

The Swedish economy

Statistical perspective



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Increased importance of domestic demand..... page 3

The Swedish economy continued to show strong growth during the second quarter of 2007, partly as a result of a solid investment economy. At the same time, opportunities for household consumption increased when more people were working and disposable income increased due to higher salaries and lower taxes.

Investments rose sharply page 9

Gross fixed capital formation continued to rise sharply during the second quarter. The current growth in investments is not only strong but also unusually long-term, stretching over a period of three and a half years. This has during the first half of 2007 led to the highest increase in the investment ratio in the economy since 1991.

Trend change for terms of trade page 21

During the late 1990s price development for Swedish exports of goods and services have been lower than prices of imported goods and services. This has led to an ongoing deterioration of terms of trade. However, a trend change has been seen during the last three quarters when export prices rose more than import prices.

Number 3•2007

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Summary

Domestic demand of increased importance

The Swedish economy continued to grow at a powerful pace during the second quarter of 2007, partly as a result of distinct development of gross investments. At the same time possibilities for increased household consumption have improved, as both employment has risen and disposable income is larger due to higher wages and lower taxes. Government consumption also continued to rise. Net exports held back GDP growth this quarter, but not to the same extent as in the previous quarter.

The Swedish economy continued to develop well during the second quarter. GDP increased by 3.5 percent, which was more than the long-term average, but slower than during 2006. Gross investments grew again by close to 10 percent. Machinery investments in the private sector were the main factor behind the increase, but investments in the building sector continued upwards. Net exports held back GDP growth during the second quarter by 0.4 percentage points. Disposable income which rose by 4.8 percent has created a potential for increased household demand. Nevertheless, household consumption rose rather moderately by 2.7 percent which resulted in a household saving ratio of 14.7 percent. Demand increased on a broad base, but is still dominated by the previous pattern of strong growth for home electronics and household items.

Domestic demand has increased, partly as a consequence of strong employment, which rose by 4 percent during the second quarter. The growth in demand was mainly among private services such as hotels, restaurants and business services, but other sectors are also expanding.

Industrial production rose by 1.2 percent during the second quarter compared to the previous quarter. The largest increase was seen for services, where most industries expanded quite rapidly. Among manufacturing industries, the engineering industry continued to develop strongly. On the other hand, the chemical industry continued to be weak. The positive productivity trend was broken during the last year, as employment has increased strongly while production did not escalate at the same pace. It takes time for newly employed and inexperienced labour to obtain the skills for the same level of productivity as the older more experienced employees. The employment increase is especially large within the service sectors which normally have lower productivity growth, contributing to the low overall productivity growth.

Government consumption continued to grow, mainly with an increase in local government consumption which grew by roughly 3 percent. Consumption of county councils also increased while central government consumption decreased due to further cutbacks in the military sector.

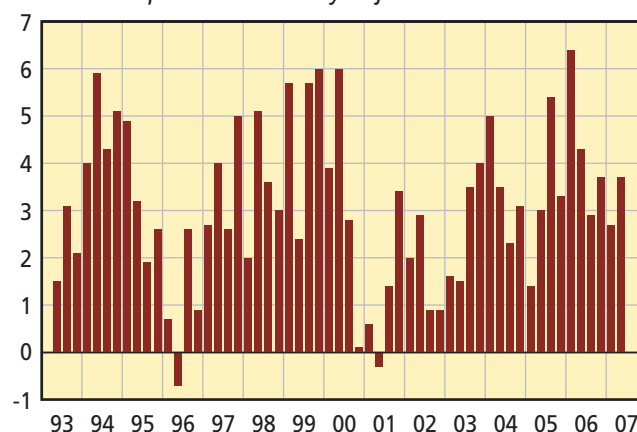
The present economic situation could be compared to the situation in the mid-1990s when a weaker demand from the U.S. also led to slower development in Sweden. Today the American economic cycle does not have the same impact on

the world economy, but the slower increase in Swedish exports can partly be seen as a consequence of a sluggish American market.

Gross domestic product

Percent change from previous quarter, annual rate.

Constant prices. Seasonally adjusted



Source: National accounts Data up to and including the second quarter 2007

Domestic demand has to a large extent replaced exports as the main driving force in the economy and GDP growth was powered by both gross investments and consumption. This implies that imports also increase because the import content in household consumption, especially gross investments, is high. Adjusted for import contents, exports also continued to contribute significantly to growth. Gross investments increased, both regarding machinery and construction. Household consumption also showed good conditions for growth as disposable income rose.

There is a bit of uncertainty regarding the development in inventories, since business inventories and industrial inventories developed in different directions. During the second quarter findings in the National Accounts revealed large discrepancies between production side calculations and expenditure side calculations. Expenditure calculations showed a weaker development than production calculations, which is not the usual manner. However, this pattern has been the case during the last year.

Different methods for calculation of terms of trade and its development during the last fifteen years are presented in a thematic article.

A significant revision of National Accounts has been done and will be released this autumn. The revision is presented in a thematic article. A number of methodological changes and revisions are being done to improve the quality of economic statistics for the users.

Exports and imports

Continued weak export growth

Exports of goods and services grew at approximately the same slow rate during the second quarter as in the preceding quarter. Imports went up faster than exports, but slower than in the first quarter. The export of goods, which was the principal reason behind the poor performance, developed weakly to both North America and Asia but better to Europe. The contribution from net exports to GDP growth was -0.4 percentage points, somewhat better than in the previous quarter when the contribution was -1.4 percentage points.

For the second quarter of 2007, the export volume of goods and services was 5.5 percent higher than for the second quarter of 2006, which means that the growth rate was approximately the same as for the first quarter. Seasonally adjusted and compared to the first quarter, the growth rate declined to 0.4 percent from 1.1 percent during the preceding quarter, despite an almost unchanged growth rate for both exports of goods and exports of services¹. The seasonally adjusted exports of goods decreased by 0.2 percent compared to the preceding quarter, also after a small decline during the first quarter. This was the first time since 2001 that two subsequent quarters showed a decrease, although insignificant, of exports of goods. The fall in exports in 2001 was however much sharper.

Exports and imports of goods and services

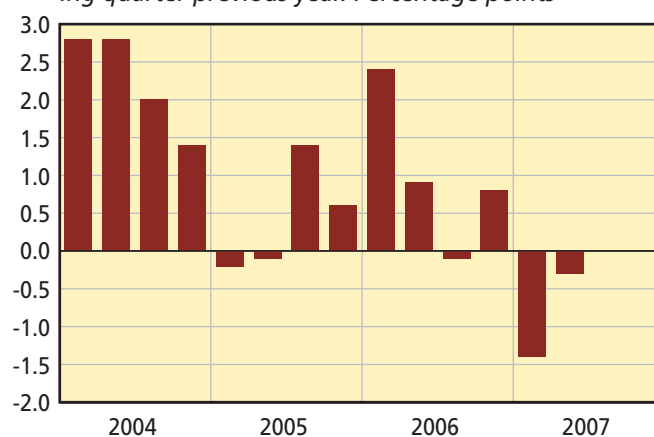
Second quarter 2007			
	Billions of SEK, current prices	Percent change, volume Compared to Q 1/2007 (seasonally adjusted figures)	Compared to Q 2/2006 (actual figures)
Exports			
Goods and services	394.0	0.4	5.5
Goods	292.1	-0.2	4.1
Services	101.9	2.4	9.5
Imports			
Goods and services	327.3	0.7	7.5
Goods	248.0	-0.5	8.1
Services	79.4	1.4	5.6

Source: National accounts

At the same time as exports of goods grew at the same moderate pace as during the first quarter, the import growth was slowing down. As a result of this, the contribution from net exports to GDP growth was up to -0.4 percentage points – still negative but better than the -1.4 percentage points seen in the preceding quarter. If the import content is excluded from the different parts of the expenditure side of GDP the picture will be somewhat different (in this case, for example the consumer goods that are imported is excluded from consumption)². This calculation method gives a contribution from exports of 1.4 percentage points to the

total GDP growth of 3.4 percent, which is twice as much as household consumption, which gave the second largest contribution.

Contributions from net exports to GDP growth Including import contents. Compared to corresponding quarter previous year. Percentage points



Source: National accounts

Data up to and including second quarter 2007

Continued strong exports of services

In contrast to exports of goods, exports of services continued upwards at the same pace as in the first quarter. The relatively sharp increase was primarily explained by higher merchandising, as was the case also for the preceding quarters. The contribution to GDP growth from merchandising was 0.5 percentage points, while the contribution from total net services was 0.6 percentage points. This means that the contribution from net exports of goods was -1.0 percentage points.

The composition of exports and imports of goods has not changed very dramatically during the last years. Merchandising has expanded the most. Its share of total exports of services has increased from about 9 percent in 2003 to about 14 percent in the first half of 2007 (some seasonal variation of the share is possible, but it will probably affect the distribution between the half-years very little). Other parts of the service trade have been comparatively unchanged over the years.

Exports have risen faster than imports since 2000. In 2000, the net trade of services was negative, by about SEK 12 billion but, for 2006, it was strongly positive by more than SEK 70 billion, and the tendency has been an upward one also during the first six months of 2007.

¹ The separate parts show a differing development to the aggregate due to so-called direct seasonal adjustment.

² For further information about this calculation method see Swedish economy – statistical perspective number 1 2007.

Contributions to GDP growth from net exports of services

	2001	2002	2003	2004	2005	2006	2007 (2 Q)
Travel	0.7	0.1	0.0	-0.2	0.2	0.3	0.1
Merchanting	-0.1	0.0	0.1	0.5	0.4	0.3	0.6
Other services	-0.1	0.4	0.3	0.7	0.3	-0.1	0.0
Total services	0.5	0.5	0.4	0.9	0.9	0.5	0.6

Source: National accounts

The importance of merchanting as a driving force for GDP growth has increased sharply from 2004. Other components have had varying importance over time. The contribution from travel payments was somewhat smaller for the last quarter than for preceding quarters.

Compared to the release of the first quarter in May a comparatively large revision downwards has been made of the service imports for the first quarter. Among other things the figures for the calculation of FISIM have been updated and an error in the calculations has been corrected. Also, the imports of services for the first quarter have been revised upwards. Altogether the revisions resulted in an improvement of net exports for the first quarter of about SEK 2.4 billion.

Receding exports of telecom and pharmaceuticals

Exports of goods increased, according to foreign trade statistics, by 5 percent in current prices (value) and by between 2 and 3 percent in constant prices (volume) from the second quarter 2006 to the second quarter of 2007. The difference in volume growth between national accounts and foreign trade statistics is mainly due to the fact that different weights have been used when calculating price indices. The export of goods for the second quarter has also been corrected compared to the figures released by foreign trade statistics because of inconsistencies between reported figures for exports and for production. Export prices increased a little more than import prices, which meant that the terms of trade improved slightly.

The export of pharmaceuticals developed poorly, with a volume decline of almost 10 percent. Exports decreased also for forestry products, by about 5 percent. Petroleum products, which rose sharply during last year, decreased by a full 14 percent. The export volume of steel has stagnated during the last quarters, which may be an effect of shortage of capacity. However, the price development has been very favourable for exporters and has thus caused a steep rise in revenues.

Imports of goods rose by 8 percent, while the value increased by about 7 percent according to foreign trade statistics. A very substantial volume decline of a full 30 percent can be seen for crude oil, which partly can be connected to the sharp downturn in exports of refined petroleum products. The volume for steel was 10 percent higher than the corresponding quarter the preceding year. Large volume growth can also be noted for electrical and telecommunica-

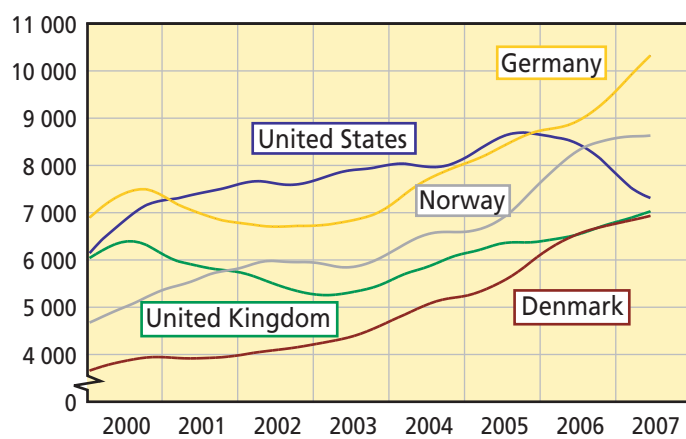
tion equipment.

Higher exports of goods to Germany

For foreign trade by country, there are figures only in current prices, which are affected by price developments and exchange rates. As stated above, export prices increased more than import prices between the second quarter 2006 and the second quarter 2007. Between the same periods, the dollar rate compared to the Swedish currency weakened by about 7 percent, while it went down by about 2 percent between the first two quarters of 2007. The variations against the Euro were small – the Swedish crown increased by about 1 percent over four quarters and weakened insignificantly between the last two quarters.

Exports of goods by countries

SEK millions, current prices. Trend cycle estimation



Source: Foreign trade statistics

Data up to and including June 2007

Total exports were, as mentioned above, 5 percent higher during the second quarter of this year compared to the second quarter last year. The slackening tendency for exports to United States became even more evident. Exports to United States decreased by about 14 percent compared to the second quarter of last year and by 4 percent compared to the previous quarter, in seasonally adjusted figures smoothed out by trend cycle estimation. Exports to Asia looked somewhat better during the second than during the first quarter and were 1 percent lower in current prices compared to the same quarter in 2006. In the previous quarter, the decline was 6 percent. Among the larger destination countries for Swedish exports, China rose by 2 percent and India by 15 percent, while exports to Japan declined by almost 20 percent. Exports to European countries which constitute three quarters of total exports of goods developed better and were, during the second quarter, 8 percent higher than the corresponding quarter one year earlier. Exports to Germany were 16 percent higher than in the second quarter of last year and exports to Poland were a full 35 percent higher. Other larger export markets showed lower growth figures.

Imports in current prices were up by about 7 percent, somewhat slower than for the preceding quarter. Among larger dispatch countries, imports from China increased sharply

by 22 percent. Other larger countries with large increases were the United Kingdom with 19 percent, Italy with 18 and France with 13 percent. Imports from Russia continued

downwards and were more than 20 percent lower than in the corresponding quarter of 2006.

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Household consumption

Household consumption continued to rise

An increase in the number of employed people and tax reductions contributed to a rise in consumption of 2.9 percent during the second quarter. The contribution to GDP growth was 1.3 percentage points during this quarter, while the import-adjusted GDP contribution was 0.7 percent. This shows that a large amount of consumption goods were imported. The demand from households rose for most goods. The savings rate increased to 14.7 percent.

Disposable income for households increased by 4.8 percent, in constant prices, during the second quarter. The increase is due to a higher aggregate gross pay as a consequence of more people being employed but is also an effect of lowered income, real estate and wealth taxes. At the same time transfers, such as unemployment insurance, health insurance and so on, have decreased. Even in this quarter, a major rise in savings was observed.

Households bought photo equipment and consumer electronics

Household consumption rose during the second quarter of 2007 by 2.7 percent in constant prices compared to the same period last year. With the exclusion of non-profit institutions serving households (HIO), the rise was 2.9 percent. The greatest increase, measured both by volume and contribution to GDP growth, was seen for recreation and culture. The volume growth was 7.4 percent and the contribution was 0.9 percentage points. Data and photo equipment and also audio equipment, DVDs and TVs were primarily consumed during the second quarter. An almost-as-large increase was seen for hotels and restaurants, furniture etc. and for miscellaneous goods and services. The group contains, among other things, personal care and insurances.

Transport increased during the second quarter. Car sales continued to increase, mostly for used cars. Even transport services increased. This group contains, for example, long distance travel by bus and train.

The largest negative contribution was made by expenditures for electricity, distant heating and heating oil. Shoe sales decreased during the same quarter while clothing continued to grow, but at a lower rate. Foreign visitors' consumption

decreased by 0.5 percent during second quarter, which is in line with last year's trend. This item is measured as service exports.

Household consumption in the second quarter 2007

	Share of household consumption, %	Change in volume compared to Q 2/06, %	Contribution to a raise in household consumption, %
Housing	25.7	0.4	0.1
Transport	14.1	2.4	0.3
Recreation and culture	12.8	7.4	0.9
Food and non-alcoholic beverages	12.7	2.7	0.3
Miscellaneous goods and services	10.2	6.8	0.7
Restaurants and hotels	5.4	7.0	0.4
Furnishings etc.	5.3	7.0	0.4
Clothing and footwear	5.3	1.9	0.1
Direct purchases abroad by residents	4.7	3.0	0.1
Alcoholic beverages and tobacco	3.5	-0.2	0.0
Communications	2.9	1.1	0.0
Health	2.8	2.3	0.1
Education	0.3	3.9	0.0
Purchases by non-residents in Sweden	-5.7	10.2	-0.5
Total final consumption expenditures	100.0	2.9	2.9
Non-profit institutions serving households		-1.1	
Total consumption		2.7	

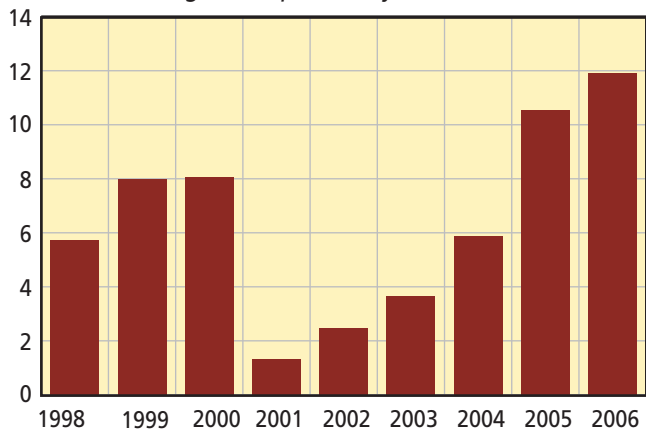
Source: National accounts

Developments in interior decoration at the beginning of 21st century

A lot of furniture, curtains, household utensils, household appliances and tools are still consumed. Between 2001 and 2006, the trend in interior decoration has pointed decidedly upwards. Last year, consumption growth of furnishings etc. was almost 12 percent. The contribution to GDP was 0.6 percent for 2006. Quarterly figures from this year show a lower increase. The first quarter this year gave a rise in consumption of 7.4 percent and a rise in the second quarter of 7.0 percent. This can be compared to the first and second quarters last year when the rise in consumption was 13.9 percent and 13.6 percent respectively.

Household consumption of furniture and household utensils

Percent change from previous year



Source: National accounts

Data up to and including 2006

Household consumption over time

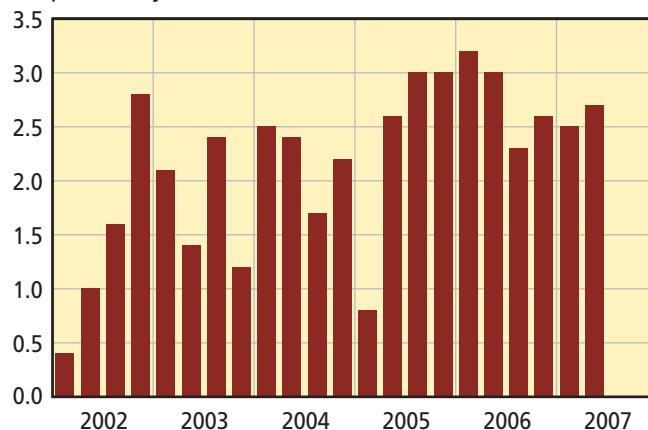
With the exception of the first quarter of 2005, consumption demand during the last three years has been on a high level. At the turn of 2005–2006, growth was over 3 percent, which is a very high growth rate. Housing costs are about 25 percent of household consumption and have been relatively constant over time, thereby contributing to a stable consumption development.

Compared to retail sales, household consumption development can seem weak. It should however be considered that

the structure of retail trade has changed considerably in recent years. Among other things, the retail sales of buildings, which are partly counted as investments, have expanded. At the same time, sales in the retail trade are directly affected by purchases by foreign visitors, which do not affect household consumption.

Household consumption

Percentage change from corresponding quarter previous year



Source: National accounts

Data up to and including second quarter 2007

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General government consumption

Good times for municipalities

Consumption of municipalities has risen steadily since the last quarter of 2004, i.e. for the tenth quarter in a row. This year it is above all the consumption of primary municipalities. In total, public consumption contributed 0.5 percentage points to the actual GDP growth of 3.4 percent¹. The long-term trend of growth in the social benefits in kind² of the primary municipalities continues.

Development of total public consumption

Public consumption increased in the second quarter of 2007 by 1.9 percent, which is the same volume increase as in the second quarter of 2006. However, consumption growth varied within the sub-sectors. Consumption of primary municipalities had the most rapid growth at 3.0 percent. County councils increased their consumption by 2.2 percent while central government consumption remained unchanged.

Public consumption

Volume change, percent

	Q 2 2006	Q 3 2006	Q 4 2006	Q 1 2007	Q 2 2007
Public sector	1.9	2.1	2.6	1.5	1.9
Municipalities	1.8	2.1	3.0	2.3	3.0
County councils	2.2	2.6	2.8	1.6	2.2
Central government + AP funds	1.8	1.4	1.8	-0.1	0.0

Source: National accounts

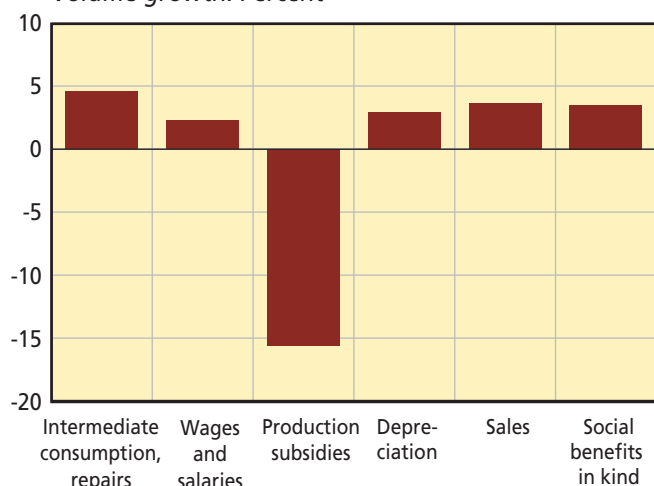
Those items which influence consumption the most are pay and intermediate consumption. Pay and collective fees account for slightly more than half of total consumption expenses while intermediate consumption accounts for about

¹ Actual figures are used on the expenditure side since it is not calendar-adjusted. However, calendar-adjusted values are currently used for employment.

² Private preschools, private child care, private care of school-age children, private education, private care of the elderly and transportation services are included.

one-third. Pay has increased by 2.3 percent in volume, the largest volume increase since 2004. At the same time, intermediate consumption increased an entire 4.6 percent, the largest single quarterly increase during the 2000s. Similar growth was also noted for sales (a deduction item) which increased by 3.6 percent. Growth for social benefits in kind during the quarter was somewhat weaker at 3.5 percent, compared to the two-digit growth figures during parts of last year. To better illustrate the change of the most important sub-items in public consumption, durable goods of the defence sector have been removed from the graph. This item has a very volatile development. During the first quarter it increased by 31 percent while it fell by 34 percent during the second quarter. Variations are due to differences in points in delivery times of material to the defence sector. Other production subsidies, which is a small item, dropped by 16 percent. This was mainly due to reduced transfers from the Labour Market Board concerning labour market training to municipalities.

Government consumption second quarter 2007
Volume growth. Percent



Source: National accounts

Consumption development of primary municipalities, county councils and central government

Consumption increased considerably in both municipalities and county councils during the second quarter of 2007, compared to the same period the year before. The increase is mainly due to the largest single consumption item, pay including social security contributions. According to the quarterly surveys, pay increased by roughly 5 and 4 percent respectively, well in line with the LAPS sample (pay, employer payroll contributions and preliminary income tax). Pay costs are calculated in constant prices according to development of hours worked. These are decided centrally at the national accounts for the entire national economy of consumption in the public sector. The decided level for primary municipalities including the Swedish Association of Local Authorities was 2.7 percent, and for county councils 2.3 percent. For a detailed description, see the fact box. The volume change in employment is calculated centrally in national Accounts in the Swedish Economy, no. 1/2007.

Collective fees increased owing to the newly recommended (and higher) employer payroll contributions of 36.11 and 38.5 percent respectively. Social benefits in kind of primary municipalities continued to increase according to the trend and were up 5.5 percent in volume during the quarter. The increase is due to the sale of activities above all within education and care of the elderly in municipalities such as Stockholm, Göteborg, Norrtälje and Uppsala. Intermediate consumption also continued to increase, particularly for the purchase of services. Other production taxes of county councils rose as a result of higher gross pay and employer payroll contributions. Other items developed weakly.

The largest decrease of durable goods in the defence sector –34 percent was offset by increases within other areas. Intermediate consumption increased by roughly 12 percent, while pay and social security contributions rose by 1.5 percent. The increase of sales¹ within central government of 10.2 percent explain to a large extent the low consumption of central government this quarter. Sales of consultancy services within the defence sector and extensive service abroad contribute to this factor.

The social insurance sector now comprises about one percent of the central government sector and only includes AP funds since the PPM (Premium Pension authority) was removed from the public sector as was requested by the EU. Consumption of AP funds dropped by 10 percent in volume and thus reduced central government (including the social insurance sector) consumption by a further 0.1 percentage points.

News and improvements

Consumption expenses of primary municipalities are based on the outcome of quarterly surveys for municipalities. Up until now a cut-off sample has been used for all municipalities with more than 30 000 inhabitants. As a step towards quality improvement of estimations, a new sample method has been chosen² and the cut-off boundary was lowered at the same time to 15 000 inhabitants. This was done to allow for better geographic coverage among municipalities. The new sample now includes 100 municipalities. Currently, both the samples run in parallel. If the new method reaches the intended goal, evaluation will be done next year when the advantages and disadvantages will be weighed together.

From this quarter onwards, information on leasing from SKL's³ quarterly survey will be used instead of the central calculation model for leasing used previously by the national accounts.

¹ If the sale, which is a deductible item when calculating consumption (production – sales), develop positively, consumption is reduced.

² A Pareto π ps sample method is used, which is a form of sampling where the sample probabilities are proportional to the size of the sample objects.

³ Sweden's Municipalities and County Councils.

Revisions

The reporting municipalities have a possibility to adjust previously submitted information in the next quarterly survey. During this round there were few changes and no revisions were made for the previous quarter. Slight revisions have occurred concerning consumption of fixed capital which are due to revised investment calculations. New leasing in-

formation led to the revision of county councils' leasing for the first quarter. Within central government, administration costs for AP funds were revised because now there is new information from the Social Insurance Agency. FISIM was also revised.

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Gross fixed capital formation

Investments increased sharply

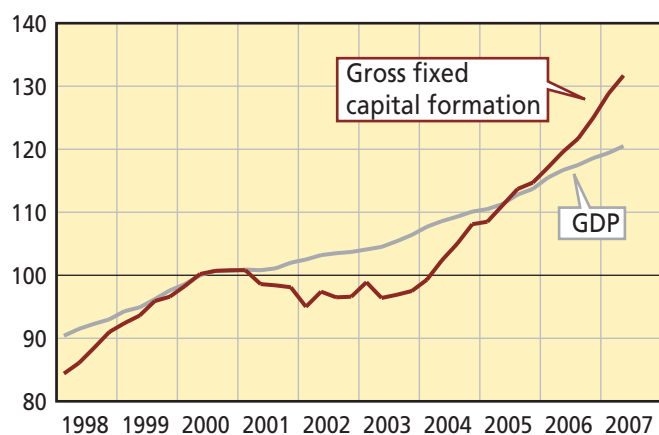
Gross fixed capital formation continued to increase sharply during the second quarter of this year, by 2.2 percent compared to the previous quarter. The rise in investments, which is now the fastest growing item of GDP, corresponded to 1.8 percentage points of the actual GDP growth of 3.4 percent in the second quarter. The current rise in investments is not only strong but also unusually long-term, stretching over a period of three and a half years. This has resulted in the investment ratio in the economy rising during the first half of 2007 to 18.7 percent, which is the highest figure since 1991. After the considerable dampening of investments in machinery last year, a significant recovery has been seen this year.

Investment activity was high in the Swedish economy in the second quarter of this year as well. Gross fixed capital formation continued therefore to increase sharply, according to preliminary calculations, with a volume increase of 2.2 percent compared to the first quarter, seasonally-adjusted. This corresponds to an annual growth rate of 9 percent which is still a slight dampening from the sharp rise seen during the first quarter. Investments have thus increased continuously from quarter to quarter over a period of three and a half years, to a total of 35 percent since the end of 2003. This is an average increase of 9 percent per year. During the same period, the rest of the economy, GDP gross fixed capital formation excluded, has grown by a total of 9 percent or 2.5 percent per year.

During the two most recent economic booms seen in the Swedish economy, in the middle and at the end of the 1990s, the phase of rising investments stretched over a period of around two and a half years. The total rise in investments was considerably lower, 22–23 percent during each of these periods of growth.

Gross fixed capital formation

Volume index 2000=100. Quarterly figures, seasonally adjusted



Source: National accounts

Data up to and including second quarter 2007

Fastest increase in investments

During the second quarter of this year, gross fixed capital formation were 9.8 percent higher compared to the corresponding quarter of 2006. This was a slightly lower growth rate than during the first quarter but gross fixed capital formation was still the fastest growing item on the expenditure side of GDP. The rise in investments corresponded to 1.8 percentage points of the actual GDP growth of 3.4 percent in the second quarter of this year, compared to the second quarter last year. This was roughly the same as during the first quarter. Taking the import content into account, the contribution was 0.8 percentage points.

During the first half of this year, gross fixed capital formation were 10.6 percent higher in comparison to the corresponding period last year. The growth rate is distinctly higher than in the first half of 2006 and is more than three times as high as for GDP during the period. This consistent sharp rise in investments has led to a successive rise in recent years of the investment ratio in the economy, or the share of gross fixed capital formation of GDP, from a

previously low level. During the first half of this year, the investment ratio was 18.7 percent which is the highest figure for a first half year since 1991, and two percentage points higher than the most recent highest figure noted at the beginning of the decade.

One important explanation for the current high level of investments in the economy is the sharp rise in housing construction seen in recent years. Even when adjusted for housing investments, the investment ratio is showing a clear upward trend and was, during the first half of this year, 15.2 percent. This is – together with the figure for the first half of 2000 – the highest investment ratio calculated in this way since 1990. The investment ratio, excluding housing, looks even better from an international perspective and was only a few tenths of a percentage point lower than the average for the EU15 for the whole of 2006.

Investment picture no longer so homogenous

The positive picture for investments during the second quarter of this year is not as homogenous as that seen during the first quarter. It is primarily government investments that diverge from the positive picture but some divergence can also be seen in the business sector compared to previously. The fast rise in this sector is not as widespread as at the beginning of the year.

For government investments, the weak decline seen during the first quarter turned into a significant decrease. The primary reason for the low level of government investment is the sharp decrease in investments in roads, by over 10 percent. Despite the continued high growth of investments in the municipal sector – a rise that is now in its third year – the total public investments during the second quarter saw a moderate increase of a 3 percent. It is thus investments in the business sector that are still the primary driving force in the upturn in investments, increasing by over 10 percent for the second quarter in a row.

Gross fixed capital formation

SEK billions, current prices and percentage change from corresponding period, constant prices

	2006 Full year		2007 Q 1	Q 2
Business sector	426	7.9	12.2	11.0
Manufacturing industry	79	1.5	6.7	21.9
Energy industry	34	11.3	42.3	47.3
Services producers ¹	155	4.9	9.6	2.2
Business services	38	4.8	17.3	7.7
Government authorities	82	7.8	6.7	3.0
Central government	42	6.4	-2.1	-7.4
Municipalities	40	9.2	17.5	15.9
Total	507	7.9	11.5	9.8
Machinery	167	4.3	19.6	21.5
Transport equipment	43	9.8	10.1	-6.1
Housing	90	14.3	11.5	11.3
Other construction	134	8.6	5.2	5.7
Software. etc.	72	7.1	3.6	3.6

Source: National accounts

Strong recovery for investments in industry

One important explanation for the current high growth in investments in the business sector is the strong recovery seen for investments in the manufacturing industry after the slump that occurred last year. After a significant increase in the first quarter, the growth rate for investments in the manufacturing industry during the second quarter was twice as high as for the business sector as a whole. This development was supported by the economic tendency survey carried out by the National Institute of Economic Research, in which industrial enterprises reported a sharp increase of production capacity during the first two quarters of this year.

The most expansive item in the investment picture during the second quarter is, as before, energy investments which now rose more than twice as quickly as industrial investments. Several industries, including the construction industry, wholesale and retail industries, credit and insurance industries and the business services industry, otherwise noted a distinct dampening of the high growth rate during the second quarter.

Investments in machinery power the upturn

The current picture is also uneven if we look at the type of investments. The most expansive item was, in this quarter again, investments in machinery while transport equipment was the only type of investments to show a decrease in the second quarter. However the decline is from a high level seen during the corresponding quarter last year.

After the considerable dampening seen for investments in machinery last year, a strong recovery has been seen this year. This is also a reflection of the strong build-up of production capacity in the manufacturing industry this year. During the first half of the year, investments in machinery rose by 20.6 percent compared to the corresponding period in 2006, which is the largest increase seen since 1995. Both enterprises and government authorities have this year lowered the rate of investments in software. An increase in investments in software etc of a few percent during the first and the second quarter of this year means that the growth rate from last year has halved.

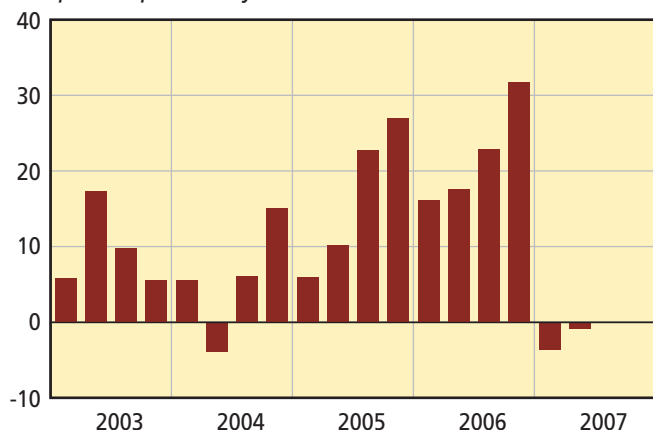
Housing construction continues to increase strongly

The housing sector on the other hand shows a very steady economic picture. For the fourth quarter in a row, investments in housing increased by over 11 percent. The number of building permits – a leading indicator for housing construction – has however decreased sharply this year, by around 10 percent in both the first and the second quarters, measured in construction area and compared to the corresponding quarters in 2006. In this area, however, comparisons are currently difficult due to the abolition of government housing subsidies for housing construction begun after 31 December 2006.

¹ Excluding real estate services.

Authorised building permits

All buildings. Percent change from corresponding quarter previous year



Source: Statistics on building permits Data up to and including second quarter 2007

The decline in building permits for housing seen this year followed a marked rise during the fourth quarter, the strong-

est rise seen for a single quarter in this decade. It is assumed that many construction projects were brought forward to the end of last year – thus positively affecting housing permits – in order to be eligible for the subsidies.

However, the construction of housing is not the only construction ongoing in Sweden at the moment. Investments in construction of other buildings and plants, which has been on a clear upward curve since the beginning of last year, continued to increase relatively sharply in the second quarter, but at a more moderate rate than for housing construction. The growth rate for construction in this area has this year remained at roughly half the level of housing construction. The future prospects in this area appear to be bright. During the second quarter, the increase in building permits for premises was again strong, by 20 percent, after a slight dampening in the high growth rate during the first quarter.

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Inventories

Low contribution from inventories

The total investments in inventories made by the business sector decreased during the second quarter although to a lesser extent than during the corresponding quarter of the previous year, affecting GDP positively by 0.2 percentage points. The only positive contribution was however from industrial inventories, primarily inventories of materials and supplies. Trade inventories reduced the effect as a result of unusually large cutbacks in inventories.

Investments in inventories made by the business sector followed the usual pattern and decreased during the second quarter. However cutbacks in inventories were not as extensive as during the corresponding quarter last year and thus brought GDP up by 0.2 percentage points. The cutbacks in the second quarter this year were to a value of slightly over SEK 2 billion less than in the corresponding quarter last year. After a lesser downward revision of the contribution of inventories for the first quarter to 1.0 percentage point, the effect of inventories on GDP development during the first half of 2007 amounted to 0.6 percentage points.

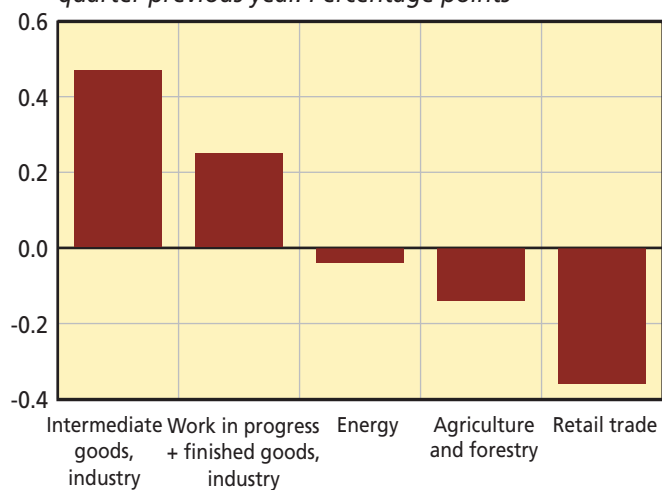
Industrial inventories brought GDP growth up

Only inventories in the industrial sector had a positive effect on GDP development, primarily inventories of intermediate goods which contributed by 0.5 percentage points to growth. Inventories of work in progress and finished goods

added a further 0.2 percentage points. Countering the positive effect of industrial inventories were primarily trade inventories with a negative effect on the growth rate of 0.4 percentage points. Forestry inventories also reduced the rate although by only 0.1 percentage points.

Contributions to GDP growth from change in inventories

Second quarter 2007. Compared to corresponding quarter previous year. Percentage points



Source: National accounts

A shift to a clear build-up of inventories lay behind the contribution from intermediate goods, in contrast to the distinctive cutback in inventories that took place during

the corresponding quarter last year. The development was largely the same for industrial inventories of work in progress and finished goods even if the cutbacks in inventories during the second quarter last year were more limited than that for intermediate goods. The dampening down of GDP development from trade inventories was however caused by an increase in cutbacks in inventories from the second quarter last year and the second quarter this year. Forestry inventories had a limited effect on GDP growth as a result of a swing from a build-up of inventories during the second quarter last year to slight cutbacks during the second quarter this year.

Significant adjustment in trade inventories

At an early stage in the calculations for the second quarter, a significant adjustment of the data submitted for trade inventories was made. The primary statistics showed that the trade industry had cut back on inventories to a value of around SEK 16 billion. Such large cutbacks were however considered unreasonable, considering the development of the actors who usually purchase goods in this sector. Inventories were therefore adjusted upwards by SEK 6.7 billion in constant prices.

Inventory estimates below average

Seasonally-adjusted quarterly data from the economic tendency survey carried out by the National Institute of

Economic Research gives a somewhat different picture of the manufacturing industry's inventories of finished goods than that shown in the National Accounts. For the second quarter, compared to the previous quarter, estimates have remained unchanged. Compared to the long-term average for inventories estimates, the second quarter's estimates are also lower; in other words, enterprises estimate that inventories in finished goods will be lower than normal.

When looking at the sub-industries, only the petrol industry and the office machinery and computer industry were above average during the second quarter. A clear majority of industries showed estimates that were distinctly lower than the average for their industry. It does not appear either to be a temporary effect for the second quarter alone as the estimates have been under the average for several quarters. The monthly economic tendency survey shows a lesser upturn in estimations during July and August but the inventories of finished goods is still estimated to be somewhat lower than normal.

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Contributions to GDP growth

Actual GDP growth in the second quarter of 2007 was 3.4 percent. The different components on the expenditure side of GDP all showed an increase, the most obvious rise being seen for investments. The volume growth between the second quarters of 2006 and of 2007 and their respective contributions to GDP growth are:

	Volume change, percent	Contribution, percentage points
Household consumption expenditure	2.7	1.3
Public consumption expenditure	1.9	1.3
Gross fixed capital formation		
machinery	11.4	1.2
construction	7.9	0.7
Inventory		0.2
Net exports	-4.1	-0.4
Exports	5.5	2.7
Imports	7.5	-3.1

Using input/output tables for 2000 and the import relationships presented there, it is possible to adjust for imports in final demand

and to calculate adjusted contributions GDP growth¹

	Contribution, percentage points
Household consumption expenditure	0.7
Public consumption expenditure	0.4
Gross fixed capital formation	
machinery	0.4
construction	0.5
Inventory	0.1
Exports	1.4

It can be seen here that exports account for a larger part of GDP growth than any other component of the expenditure side of GDP. Investments and consumption have a relatively high import content. The large import content in investments in machinery is particularly evident.

¹ For more information on these calculation methods, see Sweden's economy – a statistical perspective nr 1 2007.

Developments in the business sector

Better growth in the business sector

During the second quarter of 2007, the production in the manufacturing industries as well as in the service industries and in the total goods production again grew by slightly over one percent compared to the previous quarter, seasonally-adjusted. Compared to the development during the first quarter, this can be seen as a significant increase. This strengthening was seen despite a weak growth in demand because this demand was met to a greater extent by domestic production. This resulted in stagnating imports. The number of hours worked increased very strongly during the quarter, which led to almost unchanged labour productivity in the business sector. However this meant that the considerable decline in productivity that characterised the first quarter was broken, at least for the manufacturing industry.

Service enterprises speed up

After a very dramatic start to the year in 2006, with growth of almost 3 percent in the first quarter, growth weakened considerably. After a weak first quarter in 2007, the growth rate increased again, reaching a rate of 1.7 percent. The development for goods production and services production was almost the same during 2006. The development has continued to be relatively similar during the first half of 2007, even if the former showed a slightly weaker development than services production which is unusual during a year of growth.

Value added in the business sector¹

Percent change from previous quarter, seasonally adjusted and in constant prices

	Q 2 2006	Q 3 2006	Q 4 2006	Q 1 2007	Q 2 2007
Total business	1.1	0.8	1.4	0.6	1.2
Goods producers	1.4	0.2	1.4	0.5	1.2
Manufacturing industry	1.5	0.5	1.3	0.4	1.2
Service producers	1.0	0.9	1.2	0.7	1.7
Real estate and business services	1.0	1.0	0.7	1.0	1.1

Source: National accounts

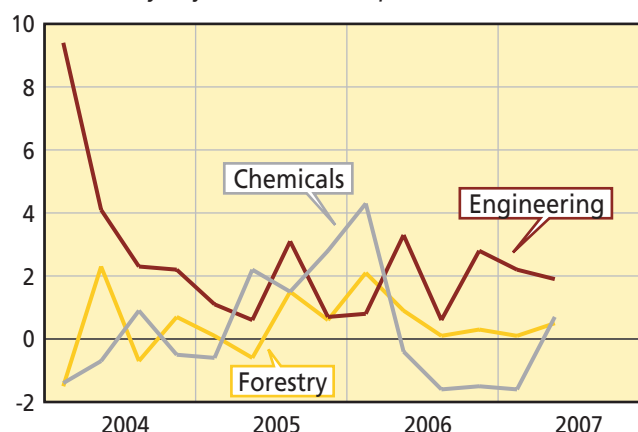
Engineering industry boosts manufacturing industry's growth

The engineering industry was the only heavy industry that showed a reasonable rate of growth during 2005 as well as during 2006 and the first half of 2007. The very positive development in the machinery goods industry contributed to this development. However, weak growth has characterized the forestry industry, for example, something which continued during the first half of 2007, when production remained largely unchanged. The chemicals industry, which has shrunk three quarters in a row, developed slightly more

positively during the second quarter of 2007. However, the pharmaceuticals industry has seen very negative development in production and exports over a longer period.

Value added of the forestry, chemical and engineering industries

Percent change compared to previous quarter.
Seasonally adjusted, constant prices



Source: National
accounts

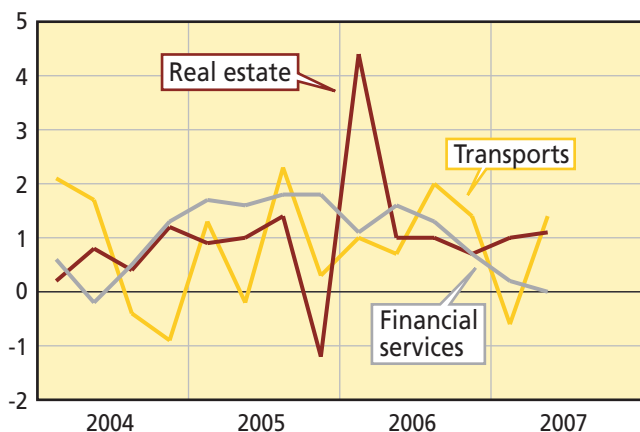
Data up to and including second quarter 2007

The growth rate in the transportation and communications industry has varied greatly

Even if total service production has developed relatively stably for a few years, several of the industries within services have seen a more uneven development. The financial services industry has often a strongly fluctuating growth. In recent years, this has however been something of an exception. From strong growth during 2005, the development has been successively weaker, stagnating completely during the second quarter of 2007.

¹ These change figures should be treated with great caution as every series is seasonally adjusted directly and no checks are made to ensure that the development of the aggregate is equal to the sum of the separate parts. These differences are usually small but significant differences may occur in some economic cycles when the change from previous developments is large.

Value added for three service industries
 Percent change compared to previous quarter.
 Seasonally adjusted, constant prices



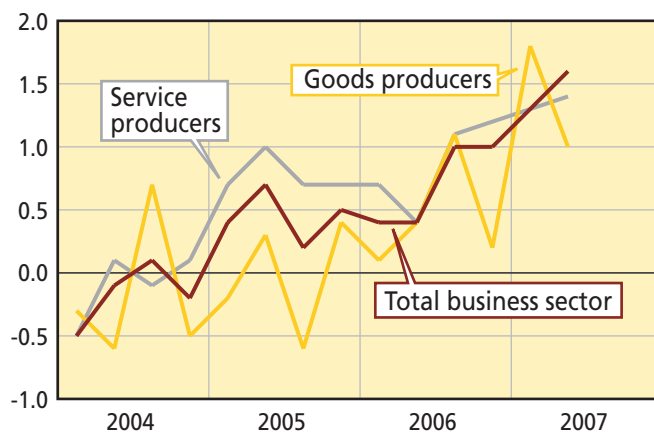
Source: National accounts
 Data up to and including second quarter 2007

The growth curve seen by property and business services, on the other hand, appears to have been everything but even. After having decreased in the last quarter of 2005 by one percent, it grew by four percent in the following quarter. However, if both these quarters are replaced by their average, the development can be seen as stable with slight variations of around 1 percent. This development has continued during the first two quarters of 2007. It is nevertheless somewhat of a contradiction that growth has, despite this, not been higher in the investment economy of recent years as this industry produces many investment-related services, such as construction and architectural services, programming and technology development support. The slow growth of property services has of course brought down the growth rate somewhat for the industry as a whole. The transportation and communications industry has however grown very unevenly in recent years, something which has been emphasised in the first and second quarters of 2007. After having shrunk by slightly over a half of a percent during the first quarter, it has grown by slightly over one percent during the second quarter.

Number of hours worked has increased at a faster rate

The number of hours worked in the services sector has grown evenly and relatively strongly during the last ten quarters, from the first quarter of 2005 onwards, with a growth rate that has varied from between a half and one percent per quarter. This growth rate has risen even more during the second half of 2006 and the first half of 2007. The goods producing parts of the business sector have however only started moving in the most recent quarters, with a growth rate that has varied around the rate seen in the services sector.

Hours worked in the business sector
 Percent change compared to previous quarter.
 Seasonally adjusted



Source: National accounts
 Data up to and including second quarter 2007

It is primarily the construction industry that has lifted the average for the goods producing parts to these high growth figures, even if the manufacturing industry has contributed significantly during a couple of quarters. However industry has grown distinctively in only two of the last six quarters, the second quarter of 2007 not being one of these two quarters as the growth rate in this quarter was limited to 0.2 percent. During the four most recent years, development was also largely unequivocally negative.

As with the value added, the even development seen for the number of hours worked in the entire services sector has hidden considerable variation in the development of the industries included in this sector. The development of the three large services industries, trade, transportation and business sectors, has varied a great deal.

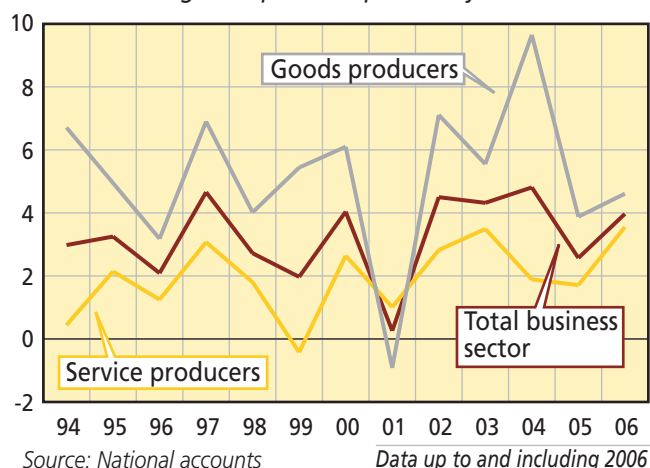
The transportation industries have had the weakest development of these three, only once reaching a growth rate of 1 percent and decreasing during several of the past 10 quarters. The industry property management and business services has on the other hand seen an explosion, not least at the end of 2006 and beginning of 2007, when growth in the number of hours worked was between 1.5 and 2.5 percent for all four quarters. Trade has also increased its employment considerably in the past year.

Positive productivity trend broken in the past year

In general, the quarterly productivity data should be interpreted with great caution as they consist of the difference between series which have been seasonally-adjusted independently of each other. A seasonal adjustment of the actual non-calendar corrected productivity figures directly would give considerably more reliable figures. Until this is carried out however, the analysis is based on the less reliable data.

Labour productivity in the business sector

Percent change compared to previous year



The productivity growth in the business sector during the period 1993–2006 is remarkable. The annual growth for labour productivity has varied between 2 and slightly over 4 percent with only one exception. This exception was in 2001, which was characterised by a crisis in the IT industry. There have also been a number of peak years which have brought up the average to over 3 percent.

In general, the goods producing industries have had higher productivity than the services producing industries. The latter industries have however seen a marked increase in productivity growth in recent years. As the growth rate in the goods producing industries has also risen slightly, the whole business sector has seen a level rise for these growth rates after the 2001 crisis.

This trend was however broken during 2006. In both goods and services production, the productivity level decreased in total during the last two quarters of 2006 and the first two quarters of 2007. During the first quarter this year, productivity decreased slightly in both the services sector and the manufacturing industry.

This fall in productivity growth is however not particularly remarkable during a year which followed a period of several years with fast productivity growth and a falling or unchanged employment rate. When considerable new recruitment has taken place it usually takes some time before these new people have become familiar with their new working duties.

Together with the drastic increase in investments in machinery and an, on an international level, extremely high level of R&D, we get a picture of a business sector that has built up considerable production resources. The second quarter broke the stagnation, for industry in any case, which saw a good rate of growth in productivity again.

Two important parts of the services sector are the trade and the transport and communications industries. Both these two have seen a reasonable productivity development in recent years. In the first quarter however, the transportation and communications industries followed the general pattern and saw a reduction in productivity. This appears to have been only temporary however as growth again reached a good level during the second quarter. The trade industry, on the other hand, has experienced a more persistent weakening of productivity growth during the past year.

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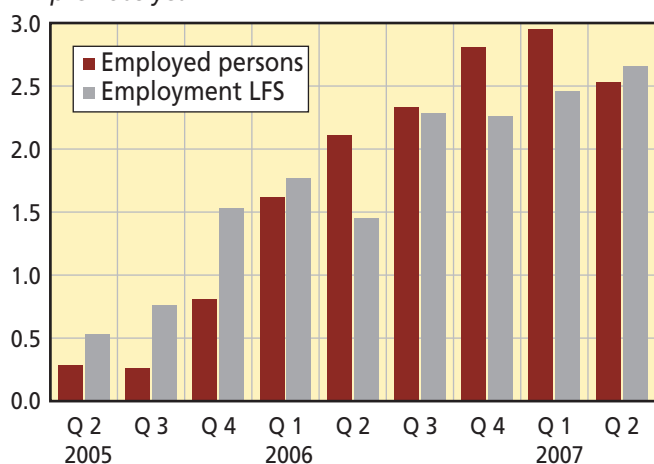
Labour market

Strong employment growth continues

According to the Labour Force Survey (LFS) the strong increase in employment that has been going on for more than two years continued. During the second quarter of 2007 growth was roughly 2.6 percent compared to the second quarter of 2006. Even the Short-term enterprise-based employment statistics showed a significant rise. The number of employees increased by 2.5 percent. Unemployment continued to drop and was 4.8 percent during the quarter, compared to 5.6 percent during the second quarter of 2006.

Employment and employed persons

Percent change from corresponding quarter previous year



Source: LFS and enterprise-based employment statistics
Data up to and including second quarter 2007

Employment continued to rise in the private sector

According to the LFS, the number of employed persons increased by 116 000 during the second quarter of 2007 compared to the corresponding quarter in 2006. The increase only refers to the private sector and applies to both men and women. The upswing also continued for young persons aged 16–24; during the second quarter of 2007 some 38 000 more young persons, or 8 percent more were employed.

Looking at the different industries we see that the number of employed persons increased within financial activities and business services, healthcare and nursing as well as

construction. Among employed persons, the number of full-time employees (persons who work 35 hours or more per week) has increased by 83 000.

Unemployment continued to drop

The decrease in unemployment that has been going on for two years continued. During the second quarter, unemployment was 4.8 percent or 224 000 persons. Compared to the second quarter of 2006, this was a decrease of 0.8 percentage points, or 33 000 persons. Unemployment among young persons decreased and was at 13.2 percent, a drop of 2.7 percentage points since the corresponding period in 2006.

Positive labour market continues

Short-term enterprise-based employment statistics showed an upturn of 2.5 percent in the number of employees during the second quarter this year compared to the second quarter of 2006. The total number of employees increased by 101 400 persons, amounting to 4 104 000 employees. The rise was greatest in the private sector, which increased by 3.6 percent. Those industries which increased the most were the construction industry and the business service industry (including real estate services). The increase was 4.2 percent in Stockholm County, while the upswing in Western Götaland and Skåne amounted to 1.9 and 3.6 percent respectively in the private sector.

Large increase in shortage of labour supply

According to *Statistics on vacancies* there were nearly 51 000 job vacancies during the second quarter of 2007. This corresponds to an annual change of over 30 percent. There was a total of 61 200 job vacancies in the Swedish economy, of which 10 300 jobs were in the public sector. About one third, or 17 800 of the job vacancies were found in the industries for finance and business services. Nearly 60 percent of the job vacancies in the private sector were in the metropolitan counties, while close to 30 percent were in other counties, excluding the forestry counties where about 10 percent of the job vacancies were located. The largest statistically significant increase of vacant jobs was seen in Western Sweden where the annual change was nearly 84 percent.

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Revised National accounts

Time series of better quality

The national accounts need to be looked over from time to time. Primary statistics are revised, methods and sources are further developed and adapted to EU recommendations and requirements. On 29 November 2007 revised national accounts will be published for the period 1993 to the second quarter of 2007. The majority of areas of calculation undergo a review with the aim to further increase quality and timeliness of the Swedish national accounts, including annual and quarterly calculations of GDP as well as sector accounts. The perspective of time series is very important in the national accounts, and calculations must show both the correct level and development over time. Therefore, new needs for revision occur quite quickly between the different rounds of calculations. New information between the revision rounds are handled so that the existing levels are linked to the correct development according to new or revised statistics.

A more comprehensive review, or revision of longer time series is carried out about every fifth year and is based on annual calculations from which quarterly statistics are adapted to the new annual levels. The results from the most recent major revision of calculations was published in November 2002¹. Now, 5 years later it is again time for a revision. The results will be published on 29 November 2007.

A number of areas will be affected:

- New enterprise statistics will be introduced
- New statistics concerning foreign trade in services
- New methods for calculating volume growth of non-market production within certain areas of the government sector will be introduced
- The hidden economy
- A general review of many areas of calculation will be done

Adjustments to the enlarged Structural Business Statistics

The Structural Business Statistics is the most important source for calculations of value added and gross fixed capital formation regarding market production. Starting in the survey year 2003, the statistics were supplemented and further developed with both changed collection methods and a more comprehensive set of variables. In connection with this review, the national accounts have been adapted to new levels and development for the calculations of production, intermediate consumption, value added and gross fixed capital formation by industry.

Review of calculations for exports and imports

Utilised reporting of foreign trade in the national accounts

Starting with this review, the national accounts will be using invoice value for export and import of goods and services. The main purpose is to obtain a valuation of trade in goods which is consistent with the valuation of production and use. The change in methods is described in more detail in a separate thematic article on page 19.

Foreign trade in services

From the first quarter of 2003 onwards, Statistics Sweden on behalf of the Riksbank has been responsible for the production of the balance of payment statistics on export and import of services. In connection with the transfer of responsibility, collection methods and samples were changed, causing a break in the time series between 2002 and 2003. The Riksbank has already introduced the new levels for export and import of services. However, due to the time series perspective, the national accounts continued to be based on the old levels. These levels have been chained forwards by using growth rates according to the new statistics. The new levels will be introduced in the national accounts as a result of the review, and backward calculations will be done according to agreed methods. The Riksbank and the national accounts have thus shown different levels and trends for export and import of services in recent years. After the review, the levels and trends will mainly be harmonised. But even in the future there will be differences between the information from the Riksbank and the national accounts. Differences occur in manuals but there are also other differences, which hopefully will be eliminated by future joint development projects.

Changed methods for calculation of constant prices in non-market production of services for individual consumption

Calculation methods for services produced in the public sector directed towards individuals will be changed in accordance to an EU decision of 2002. This decision refers to education, care of children, care of the elderly, care of disabled persons, health and medical care, cultural activities, and also administration of different benefit systems such as payments of pensions and subsidies.

¹ However, the entire time series 1993–2004, was reviewed in 2005 due to a changed recording of financial intermediation services indirectly measured (FISIM) in the national account (EU regulation). Besides having an effect on business, the change in recording also affected household consumption, government consumption, exports, imports and disposable income.

The purpose of the change in calculation methods is to allow measurement of labour productivity within the concerned areas of public activities. Therefore, in the future parts of production in constant prices will be calculated according to the services provided instead of according to costs for activities.

The new method for calculation of public production will be introduced for the most recent years only. The starting year for health and medical care will be 2003 while new calculations for other activities will begin from 2002 onwards. Underlying primary information is not available in sufficient detail for periods further back in time.

In recent years, there has been intensive work on development and methods within this area. The OECD is currently engaged in a project to produce a handbook with recommendations on how to make calculations in the best possible way ("best practices"). In several areas the statistical information is not satisfactory and there are many difficult problems that require solutions.

The hidden economy

The hidden economy refers to activities that are illegal and/or not taxed (black market).

Black market activities, i.e. activities that are legal but are not reported to the tax authorities and to statistical surveys are also included in the national accounts. Production statistics are by and large based on information from book-keeping records of companies, and these transactions are therefore not registered correctly in the normal statistical information. Examples of black market activities are found in the restaurant business, taxi companies and hairstyling salons. The model for calculating black market activities is now undergoing a review based on results of audits by the National Tax Board, and mainly affects value added, employment and pay.

According to EU requirements, all transactions both legal and *illegal* are to be included in the national accounts if they occur via mutual agreement. The purpose is to increase comparability among countries, since some of the activities that are illegal in Sweden may be legal in other countries, and thus be included in those countries' GDP. Like many other countries, Sweden has not included illegal activities in the national accounts before, due to difficulty in measuring these activities.

Trial calculations of illegal activities were carried out in the spring of 2005, and these will be included in the national accounts in connection with the review. These activities include calculations of prostitution, drug traffic, gambling and smuggling of alcohol and tobacco. The calculations mainly affect household consumption expenditure and only have a marginal effect on GDP.

Review of other areas

Within the frame of the review, calculations for other areas are also being looked at.

Household consumption expenditure is affected by an adaptation to new food statistics and a structural overview with the help of the Household Budget Survey (HBS). Calculations for household consumption of motor vehicles have also been reviewed. *Gross fixed capital formation* has also been revised. The calculations are mainly affected by revised investments in software and further adaptation to the Structural Business Statistics regarding short-term inventories.

Government consumption expenditure is primarily affected by a reclassification of certain transactions that were previously recorded as purchases and sales between different government sectors but are now treated as transfers. This affects consumption expenditure for central government, county councils and primary municipalities but not the total consumption expenditure. An example of such a transaction is when municipalities request the services of The National Board of Institutional Care for care of substance abusers. These transactions were previously recorded as purchases of services by municipalities and sales of services by central government agencies. Now the transaction will be recorded as a transfer from the municipality sector to the central government sector. As a result, municipality consumption falls as much as the central government sector consumption rises. The reclassification is an adaptation to Eurostat's interpretation of the European System of Accounts (ESA 1995), which are the guidelines for the national accounts.

Employment and salaries are affected by an adaptation to new linked series according to the Labour Force Surveys (LFS).

Quarters also affected

A revision of time series starts in the yearly calculations after which the quarters are adapted to the new yearly levels, i.e. quarterly distribution of the new yearly levels is conducted. Discrepancies between GDP by production and expenditure approach can then occur for single quarters. Quarterly balancing is therefore carried out for the entire time series which can influence the growth figures for different variables within the quarters. To facilitate future quarterly balancing and calculations, a review of the quarterly distribution, i.e. quarterly pattern, is also carried out for the entire time series.

In addition, new methods are introduced to calculate constant prices of labour costs of government sectors. Today the national accounts use *calendar-adjusted* hours to calculate labour costs of government agencies in constant prices. These costs include salaries, collective fees and production taxes per quarter. From November onwards, these variables will be calculated in constant prices with the help of *actual* hours worked.

This change in methods is carried out because the current method using calendar-adjusted hours gives an inconsistent treatment of quarterly productivity in the government sector. A starting point for the calculations of government produc-

tion has been to set the change in labour productivity at zero; production and hours worked should develop at the same rate¹. Because calendar-adjusted hours have been used to calculate production both in actual and calendar-adjusted terms, the method has involved an assumption of unchanged productivity only concerning calendar-adjusted information. On the other hand, positive and negative productivity development has been created in actual terms. After the change in methods, the assumption of unchanged productivity development will apply to both actual and calendar-adjusted information.

The transfer of calculating constant prices for labour costs with actual hours instead of calendar-adjusted hours is not to be mixed up with the method change that is taken up in the section "changed methods for calculation of constant prices of government production of services for individual consumption". The time series for government production is influenced by these changes in several ways. Labour productivity in government production for the years 1993–2001 will by definition equal zero for years and quarters alike. From 2002 onwards government production *for individual consumption* will be able to show labour productivity in both years and quarters, while labour productivity

¹ Production consists of about 90 percent labour costs and 10 percent consumption of fixed capital. The assumption of an unchanged productivity only refers to that part consisting of labour costs.

in government production *for collective consumption* will by definition be zero for both years and quarters.

Sources and underlying documents

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New reporting of trade with other countries

Change in valuation of exports and imports

Statistics Sweden has decided, from the release on 29 November 2007 onwards, to use the invoice value for data on exports and imports of goods and services in the National Accounts (NA). This is because the primary statistics do not make it possible to fulfil the current valuation requirements for exports and imports valued at the border. The statistics relating to foreign trade in goods have traditionally been based on data on the value of transactions at the border. This means that Swedish exports have been valued as *fob* (free on board) and that Swedish imports have been valued as *cif* (cost, insurance, freight). Such data have been available for customs purposes and no separate collection of statistics on foreign trade in goods has been necessary. After entry into the EU, these circumstances have partially changed.

Valuation of exports and imports

The National Accounts are established in accordance with international recommendations, which are also legally regulated for the EU member states. According to the SNA

(System of National Accounts) and ESA (European System of Accounts), detailed data in the national accounts on exports and imports of goods should be valued as *fob/cif* while imports on an aggregated level and exports should be reported as *fob*. In other parts of the NA system, the registration of transactions should be based on change of ownership.

Consequences for other parts of NA

Reporting *fob/cif* means that the goods values include or exclude freight and insurance provided by Swedish or foreign actors. Data on exports and imports of these services must therefore be adapted to the valuation principles for goods. However it is not sufficient that goods, freight and insurance data are treated in a consistent manner. Because a specific valuation principle is applied for exports and imports of goods – such as *fob/cif* – all other data in the NA system must also be valued in accordance with these principles, to avoid the occurrence of residual items in other parts of the NA system. In practice, there are no prerequisites for valuing production and use to ensure that they agree with

the fob/cif valuation of foreign trade.

What has been done so far

After entry into the EU, data on trade of goods with other countries are collected from two sources. Data on trade with countries outside the EU (Extrastat) are still collected by the Swedish Customs and the valuation should be the statistical value (fob for exports and cif for imports). The statistical value must often be calculated by companies as it does not exist in any contract or accounting system even if it may be the same as the invoice value, for example.

Data on trade within the EU (Intrastat) have, in accordance with EU decisions, been collected as the invoice value since 1998. These data are then converted by Statistics Sweden to acquire a fob/cif valuation. The conversion is carried out on the basis of a survey from March 2000. Trade within the EU accounts for almost 60 percent of exports and roughly 70 percent of imports. When converting from the invoice value to fob/cif, the same conversion factor is used for several product groups. The price indices available to calculate exports and imports in constant prices are however calculated from the invoice value.

Freight services are collected as invoice values and are converted to fob/cif using a model that has been linked to the model previously used by the Riksbank. No survey has been carried out on the cif component (the difference between imports as fob and as cif).

There are currently no assumptions for carrying out consistent calculations on the basis of fob/cif-valued exports/imports. The conversions to fob/cif that are carried out today are based on imperfect supporting material and are not consistent with the valuations in the other parts of the national accounts system.

More consistent calculations in the NA

In order to produce accounts of good quality, all information should be valued in a consistent manner. Foreign trade statistics are based on a mixture of collected data with different valuations and old models of doubtful quality for conversion between the invoice value, fob and cif for goods and services. One way to produce consistent data of good quality would be for data providers to submit data based on the information they have available for their own use. The invoice value can, for example, be taken directly from the companies' accounting systems. Data on freight and for the majority of foreign transactions in goods are collected. The Swedish Customs collect the statistical value for Extrastat so

a conversion would be needed here to provide consistent data in the NA.

The invoice approach would give a more consistent valuation for the whole NA system, with a limited amount of conversions.

Treatment in the NA from 2007 annual calculations onwards

In order to ensure that the supporting material is as consistent as possible, the NA will use the invoice value for the calculations and the reporting of exports and imports of goods and services, from the November 2007 release onwards. Extrastat will be revalued from the statistical value to the invoice value using conversion factors that have been used until now for Intrastat. As Extrastat accounts for a smaller share than Intrastat and transactions for services in Extrastat are already given in the invoice value, the inconsistencies in the system should be reduced. The calculations should therefore be simpler and there should be less residual items to affect the reconciliation between accounts.

The following benefits can be seen with the invoice value approach:

- Intrastat data and data on freight in foreign trade statistics are collected as the invoice value. The invoice value is not collected for Extrastat (accounting for around 1/3 of trade in goods) so an estimation must be made at the current time.
- The use of model solutions based on estimated statistical values will be reduced which avoids many sources of error in calculations of net exports.
- The valuations for exports and imports become more consistent with the valuations for production and usage.
- Data on invoice value exist in enterprises' accounting systems. It is easier to collect good quality invoice value data than statistical value data, which are often based on estimations made by the data providers.

One disadvantage is that the valuations of exports and imports in the NA, foreign trade statistics and the balance of payments will differ.

In theory, correct reporting according to fob/cif and the invoice value will give the same balance for foreign trade in goods and services but gross data will differ for the different aspects.

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Terms of trade

Trend change for terms of trade

Since the late 1990s prices for Swedish exports of goods and services have been lower than prices of imported goods and services. This has led to an ongoing deterioration of terms of trade. However, the trend has turned during the last three quarters, with export prices increasing more than import prices. This is primarily due to a stronger Swedish krona, measured according to the TCW index.

Terms of trade show the relation between export prices and import prices

Terms of trade (ToT) are often referred to when analysing trends of export and import prices. Terms of trade show the relation between export prices and import prices. A positive effect of ToT occurs when export prices increase more than import prices while the effect is negative when the opposite occurs. In the case of higher import prices, more exports are required to finance an unchanged volume of import. Improved ToT imply that it is possible to import a greater amount of goods and services for a given amount of exports.

In the long-term, ToT in Swedish foreign trade has tended to fall. In recent years this decrease in ToT has mainly been due to telecom products that have been exported at heavily reduced rates; the rising cost of oil imports is another factor. The drop in prices for telecom products was in turn because it was not possible to raise prices to the same degree as the quality had improved. Quality improvements are accounted for in constant prices as an increase in volume. The improvement in productivity that the improved quality has brought about has thus not given rise to increased income in current prices, which is important to consider when analysing pay increases etc.

ToT can be changed even though no price changes have occurred. It is sufficient that the mix of imported or exported goods is changed for the ToT to be influenced.

Comparison of import and export prices

The table below illustrates an implicit price index for exports and imports of goods and services. The indices are given with the previous year equal to 100. The ratios of export prices over import prices are illustrated in the third column – results over 1 show that export prices increased more than import prices and a value below 1 show that import prices have increased more. The difference between export and import prices is shown in the fourth column. A positive value indicates higher export prices while a negative one shows that import prices have increased more.

As illustrated in the table, development of ToT after 1998 has been negative for most years. Up until the end of 1998, no particular change occurred.

Terms of trade 1994–2006

	Exports	Imports	ratio	difference
1994	103.7	103.1	1.01	0.52
1995	106.5	104.8	1.02	1.67
1996	95.3	96.0	0.99	-0.77
1997	100.0	100.2	1.00	-0.22
1998	98.3	98.8	0.99	-0.59
1999	98.5	101.0	0.98	-2.45
2000	102.6	104.7	0.98	-2.07
2001	102.5	104.1	0.98	-1.66
2002	98.3	100.1	0.98	-1.76
2003	98.1	97.8	1.00	0.37
2004	99.6	100.8	0.99	-1.25
2005	103.0	104.7	0.98	-1.75
2006	102.7	103.5	0.99	-0.82

Different methods to calculate terms of trade

It is possible to capture the effect of income in constant prices in the National Accounts that a change in ToT gives rise to by changing calculations of constant prices for foreign trade. Different calculation methods can be used. The most common way is to use the same index for exports and imports. This means that the effect of different trends in import and export prices is "removed". Consequently, either export or import indices or an average of both is used. EU's statistical office Eurostat recommends using all three methods, as described in the following formula:

$$T = (X-M)/P - [X(t-1) - M(t-1)]$$

Terms of trade T is equal to the export surplus divided by a price index P, minus the export surplus in the prices of the previous year, where P stands for export or import price index or an average of both. $X(t-1)$ stands for export deflated with the export price index, $M(t-1)$ stands for import deflated with the import price index, both in prices of the previous year. Sweden has chosen to use the average index which naturally results in ToT lying between the results of the other two methods. In the past Sweden used the method with the import price index even for calculations of constant prices of exports. The argument for using the import price index method instead of the export price index method was then that it provided a better view of the volume of exports that was needed to finance imports.

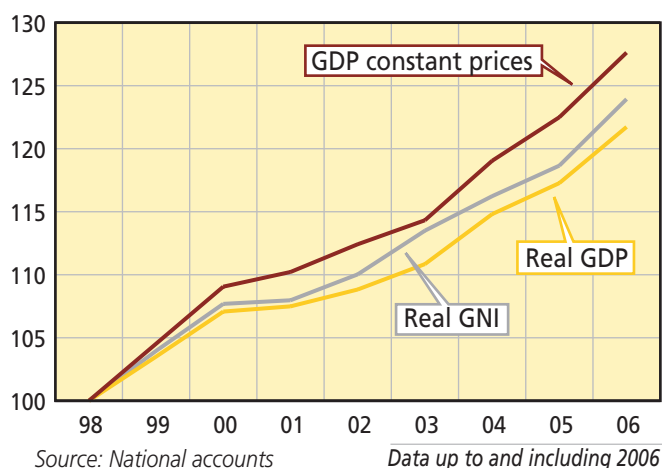
GDP can be calculated with consideration to the ToT effect and is then called *real GDP* in Swedish. The English term is *real gross domestic income*. The word *real* is used instead of *constant prices* because the calculation includes constant price calculations of income items that do not include any direct volume component.

In addition to GDP, gross national income (GNI) also includes the net of primary income to and from abroad. When calculating GNI in real prices (real GNI) primary income is

recalculated with the index for domestic final use. Consideration is also given to real GNI to capture the effect of changed ToT.

The graph below illustrates GDP in constant prices, real GDP and real GNI for the period 1998–2006. Real GDP is lower than GDP calculated at constant prices because of falling terms of trade. Development of real GNI is somewhat more positive than for real GDP due to improved net capital income during the period.

GDP in constant prices, real GDP and real GNI
Index 1998=100



During the period 1998–2006, Sweden thus “lost” about 5 percent of the GDP increase due to worsened ToT.

New method as of 2008

In connection with a review of reporting to Eurostat, calculations of ToT will also be changed. The methods described above will be replaced next year with a new method where real GDP is calculated by deflating GDP in current prices with an index for final domestic use. The difference between GDP in constant prices and real GDP constitutes the ToT effect. Eurostat calls this *trading gain or loss* in their tables. The index for final domestic use includes all items of supply and use of resources excluding foreign trade and thus measures price development within the country. If the production, i.e. GDP is deflated with this index, we get a measure of GDP growth at the price level of the country. The difference between this measure (real GDP) and GDP in constant prices are the trade profits or losses that occurred in foreign trade of goods and services, i.e. terms of the ToT effect. This method is regarded to better reflect this effect and also implies that all EU countries will calculate the effect in the same way.

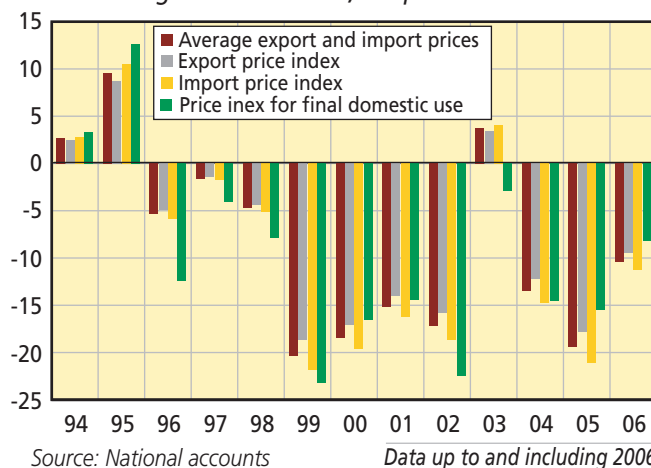
The different methods produce similar results

The different methods for calculating ToT effects often produce similar results. The graph here illustrates development in recent years by using the information that is available today in the National Accounts.

After the general revision of the National Accounts that is now underway, the series will be affected, but the present picture should by and large remain the same.

Terms of trade effect

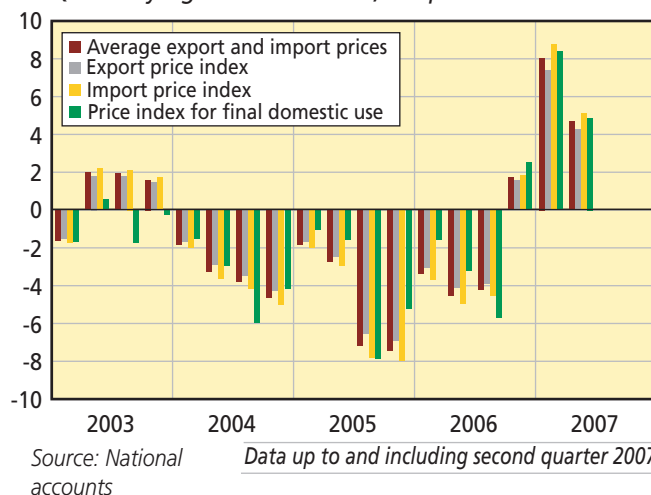
Annual figures. SEK billion, t–1 prices



The method currently applied in Sweden using average values naturally results in values that lie between those results received when using the export price index for imports and the import price index for exports. More results in the ToT effect, both positive and negative, are received when the import price index is also used for exports, compared to using the export price index for imports. The new method that will be used starting next year is more variable. The effect is stronger for some years than the other three methods, while lesser effects are received for other years. For 2003 when the three old methods resulted in positive ToT effects, the effect will be negative with the new method because the index for final domestic use was quite different from the export and import price index.

Terms of trade effect

Quarterly figures. SEK billion, t–1 prices



Positive terms of trade 2007

During the fourth quarter of 2006 the ToT switch direction and are positive. This trend strengthens during the first two quarters of 2007. This turn of the tide is primarily due to a strong Swedish currency; as a result imports are cheaper.

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Balance of payments

Balance of payments – now at Statistics Sweden

As of 1 September 2007, Statistics Sweden is now producing the balance of payments on behalf of the Riksbank.

The balance of payments is a compilation of a country's real and financial transactions with the rest of the world. Presentation is according to the following breakdown:

- Current account, which includes regular transactions in goods and services, return on financial assets and debts and current transfers.
- Capital account, which includes among other things subsidies for the recipient to make a real investment. The transfer of rights is also included.
- Financial account, which covers changes in financial assets and debts with the rest of the world. The foreign exchange reserve is included in the financial account. This sub-account was called "capital account" prior to 1997.

In parallel with the balance of payments, an international investment position is also compiled, which includes stock information on all assets and liabilities of the domestic sector with the rest of the world.

On 16 January the Riksbank decided that production of the statistics on the balance of payments would be outsourced to Statistics Sweden. The process for the transfer of responsibility has been discussed between Statistics Sweden and the Riksbank during the spring, with the aim that Statistics Sweden takes over production

on 1 September. Since 2003, Statistics Sweden has been handling some parts of the production such as trade in services.

The new assignment implies that Statistics Sweden will be producing the financial account and will be compiling the entire balance of payments. The Riksbank is still responsible for the statistics and in turn for the international obligations that Sweden has with the European Central Bank (ECB), the Bank for International Settlements (BIS) and the EU's statistical office Eurostat. Statistics Sweden participates in the international work and conducts the reporting. By participating, Statistics Sweden is able to influence the international recommendations. This is also an important condition to implement the changes that have been decided.

Statistics Sweden's production includes the whole production process, i.e. everything from collection of information from companies, checking and analysis to publishing the finished results. Parts of the financial account, portfolio investments, are published monthly while the entire balance of payments and position with the rest of the world is published quarterly.

By having the economic and the financial statistics such as the balance of payments, financial market statistics, the national and financial accounts under one roof, coordination and cooperation among statistical areas will be easier. In the long-term this should lead to efficient production of high-quality statistics.

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The Swedish economy – Statistical perspective

ISSN 1653–3828

URN:NBN:SE:SCB-2007-A28ST0703ENG_pdf(pdf)