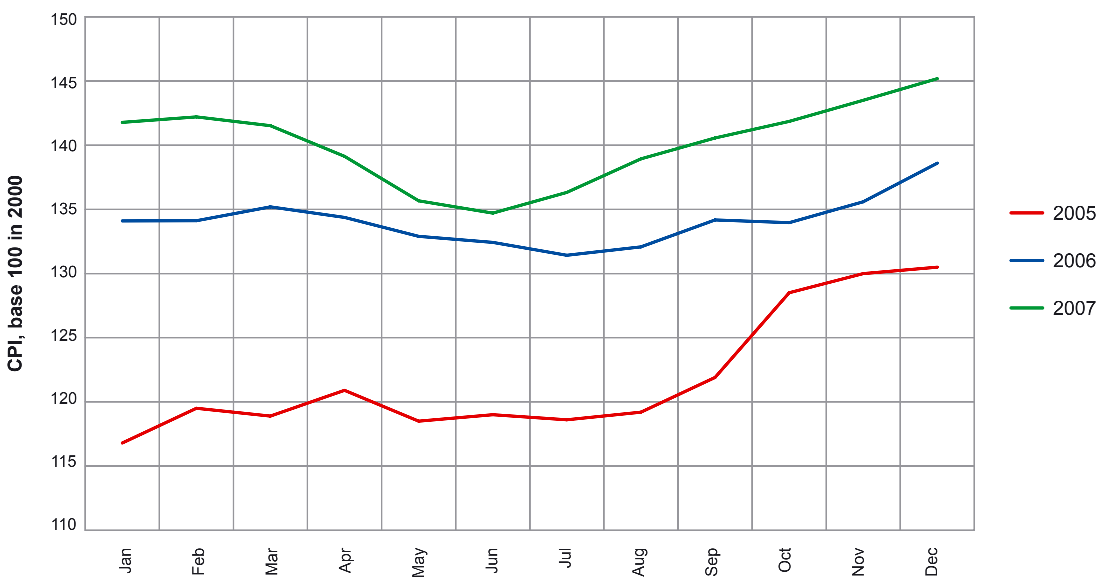
That feeling of impoverishment is particularly acute for people working for a wage, who receive a fixed income every month, thus experiencing difficulties to buy foodstuff on the market earlier in the month than they used to prior to the price hike. Such perceptions are, of course, a reflection of reality. This concerns also these same middle-level officials who feel relatively impoverished themselves and transform their own perception (shared by many "people on the street") into the "inflation rumour". That rumour, which is a kind of protest against the loss of purchasing power, is widely circulated among educated people and even among economists.

However, despite its element of reality, a rumour is still a rumour. Because of a dual time inconsistency problem, statistics cannot provide a perfect reflection of reality. First, statistics on inflation are published in Syria (through CPI statistics) with approximately a two-month delay. In March, for instance, one may read in newspapers that prices went up 1% last December. But by the time this becomes news (in March), prices might have risen by 2% instead, or declined by 1%. Moreover, if there is an official announcement that the CPI went up 1% while the feeling was of a 2% price rise, then one will record it quite well; but if the perception is that prices did not change, that discrepancy will be forgotten in next to no time.

The other factor of time inconsistency between official price statistics and inflation perception is that Syria's Statistical Office advertises mainly its yearly data. The inflation rate commonly referred to is the average yearly change in the CPI (4.3% in 2007), which means that the average level of consumer prices for the whole year 2007 is routinely compared with the average consumer price level for the whole year 2006. Prices change a lot in the course of a year: usually, they are at a relatively high level until March, then begin to decline significantly until September, finally rising again from October to December. That was the overall pattern in 2006 and 2007, as shown in graph 4.1 below.

Graph 4.1 shows that in February 2007, the index of consumer prices was at 143; between February and June, it declined to 135, and from June to December, it climbed back up to 145. On that basis, we can determine both the average price level for each year and the percentage variation of monthly prices with respect to that average. This percentage is represented on Graph 4.2.

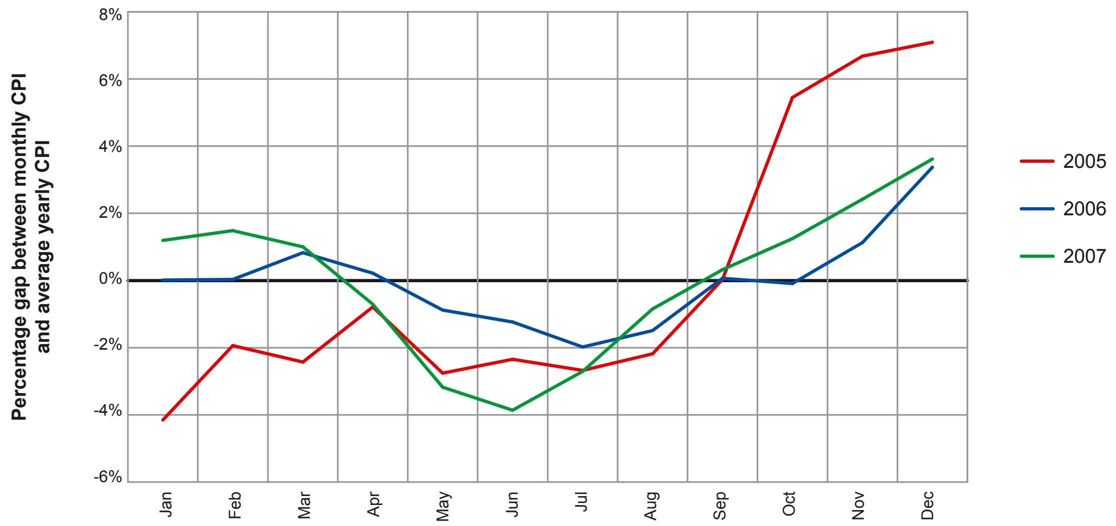
Graph 4.1
Evolution of the price level from January 2005 to December 2007



Graph 4.2 may be interpreted as follows: in January 2005, prices were 4% below the average price level of the whole year 2005. In December 2005, prices were 7% above the average for the whole year. Thus, from the beginning of 2005 to the end of 2005, prices went up 11% (4% + 7%). This may be crosschecked with Graph 4.1: in January 2005, the consumer price index was approximately at 117, while in December 2005, it was approximately at 130, i.e. an 11% rise. In January 2007, prices were above the 2007 average by 1%; in June 2007, they were 4% below the average; in December 2007, they were 4% above the average. This means that prices declined by 5% between January and June 2007, and that they rose by 8% between June and December. Overall, between January and December 2007, prices grew by 3%.

From the point of view of inflation perception, it is clear that the "people on the street" easily forget about the -5% price decline and remember the painful 8% price rise. If they are reminded that, between January and December 2007, prices rose only by 3% (as they

Graph 4.2
Gap between actual monthly prices and average prices for each year
(in percentage to each year's average)



did), they might feel a contradiction with what they remember.

The gap between the immediate perception of inflation and officially stated figures may become even wider when a yearly inflation figure is announced. As said before, inflation is frequently measured on a yearly basis, by comparing the average price level of a given a year with the average price level in the previous year. It is clear that such a figure, for instance a 4% price rise in 2007 compared to 2006, has little to do with the evolution of prices during the last six months of 2007. And it is perfectly possible that the recent inflation record (from June to December 2007) is 8%, whereas average prices for 2007 rose by 4% compared to their average for 2006. Such a discrepancy should not lead economists to say that figures for the past years should be revised, just because there is a true perception of relatively high inflation now.

Now, it is possible to go further in estimating recent inflation trends. As shown on graphs 4.1 and 4.2, consumer prices went up by 8% between June and December 2007. But this is a six-month time frame, and inflation might be measured on a yearly basis. Thus, if prices kept rising at that same rate during a whole year, or if prices rose during the whole 2007 at that rate, then the inflation rate would be not 8%, but 16.6% (1.08*1.08 – 1). The real measure of inflation trend – as it is perceived by consumers on a yearly basis – is close to 17%. This is a relatively high rate of inflation, but it should be considered in light of the past performance. If we take a look at what happened in 2005, we observe that prices went up by 9% between August and December. But 9% over four months may be converted into 29% on a whole year (1.09*1.09*1.09 – 1), which means that through the second half of 2005, the feeling of inflation was much higher than what it is now (29% against 17%). In 2006, between July and December, prices went up by 5.5%, but 5.5% in five months is equivalent to 13.7% on a yearly basis. All these end-year inflation rates (29% in 2005, 13.7% in 2006, 17% in 2007) reflect the seasonal perception of inflation by Syrian consumers. As may be seen, inflation perception in 2007 is not the highest among what Syrians felt in past years.

If there is a recurrent perception of inflation in every second half-year, there is also a perception of some disinflation in every first half-year. Although memories of price declines quickly fade away, as opposed to price rises, their effects should also be measured. For instance, in 2006, prices dropped by 3% between March and July, i.e. a 9% decline on a yearly basis. In 2007, prices declined by 5% between March and June; this may be converted into a spectacular 19% yearly decline. However, feelings of a price decline do not cancel out feelings of inflation. The problem with Syria is the strong seasonality of prices. Although overall inflation remains relatively low (see Table 4.1 for a comparison with the rest of the region), rising prices generate demands of higher wages. Of course, declining prices never translate into wages reductions. Should there be a system of seasonal wage making up for seasonal inflation? It seems that, if wages would be increased by 4% during the months of October to March, and return to their normal level from April to September, the standard of living would be maintained. Unfortunately, such a system would generate higher price rises during the winter season, as demand would be stronger and supply would remain the same. Such a reform is thus not recommended.

3) REALITIES

Perceptions are based on realities, but realities – that is the actual movement of prices – should be measured precisely in order to assess the situation and its dynamics and to take relevant policy decisions. In Syria, the Central Bureau of Statistics is in charge of measuring the movement of prices, along with other missions. Measuring inflation – even at the level of consumer prices – is a difficult task that will be described in the present chapter. Together with that description, some questions will be addressed with regard to the methodology in use at the CBS. How are consumer prices measured presently in Syria? Is basic information reliable and how does it fare compared to alternative information collection? What was the effect of recent price hikes in electricity, water distribution or gasoline on the overall consumer price index? Is inflation the same for the poor and the rich? What is the impact of "imported inflation" compared to domestic inflation?

4) CPI METHODOLOGY AT THE CBS

Every month, the CBS checks the price of 775 products across the country, at least in the main cities retail markets and shops. That work is done in each governorate by the permanent local desks of the CBS. The products are defined rather precisely, so that the CBS local employees in charge of price collection know exactly what kind of model or quality they should observe. Information on prices is passed over to the Central Bureau in Damascus for further treatment.

These 775 products are grouped along 407 categories or basic products. Among the 407 basic product prices, 240 correspond to direct observations (i.e. to the price of a product that is directly checked by the local CBS employees), and 167 are the result of averaging prices of several products of the same category. For instance, "bread" is one of the 407 basic products (category 11101), along with "purchase of a mobile telephone" (category 82001); there are six types of bread and three types of mobile telephones among the 775 locally recorded prices. But "electricity" is also one of the 407 basic products (category 45101) and there is no breakup of that product.

In the case of bread and mobile telephones, the CBS shifts from the detailed observation to the basic categories by using a simple arithmetic average. This method is questionable, since prices of different qualities or models may be very different inside the same category: what is the meaning of averaging two mobile telephones, if one is worth 1,000 pounds and the other 10,000 pounds? The same goes for bread: 80% of the bread consumed in Syria is 9 pounds (subsidised) bread, and 20% is "expensive bread" (non-subsidised) costing 30 pounds; that feature is not taken into account, so that the six kinds of bread recorded from local observation are arithmetically averaged, as if the population bought exactly the same quantity of each kind. This amounts to a bias in inflation measurement: the average price of bread (category 11101) is officially recorded at 20.31 SYP in 2005 and 26.50 SYP in January 2008, whereas a relevant weighting would lead to go from 10.09 SYP in 2005 up to 10.68 in January 2008; the price rise is 30% in the first case, and only 6% in the second case. Fortunately, there are not many such examples as bread, which is the most conspicuous case of miscalculation.

The previous method of aggregating individual prices is done by the CBS on a regional basis. This means that, every month in each governorate (mohafazat), there is an average price calculated for each of the 407 basic products. And there is also a matching price for the base year, which is the average price in 2005. Thus, all information about prices in a given month may hold on a matrix with 407 lines (one line for every product) and 14 columns (one column for every governorate); using a table of the same format for prices in the base year (2005), we can calculate for each product price in each governorate an index of its situation in a given month. Let's call P0 the 407*14 matrix of prices in the base year, and P1 the matrix of prices in a given month (for instance September 2007). On that basis, it is possible either to calculate average prices of products for the county as a whole, or to calculate for each governorate an index of the general level of prices in a given month.

In order to do both calculations, two sets of coefficients are needed: the first one is the set of consumption weights (or shares) of each product in the total consumption of a governorate population (call these weights W1); the second one is the set of consumption shares of each governorate in the total consumption of each product (call these weights W2). All these coefficients are available from the Households Budget Survey. They remain fixed over time, so that price indexes are of the Laspeyres type. The two matrixes W1 and W2 should be compatible; however that feature is not ascertained when considering real figures used by the CBS.

Table 2 in the next page presents excerpts from the raw data available at the Central Bureau of Statistics. It shows for four product items the corresponding prices P0 and P1 (P1 is for September 2007), as well as weights W1 and W2 in four selected governorates. The selected products are "bread" (position 11101), "lamb meat" (position 11201), "purchase of mobile telephones" (position 82001), and "men's haircut" (position 121101). The selected governorates are "Damascus city", "Aleppo", "Tartous" and "Deir es Zour". *(See table on the next page)*

The methodology in use at the CBS is two-stepped: first calculate price indexes for each governorate, using coefficients W1; second, the CBS averages of all governorates results into a national average, using coefficients W2. However, the general price index is not directly calculated: products are clustered into broad categories of different level. Starting from the 407 basic prices, which are coded (as shown on Table 2) with 5 or 6 digits, there is a first cluster of 77 categories (3 or 4 digits), a second one with 39 broader categories (2

Table 4.2
Excerpts from CPI detailed statistics

	11101 Bread	11201 Lamb	82001 Mobiles	121101 Haircut
DAMASCUS CITY				
Price in 2005 (SYP)	20.83	340	14767	125
Price in September 2007 (SYP)	22.33	406	7350	150
Weight of the product (%)	1.94	3.81	0.05	0.07
Weight of the governorate (%)	3.24	19.55	5.99	13.56
ALEPPO				
Price in 2005 (SYP)	20.83	280	14767	125
Price in September 2007 (SYP)	23.67	347	7700	150
Weight of the product (%)	4.45	4.69	0.02	0.11
Weight of the governorate (%)	7.42	27.18	2.49	23.15
TARTOUS				
Price in 2005 (SYP)	20.00	278	14767	200
Price in September 2007 (SYP)	22.33	367	9600	150
Weight of the product (%)	3.30	1.35	0.89	0.05
Weight of the governorate (%)	5.50	1.98	30.01	2.72
DEIR ES ZOUR				
Price in 2005 (SYP)	20.00	260	14767	100
Price in September 2007 (SYP)	24.83	297	7317	100
Weight of the product (%)	8.18	2.34	0.16	0.12
Weight of the governorate (%)	13.63	3.64	5.67	6.72
TOTAL SYRIA				
Price in 2005 (SYP)	20.31	303	14767	120
Price in September 2007 (SYP)	26.50	406	11167	150
Weight of the product (%)	3.90	3.18	0.14	0.09
Weight of the governorate (%)	100.00	100.00	100.00	100.00

Source: Central Bureau of Statistics dataset

or 3 digits), and a third one with 13 still broader categories (1 or 2 digits). All these groupings have been set up following the COICOP guidelines of the United Nations Statistics Division (Classification of Individual Consumption by Purpose). The last two groupings are presented in the next page in Table 4.3. *(See table on the next page)*

All those calculations eventually lead to a summary monthly presentation of the Consumer Price Index, showing the price level reached in a given month, with 2005 = 100 as base. These tables – which are released approximately three months after the month under review – contain 18 columns and 40 lines: the first two columns contain the nomenclature of products, the second the weight of the product in the consumer basket (for the country as a whole), there are 14 columns for the governorates and a final column for the total. The first line is for headings, the second for total consumption, and the remaining lines for detailed products. With this table, it is possible to find out for instance what the price level (in relation to 2005) of household textiles was in the governorate of Idlib. However, it is doubtful that basic information is accurate and rich enough to provide a reliable picture at that level of detail. Statistics is a matter of large numbers, and what is significant here is the price index for the country as a whole.

The table shows that consumer prices in December 2007 were on average 19.1% higher

Table 4.3
Classification of consumer products

1 Food & non-alcoholic beverages	11 Food
	12 Non-alcoholic beverages
2 Alcoholic beverages & tobacco	21 Alcoholic beverages
	22 Tobacco
3 Clothing &footwear	31 Clothing
	32 Footwear
4 Housing	41 Actual rentals for housing
	42 Imputed rentals for housing
	43 Maintenance and repair of dwellings
	44 Water supply
	45 Electricity, gas, other fuels
5 Furnishing & household equipment	51 Furniture and carpets
	52 Household textiles
	53 Household appliances
	54 Glassware, tableware
	56 Goods & services for routine household maintenance
6 Health	61 Medical products, equipment
	62 Outpatient services
	63 Hospital services
7 Transport	71 Purchase of vehicles
	72 Operation of personal transport equipment
	73 Transport services
8 Communication	81 Postal services
	82 Telephone and fax equipment
	83 Telephone and fax services
9 Recreation & culture	91 Audio-visual, information processing equipment
	93 Other recreational items and equipment, gardens and pets
	94 Recreational and cultural services
	95 Newspapers, books and stationery
	96 Package holidays
10 Education	101 Pre-primary and primary education
	102 Secondary education
	104 Tertiary education
	105 Education not definable by level
11 Restaurants & hotels	111 Catering and accommodation services
12 Miscellaneous goods & services	121 Personal care
	123 Personal effects n.e.c.
	127 Other services n.e.c.
13 NGOs	133 Services of NGOs

Source: CBS

than in 2005: this is for all products and all mohafazat. In Aleppo, the price of beans and vegetables was 31.1% higher than in 2005. In Damascus-city, the price of communication services was 10.4% lower than in 2005. If we compare the line 6 “Health” (which represents for the whole country 6.24% of all expenditure), we see that prices in Damascus were 13.8% higher in 2005, whereas in Aleppo, they were 20.9% higher; that does not mean that medical services were more expensive in Damascus, as we don’t know the starting price in 2005.

Table 4.4
Excerpts from the CBS-released information on consumer prices in December 2007 (base 2005 = 100)

COICOP	Item	Weights (Syria)	Damascus-city	Aleppo	Total Syria
1	Food & non-alc. beverages	418.6	130.2	128.1	128.4
11	Food	395.3	131.0	128.8	129.2
111	Bread & cereals	65.0	119.2	120.6	119.5
112	Meat	71.0	125.4	129.5	130.4
117	Beans & vegetables	82.4	125.6	131.1	134.4
12	Non-alcoholic beverages	23.3	115.5	115.2	114.8
2	Alc. beverages & tobacco	21.5	106.5	102.0	103.4
3	Clothing & footwear	84.8	129.3	119.0	123.5
4	Housing	220.6	116.1	112.9	110.0
41+42	Rentals (actual & imputed)	152.1	116.0	113.3	109.2
6	Health	62.4	113.8	120.9	115.5
7	Transport	31.9	110.4	113.0	118.6
8	Communication	26.9	89.6	89.4	88.0
11	Restaurants & hotels	17.7	116.3	116.2	115.2
Total	All items	1000.0	119.0	119.7	**119.1**

Source: CBS documentation

Now, if that methodology seems in line with conventional methods used elsewhere, some economists raise doubts about the reliability of locally collected information. This is the question that we will address now.

5) DOES LOCALLY COLLECTED INFORMATION CORRESPOND TO REALITY?

The question is to compare local CBS information on product prices to alternative measures. There are not many institutions in Syria collecting prices and able to provide information relevant enough to be confronted to the impressive CBS data set. There are prices quoted in newspapers, but no one has kept track of that data flow so far. To our knowledge, the only institution providing alternative price measurement is the Chamber of Commerce of Damascus. The Chamber collects a limited number of prices, mostly for food products, quoted every week in Damascus markets and shops. Observations are limited and we were able to collect prices of 27 products for months February to May 2007 (that represents approximately 25% of the total value of the consumption basket). These prices were averaged from weekly to monthly to make them comparable to the CBS mirror data. Table 4.5 in the next page shows shows the entire data comparison: on the left-hand side are the (recalculated) Chamber of Commerce prices, and on the right-hand side the CBS data for Damascus-city for the corresponding months. *(See table on the next page)*

As may be checked on Table 4.5, both sets of prices are quite comparable. How can the discrepancy between the two institutions be measured? Is one set of prices systematically higher than the other?

In order to answer those questions, we use two concepts: first, we take the difference between the two prices of the same product and dividing that difference by the average of the two prices; for instance, fresh milk costs 21 pounds for the Chamber of Commerce and

Table 4.5
Comparison of prices (in Syrian pounds)
recorded by the Chamber of Commerce and the CBS

	CHAMBER OF COMMERCE				CBS DATA (DAMASCUS)			
	Febr 2007	March 2007	April 2007	May 2007	Febr 2007	March 2007	April 2007	May 2007
Bourghoul	30	30	30	28	28	28	28	28
Rice	45	45	45	41	57	58	58	58
Lamb meat	533	500	500	543	398	400	400	397
Beef meat	300	300	300	313	363	363	363	360
Chicken	103	110	113	70	134	139	133	131
Fish	156	158	162	162	166	177	180	180
Fresh milk	21	20	18	17	23	20	20	20
Cottage cheese	98	98	95	96	139	143	140	127
Olive oil	149	143	134	132	200	220	225	206
Oranges	30	30	30	30	24	29	25	33
Banana	53	60	60	60	44	50	53	49
Apples	42	40	40	38	49	50	47	57
Lentils	50	50	50	26	45	45	45	45
Dry foul	75	75	75	60	70	70	70	75
Chick peas	75	75	75	58	74	75	75	79
Tomatoes	26	33	38	18	25	32	30	16
Potatoes	32	38	40	24	37	37	33	25
Dry onion	25	27	29	14	33	29	20	18
Cucumber	38	33	38	13	31	38	28	21
Olives	83	83	80	83	99	100	100	93
Sugar	35	32	34	34	35	35	35	35
Tea	180	178	175	195	214	223	224	225
Coffee	225	250	250	225	315	316	317	313
Mazout	7.3	7.3	7.3	7.3	7.9	8.0	8.0	8.0
Cooker	12875	12788	12788	12800	11500	11438	11438	11250
Refrigerator	28617	29500	29500	29500	21500	21775	21775	22333
Washing mach.	22850	22850	22850	22800	24500	22500	22500	22100
Benzin	30.8	30.8	30.8	30.8	30.0	30.0	30.0	30.0

Source: Chamber of Commerce of Damascus, CBS data set

23 for the CBS; the difference is -2 pounds; dividing -2 by the average of the two prices (22 pounds) leads to -0.091, or -9%, meaning that the Chamber price is 9% lower than the CBS price. If we extend the same method to all products, some will come up higher, some lower, and the average of all those percentages will show whether on average, CBS prices are under- or overestimated. Second, we measure the degree of discrepancy of the two data sets, either positive or negative. Here we also consider the price difference for the same product, but instead of keeping its positive or negative sign, we take it always as positive – which may be regarded as a kind of standard error. Thus we get an estimate of the distance between the two price sets.

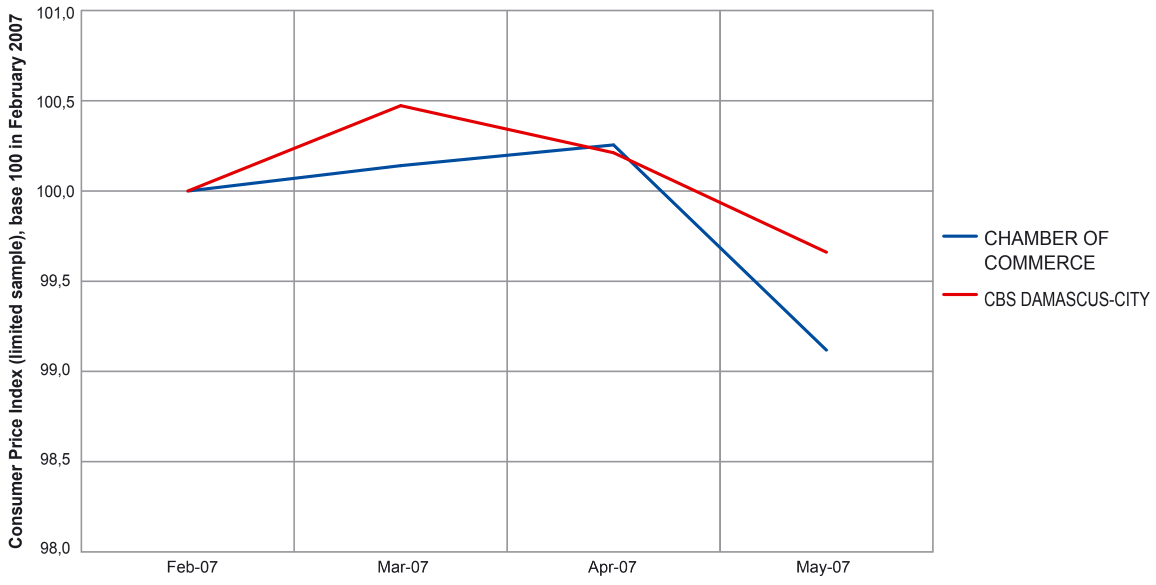
For the four months considered, the Chamber of Commerce prices are 6.6% lower on average than CBS prices, and the average gap between the two series of prices is 17.7%. If we take into account the weight of each product in the consumption basket in order to weigh price discrepancies, those figures become -11% and 22%. In conclusion, it may be said that the CBS does not underestimate prices, and that alternative price measures show a gap of approximately 20%, which is reasonable.

If we now turn from price levels to price evolution, we may also ask whether the CBS over- or underestimates the inflation level. In order to double-check on that point, we have to build a price index, using the weights of each recorded product in our sample. The calculation is materialized on Graph 4.3.

As may be seen from the Graph, the evolution of prices as recorded by both institutions looks the same: prices rise in the beginning and fall in May. The difference is in April, where the Chamber still records growing prices, whereas they are already falling according to the CBS. Let's note, however, that the price rise recorded in March by the CBS was much higher that by the Chamber, and that the fall of prices in May is more than the one recorded by the CBS in two months.

In any case, this exercise confirms that prices collected by the CBS are not random

Graph 4.3
Comparison of consumer prices evolution
between Chamber of Commerce and CBS measures
February to May 2007, base 100 in February 2007



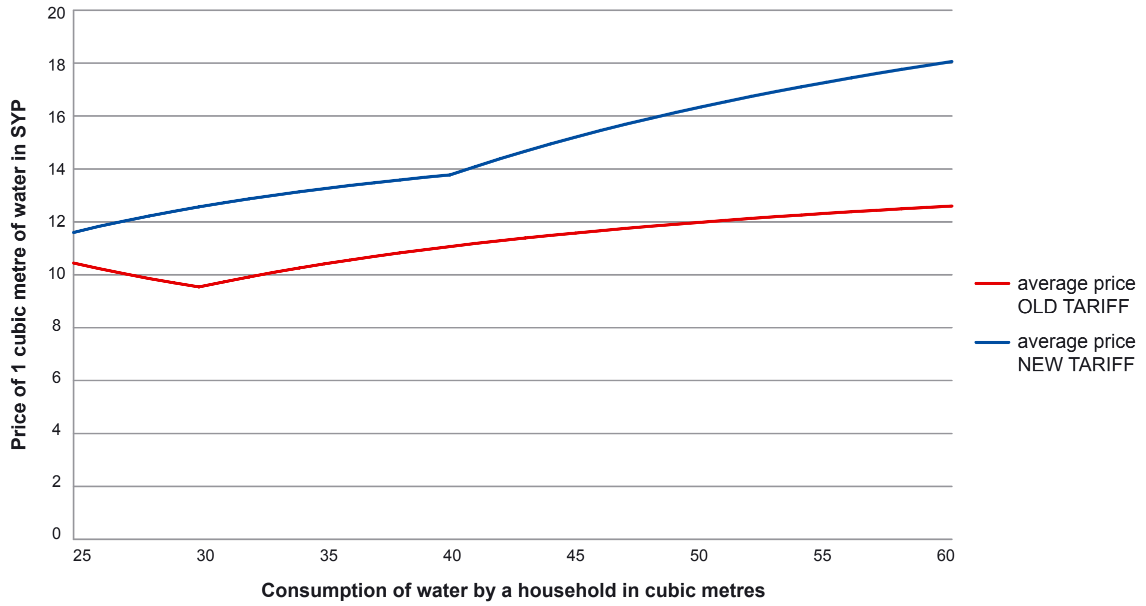
Source: calculations on the basis of Chamber of Commerce and CBS data sets

numbers, if there was any doubt. CPI figures should be taken seriously because they reflect the real economic life of the population.

6) WHAT IS THE IMPACT OF WATER AND ELECTRICITY PRICE CHANGES ON THE CPI?

We turn now to the recent price hikes on utilities such as water and electricity as well as on gasoline (*benzin*). What is the impact of these price hikes on the CPI? Has it been properly recorded? We first describe the system of pricing for water distribution and electricity, then we address CPI measurement.

Graph 4.4
Price of one cubic metre of water according to consumption



Source: own calculations by authors

Charges for water and electricity depend on a complex system of pricing. Instead of having a price set per unit consumed, the price level depends on the quantity consumed. Routinely, large consumers pay a lower per unit price than small consumers. Sometimes, for social reasons, public utilities may introduce a reverse system, where small consumers pay less per unit.

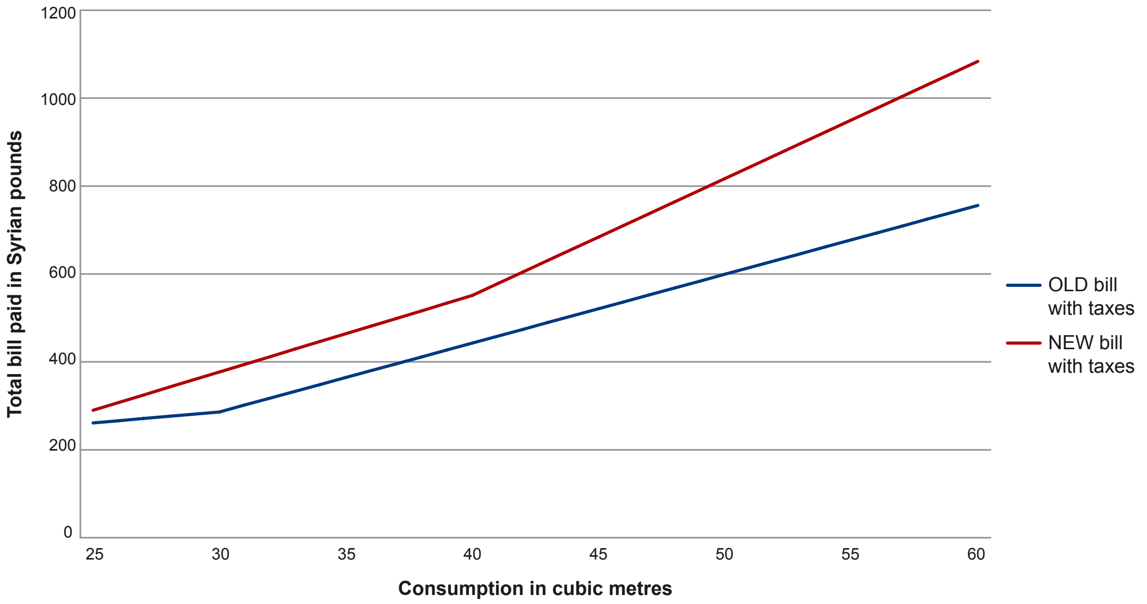
For **water**, the price depends on consumption volumes: for instance, under the old rate, 3 pounds per cubic metre (m3) for the first 20 m3, then 4.50 pounds until 30 m3 etc. Let's keep in mind that these consumption levels are for two months (water bills are to be paid every other month). Under the new rate, the same system applies: 2.50 pounds below 15 m3, 7 pounds below 25, etc. Determining the price change (in order to aggregate it in the CPI) is difficult as there is no fixed unit price. It is necessary to determine an average price, which itself depends on the average consumption and the application of the pricing formula. As it turns out, the problem is made even more complicated by the existence of an awkward tax system of taxes and supplement payments included in the water bill and thus in the price. A first set of taxes has an incremental structure in the old as in the new pricing system: 5% tax under 20 m3, 10% until 30 m3 etc in the old system; under the new rate, taxes are 5% below 15 m3, 10% in the higher bracket, below 25 m3, etc. But there are also two more traditional payments, which did not change between the old and the new system: first, there is a lump sum payment of 172.6 pounds to be paid by each consumer whatever his consumption; second, there is a linear tax of 1% on the basic rate before taxes.

Applying all these tax rates and basic prices to each level of consumption helps determine the price paid for every level of consumption, as well as the total two-month bill in both pricing systems. Graph 4.4 shows the two unit prices with regard to consumption in the range of realistic household consumption levels. Graph 4.5 shows the consolidated bill to be paid according to consumption levels.

With the lump sum payment to be paid whatever the consumption, the unit price might go up dramatically for very small levels of consumption: for instance, a household consuming only 1 m3 of water in two months would pay a price of approximately 175 SYP for that cubic metre. However, most households consume between 25 and 50 m3, according to the Household Budget Survey (the poorest decile consumes on average 29 m3 and the richest 48).

Using Graph 4.5, it can be determined that the average two-month water bill paid in Syria (448 SYP) corresponds to an average consumption of 40.6 m3 (with the old tariff). Under the new rate, such consumption would cost 567 SYP. The average unit price paid would thus go up from 11.02 SYP to 13.97 per cubic metre, hence a 26.7% increase (that figure has been included in the calculation of the CPI for November 2007).

Graph 4.5
Total water bill paid
according to consumption



Source: own calculations by authors

Now, the weight of water services in the CPI is approximately 0.7% of total consumption. The impact of the new pricing on the CPI should thus be 0.2%. In November, the CPI rose by 0.5% overall compared to October, and the impact of the change in water price was thus 40% of November inflation; as this measure is a one-time change, December inflation (1.2% compared to November) should not be related to the new water pricing policy

We now move on to **electricity**, where a similar pricing system was streamlined in October. The system is a little simpler because there is a scaling rate on top of a linear tax of 16%. Table 4.6 shows the rate change introduced in October 2007. *(See table on the next page)*

First, the new rate remains the same up to 600 KWh consumption. Over that volume, the new rate becomes lower up to 800 KWh, and then rises in increments, whereas the old rate remained fixed above 600 KWh. To put it in a nutshell, for small consumers, the price does not change; for large consumers, it grows and, for a small share of intermediate consumers, the price declines. Let’s note that, even when the pricing structure is unchanged

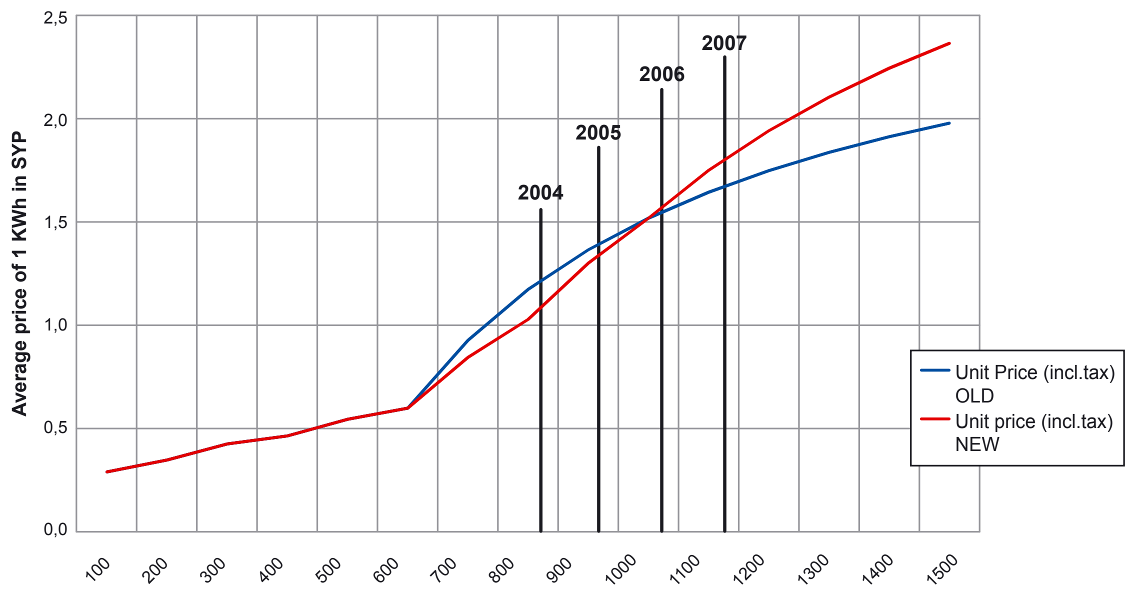
Table 4.6
Tariff change on electricity
As of October 1-st 2007

Consumption in KWh	Old tariff SYP per KWh	New tariff SYP per KWh
Less than 100	0.25	0.25
100-200	0.35	0.35
200-400	0.50	0.50
400-600	0.75	0.75
600-800	2.50	2.00
800-1000	2.50	3.00
1000-2000	2.50	3.50
2000 and more	2.50	4.00

(as for instance in 2004, 2005, 2006 etc), the rise in consumption for all households will raise the average unit price paid. The incremental nature of the rate makes unit price grow mechanically when consumption goes up. This was not taken into account by the Central Bureau of Statistics, which understandably considered that "prices did not change". It is interesting to see what the evolution of real prices has been in the past, and how things changed with the new rate. Graph 6 represents the average unit price according to consumption with the old and the new rate.

As seen from Graph 4.6, the unit price really paid by the average consumer (including tax and using the old rate) went up from 1.19 SYP per 1 KWh in 2004, to 1.33 in 2005, 1.53 in 2006, and 1.62 in 2007 (until September). This amounts to a 12% price rise in 2005 (compared to 2004), 14% in 2006, and 6% in 2007. By contrast, the price rise of October 2007, represented on the graph by switching from the blue curve to the red curve, appears small since it is approximately 10% (October 2007 compared to September 2007).

Graph 4.6
Average price paid per 1 KWh electricity in SYP
according to 2-month consumption and according to the old and the new tariff



Source: CBS data base and authors calculation

Electricity price moves up from 1.62 SYP per KWH to 1.78.

How does that evolution affect the CPI? First, it should be acknowledged that, by considering that electricity price did not change until October 2007, the CBS estimate of the CPI underestimated overall inflation in the past few years. The electricity bill represents 1.5% of the total consumption basket; hence a 12% or 14% real increase in electricity prices in 2005 and 2006 should have generated a 0.2% increase in the CPI on top of what has been officially announced. In 2007, the effect of the 10% increase on the average unit price (incorporated in the CPI) generates a 0.15% increase of the CPI in October compared to September.

Unlike in water and electricity, the price change in **gasoline** (*benzin*) appears quite simple, as the price is a linear unit price. The price went up from 600 to 720 SYP for a 20 litres canister in November 2007, i.e. a 20% increase and more recently to 800 SYP as of April 1-st 2008 (+11%). The weight of *benzin* in total consumption is 0.5%, so that the effect on the CPI is 0.1% for the first change and 0.05% for the second. Of course, one might say that the weight itself changes in that process: if gasoline demand is rigid to prices, then households will spend more on gasoline (up to 0.65% of their total consumption) and demand of more elastic products will decline. If the policy of subsidies reduction continues, it would be advisable for the CBS to introduce an automatic system of weights adjustment on a yearly basis. Up to now, price changes remain limited and do not really require correction.

The planned price increase of **diesel fuel** (*mazout*) should be accounted for by introducing two distinct items in the CPI: instead of having one item (45302 in the present nomenclature), there should be one line for "subsidised (or coupons) *mazout*" and another line for free market *mazout*, with adequate consumption weights of course. As it stands, the weight of *mazout* is 1.954% and the price recorded in CBS CPI is 7.72 SYP per litre (154.4 SYP for a 20 litres canister). We don't know yet how many coupons will be distributed. Suppose the total weight remains the same and that half of *mazout* is distributed with coupons while the other half goes to the free market. As the coupon price will be 9 SYP per litre and the free price is set to be 25 SYP, then the value of sales at coupon price will be (in proportions) 0.5*9 = 4.5 and the value of sales at free prices will be 0.5*25 = 12.5. The total is 17, so that the weight of coupon *mazout* should be 1.954*4.5/17 = 0.517% and the weight of free market *mazout* should be 1.954*12.5*/17 = 1.437%. For both types of *mazout*, the initial price is approximately 7.7, so that coupon *mazout* becomes more expensive by 17%, and free market *mazout* becomes more expensive by 225% (its price is multiplied by 3.25). If we use recalculated weights above, this leads to an overall price rise of 170%. Accounting for the total weight of *mazout* in the consumption basket, the implied impact on CPI would be + 3.3%. This will create a "jump" in the CPI the month the new system will be introduced. After that month, prices on *mazout* would mostly remain stable (until a new rise is enforced), but prices of *mazout*-intensive productions (such as transport) would start to go up themselves. In turn, transport-intensive productions would increase their prices, and so on. Of course, not all the 3.3% price rise on *mazout* should pass over to transport (for instance), since *mazout* is only a share of transport costs; however, taking into account inflation expectations, there is little doubt that overall inflation will be high over the rest of the year 2008.

7) DOES EVERYONE HAVE THE SAME CPI?

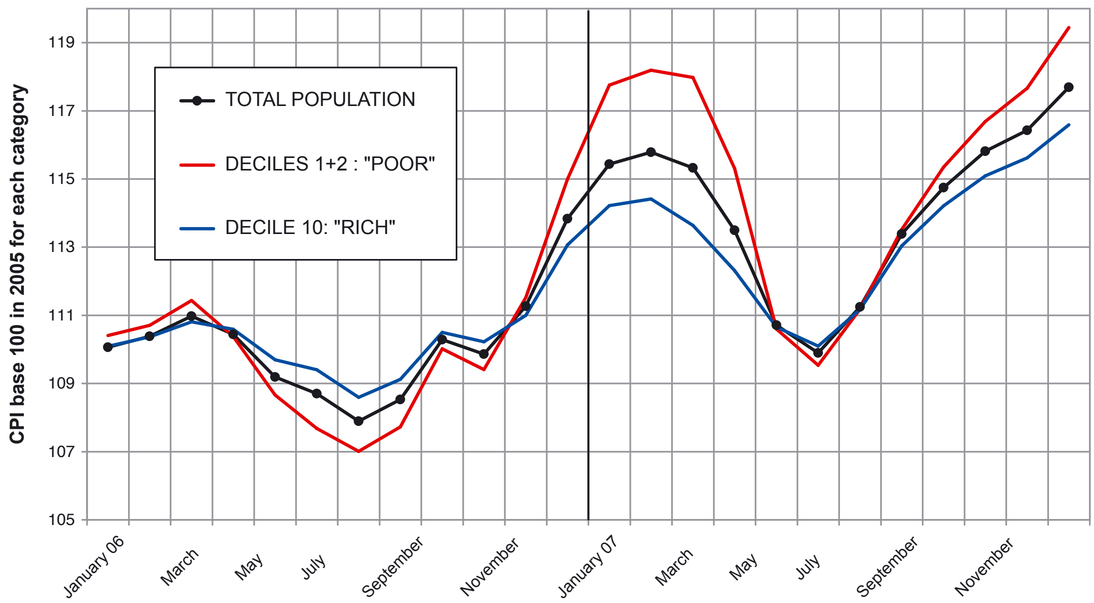
The question that we address now is whether poor and rich people feel price changes the same way. Is inflation the same for all Syrians? As a rule, the poorest part of the population dedicates a larger part of its consumption expenditure to basic needs, such as food or housing, than richer households do. If inflation is higher for these types of products, then that would mean that poor households suffer more from inflation than rich ones, and conversely in the other case. The purpose of the present section is to assess the situation of rich and poor in Syria vis à vis inflation.

In order to answer that question, we rely on the 2004 Household Budget Survey. This survey gives consumption weights for the detailed nomenclature of products corresponding to the 407 basic items defined in Section 4 above, for Syria as a whole. The idea is to use those weights and to apply them to the price evolution of each item, beginning from January 2006 up to December 2007. Based on that, we obtain CPI evolutions for each decile of the population, which will represent the differentiated inflation that we are looking for.

In order to simplify the results, we make a difference between two categories of population: first, the "tenth decile", which includes the 10% of population having the highest level of total consumption; second, a grouping of the first and second deciles, which include the 20% of population having the lowest expenditure level. Both CPI evolutions may be compared to the general price level for the whole population. Results are presented on Graph 4.7 below.

The graph shows that, starting from a base 100 in 2005, the price level reached in December 2007 is at 120 for the "poor" (red line), whereas it stands at 117 for the "rich" (blue line); on average, for the whole population, prices are at 118. Although the difference is not that big, it is remarkable that prices grew more for the first category of population than for the second. However, we remark also that all curves are highly seasonal, and that in summer

Graph 4.7
Consumer price index for various categories of the population
2006 and 2007



Source: calculations of authors on the basis of CBS data months, the average price level is lower for the poor than for the rich (especially in 2006). This is due to a larger share of food consumption for the first category than for the second, and to strong seasonal variations in food prices. Average prices went up 10% between July 2006 and February 2007 for the poor, whereas they went up only 5% for the rich. Prices declined by 8% between February and June 2007 for the poor and by 4% for the rich. In conclusion, prices vary much more for the poorest part of population than for the richest one, and that may cause some trouble in the vulnerable part of the population.

8) CORE INFLATION

Developed economies frequently use a concept of inflation different from the Consumer Price Index. The problem with the CPI is that it factors in the influence of exogenous volatile prices such as agricultural or food prices and energy or minerals prices. These prices typically depend on world markets, so that they give rise to so-called "imported inflation". Unlike other prices, they are independent of the domestic economic policy and appear as "real price shocks": for instance, when prices of oil rise on the world market, this reduces the real income of the (oil-importing) country. Other prices mainly depend on the "output gap", that is on the extent to which resources (labour, capital, technology etc) are fully or not fully used. If resources are fully used (output gap is zero), inflationary tensions may arise because the stronger demand cannot be satisfied by increased output and is therefore transformed into higher prices. If resources are not fully used, these inflationary tensions do not appear. For purposes of better monitoring macroeconomic policies, it is necessary to make a difference between exogenous prices and prices that depend on output gap and domestic policies. To put it differently, one should separate "imported inflation" from "core inflation".

In the present global context, world market prices are quickly rising. In one year, from March 2007 to March 2008, world prices of food products rose by 60%, non-food agricultural products by 20%, oil by 60%; metals prices rose only by 4%, but the year before (March 2006 to March 2007), they rose by 36%. Recently, wheat prices increased so much that flour and bread prices skyrocketed on Egypt consumer markets, which obliged the government to restrict exports of that commodity and earmark more of it for domestic use. It is clear that such price hikes depend on external factors and are not relevant to the domestic economic policy; they are not part of the "core inflation". In Syria, there are rumours (see section 1) about higher food prices, following world prices increase. To what degree is such a scenario realistic?

The situation of Syria is more complex than the description above. The Syrian economy, although gradually opening to world markets, still remains relatively insulated from those markets. There are regulated prices for subsidised or non-subsidised products, such as certain categories of bread, flour, sugar as well as on certain industrial products (*mazout*, *benzin*) and services (bus, electricity distribution). As a result, the quickly rising world prices of oil did not translate into higher consumer prices, except the recent modest price changes and less modest changes to come. Let's remind the reader that *mazout* is sold in most countries including Turkey at more than 1 euro per litre (equivalent to 75 pounds), whereas Syria internal price remained until recently at 7.7 pounds. Thus, one cannot say that higher world energy prices affected the CPI, so that the notion of core inflation should be adjusted to that peculiarity of Syria.

There are also a lot of seasonal prices, which vary widely in the course of the year, both up and down, such as vegetables and fruits for instance. Even if prices on fruits and vegetables depend on world prices level (Syrian producers might sell domestically their products at the same price they are able to export), those prices still depend more on the seasonal variation of supply.

Eventually, the influence of world prices will concern a limited number of agriculture and food industry products, if we eliminate energy prices, regulated food prices and seasonal food prices. However, core inflation should also be taken off these prices: the concept of core inflation is that we are looking for a "pure" inflation phenomenon, resulting from excess demand and not influenced by exogenous elements. All seasonal, regulated or world market influenced prices are exogenous, and should thus be eliminated from core inflation.

In conclusion, the CPI of Syria may be divided into four parts: first, regulated prices; that category represents 16% of the total consumption value and includes twelve items of the nomenclature*. Second, seasonal prices (13%); that category includes fruits, beans and vegetables and other food products. The third category, "imported prices" (26%), contains all food products which do not belong to the previous categories. The fourth and last part of the CPI is "core prices" and contains all remaining items (45% of total consumption). All components of the CPI are represented on Graph 4.8. *(See graph on the next page)*

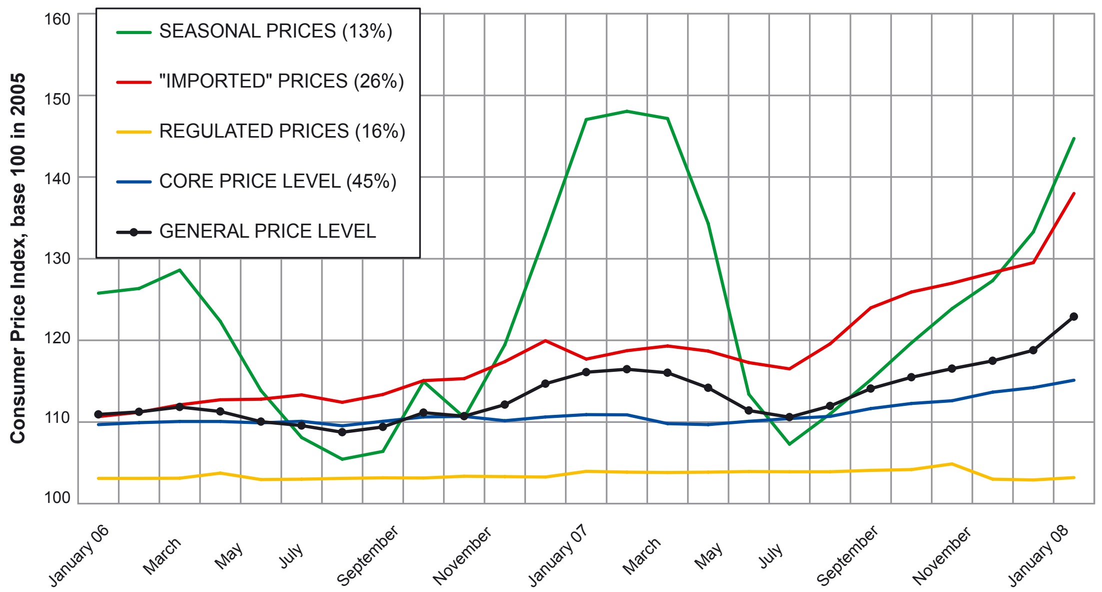
Several comments may be made on that graph. First, regulated prices remained at a very low level (103, compared to 100 in 2005) the whole time, and even slightly declined in October, due to lower rates in telephone communications (and despite higher electricity prices). Second, seasonal prices (mostly fruits and vegetables) show huge variations: between July 2006 and January 2007, they went up from 105 to 147, i.e. a 41% increase. Between January 2007 and June 2007, they decreased from 147 to 107 (a 27% decrease)**. It is of course expected that those prices will decline significantly in the course of spring 2008. Third, "imported" prices grew from 111 in January 2006 to 120 in July 2007, that is at a rate of 0.5% per month on average during 18 months. From July 2007 to January 2008, they went up from 120 to 138, gaining on average 3% per month during the last 6 months. This of course reflects the recent world inflation trend in food prices, as shown on Graph 4.9 *(See graph on the next page)*. The problem has become more serious now, because there is a combination of "imported" inflation and seasonal inflation. Together, those prices weigh 39% of the total basket. If imported prices grow by 3% per month and seasonal prices by 4.5% per month, the addition of those two components (taking their weight into account) grows by 3.5% monthly. That would translate into a 1.4% monthly increase of the total CPI during the winter period 2007/2008. This is of course an important inflation since, if we transform a 1.4% monthly increase into yearly rates, it amounts to an 18% yearly inflation rate.

Since the poorest part of the population (deciles 1 and 2) consumes much more food products than the average (total food and beverages consumption is 55% for them, whereas it is 42% on average), it has been most severely hit by this winter inflation.

** These items include: cheap bread (part of position 11101); subsidised rice (11105); subsidised sugar (11801); tobacco (22); water services (44); electricity, gas and other fuels (45); fuel and lubricants (722); transport services (73); fax and telephone services (830); nursery (1010); secondary school (1020); car registration fees (127004).*

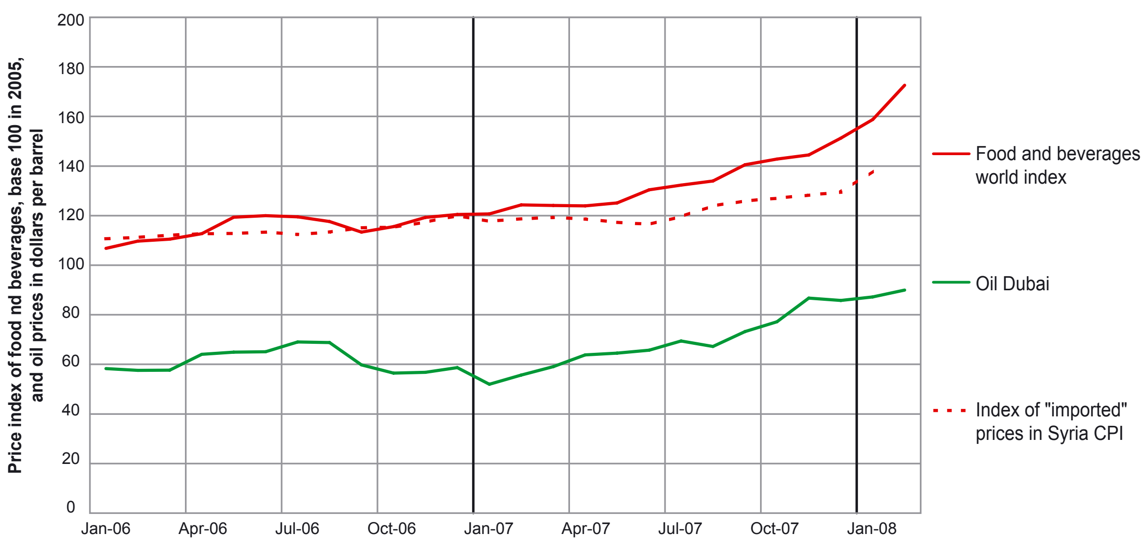
*** Please note that, due to the method of calculation of percentage increases and decreases, the + 41% increase and the – 27% decrease point to nearly the same price level: from 105 to 107.*

Graph 4.8
Components of the Consumer Price Index
January 2006-January 2008



Source: authors' calculations on the basis of CBS data set

Graph 4.9
World prices January 2006-February 2008
for Food and Beverages and for Crude Oil



Sources: IMF data base on commodities prices; Graph 8 for Syria prices

As for core inflation, which is the remaining component of the CPI, we observe on Graph 4.8 that it remained quite stable until June 2007. From June onwards, core prices started to rise slowly by 0.6% per month. With a share of 45% of the total consumption basket, the impact of core inflation on the CPI in the last six months of our period of observation is thus 0.3% per month.

To sum-up, total inflation over the past six months (from July 2007 to January 2008) stood at a yearly rate of 19.6%. Seasonal inflation (in yearly rates) was 62%, and it contributed

40% of the total inflation. “Imported” prices grew at a yearly rate of 33% and contributed to 42% of total inflation. Core inflation was at a yearly rate of 8% and contributed to the remaining 18% of total inflation. There is little solace to expect from seasonal and imported prices in the future: imported prices will continue to rise, maybe at a lesser rate if world growth turns sluggish; seasonal prices will stabilise in the period from March to August, but they will start rising again from August to December (and further). Regulated prices might also rise a little due to rate adjustments, however it is strongly recommended to avoid price hikes from September to December. In principle higher imported prices should have a deflationary effect on core inflation. This very important, last component (45% of the total) depends on monetary policy, in the sense that more money supply would boost core inflation. A restrictive policy would help maintain core inflation at 0% and under such circumstances, total CPI inflation would probably reach 15% in December 2008 (compared to December 2007), with a year to year (2008 to 2007) average of 13%. Otherwise, a 1% monthly growth of core inflation would lead to a 19% inflation (December 2008 compared to December 2007), and 14% average 2008 compared to 2007.

CHAPTER V

LABOUR MARKET AND HOUSEHOLD INCOME

This chapter presents results released recently in the Household Budget and Labour Force surveys conducted in 2007 by the Central Bureau of Statistics. These results are still preliminary and may be revised over the few next months. The LFS has not yet been compiled for the last quarter of the year; therefore the estimates presented below simply extend the results of first three quarters to the entire year. As for the HBS, it is still in the process of correction. Let's remind the reader that the LFS deals with the part of the population that is aged 15 and over, providing detailed information about their activities; its preliminary results are outlined in section 1. The HBS, presented in section 2, deals with the income and expenditure of entire households. Both surveys are representative of these two different populations.

SECTION 1
EMPLOYMENT

As in the first issue of SETB, our presentation focuses on the three outstanding characteristics of households from a macroeconomic viewpoint : sector of activity, type of organisation where a person works, and work status. We first offer an outlook on the number of individuals according to each of those characteristics ; in a second and third point, we combine the break-up of the population by sectors according to work status and then to types of organisation ; finally, we combine work status and types of organisation.

All data has been reconverted from numbers in the sample into numbers in the overall population, and it has been averaged for the whole year.

1) GENERAL PRESENTATION OF THE EMPLOYMENT STRUCTURE

The first line of table 5.1 shows the total number of individuals, aged 15 and over, and with an occupation. We call this population "employment". This number is subdivided below according to three types of characteristics : status of occupation, sector of activity, type of organisation. There are other characteristics that are presented in the very rich CBS database, such as gender, age, level of education, type of activity, mohafazat, marital status and others; we neglect them in order to simplify the vision of the labour market and to concentrate on the characteristics that are relevant for macroeconomic purposes.

Looking at Table 5.1, it is clear that the year 2004 stands out: the total number of persons with an occupation is less than in 2003 and 2005. This is due to the fact that 2004 employment figures are taken from the Census, whereas all others are taken from the Labour Force Survey. Methodologies differ in both cases, leading to misinterpretations when the sources are not corrected. The methodology of the LFS itself has evolved since 2003 and corrections have to be introduced. An ongoing joint work with the CBS Research Department will lead to enhance the reliability of the 2000-2007 data in the next SETB issue. Since the GDP estimation process through the income method is based primarily on

Labour Force Survey data, there is a possibility that significant changes may appear in the next SETB regarding GDP estimates.

Table 5.1
Distribution of employment
by status, sector of activity and type of organisation (thousands)

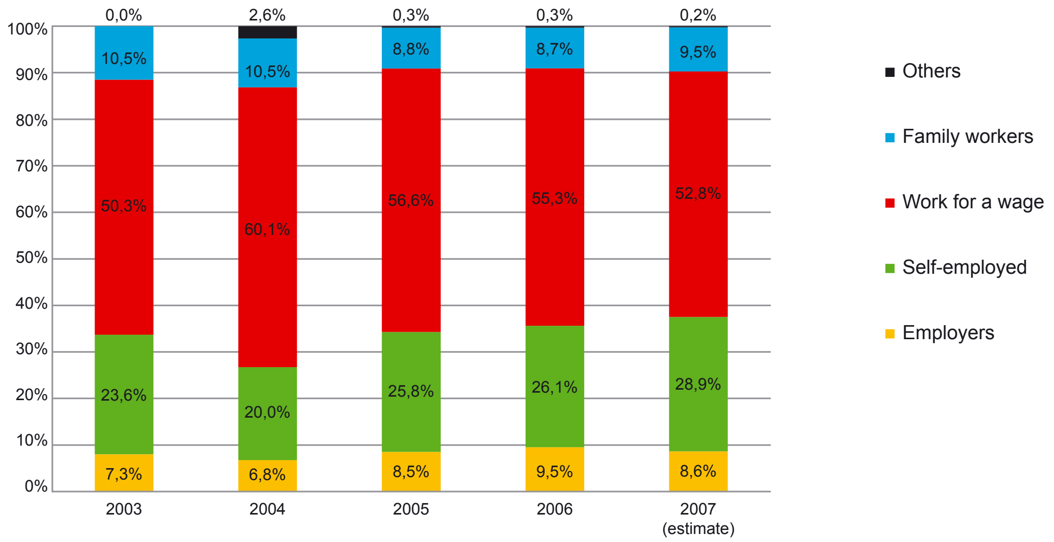
	2003	2004	2005	2006	2007
With an occupation (Total Employment)	4,475	4,339	4,693	4,880	4,997
BY STATUS OF OCCUPATION					
Employers	358	294	399	464	435
Self-employed	1,150	866	1,211	1,274	1,452
Work for a wage	2,453	2,610	2,657	2,699	2,659
Family workers	514	455	411	426	451
Others	0	114	15	17	13
BY SECTOR OF ACTIVITY					
Agriculture and forestry	1,170	807	945	954	998
Industry	609	583	638	728	712
Building & construction	501	846	660	653	759
Hotels restaurant & trade	678	529	743	763	796
Transport, communication, storage	267	263	333	356	343
Finance, insurance	90	84	100	112	136
Other services	1,159	1,228	1,274	1,313	1,280
BY TYPE OF ORGANISATION					
Government and state-owned enterprises	1,219	1,232	1,264	1,362	1,382
Private enterprises		2,275	2,528	2,989	3,332
of which: recorded				1,457	1,549
unrecorded				1,532	1,783
Joint venture public / private		75	26	11	6
Cooperative		73	25	8	5
NGOs / NPOs		221	47	23	27
Family businesses (including farms)		462	804	487	272
All non-state businesses & organisations	3,256	3,108	3,430	3,519	3,642

Source : CBS data

Graph 5.1 shows the structure of employment according to the status of occupation. It is also clear from this graph that, in 2004, the share of persons working for a wage, as along with the share of employers and self-employed persons, are not in line with the overall evolution of the employment structure. Employment structure is a somewhat stable, or slowly changing, phenomenon, and an in-depth analysis of the methodology used in the 2004 census, compared to LFS, has to be conducted. *(See graph on the next page)*

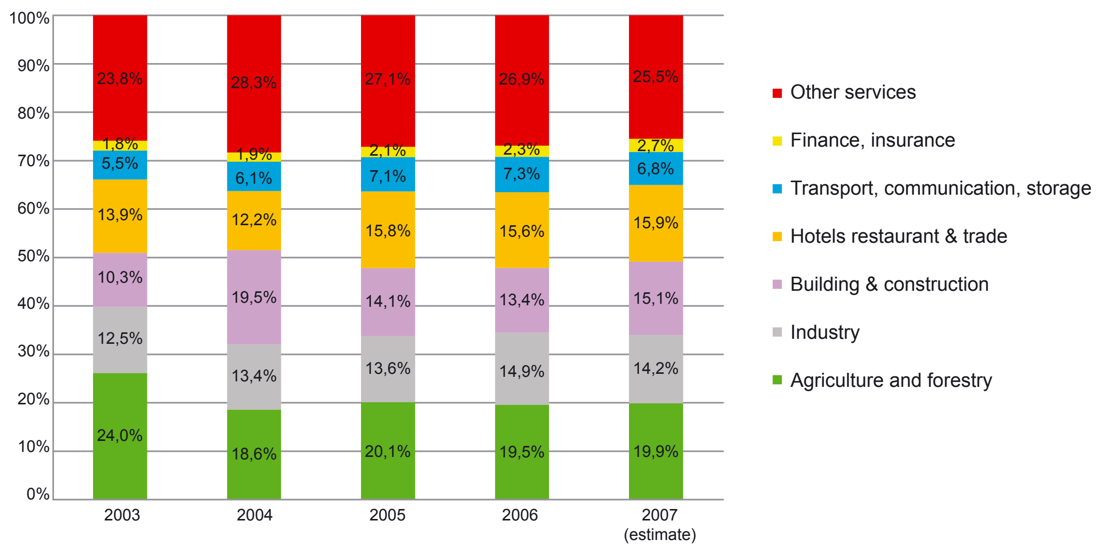
The discrepancy introduced by census data in 2004 also affects the employment structure by sectors of activity. Graph 5.2 shows that agriculture employment decreased excessively in 2004 (as did hotels, restaurants and trade), whereas construction has been overestimated in the census. In principle, we assume that agriculture employment had a more gradual decline, and that employment in the hotels and restaurants sector increased more gradually

Graph 5.1
Distribution of employment according to the status of occupation



Source : CBS data and authors calculation

Graph 5.2
Distribution of population having an occupation according to industries

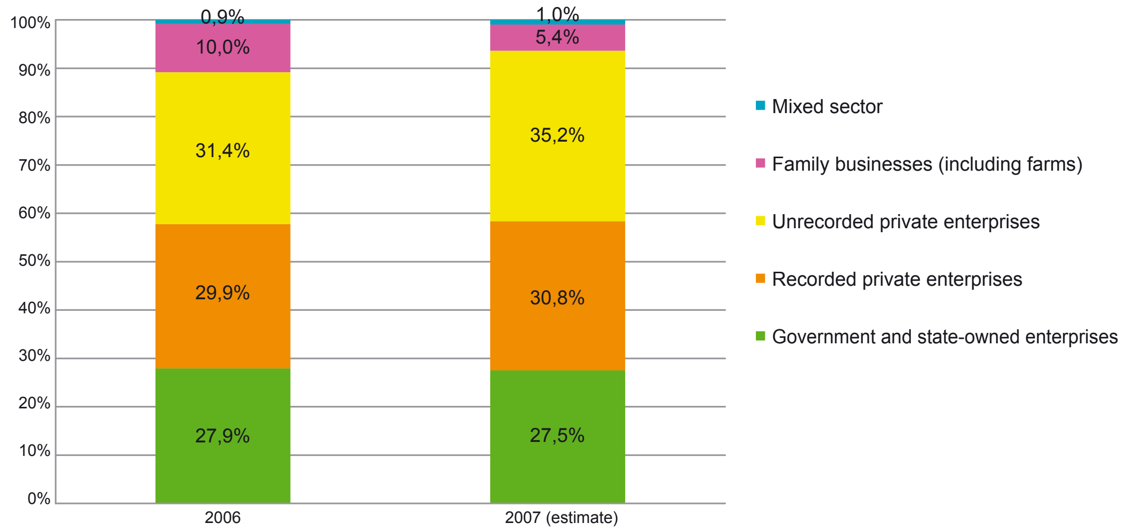


Source : CBS data and authors calculation

too, in line with the trend of years 2003 and 2005 to 2007.

Graph 5.3 does not present data before 2006 because the LFS methodology has been changed with respect to the hiring organisation status. In 2006, an interesting distinction has been introduced regarding the private sector, namely whether the corporation is registered or not. Unregistered companies account for a third of the labour force. The overall emerging picture is that total employment is more or less equally divided in three broad categories: government services and state-owned companies (in green on graph

Graph 5.3
Distribution of population having an occupation according to organisation status



Source : CBS data and authors calculation

5.3), registered private corporations and unregistered private corporations. As, there is an uncertainty as to the precise distinction between family businesses and unregistered private companies, it seems reasonable to aggregate these two types of organisations together.

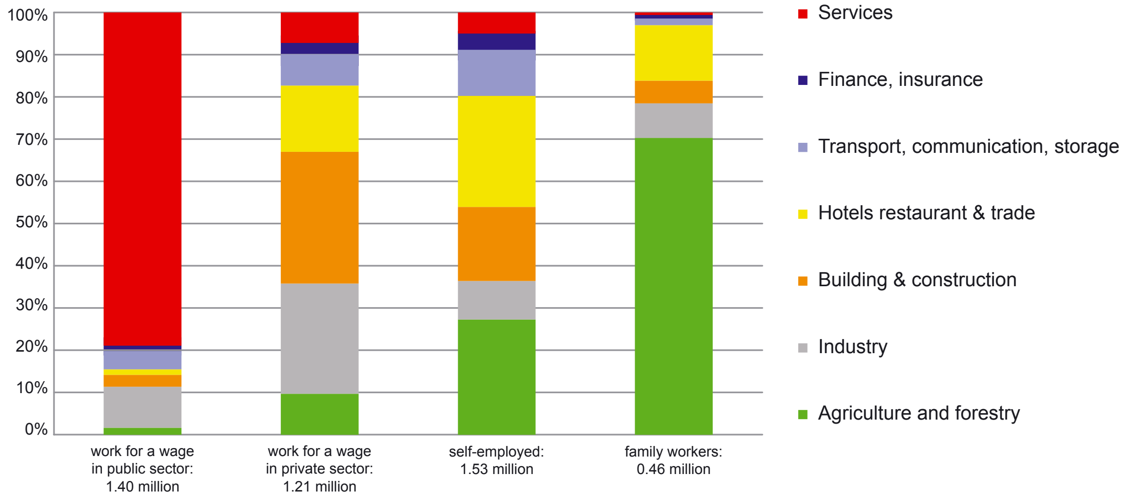
As a result, the aggregate figure of what may be deemed "informal employment" is 41.4% in 2006 and 40.6% in 2007 (estimate). This slight decrease, together with the slight increase of registered private companies' employment, is evidence of the efforts undertaken by the administration and of the improvement of business practices so as to "legalise" small-scale activities. Still, it is unclear whether that evolution, which remains sluggish, will help improve tax collection and the introduction of VAT over the coming years. At the rate observed in 2006-2007, it would take 20 years to reduce the weight of the informal sector by half.

2) BREAK-UP BY EMPLOYMENT STATUS

Graph 5.4 and Table 5.2 show how each type of employment status is broken up among sectors of the economy. Persons working in return for a wage in the public sector (government and state-owned enterprises) are separated from persons working in return for a wage in the private sector. *(See graph on the next page)*

Graph 5.4 presents the percentage structure of the raw numbers in the last column of Table 5.2 (for the year 2007, as a preliminary estimate). Two statuses emerge from the picture. People working for a wage in the public sector are predominantly active in services (particularly in public services such as police, defence, justice, health, education). The number of public service employees has slightly declined in 2007, but that decline has been cancelled out by a slight increase in non-service sectors. By contrast, family workers are mostly concentrated in agriculture and forestry, with their number coming back in 2007

Graph 5.4
Sectoral structure of employment for different categories of status 2007 (estimate)



Source : CBS data and authors calculation

to its 2005 level (after a drop in 2006). In-between those two extremes, the other status are to be found in various sectors. Persons working in return for a wage in the private sector are mostly employed in industry and construction, but they also work in agriculture, trade, transport and services, to a lesser degree though. There was a remarkable decline in that category in 2007 (by 75,000 persons), particularly in agriculture, industry, transport and services, and the increase of people working for a wage in construction (+30,000) did not match those losses. Self-employed persons work mostly in trade, restaurants and hotels, but they are also active in agriculture, construction and transport. Their number increased by 160,000 in 2007, which largely made up for the decline in the number of persons working for a wage; that increase took place in all sectors of activity, including agriculture. *(See table on the next page)*

3) BREAK-UP BY TYPE OF ORGANISATION

We now move on to the type of organisation in which individuals work (regardless of their status). Roughly, there are four types of such organisations in Syria : first, governmental organisations and state-owned companies ; second, private enterprises ; third, mixed organisations (cooperatives, joint ventures, unions etc) ; and family businesses.

Table 5.3 presents each of these categories and their break-up by sectors of activity. For instance, according to 2007 figures, agriculture hires mostly in private enterprises (more than 700 thousands) and family businesses (200 thousands). Again, as the distinction between family businesses and small unregistered private companies is not always clear, the substitution between those categories is difficult to interpret; suffice it to say that the sum of employment in both those categories is rising, close to 950,000 in 2007, compared to 910,000 in 2006. The same applies to most sectors of activity, leading the category of family businesses to an inexorable decline between 2005 and 2007. The "third sector" followed the same evolution, so that employment in the non-public sector is more and

Table 5.2
Break-up of employment according to status and sector of activity

	2004	2005	2006	2007 (est)
WORK FOR A WAGE IN THE PUBLIC SECTOR				
Agriculture and forestry	25,099	26,952	26,416	22,682
Industry	72,406	96,500	120,788	134,212
Building & construction	39,750	26,100	24,329	38,794
Hotels restaurant & trade	15,729	12,219	13,484	18,349
Transport, communication, storage	39,244	36,470	59,192	59,082
Finance, insurance	13,282	15,385	13,993	18,172
Services	1,026,268	1,049,981	1,102,672	1,090,913
TOTAL	**1,231,778**	**1,263,607**	**1,360,874**	**1,382,202**
WORK FOR A WAGE IN THE PRIVATE SECTOR				
Agriculture and forestry	195,118	160,283	152,510	125,040
Industry	294,561	334,163	375,060	337,945
Building & construction	461,576	392,597	371,019	404,010
Hotels restaurant & trade	188,182	212,859	207,358	203,169
Transport, communication, storage	111,958	136,054	121,217	95,427
Finance, insurance	33,534	26,957	25,265	34,966
Services	110,544	130,910	118,039	93,522
TOTAL	**1,395,473**	**1,393,823**	**1,370,468**	**1,294,078**
EMPLOYERS (PRIVATE SECTOR)				
Agriculture and forestry	34,357	75,923	112,860	120,863
Industry	64,773	78,654	81,257	72,837
Building & construction	59,781	33,718	34,216	43,678
Hotels restaurant & trade	83,416	144,904	160,306	129,986
Transport, communication, storage	15,119	18,013	26,365	23,135
Finance, insurance	11,114	20,266	23,859	23,075
Services	26,573	32,048	28,363	20,764
TOTAL	**295,134**	**403,526**	**467,225**	**434,338**
FAMILY WORKERS (PRIVATE SECTOR)				
Agriculture and forestry	333,197	313,823	307,939	318,778
Industry	25,856	23,448	36,794	37,193
Building & construction	54,567	15,787	21,741	24,318
Hotels restaurant & trade	27,274	47,869	55,968	59,670
Transport, communication, storage	9,320	9,749	8,763	7,084
Finance, insurance	1,523	918	2,473	3,709
Services	8,540	2,951	2,852	2,774
TOTAL	**460,277**	**414,545**	**436,530**	**453,526**
SELF EMPLOYED				
Agriculture and forestry	195,320	373,716	369,049	396,685
Industry	118,149	107,217	120,346	132,023
Building & construction	197,221	193,044	213,193	255,317
Hotels restaurant & trade	203,266	325,024	331,224	382,424
Transport, communication, storage	80,993	131,485	144,260	158,519
Finance, insurance	23,038	36,799	47,097	56,165
Services	52,964	58,622	67,913	72,699
TOTAL	**870,951**	**1,225,907**	**1,293,082**	**1,453,833**

Source : CBS data

Table 5.3
Break-up of employment
according to types of organisation and sectors of activity

	Government and state-owned enterprises	Private enterprises sector	Third sector (mixed)	Family businesses including farms
2005				
Agriculture and forestry	26,952	426,502	22,598	469,135
Industry	96,500	476,132	14,015	51,881
Building & construction	26,100	529,055	22,537	82,189
Hotels restaurant & trade	12,219	586,965	20,731	122,686
Transport, communication, storage	36,470	241,242	8,109	47,408
Finance, insurance	15,385	75,465	1,307	7,955
Services	1,049,981	192,659	8,459	22,861
TOTAL	**1,263,607**	**2,528,020**	**97,756**	**804,115**
2006				
Agriculture and forestry	26,416	521,324	15,175	390,698
Industry	120,788	584,108	2,871	20,738
Building & construction	24,329	605,784	8,473	13,982
Hotels restaurant & trade	13,484	705,546	6,714	37,473
Transport, communication, storage	59,192	276,927	3,645	16,609
Finance, insurance	13,993	95,063	715	2,496
Services	1,102,672	201,369	4,092	5,131
TOTAL	**1,360,874**	**2,990,121**	**41,685**	**487 126**
2007 (estimate)				
Agriculture and forestry	22,682	738,422	23,524	213,428
Industry	134,212	563,939	2,505	11,434
Building & construction	38,794	704,919	3,212	11,809
Hotels restaurant & trade	18,349	752,750	3,927	21,029
Transport, communication, storage	59,082	272,351	1,616	10,176
Finance, insurance	18,172	116,490	93	1,298
Services	1,090,913	182,954	3,152	2,944
TOTAL	**1,382,202**	**3,331,825**	**38,029**	**272,118**

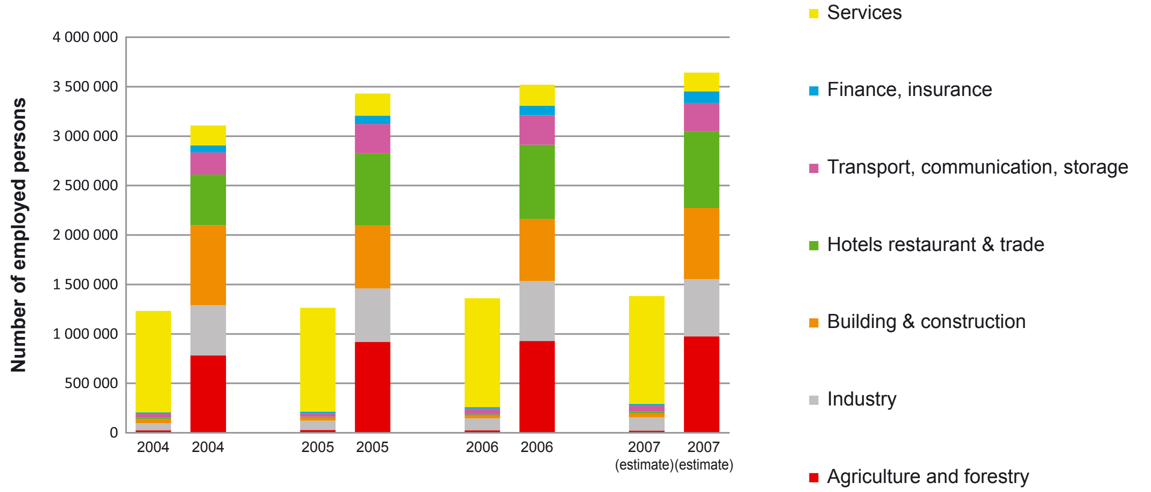
Source : CBS data

more concentrated in private companies. Graph 5.5 reflects this view by comparing the state sector as a whole to all other non-state sectors.

Employment by the government and state-owned companies has increased in 2007, however by a smaller amount than in 2006 (+20 thousands against +100 thousands in 2006). It is, as was already mentioned before, mostly concentrated in (public) services. The non-state sector, which hires more than twice as many persons as the state sector (3.6 million against 1.4), has also risen in 2007, by 120 thousands employees against an increase of 90 thousands in 2006. The bulk of that increase took place in construction, trade and finance. *(See graph on the next page)*

Despite blurry distinctions between the various forms of private sector, it is interesting to follow the new distinction, introduced in 2006 by the CBS, between registered and unregistered private sectors. That distinction might be more helpful than the one between family businesses and small-scale companies. Although one could have considered on

Graph 5.5
Employment in public and private and mixed sectors
Distribution by sectors



Left columns: public sector. Right columns: private and mixed sector

Source : CBS data and authors calculation

the one hand the private registered sector and on the other all other forms of private activity, Table 5.4 follows the detailed presentation of the various types of private businesses. It would make sense, however, to merge the family businesses column of Table 5.4 with the private non-registered column, whereas the third sector column (Cooperatives and joint ventures) should be merged with the private recorded column. This is what we did in Table 5.5, which compares situations in 2006 and 2007.

Table 5.4
Break-up of employment according to status and type of organisation 2007 (estimate)

	Government & SOEs	Private recorded	Private non-recorded	Family business	Third sector (mixed)	TOTAL
Employers	0	237,702	173,079	19,784	3,082	433,646
Self-employed	0	573,754	754,107	111,795	7,607	1,447,263
Work for a wage	1379,995	626,798	622,342	7,838	8,221	2,645,195
Family workers	0	103,836	210,412	131,637	29,032	474,917
Others	0	3,475	7,046	1,098	894	12,513
TOTAL	1379,995	1,545,565	1,766,986	272,152	48,836	5,013,534

Source : CBS data and authors calculation

Table 5.5 shows that there are approximately 25% more persons working in the informal sector – whatever their position – than in the formal private sector. If the formal sector includes state-owned companies and government, then the total hare of informal employment is close to 41%. This does not include secondary jobs of the persons with a formal primary occupation. Together with secondary jobs (and counting a same person several times for several jobs), the share of informal employment would certainly be over 50%.

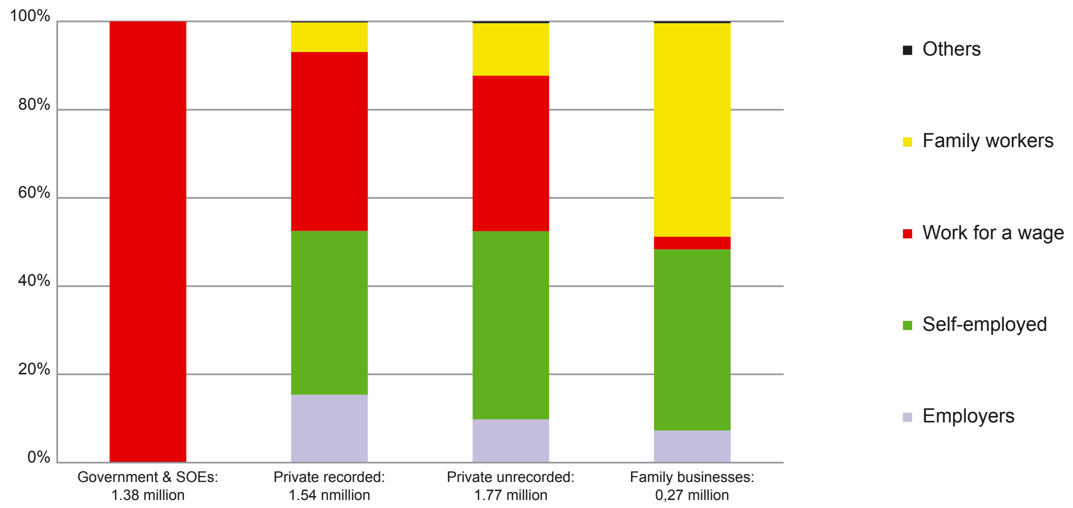
Table 5.5
Employment in the private sector, formal and informal

	2006		2007	
	Private recorded	Informal sector	Private recorded	Informal sector
Employers	285,206	179,144	240,784	192,862
Self-employed	453,678	820,204	581,361	865,902
Work for a wage	658,214	679,145	635,020	630,180
Family workers, apprentices (not paid)	101,495	340,921	137,237	350,193
TOTAL	1,498,593	2,019,414	1,594,401	2,039,138

Source : CBS data and authors calculation

The second remark is that there are many more employers in the registered sector than in the informal sector (even if the gap narrowed significantly in 2007). If each employer represents a company and if the persons working for a wage are exclusively linked to companies, one may determine the average size of companies. In the formal sector, that size increased from 2.3 to 2.6 employees by firm between 2006 and 2007. In the informal sector, the average size decreased from 3.8 to 3.3. Of course, such a calculation is somewhat arbitrary, as we do not know how family workers are distributed between self-employed and firms hiring paid employees.

Graph 5.6
Structure of employment by status for various types of organisations 2007 (estimate)



Source : CBS data and authors calculation

Graph 5.6 gives an overall picture of the four main sectors. It is striking that private registered and private unregistered sectors have a similar structure of employment, except for family workers, which are more concentrated in the non-registered sector (as in family businesses).

SECTION 2
INCOME AND LIVING STANDARDS

This second section leaves the Labour Force Survey aside to focus on the Household Budget Survey. This survey has been conducted in 2007 and its preliminary results are now available. Further minor changes should not be ruled out in the process of completing that survey; hence corrections will be introduced in the next issue of SETB.

1) GENERAL PRESENTATION OF THE HOUSEHOLD BUDGET SURVEY

The first issue of SETB gave for the first time a thorough description of the Household Budget Survey conducted in 2004. Results presented below deal with a new HBS carried out in 2007, and it would be useful to compare the evolution of the results over the last three years. Unfortunately, many changes have been introduced in that new round of HBS, in particular to take into account the remarks expressed about HBS 2004. This led, for instance, to a much better accounting of small business incomes, of imputed rents and other items. As a consequence, the huge gap between income and expenditure, which was revealed in the analysis of the 2004 survey, has been significantly narrowed (the methodology of calculation of the undeclared income is the same as in SETB first issue). On the downside, this improvement makes comparisons difficult.

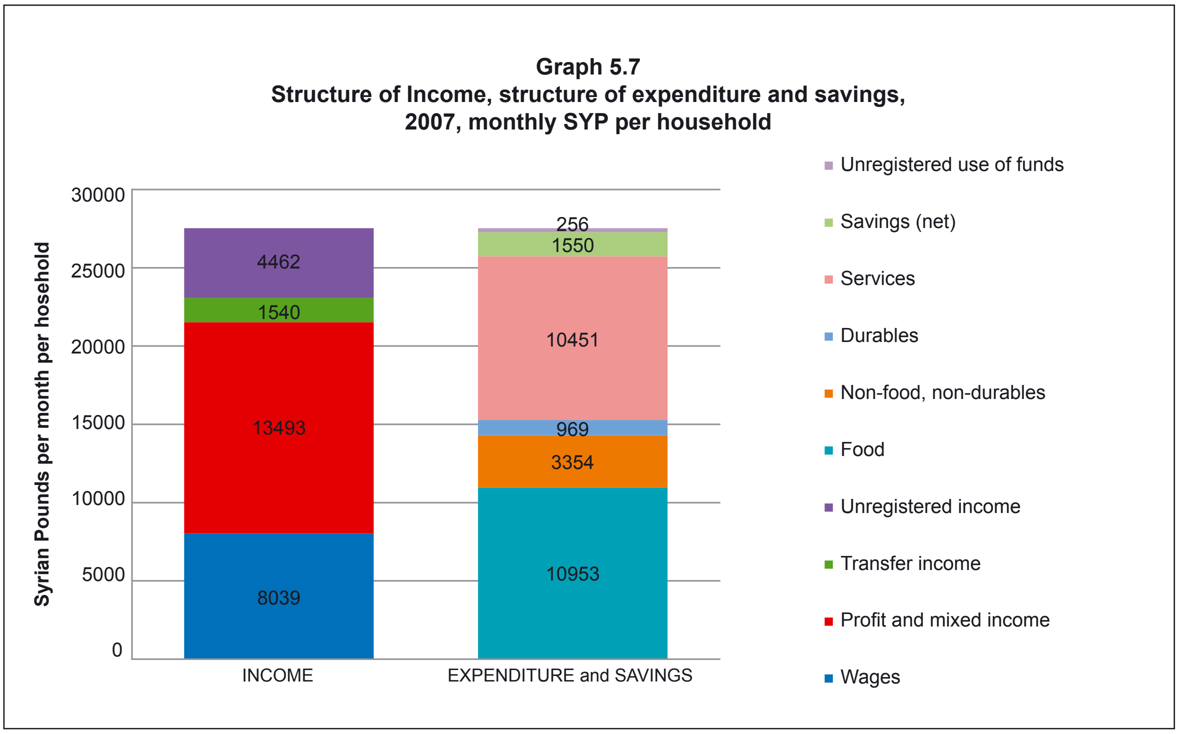
Chief among the consequences of the better accounting of incomes, poor households' income appears to be larger than expenditure in the 2007 HBS. Joint analysis with CBS experts led to the conclusion that poor households (the first two deciles) tend to hide their consumption by fear that they should be forced to change their behaviour. As a result, the following new component of expenditure appears in the presentation below: "unregistered use of funds".

Another new component, savings, has been also added onto the expenditure side. That component, which is absent from the CBS questionnaire addressed to households, has been added using Central Bank data on the accumulation of cash and savings deposits. It is clear that households – at all levels of income – do save, at least to finance their current expenditure. The total (financial) savings have been calculated as the increment of cash currency in circulation and time and savings deposits, from end-2006 to end-2007 and for the country as a whole. That amount has been divided by 12 to get monthly national savings, and yet again by the total number of households in the country, to get the average monthly savings per household. In turn, this magnitude has been broken up into deciles, under the classical hypothesis that savings is a constant proportion of income.

All those corrections lead to the results presented in Graph 5.7. *(See graph on the next page)*

The total income (or total expenditure and savings) is 27,533 SYP per month and per household in 2007. Let's note that in 2004, it was 22,580, i.e. a 22% rise over three years. Accounting for the number of households in Syria (under the hypothesis that the average size of households did not change), the total households' income for the country as a whole is 1,090 billion SYP, of which 318 billion SYP for net wages. This last figure is in line with the estimate presented in Chapter 2 on GDP.

On average, households draw 13,493 SYP monthly from profit and mixed income (including



Source : CBS data and authors calculation

paid and imputed rents, interests received, distributed profits and overall small business income). Due to better accounting by the CBS, that estimate is dramatically different from its 2004 counterpart, where the matching income was only 6,119 SYP; undisclosed income dropped from 8,677 SYP monthly, to 4,462 SYP in 2007.

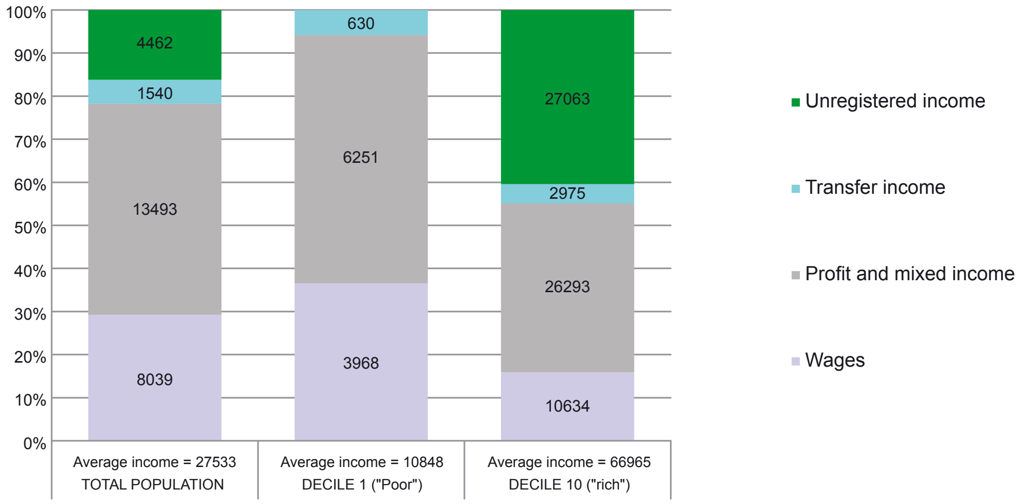
On the expenditure side, the most conspicuous change comes from the share of non-food non-durables, which declined significantly compared to 2004, together with a symmetric rise in the services share. This is due to a change in the breakup of expenditure between the two surveys. Eventually, the "unregistered use of funds" category appears very small, with 256 SYP, mostly because savings have been introduced in the balance of income and expenditure.

2) DISTRIBUTION OF INCOME AND EXPENDITURE BY DECILES

We now move on to the problem of inequalities in income distribution. The breakup by deciles, as presented in Graph 5.8 for the two extreme deciles, shows that "poor households" (first decile) have an income of 10,848 SYP monthly, whereas "rich households" (tenth decile) have an average income of 66,965 SYP per month. More precise data, not presented here, show that the last percentile of the population (that is the "richest" 1%, whereas the last decile is the "richest" 10%) has an average income of close to 140,000 SYP per month. One percentile of the population is approximately 200,000 persons, or 30,000 families (households); one decile is approximately 2 million persons, or 300,000 families. *(See graph on the next page)*

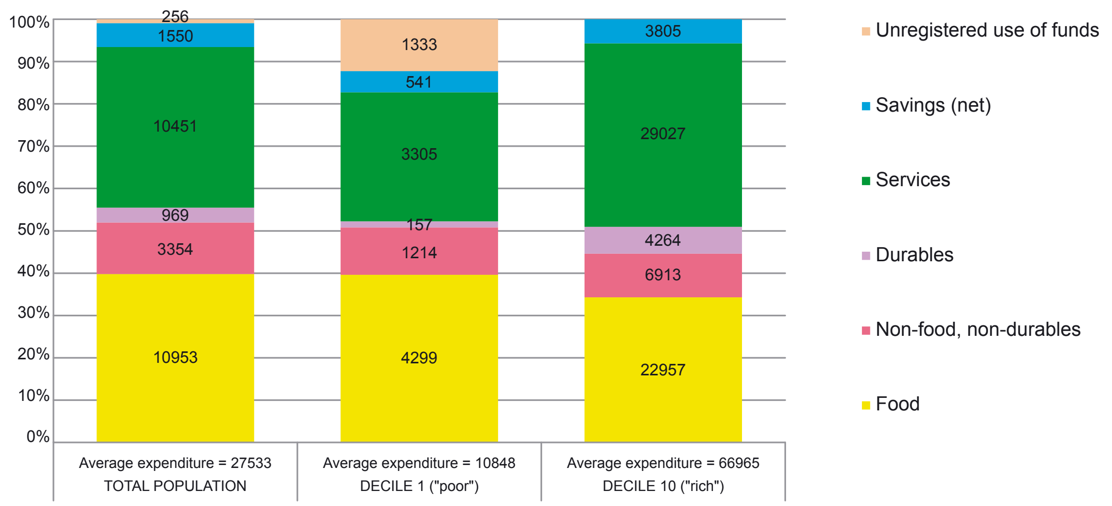
Graph 5.8 compares the structure of income of the 10% "poorest", the 10% "richest" with the average of all deciles (total population). Wages account for 36% of total income for the first decile (3,968 SYP), and 16% for the tenth decile (10,634 SYP). Profit and mixed income account for 57% of income for the first decile (6,251 SYP) and 39% (26,293 SYP) for the

Graph 5.8
Structure of income for "poor" and "rich"
year 2007, figures inside graph in SYP per month for one household



Source : CBS data and authors calculation

Graph 5.9
Structure of expenditure and savings of "poor" and "rich"
year 2007, figures inside graph in SYP per month for one household



Source : CBS data and authors calculation

tenth decile. Profit and mixed income include components such as income from small businesses, received rentals including imputed rentals (an important component representing 4,400 SYP on average, or 33% of profit and mixed income), interests, distributed profits etc. Especially when it comes to higher income classes, this category is widely underestimated and it should include unregistered income. However, the first decile has no unregistered income, whereas the tenth decile gets 40% of its total income in that form (27,063 SYP), which is the largest component of income at that level. The share of transfer income – mostly pensions, retirement compensation and transfers from NGOs) –

is very low in both extreme deciles (as for the total population).

Switching now to the expenditure side (including savings as explained above), Graph 5.9 shows that services are the most discriminating item between classes of income. The “poor” dedicate 30% of their expenditure (3,305 SYP) to services whereas the “rich” dedicate 44% to that item (29,027 SYP). This item includes imputed rentals, which make up for 57% of services expenditure in the first decile, and 27% only for the last decile. As said above, the “poor” households tend to hide part of their expenditure – unlike the “rich”, who tend to hide part of their income – and that leads to the “unregistered use of funds” category. That item is quite important for the first decile, with 12% of their total income (or expenditure and savings), or an amount of 1,333 SYP.