



CENTRAL BANK OF CYPRUS
EUROSYSTEM

ECONOMIC BULLETIN

DECEMBER 2017

NICOSIA - CYPRUS



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1

Introduction

2

Macroeconomic
Developments
and Projections

CONTENTS

Introduction	8
Macroeconomic Developments and Projections	10
1. International Environment: main developments	11
1.1 External developments	11
1.2 Monetary developments in the euro area	15
2. Domestic Developments	17
2.1 Domestic Prices, Monetary Aggregates and Labour Costs	18
2.2 Domestic Competitiveness and the Balance of Payments	26
2.3 Domestic Demand, Production and the Labour Market	32
2.4 Domestic Fiscal Developments	39
3. Macroeconomic Forecasts for the Cyprus Economy	46
Technical Notes	59

Note: The cut-off date for data in this *Bulletin* is 22 November 2017.

TABLES AND CHARTS

TABLES

A.1	Inflation in Cyprus	19
A.2	Loans to domestic households	22
A.3	Summary of the October 2017 BLS results	23
A.4	Balance of Payments (main categories)	27
A.5	Tourism	30
A.6	Business and consumer surveys: confidence indicators	34
A.7	Real estate sector	36
A.8	Accounts of general government	40
A.9	HICP projections	48
A.10	Labour market projections	49
A.11	National accounts projections in real terms	51

CHARTS

A.1	GDP in selected countries	11
A.2	Inflation in selected countries	13
A.3	Selected exchange rates against the euro	13
A.4	Closing prices of oil (Brent)	14
A.5	Official interest rates	14
A.6	Inflation in the euro area	15
A.7	ECB reference rates and EONIA	16
A.8	Loans to the private sector: euro area	16
A.9	Inflation in Cyprus (HICP)	19
A.10	Deposits of the domestic private sector	21
A.11	Deposits of non-residents: Cyprus	21
A.12	Loans to the domestic private sector	22
A.13	MFI interest rates on euro-denominated housing loans (new business) to euro area households	23
A.14	MFI interest rates on euro-denominated loans (new business) up to €1 million to euro area non-financial corporations	24
A.15	MFI interest rates on euro-denominated deposits (new business) by euro area households	24
A.16	MFI interest rates on euro-denominated deposits (new business) by euro area non-financial corporations	24
A.17	Nominal compensation per employee by sector	25
A.18	Productivity and real compensation per employee	25

TABLES AND CHARTS

A.19	(a) Unit labour costs: Cyprus and the euro area	25
	(b) Unit labour costs: Cyprus and the euro area	26
A.20	Real and nominal effective exchange rates (IMF weights)	26
A.21	Net International Investment Position (IIP)	30
A.22	Tourist arrivals and receipts	31
A.23	(a) Quarterly GDP growth (expenditure categories)	32
	(b) Quarterly GDP growth (expenditure categories)	32
A.24	Retail sales (excluding motor vehicles)	34
A.25	Registration of motor vehicles	34
A.26	Credit card spending	35
A.27	House and apartment price indices	36
A.28	Lending criteria and interest rates on housing loans	37
A.29	Unemployment and employment	38
A.30	Registered unemployment	39
A.31	Unemployment by duration	39
A.32	Budget and primary balances of the general government	39
A.33	Total revenue and expenditure of the general government	40
A.34	General government consolidated gross debt	46
A.35	Real GDP fan chart	56
A.36	HICP fan chart	56
A.37	HICP excluding energy and food fan chart (core inflation)	56

BOX

Box 1: Financial literacy and the assessment of financial knowledge in Cyprus using the CBC's survey 41

ABBREVIATIONS

BLS	Bank Lending Survey	FED	Federal Reserve
BoE	Bank of England	FOMC	Federal Open Market Committee
BPM	Balance of Payments and International Investment Position Manual	GDP	Gross Domestic Product
		HICP	Harmonised Index of Consumer Prices
CA	Current Account		
CBC	Central Bank of Cyprus	IMF	International Monetary Fund
CCB	Cyprus Cooperative Bank	LFS	Labour Force Survey
CPI	Consumer Price Index	MFIs	Monetary Financial Institutions
CTO	Cyprus Tourism Organisation	MoU	Memorandum of Understanding
Cystat	Statistical Service of the Republic of Cyprus	NEER	Nominal Effective Exchange Rate
EBRD	European Bank for Reconstruction and Development	NFCs	Non-Financial Corporations
ECB	European Central Bank	NPLs	Non-Performing Loans
EER	Effective Exchange Rate	OPEC	Organisation Petroleum Exporting Countries
EIB	European Investment Bank	PNFS	Private Non-Financial Sector
EONIA	Euro Overnight Index Average	REER	Real Effective Exchange Rate
ESA	European System of Accounts	SDW	Statistical Data Warehouse
ESI	Economic Sentiment Indicator	SPEs	Special Purpose Entities
ESM	European Stability Mechanism	UK	United Kingdom
EU	European Union	US	United States of America
Eurostat	Statistical Office of the European Union		

Introduction

Economic activity in Cyprus continued to accelerate. In particular, GDP recorded an annual increase of 3,8% in real terms (seasonally adjusted) in the first nine months of 2017, compared with 2,9% in the corresponding period of 2016. Domestic private consumption and investment as well as exports of services, especially tourism, have been the major drivers of growth. It should be noted that the growth of private consumption continued despite ongoing loan restructurings. Economic growth has been broad-based, with most productive sectors contributing positively (excluding financial and insurance activities, which exhibited a decline as a consequence of the deleveraging of loans). As far as tourism is concerned, it recorded significant increases for a second consecutive year, with arrivals and receipts reaching historically high levels.

According to the December 2017 projections of the Central Bank of Cyprus (CBC), real GDP for the whole of 2017 is expected to grow by 3,8%. This is mainly owing to domestic demand and, to a lesser extent, exports of services. Real GDP is projected to continue increasing in 2018 and 2019, albeit with a moderate slowdown, supported mainly by strong private consumption and investment. The dynamism of the economy is benefiting, in part, from the improvements in competitiveness that have taken place in recent years, due to the significant reduction in production costs, and the subsequent fall in the prices of goods and services.

The positive developments in GDP, have

inevitably had a positive effect on the labour market with unemployment declining steadily from its peak of 17,6% recorded during the crisis. According to the Labour Force Survey, the unemployment rate declined to 10,6% in 2017Q2, compared with 13,5% in the previous quarter and 12,1% in 2016Q2.

Prices, as measured by the Harmonised Index of Consumer Prices (HICP), recorded an increase of 0,8% in the first ten months of 2017. It is noted that in December 2016, the HICP recorded an increase for the first time, after three consecutive years of negative growth. It is important to note the steady rise in core inflation (inflation excluding energy and food), which rose to 0,5% in the first ten months of 2017 from -0,9% in the same period last year. The upward trend in both overall and core inflation is largely due to the significant recovery in the prices of services, particularly tourism, as a result of the robust domestic economic climate and strong demand in the tourism sector. Positive inflation was also recorded by the energy categories due to an increase in the price of oil and by unprocessed food. For the whole of 2017, inflation is expected to remain at 0,8%.

As regards developments in the banking sector, it should be noted that total inflows of deposits reached €1 billion in the first nine months of the year. The continuation of these inflows reflects the gradual recovery of depositor confidence as well as the restoration of the banking system's stability. This is also reflected in the significant decline of around 200 basis points recorded since the beginning of 2017 by the yield on Cyprus Government

bonds which mature in November 2020 (reaching 1,58% on 5 December 2017).

At the same time, there has been a steady upward trend in new loan contracts supported by historically low domestic interest rates, favourable macroeconomic conditions and rising demand. It is noted, however, that the increase in new lending has occurred concurrently with the ongoing deleveraging of existing loans. As a result, in September 2017, the growth rate of total loans recorded an annual decrease of 1,8%.

Nevertheless, the persistent difficulties facing the banking sector, in conjunction with the supervisory requirements, outline the major challenges our banking sector will face over the coming years.

The level of non-performing loans (NPLs) continues to be the main problem of the banking sector in Cyprus, despite the progress achieved in recent years. In particular, from the end of 2016 to July 2017 NPLs were reduced by € 1,5 billion.

However, the downward trend seems to be weakening. One important reason for this is the amount of terminated NPLs that account for about 50% of all remaining NPLs¹. To tackle the problem, banks need to move forward with more decisive steps and solutions. The ultimate responsibility for finding solutions to deal with the problem lies with the banks themselves. In particular, systemic banking institutions directly supervised by the ECB have submitted their strategy to both the CBC and the ECB on ways of reducing NPLs over the next three years. These strategies will be examined and discussed with the supervisory authorities. As a result, the CBC is involved and

is in constant contact with the banks and the ECB to find effective solutions to address the problem. This effort has been recently intensified since the delay in resolving the problem has the potential to reverse the positive macroeconomic developments seen so far.

1. Terminated NPLs or terminated credit facilities include loans denounced or terminated or letters of termination that have or will be sent by credit institutions requiring total repayment.

Macroeconomic Developments and Projections



1

Introduction

2

Macroeconomic
Developments
and Projections

1. International Environment: main developments

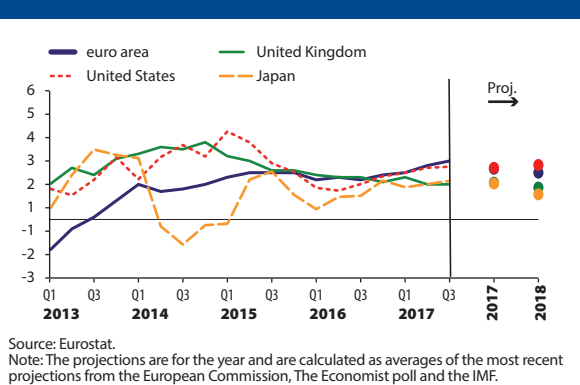
- Global economic activity significantly improved in 2017.
- Consumer and business confidence strengthened whilst global demand increased.
- Risks to future economic activity remain on the downside due to the high levels of public and private debt.
- Risks to full employment also remain on the downside on the back of possible lower than expected inflation.
- Global core inflation remained unchanged in most advanced economies, despite an increase in headline inflation, on the back of accelerated oil prices.
- Euro area core inflation remained low with a gradual increase expected over the medium term.
- The Federal Reserve and the Bank of England changed their monetary policy stance from expansionary to contractionary by increasing their base rates. The European Central Bank (ECB) continued its expansionary monetary policy stance.

1.1. External developments

GDP growth²

Global economic activity recorded a significant improvement in 2017 and is expected to strengthen further in 2018 (**Chart A.1**). More specifically, GDP growth increased in almost

CHART A.1 GDP in selected countries
(annual change %, seasonally adjusted %)



2. GDP projections are estimated as the average of the most recent projections from: The Economist Poll of Forecasters (11 November 2017), the European Commission (European Economic Forecast, Autumn 2017) and the IMF (World Economic Outlook, October 2017).

all the major economies while other large economies, which were recently in recession, such as Russia and Brasil, have shown signs of recovery. The growth in global GDP mainly reflects the gradual recovery in commodity prices, the acceleration in China's economic activity and increased demand in advanced economies. Moreover, the improved consumer and business confidence and, consequently, the pick-up in demand, is reflected in increased industrial production, investment and global trade.

The risks to the global economy, albeit moderated, remain on the downside. Global inflation continues to be relatively low while unemployment, private and public debt remain at high levels. At the same time, political and geopolitical risks continue to negatively impact global economic activity.

According to recently released data, annual GDP growth in the euro area, the US and Japan accelerated in 2017Q3 whereas it decelerated in the UK (**Chart A.1**, p. 11). The slowdown in the UK GDP growth was mainly due to the depreciation of sterling which negatively affected private consumption growth. Furthermore, domestic uncertainty over the UK's ambiguous future trade and economic relations with other EU members continues to negatively impact the country's economic activity. It is worth noting that despite the slowdown in GDP growth, the Bank of England (BoE) decided to increase its base rate taking into account the higher than the medium-term inflation target of 2%, the significant fall in unemployment and favourable financial conditions in the country.

Inflation³

Global inflation continued its increasing trend during 2017Q3, mainly due to the higher energy prices relative to the corresponding period of 2016. Global core inflation remained muted and at lower levels than overall inflation compared with 2016Q3, mainly reflecting moderate wage growth. According to the projections of international organisations and analysts, inflation in selected major advanced countries such as the UK, the US and Japan is expected to fluctuate around the same or even higher levels in 2018 compared with 2017 (**Chart A.2**), supported by the expected continuation of the global economic recovery. In the euro area, inflation is projected to decelerate in 2018, mainly due to the expected downward base effect in the energy category as well as the recent appreciation of the euro.

Exchange rates

The exchange rate of the euro against major currencies exhibited a broadly upward trend in 2017, despite some fluctuations (**Chart A.3**). This was mainly due to higher economic growth in the euro area, which was partly supported by the continuation of the ECB's expansionary monetary policy. More analytically, between 6 January 2017 and 17 November 2017 (latest available data), the euro exchange rate recorded an 11,9%, 4,1% and 7,2% increase against the dollar, sterling and yen, respectively. It is also noted that by end-September and during October, the euro depreciated against the dollar and sterling,

3. Inflation projections are estimated as the average of the most recent projections from: The Economist Poll of Forecasters (11 November 2017), the European Commission (European Economic Forecast, Autumn 2017) and the IMF (World Economic Outlook, October 2017).

CHART A.2 Inflation in selected countries
(annual change, %)

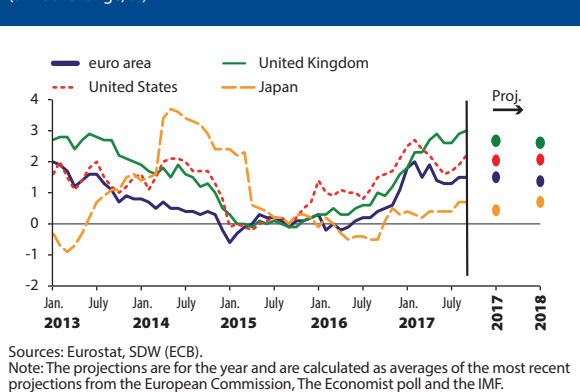
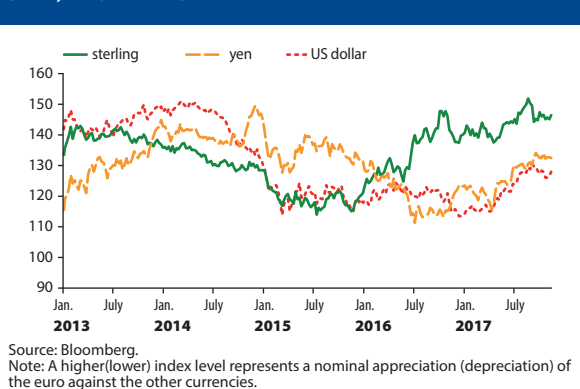


CHART A.3 Selected exchange rates against the euro
(weekly data, 2000=100)



mainly due to market expectations with respect to the transition from expansionary to contractionary monetary policy in the US and the UK (see **Chart A.5**). Nevertheless, the euro depreciation proved to be temporary as the trend reversed in early November.

Oil

The price of Brent crude oil increased in 2017 (**Chart A.4**). The recovery in oil prices was driven mainly by the anticipated decrease in oil production, as agreed by the OPEC, as well as the general improvement in global economic activity and hence the subsequent increase in oil demand. Geopolitical tensions, such as the independence referendum of the Kurdistan region in Iraq and concerns about the US sanctions on Iran also impacted on the oil price. According to the latest available data, the closing price of Brent crude oil stood at \$62,72 per barrel on 17 November 2017, up from \$46,86 on 18 November 2016.

International official interest rates

The major central banks, excluding the ECB, adopted a contractionary monetary policy stance in 2017. Specifically, the Federal Reserve increased its base rate range twice during 2017 (the upper limit increased from 0,75% to 1,00% and 1,25%, respectively) and the BoE once (from 0,25% to 0,5%), mainly as a result of inflation exceeding their medium-term target of 2% (**Chart A.5**). In contrast, the ECB continued its expansionary monetary policy and maintained its main refinancing operations rate unchanged at 0%.

CHART A.4 Closing prices of oil (Brent)
(weekly data)

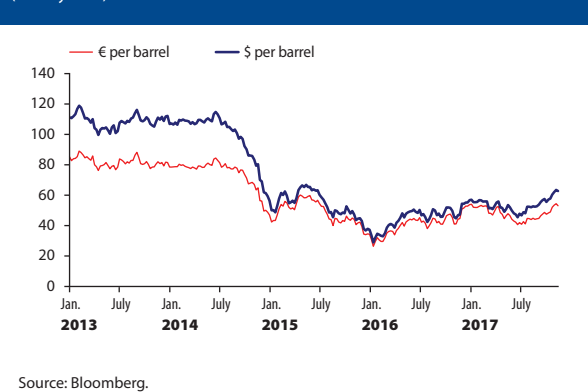
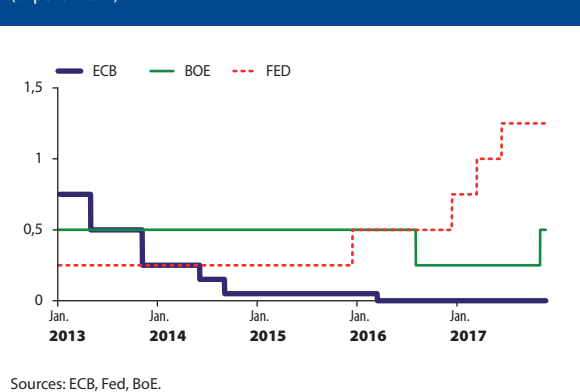


CHART A.5 Official interest rates
(% per annum)



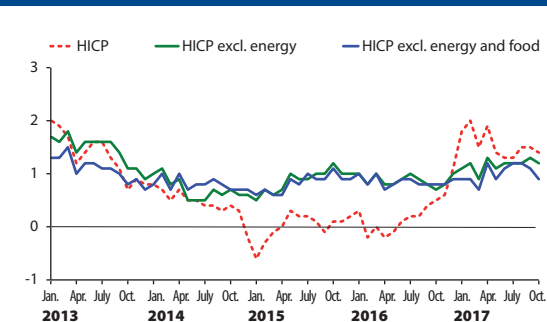
1.2 Monetary developments in the euro area

Inflation

Inflation in the euro area accelerated in the first ten months of 2017 compared with the corresponding period of 2016, mainly due to the impact of higher oil prices. According to the latest available data, euro area inflation reached 1,4% in October 2017 compared with 1,5% in September 2017 and 0,5% in October 2016 (**Chart A.6**). In general, the level of economic slack stemming from the current economic activity, the weak wage growth and the pressures on production costs are still hampering price formation. As a result, core inflation continues to remain low. Over the medium term a gradual increase is expected, mainly supported by the ECB's expansionary monetary policy measures, the expected ongoing economic growth, the gradual absorption of the slack in the economy as well as the expected rise in wages.

Given the current energy futures price contracts, HICP inflation is expected to decelerate in the coming months, mainly driven by a base effect in energy prices. International organisations and analysts project euro area inflation to converge at around 1,5% in 2017. In 2018 euro area inflation is expected to marginally decelerate to 1,4%, mainly due to the elimination of the impact of increased oil prices during 2017 and the recent appreciation of the euro.

CHART A.6 Inflation in the euro area
(annual change, %)



Source: Eurostat.

Reference rates and ECB interventions

The ECB kept its key interest rates unchanged during the first ten months of 2017 to 0,25%, 0% and -0,40% for the main refinancing operations rate, marginal lending facility rate and deposit facility rate, respectively. The EONIA curve also remained unchanged, indicating that markets do not expect further declines in the deposit facility rate (**Chart A.7**). Analytically, the EONIA closed at -0,36% on 22 November 2017, remaining at the same levels as last year. It should be noted that the ECB has continued to support money markets through standard liquidity-providing operations and non-standard measures in order to support the return of euro area inflation back to the medium-term target of below but close to 2%.

Credit expansion: loans

Loans to the euro area private sector have continued to record positive growth rates in 2017, attributed to both non-financial corporations (NFCs) and households (**Chart A.8**). This development mainly reflects banks' excess liquidity and low lending rates, brought about by the ECB's expansionary monetary policy, as well as the improved terms and conditions and credit standards applied by banks for the approval of new loans.

More specifically, according to the results of the *Bank Lending Survey* (BLS) in the euro area, net loan demand has been continuously increasing between 2014Q1 and 2017Q3 (latest available data). At the same time, credit

CHART A.7 ECB reference rates and EONIA

(% per annum, daily data)

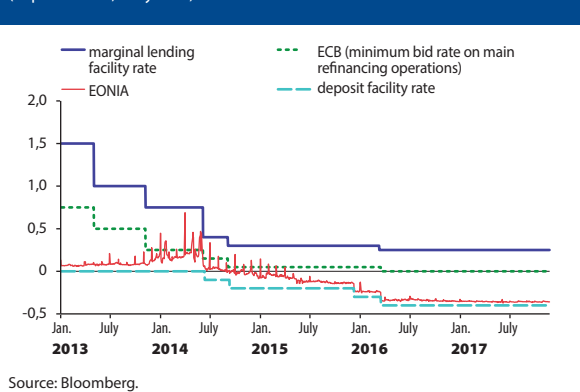
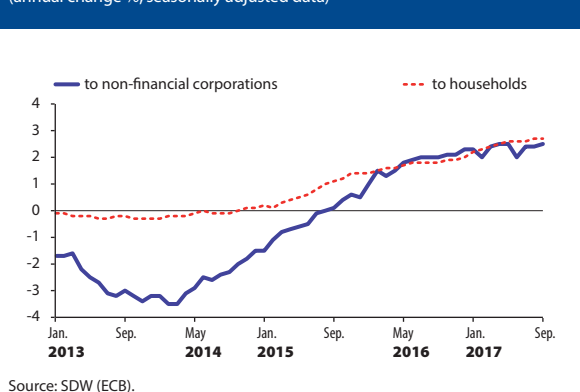


CHART A.8 Loans to the private sector: euro area

(annual change %, seasonally adjusted data)



standards for loans to the above mentioned sectors have eased since mid-2014. Based on the same survey, the participating banks expect credit standards for loans to enterprises and households for house purchase to further ease in 2017Q4 compared with 2017Q3, whereas credit standards for loans to households for consumption and other lending purposes are expected to tighten. Net loan demand by both households and enterprises is expected to further increase in 2017Q4 compared with 2017Q3.

Despite the above positive monetary developments, the high level of NPLs in some member states continues to hinder credit growth dynamics in the euro area, with a subsequent negative impact on the real euro area economy. In this respect, an effective and successful solution to the above problem is considered imperative. The ECB is already working towards this direction, while a comprehensive and coordinated European strategy that includes a wide range of instruments and tools for addressing NPLs is underway.

2. Domestic Developments

- *Domestic headline inflation remained positive in the first ten months of the year, mainly due to the robust economic growth, increased demand for tourism services and higher oil prices.*
- *Deposit inflows, especially by domestic NFCs, continue.*
- *NPLs continue to decline, albeit to a lesser extent than expected, given the robust economic environment.*



1

Introduction

2

Macroeconomic
Developments
and Projections

- *Gradual increase in new loan contracts, but increased repayments contain the growth rate of net total loans.*
- *Household interest rates continue their declining trend while NFC interest rates have stabilised at low levels.*
- *Acceleration in GDP growth, reflecting the ongoing growth in domestic demand and the tourism sector, which continues to record historically high levels in terms of arrivals and receipts.*
- *Unemployment registers further declines although it remains at high levels.*
- *Continuation of the gradual recovery in the real estate market with a pick-up in demand, house prices registering small increases and construction activity recovering from the historically low levels observed in previous years.*
- *The over-performance of fiscal targets continues.*

2.1 Domestic Prices, Monetary Aggregates and Labour Costs

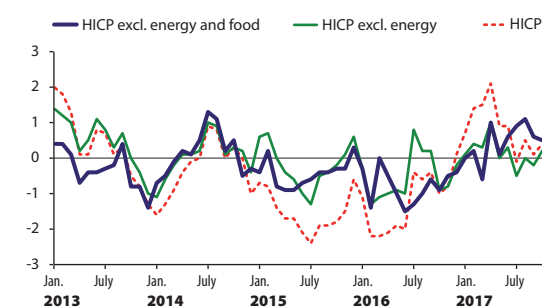
Inflation

As from December 2016, domestic headline inflation (HICP) has returned back to positive levels. Analytically, HICP inflation increased to 0,4% in October 2017 from -1,0% in the corresponding month of 2016. This development is attributed to increases in services, unprocessed food and energy prices. It should be noted, however, that this level still falls short of the ECB's medium-term inflation target of below but close to 2%.

With regard to the first ten months of 2017, HICP was up 0,8% from -1,4% in the corresponding month of 2016 (**Chart A.9** and **Table A.1**). In general, the trend of headline inflation during the first ten months of 2017 mainly reflects the robust domestic economic activity and the higher services prices on the back of the exceptional performance of the tourism sector. At the same time, it also reflects the increases in energy prices, the moderate wage increases as well as the positive annual growth rate in unprocessed food prices. Despite being positive domestic inflation remains, as already mentioned, contained. This is due to the fact that processed food and non-energy industrial goods prices continue to register yearly decreases as a result of increased competition (including off-season or mid-season sales/special offers), lower margins and the ongoing general corrective pattern in the prices of various products following the 2013 crisis.

Inflation excluding energy registered a marginal increase of 0,2% in the first ten months of 2017 compared with -0,5% in the first ten months of 2016 (**Chart A.9** and **Table A.1**). Excluding food and energy, core inflation, with a share of about 68% of the overall HICP, stood at 0,5% during the first ten months of 2017 compared with -0,9% in the corresponding period of 2016 (**Chart A.9** and **Table A.1**). The upward trend in core inflation mainly reflects the positive impact of increased demand for services (especially tourism related services) and strong domestic economic growth. It should be noted that core inflation is important as it shows the general price trends

CHART A.9 Inflation in Cyprus (HICP)
(annual change, %)



Source: Eurostat.

TABLE A.1 Inflation in Cyprus

	Weights ⁽¹⁾	Annual change (%)				
		Jan.-Oct. 2016	Jan.-Oct. 2017	Oct. 2016	Sep. 2017	Oct. 2017
HICP	1000,00	-1,4	0,8	-1,0	0,1	0,4
Unprocessed food	72,97	2,0	0,6	-4,1	-4,3	2,5
Processed food	177,17	-0,3	-1,1	0,6	-1,6	-2,0
Energy	74,31	-11,5	9,6	-2,6	4,2	2,9
Services	462,52	-1,2	1,1	-0,8	1,4	1,4
Non-energy industrial goods	213,04	0,0	-1,0	-1,0	-1,2	-1,6
HICP excluding energy	925,69	-0,5	0,2	-0,9	-0,2	0,2
HICP excluding energy and food	675,56	-0,9	0,5	-0,9	0,6	0,5

Source: Eurostat.

(1) Based on the weight for 2017.

excluding the impact of exogenous and volatile factors.

Monetary aggregates^{4,5}

The steady recovery of the domestic financial sector aggregates continued in 2017Q3, amid the challenges faced by the sector. The gradual return of depositor confidence as well as the positive domestic macroeconomic developments continued to contribute to the inflow of deposits in the domestic banking system in the first nine months of 2017, in particular by domestic NFCs. At the same time, and despite the high level of NPLs, there was a steady increase in new loan contracts, as a result of robust macroeconomic conditions and historically low interest rates. Nevertheless, increased repayments including those associated with restructured NPLs have contained the growth of net total loans.

Reflecting the strengthened confidence in the domestic banking system and the positive domestic economic developments, deposits increased in the first nine months of 2017. Specifically, domestic private sector deposits (excluding Special Purpose Entities - SPEs) recorded an annual increase of 5,7% in September 2017 compared with annual increases of 7,6% and 6,8% in December 2016 and in September 2016, respectively. In particular, the deposits of domestic NFCs (excluding SPEs) recorded an annual increase of 15,2% in September 2017 compared with 21,1% in December 2016 and 29,8% in September

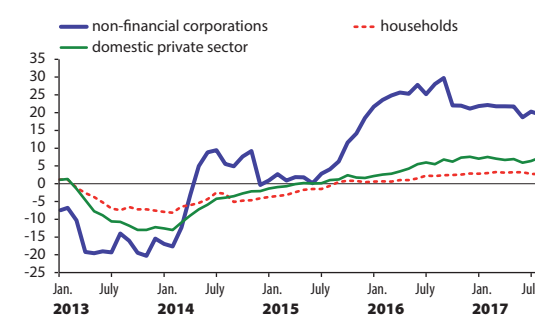
4. For a detailed explanation of the methodology and technical analysis of monetary aggregates, see the Technical Notes on p. 59.
5. The analysis on monetary aggregates (deposits and loans) in this section of the Economic Bulletin focuses on domestic residents excluding SPEs. Rather, SPEs are included in the non-residents category.

2016, while household deposits recorded increases of 2,6%, 2,9% and 2,4%, respectively (**Chart A.10**). It should be noted, however, that the recorded growth rates of NFCs deposits are attributed to their low outstanding volumes. Non-residents' deposits, on the other hand, which tend to be volatile, recorded an annual growth rate close to zero in the last 12 months. In particular, the annual growth rate in non-residents' deposits stood at -0,2% in September 2017 compared with 0,7% in December 2016 and 0,5% in September 2016 (**Chart A.11**).

In addition to the above, the high, albeit decreasing, stock of NPLs in bank portfolios continues to hamper the full recovery of the domestic banking system. The gradual decline in NPLs can be attributed to increased repayments, restructured loans successfully completing the observance period and reclassified as performing facilities, loan write-offs, and debt settlements through swaps with immovable property that is expected to be sold with the aim of a faster cash collection. Drastic measures to fully address NPLs will enhance the ability of domestic credit institutions to provide sustainable financing and thus further support economic growth.

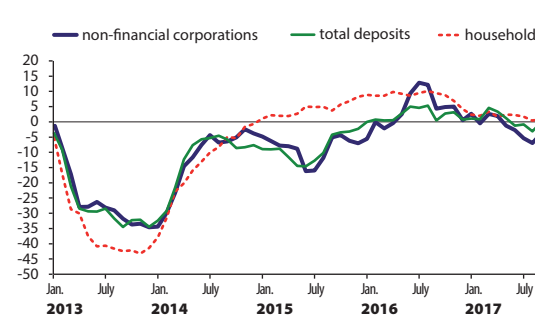
A continuous increase in new loan contracts in line with accelerating economic activity and historically low market interest rates is already evident. However, increased repayments partly associated with restructured NPLs continue to contain the growth in net total loans. Analytically, the annual growth rate of loans to domestic NFCs (excluding SPEs) stood at 1,1% in September 2017 from -1,6% in December 2016 and -2% in

CHART A.10 Deposits of the domestic private sector
(annual change, %)



Source: CBC.

CHART A.11 Deposits of non-residents: Cyprus
(annual change, %)



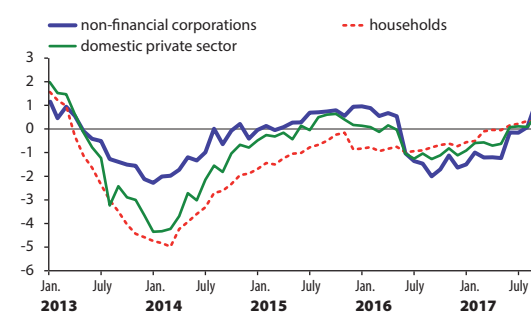
Source: CBC.

September 2016 (Chart A.12). As regards households, the annual growth rate of loans to domestic households stood at 0,3% at the end of 2017Q3 compared with -0,7% at end 2016 and -0,8% at the end of 2016Q3 (Chart A.12 and Table A.2).

According to the October 2017 BLS, net demand for both housing loans and loans to enterprises have continued to increase since early 2015 and reflect the robust domestic economic environment. Net demand for consumer credit and other lending remained unchanged in 2017Q3, thus remaining at the same elevated levels as in 2017Q2. As regards credit standards applied by the banks, these remained unchanged in 2017Q3, thus maintaining the tightened levels applicable as from 2014Q4. Moreover, according to the above survey, a further increase in the demand for housing loans is expected in 2017Q4, while net demand for loans by enterprises and households for consumption and other purposes is expected to remain unchanged. Credit standards for all these loan categories in 2017Q4 (Table A.3, p. 23) are also expected to remain unchanged.

Despite the positive developments, the domestic banking sector and the Cyprus economy in general face significant challenges, with the most important being the high stock of NPLs. It should be stressed that a decisive and effective solution of this problem is of the utmost importance for the real economy as, among other things, it constrains new lending growth. A more intense effort to find a solution to the problem of NPLs by all parties involved is necessary in

CHART A.12 Loans to the domestic private sector
(annual change, %)



Source: CBC.

TABLE A.2 Loans to domestic households ^{(1),(2)}

	Outstanding balance as % of total ⁽³⁾	Annual percentage change					
		2016 June	2016 Sep.	2016 Dec.	2017 Mar.	2017 June	2017 Sep.
Domestic households	100,0	-1,0	-0,8	-0,7	-0,1	0,2	0,3
1. Consumer credit	12,6	-0,8	-0,5	-0,8	-0,5	0,7	1,6
2. Lending for house purchase	55,7	-1,2	-0,9	-0,9	-0,7	-0,9	-0,6
3. Other lending	31,7	-0,7	-0,7	-0,4	1,0	1,7	1,4

Source: CBC.

(1) Sectoral classification is based on ESA 2010.

(2) Including non-profit institutions serving households.

(3) As at the end of the last month available. Figures may not add up due to rounding.

order to accelerate their contraction in an effective and sustainable manner.

Interest rates

Interest rates in Cyprus recorded their fourth yearly consecutive decline in the context of the expansionary monetary policy followed by the ECB. This trend has been further supported by increased competition among banks, particularly with regard to housing and consumer loan pricing, in their effort to expand their operations with new and sustainable lending.

At the domestic level, the indicative interest rate⁶ for new loans⁷ declined further, both for households and NFCs. In September 2017, the average interest rate for housing loans dropped to 2,67%, from 3,03% at the end of 2016 (Chart A.13), while the cost of new lending to NFCs for amounts up to €1 million hovered around 4% throughout the year (Chart A.14, p. 24).

Deposit rates recorded a similar trend, with household rates recording the largest drop. NFC deposit rates remained stable throughout the period. For example, the reference deposit rate⁸ for households declined from 1,47% at the end of 2016 to 1,24% in September 2017 (Chart A.15, p. 24) while the respective interest rate for NFCs stood at 1,34%, up from 1,29% (Chart A.16, p. 24).

The declining trend in interest rates has contributed to a further tightening of the spread between the local lending rates and

6. Loans with an initial rate fixation of up to one year.
7. The interest rate level on new loans includes the interest rates applicable to loans that were performing but have been restructured.
8. New deposits for households with an agreed maturity of up to one year.

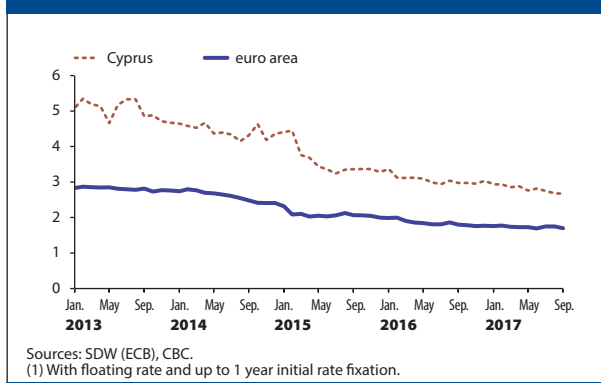
TABLE A.3 Summary of the October 2017 BLS results

Summary of results	Cyprus		euro area	
	2017 Q3	2017 Q4 (expectations)	2017 Q3	2017 Q4 (expectations)
Credit standards for loans				
Enterprises	Unchanged	Unchanged	Broadly unchanged	Unchanged
Households				
- Housing loans	Unchanged	Unchanged	Easing	Easing
- Consumer credit and other lending	Unchanged	Unchanged	Easing	Easing
Demand for loans				
Enterprises	Increase	Unchanged	Increase	Increase
Households				
- Housing loans	Increase	Increase	Increase	Increase
- Consumer credit and other lending	Unchanged	Unchanged	Increase	Increase

Sources: CBC, SDW.

Note: The above results list the changes that occurred in the last three months (in this case 2017Q3), and the changes that are expected for the next three months (i.e. 2017Q4). The measure used for the statistical analysis of this survey is the diffusion index.

CHART A.13 MFI interest rates on euro-denominated housing loans (new business) to euro area households⁽¹⁾ (% per annum, period averages)



Sources: SDW (ECB), CBC.

(1) With floating rate and up to 1 year initial rate fixation.

those of the euro area for households. By the end of September 2017, the lending and deposit rate spread for households decreased by 29 and 16 basis points, respectively, since the end of 2016. As regards NFCs, the corresponding spread remained relatively unchanged.

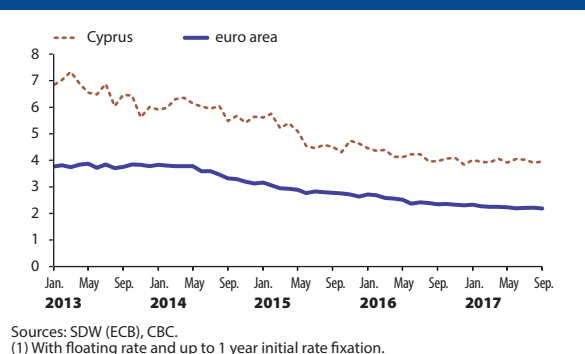
Looking ahead, domestic interest rates are not expected to record any significant changes in the next year, given the continuation of the ECB's expansionary monetary policy as prescribed at the latest Governing Council meeting on 26 October 2017.

Labour costs

Labour costs recorded a small increase in 2017H1 compared with the corresponding period of the previous year, within the context of the ongoing recovery of the labour market. In particular, nominal total wages and employers' social contributions per employee (compensation per employee) increased by 0,4% in 2017H1 compared with a decrease of 1,5% in 2016H1 (**Chart A.17**, p. 25). As regards the private sector compensation per employee, a 0,4% increase was recorded, attributable to specific sectors⁹. Compensation per public sector employee recorded a marginal decrease of 0,1% as a result of the change in the composition of public employment, in particular due to the recruitment of professional soldiers in the National Guard in late 2016 with wages lower than the average wage of other civil servants. From a sectoral point of view, the increase in nominal compensation per employee is mainly attributed to developments in the tertiary sector

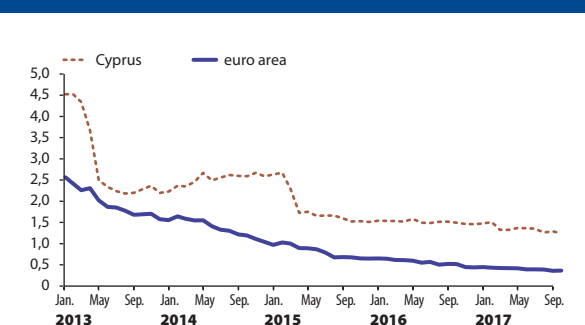
9. These sectors are those of financial and insurance activities and information and communication.

CHART A.14 MFI interest rates on euro-denominated loans (new business) up to €1 million to euro area non-financial corporations⁽¹⁾
(% per annum, period averages)



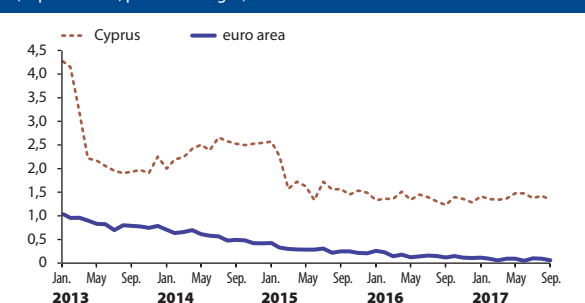
Sources: SDW (ECB), CBC.
(1) With floating rate and up to 1 year initial rate fixation.

CHART A.15 MFI interest rates on euro-denominated deposits (new business) by euro area households⁽¹⁾
(% per annum, period averages)



Sources: SDW (ECB), CBC.
(1) With agreed maturity up to 1 year.

CHART A.16 MFI interest rates on euro-denominated deposits (new business) by euro area non-financial corporations⁽¹⁾
(% per annum, period averages)



Sources: SDW (ECB), CBC.
(1) With agreed maturity up to 1 year.

(Chart A.17). This sector accounts for about 82% of total employment, with the relevant compensation per employee recording a year-on-year increase of 0,8% in the period under review. An annual change of -0,8% and -1,7% in 2017H1 was recorded in nominal compensation per employee in the primary and secondary sectors, respectively.

Real compensation per employee recorded a year-on-year decrease of 0,7% in 2017H1, compared with an increase of 0,4% in the corresponding period of the previous year (Chart A.18). This development reflects the increase in domestic prices registered during the period under review, which more than offset the rise in nominal compensation per employee. Productivity, measured as the change in real GDP per employed person, recorded a year-on-year increase of 0,4% in 2017H1, compared with a decline of 0,2% in the corresponding period of the previous year (Chart A.18). The positive trend observed in productivity is mainly the result of the adoption of various structural reforms in the labour market in recent years.

Unit labour costs, determined by the difference in the change in nominal compensation per employee relative to the change in productivity, remained unchanged in 2017H1 compared with the corresponding half of the previous year (Chart A.19a). It should be noted that in the corresponding period of 2016, the unit labour costs index recorded a year-on-year decrease of 1,2% whilst, in cumulative terms, it decreased significantly by 11,2% in the period 2013-2016. In contrast, unit labour costs in the euro area recorded an increase of 0,9% in 2017H1, following an

CHART A.17 Nominal compensation per employee by sector
(annual change, %)

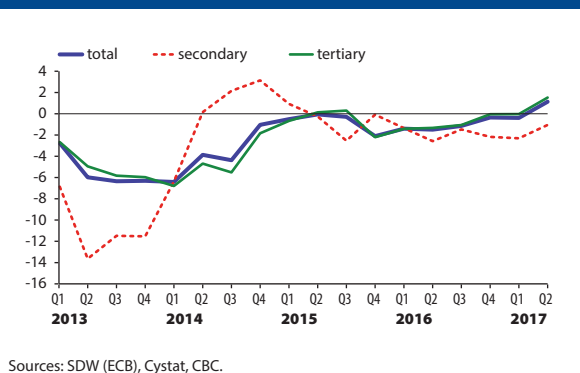


CHART A.18 Productivity and real compensation per employee
(annual change, %)

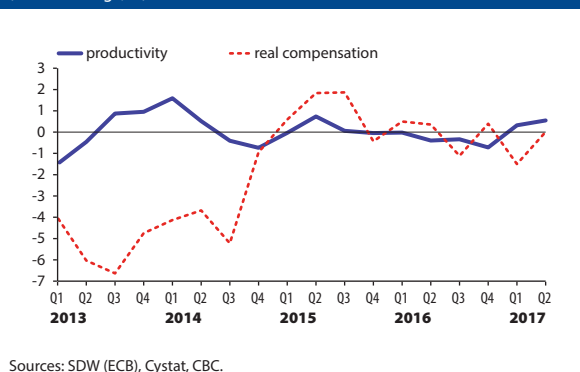
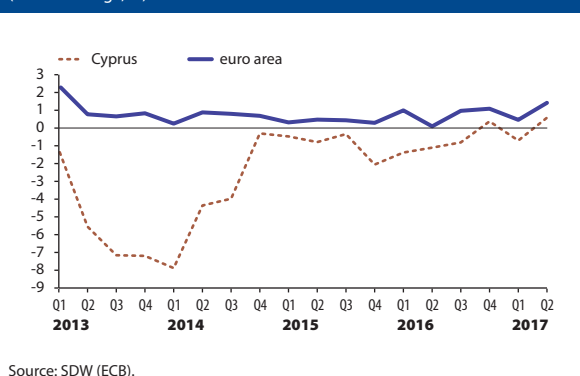


CHART A.19(a) Unit labour costs: Cyprus and the euro area
(annual change, %)



increase of 0,5% in the corresponding half of 2016. The unit labour costs index is an important indicator of competitiveness for an economy relative to competitor economies, as it reflects the unit labour cost per unit of output. A review of the unit labour costs index reveals that since 2013 it has been lower compared with the euro area, highlighting the improvement in the Cyprus economy's competitiveness, with a consequent reduction in the prices of goods and services. In particular, in 2017H1 the unit labour costs index was around 15 percentage points below the corresponding euro area index (Chart A.19b).

2.2 Domestic Competitiveness and the Balance of Payments

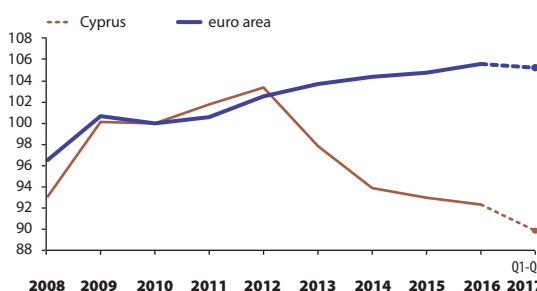
Effective exchange rate

Chart A.20 shows the index of effective exchange rate (EER) of the euro in Cyprus, in nominal (NEER) and real (REER)¹⁰ terms, as calculated by the IMF. In the first nine months of 2017, the NEER index strengthened, while the REER index stabilised at around 2016 levels. Overall, during the current months of 2017, the trend of the REER index as well as the widening gap between the NEER and REER indexes was influenced by developments in the nominal value of the euro, but most importantly by domestic developments, in particular the lower inflation recorded in Cyprus compared with its trading partners.

The REER index, the inflation rate as well as the unit labour costs that have been

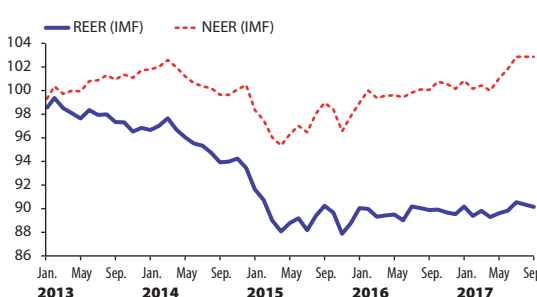
10. The effective exchange rate index in Cyprus in real terms (REER) is calculated by taking into account the trade relations between Cyprus and its 26 main trading partners (countries).

CHART A.19(b) Unit labour costs: Cyprus and the euro area
(index 2010=100)



Source: SDW (ECB).

CHART A.20 Real and nominal effective exchange rates (IMF weights)
(base year 2010=100)



Source: IMF.

analysed in the previous section, are important measures of the competitiveness of an economy. Lower unit labour costs and a lower REER in Cyprus compared with competing countries, suggest that domestic exports tend to be more price competitive. In general, inflation is related to, among other factors, to both variables mentioned above and therefore also reflects the degree of competitiveness of the Cyprus economy. The adoption of measures affecting salaries and other benefits both in the public and private sectors have reduced unit labour costs for the whole economy, thus improving competitiveness and supporting the recovery of the Cyprus economy in the medium term.

Balance of payments

The reporting of external trade statistics has been substantially altered in light of the new methodological and statistical changes¹¹. These statistics, especially for exports and imports of goods, are affected by the inclusion of the economic transfer of mobile transport equipment (mainly ships) by SPEs registered in Cyprus. The impact of these transactions by SPEs on the data is significant, despite the fact that they do not affect nor are affected by domestic fundamentals. Therefore, in the analysis that follows we refer both to the data including SPEs and data adjusted for the impact of SPEs.

The current account balance in 2017H1 recorded a deficit of €720,1 million (or 7,9% of GDP) compared with a deficit of €392,2 million (or 4,5% of GDP) in 2016H1 (Table A.4).

TABLE A.4 Balance of payments (main categories)

	Jan. - June 2016 (€ million)	Jan. - June 2017 (€ million)	Change (€ million)
Current account balance	-392,2	-720,1	-327,9
Goods and services balance	-74,6	-306,0	-231,4
Trade balance	-1.828,9	-2.043,5	-214,6
Exports of goods	1.479,5	1.153,5	-326,0
Imports of goods	3.308,4	3.197,0	-111,4
Services balance	1.754,3	1.737,5	-16,8
Exports of services	4.070,9	4.337,4	266,5
of which:			
Transport	1.201,3	1.236,4	35,1
Travel	878,3	1.040,1	161,8
Financial services	1.064,8	1.020,6	-44,2
Other business services	103,3	79,2	-24,1
Imports of services	2.316,6	2.599,9	283,3
of which:			
Transport	710,2	751,4	41,2
Travel	458,5	497,9	39,4
Financial services	480,0	450,1	-29,9
Other business services	163,6	182,5	18,9
Primary income (net)	-112,7	-202,1	-89,4
Secondary income (net)	-204,9	-212,0	-7,1
Current account balance (% of GDP)	-4,5	-7,9	
Current account balance adjusted for the impact of SPEs (% of GDP)	0,8	-3,9	

Sources: Cystat, CBC.

11. More information regarding the introduction of the ESA 2010 and BPM 6 statistical methods is provided in Box 1, p. 50 of the December 2014 *Economic Bulletin*.

However, the current account deficit in 2017H1, adjusted for the impact of SPEs, was reduced to €358,2 million (or 3,9% of GDP), but still recorded a deterioration compared with the corresponding period of the previous year, mainly due to the developments in the trade balance of goods.

More analytically, the trade deficit of goods worsened, reaching €2.043,5 million in 2017H1 compared with a deficit of €1.828,9 million in the corresponding period of the previous year, mainly driven by the decrease in exports of goods (**Table A.4**, p. 27). Adjusted for the impact of SPEs, and despite the increase in exports of goods, the trade balance recorded an even bigger deterioration in the period under review. The above-mentioned increase was due to the increase in imports of goods. The increase in the imports of goods was mainly attributed to the increase in oil prices, imports of aircrafts and the recovery of domestic demand as reflected by increases in imports of intermediate, capital and consumer goods.

The surplus of the services account decreased marginally reaching €1.737,5 million in 2017H1, compared with €1.754,3 million in 2016H1. This was mainly the result of higher increases recorded in the imports of services relative to the exports of services.

Exports of services increased by 6,5% (or €266,5 million) in 2017H1, partly reflecting developments in the travel category. Revenues from tourism, which are included in the travel category, recorded a significant increase of the order of 18,4% (or €161,8 million). The positive trend in the tourism sector has continued in the remaining



1

Introduction

2

Macroeconomic
Developments
and Projections

months of 2017. On the basis of available data for the first eight months of 2017, revenues from tourism continue to record increases (see Tourism, p. 30). Increases were also recorded in telecommunications, computer and information services as well as transport. However, decreases were recorded in the categories of financial and other business services in 2017H1.

Imports of services increased by 12,2% (or €283,3 million), mainly driven by increases recorded in the categories of telecommunications, computer and information services, transport as well as travel. In contrast, imports of financial services recorded a decrease.

The primary income account (which mainly includes income from employment and investment) recorded a larger deficit, of the order of €202,1 million compared with €112,7 million in the corresponding period of the previous year. The widening of the deficit is mainly attributed to the relatively larger amount of interest paid compared to the amount of interest received. The deficit in the secondary income account (which mainly includes current transfers) remained approximately at similar levels.

The current account deficit in 2017H1 was mainly associated with borrowing, through the issuance of domestic debt securities by the private sector and to a lesser extent by the government.

The net international investment position (IIP) of Cyprus was negatively affected by the implementation of the new methodological and statistical changes (see **Footnote 11**, p. 27) and mainly due to the inclusion of the economic transfer of mobile transport equip-



1

Introduction

2

Macroeconomic
Developments
and Projections

ment (mainly ships) by SPEs registered in Cyprus. These companies have significant financial liabilities and, in particular, loans which are mainly associated with the purchase of ships, while these loans have a direct impact on net IIP, the respective real assets (ships) do not, thus creating an imbalance in the figures reported. As these companies are financed entirely by non-domestic banks, they do not constitute a substantial risk to the Cypriot financial system.

The net IIP in 2017H1 was negative at €23,6 billion or 125,3% of GDP. Adjusted for the impact of SPEs, the net IIP in 2017H1 registered an improvement of 76,4 percentage points, reaching -€9,2 billion or -48,9% of GDP (Chart A.21).

Tourism

The tourism sector constitutes one of the most important pillars of the Cyprus economy. About half a million additional tourists visited Cyprus during the first ten months of 2017, relative to the corresponding period of 2016. A new historical high of tourist arrivals was recorded, with all major and some new markets recording remarkable performance. The conditions prevailing in the external environment contributed positively, as they adversely affected neighbouring competitor countries. Furthermore, domestic economic conditions helped maintain the competitiveness and the quality of the tourist product.

According to available data, in the first ten months of 2017, tourist arrivals increased by 14,6% and reached 3,4 million (Table A.5).

CHART A.21 Net International Investment Position (IIP)
(as a percentage of GDP)

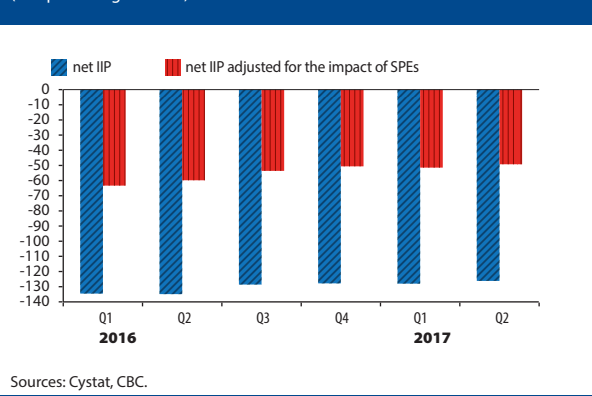


TABLE A.5 Tourism

	Tourist arrivals (thous.)	Tourist receipts (€ million)	Expenditure per person (€)
2015	2.659,4	2.112,1	794,2
2016	3.186,5	2.363,2	741,6
annual % change	19,8	11,9	-6,6
2016 Jan. - Aug.	2.196,0	1.625,6	740,2
2017 Jan. - Aug.	2.517,9	1.845,7	733,0
annual % change	14,7	13,5	-1,0
2016 Jan. - Oct.	2.974,4	-	-
2017 Jan. - Oct.	3.408,5	-	-
annual % change	14,6	-	-

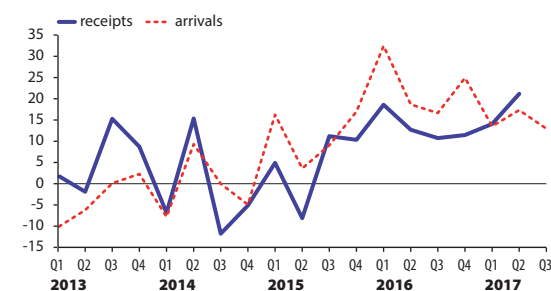
Source: Cystat.

Regarding individual markets, arrivals from the United Kingdom increased by 7,9% reaching 1,2 million tourists, while arrivals from Russia increased by 5,2% reaching 0,8 million tourists. At the same time, arrivals also increased from other important markets, such as Israel, Germany and Sweden. For the period until August of 2017, revenues from tourism increased significantly by 13,5% (**Chart A.22**). As a result, per capita tourist expenditure decreased by 1% in the first eight months of 2017 (**Table A.5**, p. 30). This is attributed to the decrease of 0,2% in daily per capita expenditure and the reduction in the average length of stay from 9,5 to 9,4 days.

It is worth mentioning that the efforts to mitigate the issue of seasonality have been successful, with arrivals in the spring and autumn registering significant increases, reflecting the extension of the tourist season. The efforts to diversify towards new markets such as other European countries, the Middle East and Asia have been successful. Moreover, hoteliers proceeded with hotel extensions and renovations as well as the construction of new accommodation units in order to meet increased demand during the summer season.

The current year continues to be a good year for the tourism sector, with the challenges on the sustainability of the sector's growth remaining. For this reason, new tourist products are being promoted so as to diversify Cypriot tourism through new infrastructure, such as the construction of marinas and a casino.

CHART A.22 Tourist arrivals and receipts
(annual change, %)



Source: Cystat.

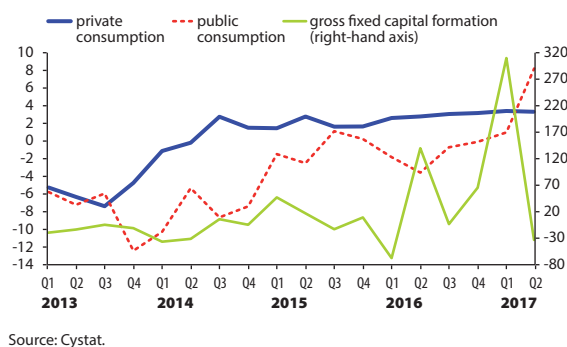
2.3 Domestic Demand, Production and the Labour Market

Quarterly national accounts¹²

Based on detailed data for 2017H1, the Cyprus economy recorded a growth rate of 3,6% in the period under review compared with 2,7% in the corresponding period of the previous year. GDP growth was mainly driven by an increase in domestic demand, (Chart A.23(a) and A.23(b)) which was partly offset by a fall in net exports. Based on the latest preliminary available data relating to the first nine months of 2017, real GDP recorded a year-on-year growth of 3,8% (seasonally adjusted).

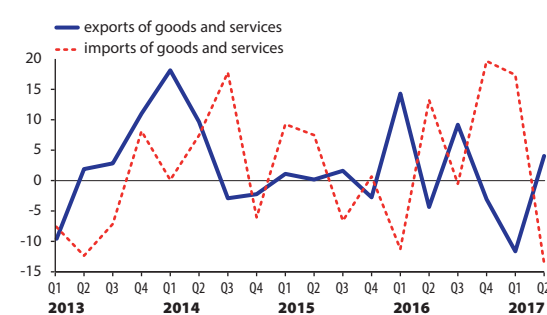
Private consumption increased by 3,4% in 2017H1, mainly due to the establishment of macroeconomic stability and the recovery in consumer confidence. Public consumption grew by 4,6%, mainly as a result of the increase in intermediate consumption on account of spending on water and medicine, which materialised earlier in the year. It is also attributed to the increase in compensation of public employees given the resumption of wage increases as of January 2017 and in conjunction with the increase in public employment (see Domestic fiscal developments, p. 39). Gross fixed capital formation rose by 20,6%, primarily due to the inclusion of the transfer of economic ownership of mobile transport equipment (mainly ships) of SPEs as well as the implementation

CHART A.23(a) Quarterly GDP growth (expenditure categories)
(annual change, %)



Source: Cystat.

CHART A.23(b) Quarterly GDP growth (expenditure categories)
(annual change, %)



Source: Cystat.

12. With the introduction of the ESA 2010 and BPM6 statistical methods, total exports and imports of Cyprus as well as gross fixed capital formation include, inter alia, the transfer of economic ownership of mobile transport equipment (mainly ships) of SPEs, which affect the aforementioned GDP expenditure sub-categories. However, given the double entry accounting system they do not affect the level and growth rate of GDP.

of specific development projects of the private sector. Exports of goods and services declined by 3,4%, mainly as a result of exports of mobile transport equipment of SPEs and despite the very positive developments in exports of services, in particular tourism. A marginal decrease of 0,3% was recorded in imports of goods and services due to the significant reduction in imports of mobile transport equipment of SPEs and other non-recurring factors.

As previously mentioned, the figures above are affected by the inclusion of the transfer of the economic ownership of mobile transport equipment of SPEs. Adjusted for this, exports recorded a significant increase, mainly due to the extraordinary performance observed in the tourism sector (see Tourism, p. 30 and **Chart A.22**, p. 31) as well as exports of other services. Imports, adjusted for the impact of transactions in mobile transport equipment of SPEs and other non-recurring factors, recorded a significant increase during the period under review. This is attributed to growth in domestic demand and, in particular, the increase in imports for consumer, intermediate and capital goods. Gross fixed capital formation adjusted for the impact of transactions in mobile transport equipment of SPEs as well as other non-recurring factors, exhibited a similar year-on-year increase with the non-adjusted figure.

From a sectoral point of view, growth is broad-based, with most sectors of production contributing positively. The sectors with the most important contribution to GDP growth in 2017H1 were trade, transport and tourism (with their contribution reaching 1,1 percent-

tage points), construction (0,9 percentage points) as well as professional services (0,4 percentage points). A negative contribution was recorded only by the financial and insurance activities sector (0,3 percentage points), attributable to loan deleveraging within the context of the ongoing consolidation of the banking sector and the adjustment of private sector balance sheets.

Recent economic indicators confirm the ongoing recovery in domestic demand as well as the positive trends in exports. In particular, the Economic Sentiment Indicator (**Table A.6**) increased from 113,3 in December 2016 to the historically high level of 117,9 in October 2017, reaching a level comparable to that observed in August 2007. The turnover index of retail trade (**Chart A.24**) recorded a significant improvement of 5% in the first eight months of the year. Also, registrations of motor vehicles (**Chart A.25**) continued their positive trend, recording an increase of 31,2% in the first ten months of 2017 compared with the corresponding period of the previous year. As regards credit card payments, spending by Cypriot cardholders in Cyprus increased by 12,4% in the first ten months of 2017 (**Chart A.26**, p. 35). Adjusted for payments associated with government services and petroleum products, credit card payments recorded a higher increase for the period January - October 2017 of the order of 14,9%. VAT receipts (as compiled on a cash basis and including relevant returns), which is an indication of the path of private consumption, recorded an increase of 13,8% in the period January-September 2017.

As already mentioned, private sector inve-

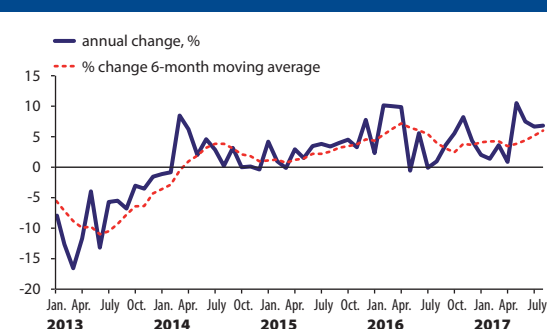
TABLE A.6 Business and consumer surveys: confidence indicators

(for sub-indices: difference between percentage of positive answers and percentage of negative answers)

	2016 Dec.	2017 Mar.	2017 June	2017 Sep.	2017 Oct.
ESI	113,3	115,8	115,5	113,5	117,9
Industry	0	10	3	3	8
Services	28	26	37	26	38
Consumer	-1	-2	-1	-1	-1
Retail trade	9	5	7	6	8
Construction	-27	-29	-28	-27	-28

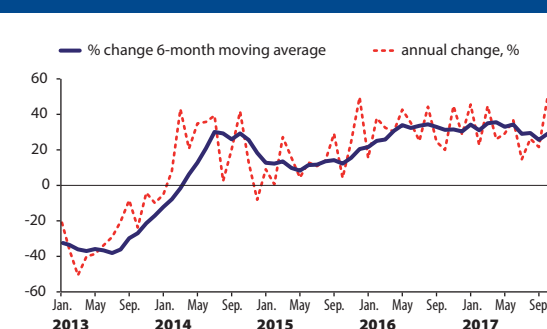
Source: European Commission.
Note: Seasonally adjusted data.

CHART A.24 Retail sales (excluding motor vehicles)



Source: Cystat.

CHART A.25 Registration of motor vehicles



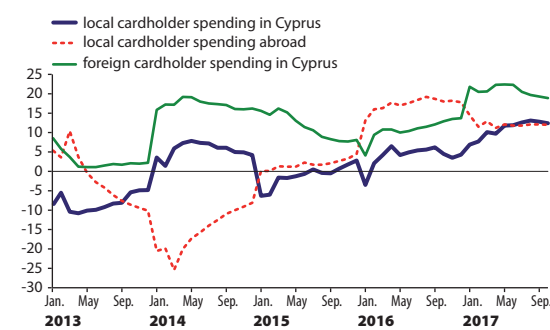
Source: Cystat.

stment projects have made an important contribution to the improvement in the domestic economic climate. It is noteworthy that the confidence index in the construction sector has been improving over time, stabilising at low levels in the first ten months of 2017. The production index in the construction sector, although still fluctuating at very low levels, exhibits continuing positive rates of change since 2015Q3 (see Real estate market, p. 36).

The tourism sector recorded a significant recovery, as previously noted, with significant increases registered both in terms of arrivals and receipts (see Tourism and **Chart A.22**, p. 31). Reflecting the positive developments in tourism, spending by foreign credit cardholders in Cyprus recorded an increase of 18,9% in the first ten months of 2017 (**Chart A.26**). As far as the field of professional services is concerned, available data for 2017 relating to new company registrations in Cyprus (0,9% increase in the first 10 months of 2017 and 14,9% in October 2017) point to the comparative advantage that Cyprus has in providing the relevant services.

At the same time, an increase in new lending contracts by the banking sector to the domestic private sector was recorded up to September 2017 (latest available data). Nevertheless, the annual growth rate of total loans to the domestic private sector (**Chart A.12**, p. 22) remains only marginally positive, owing to the continued efforts of both the private and the banking sector to deleverage and adjust their balance sheets. Furthermore, the continuation of the positive trends in the deposits of Cypriot residents

CHART A.26 Credit card spending
(cumulative annual % change from January)



Source: JCC Payments System Ltd.

(Chart A.10, p. 21) points to the return of depositor confidence and reflects the positive domestic macroeconomic developments (see Monetary aggregates, p. 20).

Real estate market

The real estate market in Cyprus is recovering amid continuous improvement in economic activity and increased confidence in the construction sector. This improvement is reflected in the gradual recovery of immovable property prices, as recorded by the CBC Residential Property Price Index (RPPI). According to the CBC RPPI, residential property prices recorded their fourth consecutive quarterly increase of the order of 0,5% in 2017Q2. During the same period, residential property prices recorded quarterly increases in all districts, with the exception of Larnaca. At the same time, the RPPI recorded an annual increase of 1,1% (Chart A.27).

The positive developments in the real estate market are reflected in the increase in demand for properties. Specifically, according to the Department of Lands and Surveys, for the period January - October 2017 sales contracts recorded an annual increase of 19,2% (Table A.7). However, the total number of sales contracts remains significantly below the levels before the peak of the crises in 2013. The increase in sales contracts is driven by demand from both local and foreign buyers, although domestic demand accounts for the largest market share (Table A.7).

Undoubtedly, lending is an important factor contributing to the recovery of the real estate market. According to CBC data, new

CHART A.27 House and apartment price indices
(annual change, %)

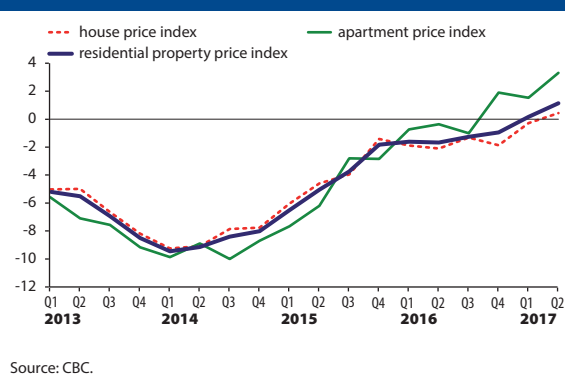


TABLE A.7 Real estate sector
(annual change, %, unless otherwise stated)

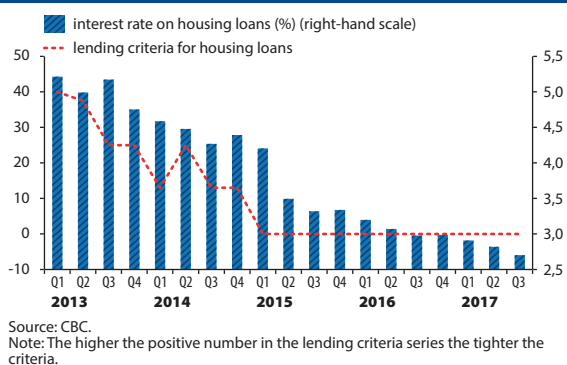
	Jan.-Oct. 2016	Jan.-Oct. 2017	Oct. 2016	Sep. 2017	Oct. 2017
Sales contracts (total)	32,2	19,2	36,9	8,3	21,1
Sales contracts (locals)	37,4	11,1	34,4	3,3	6,1
Sales contracts (foreigners)	18,1	44,8	45,0	24,8	65,2
Property price expectations for the next 3 months (average of index)	-5,0	3,8	-3,7	8,7	7,4

Sources: Cystat, DLS, European Commission.

housing loans of €494,5 million were granted during the period January-September 2017, significantly higher than the corresponding period of 2016 (€367,5 million). The increased demand for housing loans is also confirmed by the CBC Bank Lending Survey (Table A.3, p. 23), and is driven, *inter alia*, by the low interest rates and the unchanged lending criteria (Chart A.28).

The construction sector is also exhibiting signs of recovery, following the gradual increase in demand for immovable properties. In particular, the index of production in construction, which is published by the Cyprus Statistical Service (Cystat), recorded the fifth consecutive annual increase of the order of 32,6% in 2017Q2. The outlook of the construction sector is positive as the number of authorised building permits, which are considered to be a leading indicator of the construction activity, recorded an annual increase of 9,8% in the period January-August 2017. This development reflects increases in both the number of building permits authorised for residential (13,3%) and non-residential buildings (8,5%). There are also signs of improvement in the sentiment of the construction sector, as evidenced by the European Commission's Business and Consumer Surveys. Specifically, the index of property price expectations averaged 3,8 in the period January-October 2017, compared with -5 in the corresponding period of 2016 (Table A.7, p. 36). Similar trends are also recorded by the indices of confidence and expectations for employment in the construction sector, of which a more detailed analysis is

CHART A.28 Lending criteria and interest rates on housing loans
(annual change, %)



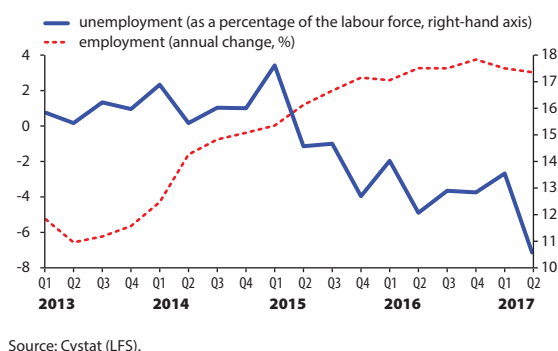
included in the quarterly CBC publications of the RPPI report.

Labour market

In line with the continuation of economic growth, employment increased further by 3,1% in 2017H1, compared with a rise of 2,9% in the corresponding period of the previous year (**Chart A.29**). Total hours worked increased by 3% in 2017H1 compared with an increase of 2,9% in 2016H1. As such, hours worked per employee decreased by 0,2% in 2017H1, while they remained unchanged in the corresponding period of the previous year. The aforementioned marginal reduction in hours worked per employee is associated with the rise in the share of informal employment¹³ following the crisis, in particular part-time work and employment associated with temporary contracts.

Unemployment continued improving, reaching 12,1% in 2017H1 as a percentage of the labour force on the basis of the *Labour Force Survey* (LFS), compared with 13% in 2016H1. It should be noted that in 2017Q2 the unemployment rate decreased significantly to 10,6%, compared with 12,1% in the corresponding quarter of 2016 and 13,5% in 2017Q1 (**Chart A.29**). According to the LFS, youth unemployment fell to 25,3% in 2017Q2, compared with 26,7% in the corresponding quarter of the previous year. However, youth unemployment constitutes only about two percentage points of the overall unemployment rate associated with the period under

CHART A.29 Unemployment and employment



Source: Cystat (LFS).

13. The term informal employment is associated with forms of employment that deviate from the standard indefinite-term work model whereby the employee provides his / her services within the office space provided by the employer and fulfils the total weekly / daily working time as provided for by relevant legislation.

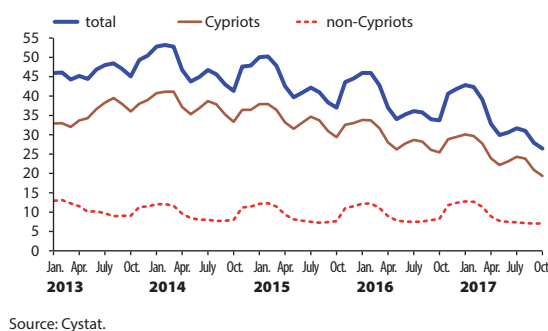
review. The downward trend in unemployment is also confirmed by the number of registered unemployed (**Chart A.30**), which decreased from 33.700 to 26.400 (or by 21,6%) in October 2017 compared with the corresponding month of 2016.

In periods with persistently high unemployment levels, it is very important to monitor the duration of unemployment (**Chart A.31**), given that the long-term unemployed find it harder to reintegrate into the labour market. According to the LFS, the unemployment rate with a duration of six months and over fell to 6,8% in 2017Q2, compared with 7,9% in the corresponding quarter of the previous year. The latest available data on the number of registered unemployed with a duration of six months and over point to a decrease of 3.158 individuals in October 2017 compared with the corresponding month of the previous year. Overall, all relevant economic data point to the steady recovery in the labour market, in line with the significant growth in economic activity.

2.4 Domestic Fiscal Developments

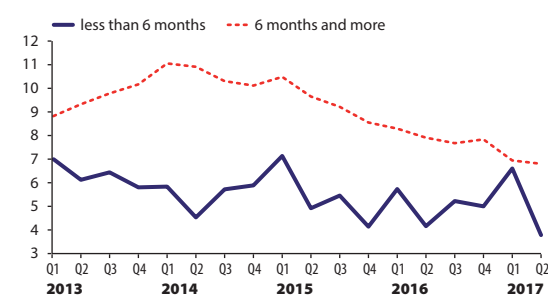
The general government fiscal accounts recorded a surplus of 0,5% of GDP in 2016, with the primary balance reaching 3% of GDP (**Chart A.32**). According to preliminary data by Cystat, covering the period until September 2017, the positive fiscal developments are continuing, as a headline surplus of 2,3% of GDP was recorded, compared with a surplus of 0,8% in the corresponding period of 2016. Moreover, the primary balance recorded a

CHART A.30 Registered unemployment
(number of unemployed, thousands)



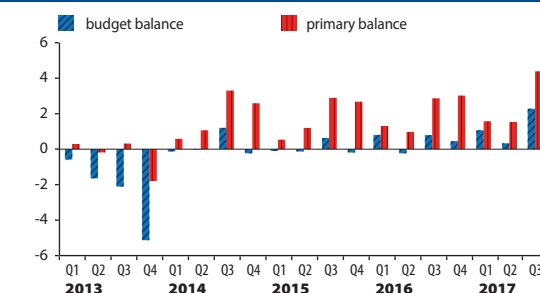
Source: Cystat.

CHART A.31 Unemployment by duration
(as a percentage of the labour force)



Source: Cystat (LFS).

CHART A.32 Budget and primary balances of the general government
(cumulative for the period as from Q1 as a percentage of GDP)



Sources: Cystat, CBC.

Note: The budget and primary balance of the general government for 2014Q1 and 2015Q4 does not include the equity injection to restore the capital base of the CCB €1,5 billion and €175 million respectively.

surplus of 4,4% of GDP during January–September 2017 compared with 2,9% over the corresponding period of the previous year (Chart A.32, p. 39).

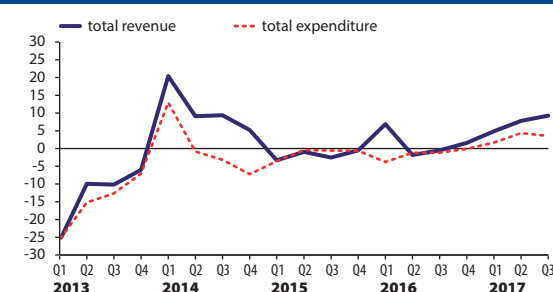
Public revenues for the first nine months of 2017 recorded an increase of 9,3% (Chart A.33 and Table A.8), owing to the 11,7% increase in taxes on production and imports, with the biggest contribution stemming from the 13,8% increase in VAT receipts due to the improvement in domestic demand and the construction sector. At the same time, revenues from social contributions rose by 9,7% due to the improvement observed in the labour market. It is noted that the 4,6% increase in current taxes on income, wealth, etc. was recorded despite the abolition of both the temporary contribution of employees in the public and private sector and the immovable property tax. The aforementioned abolitions had a total negative impact of 0,7% of GDP.

Regarding public expenditure (Chart A.33 and Table A.8) an annual increase of 3,5% was recorded in the first nine months of 2017. This was mainly owed to the 4,1% increase in compensation of employees, as the hiring of professional military personnel led to an increase in public employment and the growing of increments was resumed in the public sector. At the same time, an increase of 11,4% was registered in intermediate consumption, largely due to payments for water and medicines, which took place earlier this year.

The strong fiscal performance for the first nine months is expected to be moderated by the end of the year, as in early November the Council of Ministers approved a supplementa-

CHART A.33 Total revenue and expenditure of the general government

(cumulative for the period as from Q1, annual change, %)



Source: Cystat.

Note: The budget and primary balance of the general government for 2014Q1 and 2015Q4 does not include the equity injection to restore the capital base of the CCB €1,5 billion and €175 million respectively.

TABLE A.8 Accounts of general government

	Jan.-Sep. 2016 (€ million)	Jan.-Sep. 2017 (€ million)	Change %
EXPENDITURE			
Intermediate consumption	406,2	452,4	11,4
Compensation of employees	1.559,2	1623,6	4,1
Social transfers	1.814,5	1863,4	2,7
Interest	375,5	395,4	5,3
Subsidies	60,2	27,7	-54,0
Other current expenditure	283,9	330,7	16,5
Gross fixed capital formation	221,5	215,2	-2,8
Other capital expenditure	52,9	34,7	-34,4
Total expenditure	4.773,9	4.943,1	3,5
Total expenditure as a % of GDP	26,3	26,3	
REVENUE			
Taxes on production and imports	1.933,7	2.160,4	11,7
Current taxes on income, wealth, etc	1.238,9	1.295,5	4,6
Social contributions	1.116,5	1.224,3	9,7
Other current resources	155,1	141,7	-8,6
Sales	329,9	376,0	14,0
Capital transfers received	30,3	67,4	122,4
Property income	112,9	107,0	-5,2
Total revenue	4.917,3	5.372,3	9,3
Total revenue as a % of GDP	27,1	28,6	
Surplus (+) / Deficit (-)	143,4	429,2	
Surplus (+) / Deficit (-) % of GDP	0,8	2,3	

Sources: Cystat, CBC.

Box 1: Financial literacy and the assessment of financial knowledge in Cyprus using the CBC's survey

Introduction

Financial literacy has been widely recognised by international organisations, such as the OECD and G20, as a global challenge that needs to be addressed. Financial literacy can be broadly defined as the ability to combine knowledge, relevant skills, rational behaviour, and perceptions for the effective management of an individual's financial resources. Thus, financial illiteracy, can be defined as the absence of any of the above skills. In emphasising the importance of financial literacy, Ben Bernanke, economist and former Federal Reserve Governor of the United States, said that "economic literacy is a protection shield against a global economy and a financial system that is becoming more and more complex"¹.

With regard to Cyprus, past experiences from the Cyprus stock market, as well as more recent examples related to the management of Cypriot households' financial portfolios before the 2013 crisis, have highlighted the fact that a significant part of the population in our country does not seem to have sufficient basic financial knowledge or rational perceptions of various financial matters.

A small number of surveys have attempted to measure the level of financial knowledge of Cypriot citizens. In 2010, the Cyprus Securities and Exchange Commis-

sion carried out a sampling survey to measure the public's level of knowledge on issues related to the capital market and investments in transferable securities². The survey did not aim at the wider measurement of financial literacy, but rather was confined to issues related to the capital market. The survey results indicated that the level of knowledge related to the capital market and investment in securities / investment products in Cyprus was very low. More recently, the Cyprus University of Technology conducted a pilot survey aiming to measure the level of financial literacy among Cypriot university students. The results found that financial illiteracy is prevalent in Cyprus, at least among university students. Cyprus's Financial Ombudsman has publicly stated that many citizens fail in managing their economic and financial affairs properly, especially when taking out or restructuring a loan. These weaknesses have a negative impact, both at an individual and at a social level.

In view of the above, the CBC is taking a leading role in the effort to combat financial illiteracy in Cyprus, through the conduct of a new Pancyprrian sampling survey. The survey is in progress and its first results are expected to be available in the first half of 2018. It is part of a wider research framework that is being employed in many other countries around the world, based on specific criteria set by the OECD. The results of the survey will allow for an in-depth assessment of the level of financial knowledge among Cypriot citizens, as

1. <http://www.riknews.com.cy/index.php/news/analyseis/itemlist/date/2017/4/5?catid=35>

2. Results of the survey can be found at: <http://www.cysec.gov.cy/el-GR/public-info/training/Investor-Education/market-surveys/>.

well as identifying the individual aspects of the challenges regarding financial literacy.

Characteristics of the Cyprus survey

The questionnaire for the CBC survey was prepared in cooperation with academics from the Cyprus University of Technology and the Durham University Business School who have expertise in the field of financial literacy. As mentioned earlier, the survey is in line with the guidelines set by the OECD, which will allow the results to be comparable with those of other participating countries, and could therefore be used in the domestic and international literature.

To safeguard the representativeness of the sample in the population, the sampling survey has strict qualitative characteristics. The final achieved sample is expected to be around 1000 individuals within the age range of 18-79, with specific demographic characteristics. Furthermore, the collection of the micro data is undertaken using CAPI (computer assisted personal interviews) as a survey mode, which is the same method employed in other participating countries adopting the OECD criteria.

The anonymity of the survey participants is strictly preserved, as in all surveys carried out by the CBC. The confidentiality of the personal data is ensured, as once the interview is completed, the name and address of the participants will never be matched with the data they provide during the personal interview.

As already stated, the results of the

survey will be used to measure the level of financial knowledge in Cyprus, make comparisons with other countries' results, and help to provide a clearer understanding of the individual aspects of financial illiteracy. In this respect, the survey will also help to provide relevant suggestions to address the issue at hand. Furthermore, the findings of the survey could also contribute to the design of a national strategy to tackle financial illiteracy more effectively. This can be achieved through a targeted and collective effort for financial education, in which other state institutions could also be involved, such as the Ministry of Education, Universities, the Cyprus Securities and Exchange Commission, the Productivity Centre etc. In addition, private entities, which have already started to take action, such as the Association of Economists of Cyprus (Ένωση Οικονομολόγων Κύπρου), the Banking Association in collaboration with the "Junior Achievement Cyprus", the Consumer Association, etc., could intensify their contribution.

International literature on financial literacy

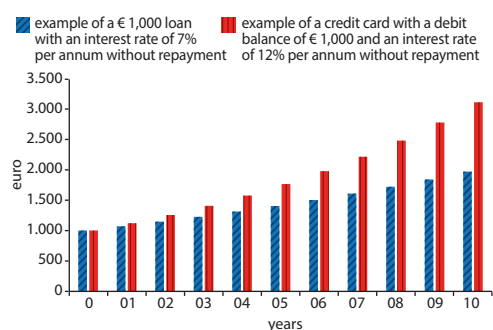
Academic research from the international literature shows that individuals who have adequate financial knowledge and developed skills to apply them have much better opportunities to enjoy a higher standard of living (Lusardi & Mitchell, 2014). Lusardi (2008) showed that failure to plan for retirement, lack of participation in the stock market and poor borrowing

behaviour can all be linked to ignorance of basic financial concepts. Furthermore, other studies, such as Lusardi, Michaud & Mitchell (2013), show that lack of financial literacy is one of the most important factors that can explain income inequality in developed economies.

Hogarth & Hilgert (2002) find that well-informed and financially literate citizens and consumers tend to take better decisions for their families that increase their financial security and prosperity.

According to the comparative results of a study published in 2017 by the OECD on measuring financial knowledge in the G20 countries, a large number of people within the age group of 18-79 do not have basic financial knowledge. This study finds that there is considerable scope for improvement in terms of overall levels of financial literacy in all participating countries. The study also highlights the fact that the understanding and skills relating to basic principles, such as risk diversification and compound interest, are at worryingly low levels. As a result, the adult population does not recognise the consequences of significant financial decisions, such as paying the minimum monthly credit card installment or managing their increasing responsibility for personal financial security during retirement. In particular, on average, 4 out of 10 participants do not understand the concept of portfolio diversification, while only 27% of participants are able to calculate simple interest on deposits and to recognise the additional benefit of compounding over a five-year period.

CHART 1 Interest and the importance of compound interest

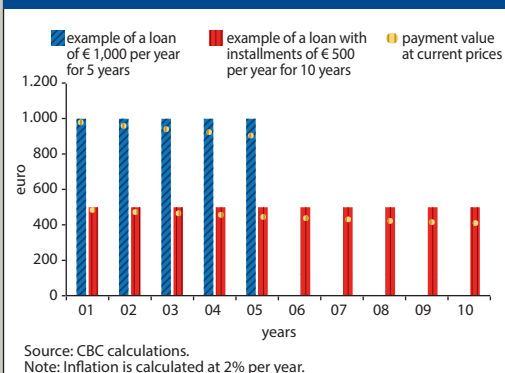


Source: CBC calculations.

Hypothetical examples that highlight the lack of financial knowledge

Data from international sampling surveys show that a significant share of the adult population does not completely understand the concept of compound interest on capital over a period of some years, or the notion of the long-term purchasing power of money. This seems to be the case also in Cyprus, as indicated by the Financial Ombudsman.

The following diagrams highlight the importance of the above, through specific arithmetic examples on compounding. In particular, **Chart 1** shows the path of a loan with an outstanding amount of €1000 carrying an annual interest of 7%, which, almost doubles over a period of ten years, if no repayments are made. For a credit card or other credit facility with the same outstanding amount and annual interest rate of 12%, if no repayments are made, the amount more than double in just seven years through compounding,

CHART 2 Importance of time in the value of money

while over a ten-year period the amount triples.

The reason for this very large increase is that the interest charged each year is capitalised in the following year, resulting in the outstanding amount of the loan being geometrically increased.

Chart 2 highlights the importance of timing in determining the purchasing power of money. In particular, the present value of an instalment today is higher than the present value of the same amount in the future. For example, while in the particular example in the chart, the borrower pays interest for a total amount of €5000 in both cases (the first one €1000 for five years and the second one €500 for ten years), the actual present value of the instalments in the second case is lower, since instalments are paid over a longer time horizon.

Concluding remarks

An ongoing survey which is conducted by the CBC, based on the OECD criteria,

constitutes the first attempt to gauge the level of financial literacy in Cyprus. The benefits for the Cypriot society emanating from this survey are expected to be numerous. Based on its findings, targeted efforts will be undertaken and effective policies will be formulated to minimise financial illiteracy among the general population in Cyprus. The planned training could also target students, as this is the goal of state training programmes in many countries (e.g. US, Canada, and Australia). In addition, competent bodies could develop policies for institutional reform and development of corporate social responsibility for the creation and promotion of financial knowledge and culture, as well as lifelong learning.

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1

Introduction

2

Macroeconomic
Developments
and Projections

ry budget to meet additional governmental needs, with the true burden on the fiscal balance estimated at 0,8% of GDP.

The general government consolidated gross debt to GDP ratio reached 107,1% in 2016. According to the latest preliminary data from Cystat, this declined to 103,5% at the end of 2017Q3 (Chart A.34). This decline was due to a strong primary surplus (Chart A.32, p. 39) and the increase in nominal GDP. It is stressed that on 6 November 2017, the authorities made an early repayment of a loan to the CBC amounting to €615 million. According to a statement by the Public Debt Management Office, the government debt is expected to reach 98,4% of GDP in 2017.

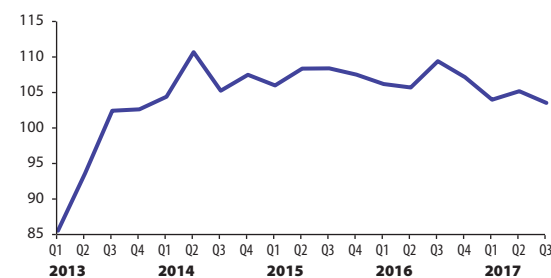
3. Macroeconomic Forecasts for the Cyprus Economy

- *Significantly positive growth rates for the Cyprus economy in the period 2017-2020.*
- *Broad-based growth emanating from most sectors of production other than the banking sector.*
- *Continuation of growth in domestic demand and exports.*
- *Gradual increases in the prices of goods and services in the coming years.*
- *Balanced risks as regards GDP and HICP.*

The Cyprus economy continues to record a significant acceleration in GDP, with continued growth in domestic demand and exports. It should be noted that both in 2016 and in the first nine months of 2017, GDP growth was broad-based and emanated from

CHART A.34 General government consolidated gross debt

(as a percentage of GDP)



Sources: Eurostat, Cystat, CBC.

almost all sectors of production, with the exception of the banking sector. This is attributable to the ongoing loan deleveraging of households and non-financial corporations, which nevertheless contributes positively to the reduction of the high level of private debt. Of course, the high level of private debt is not only the result of the banking crisis as it was also high prior to the crisis. On the basis of the latest available data, the CBC projects that the Cyprus economy will continue to record high but slightly decelerating growth rates in the coming years.

This section analyses the CBC's updated economic forecasts as prepared within the context of the Eurosystem's projections. The updated forecast for GDP growth in 2017 has been revised significantly upwards compared with the previous projection published in the June 2017 Economic Bulletin. In the baseline scenario, growth is projected to reach around 3,8% 2017, with a gradual but small deceleration in the coming years, reaching 3,1% in 2020. Recent economic indicators, especially associated with developments in National Accounts as well as the performance of the tourism sector, support the upward revision in the GDP projections compared with the CBC forecast produced six months ago. Regarding inflation, gradual increases in prices are envisaged in the coming years on account of the ongoing recovery of the Cyprus economy as well as the foreseen dissipation of the factors that led to negative inflation rates being recorded in the period 2013-2016.

Prices: harmonised index of consumer prices

Inflation in Cyprus returned to positive levels in 2017 and is expected to reach 0,8%, compared with -1,2% in 2016 (**Table A.9**). This development is mainly the result of increases in oil prices as well as prices of services associated with the tourism sector, in conjunction with the small increase in wages observed across the board. Following the positive inflation recorded in the first ten months of 2017, HICP excluding energy is expected to reach 0,2% in 2017, up from -0,5% in 2016 (**Table A.9**). Prices excluding energy and food (core inflation), which better reflect domestic price pressures, are also projected to record a positive growth in 2017, reaching 0,5% compared with -0,8% in 2016, mainly due to developments in the prices of services (**Table A.9**).

Between 2018 and 2020, inflation is expected to increase further, reaching 1,6% in 2020, mainly driven by the projected continuation of the robust domestic economic activity and rising prices for services. Both HICP excluding energy and core inflation are projected to continue on an upward trend, reaching 1,8% in 2020.

Compensation, productivity and the labour market

The recovery path of the Cyprus economy is also reflected in the labour market, given the consolidation of confidence and stability. In particular, employment is projected to continue to increase by 3,2% in 2017

TABLE A.9 HICP projections
(annual change, %)

	2016	2017f	2018f	2019f	2020f
HICP	-1,2	0,8	1,3	1,3	1,6
HICP excluding energy	-0,5	0,2	1,1	1,5	1,8
HICP excluding energy and food	-0,8	0,5	1,3	1,6	1,8

Sources: Cystat, CBC.



1

Introduction

2

Macroeconomic
Developments
and Projections

(Table A.10). During the projection horizon, employment is expected to increase further, albeit at a decelerating pace, in line with GDP growth and the envisaged further improvement in the economic climate and growth in company turnover. In the period 2018 - 2020, employment is projected to record an average annual increase of 2,6%.

In line with the GDP path, unemployment is expected to decline further, supported by existing policies aimed at boosting employment and reducing unemployment, including programmes targeting the youth and the long-term unemployed. Following a downward trend since 2015Q1, the unemployment rate as defined by the LFS is projected to reach a yearly average of 11,5% in 2017, down from 12,9% in 2016 (Table A.10) and is expected to reach 7% of the labour force in 2020. This is attributed to the ongoing recovery in employment and the overall positive trend in GDP growth. However, the unemployment rate is projected to remain above the average rate recorded in the pre-crisis period over the projection horizon.

Nominal compensation per employee is expected to increase by 1,4% in 2017 compared with a decline of 0,4% in 2016, owing to wage increases in the public sector as well as in specific segments of the private sector, in line with the projected path of GDP (Table A.10). In the public sector, compensation per employee is forecast to increase slightly in 2017 as a result of wage increases following the expiration of the period during which wages and pensions in the public sector were frozen. However, compensation per employee in the public sector is expected

TABLE A.10 Labour market projections
(annual change, %, unless otherwise indicated)

	2016	2017f	2018f	2019f	2020f
Compensation per employee	-0,4	1,4	1,9	2,7	2,0
Unit labour cost	-0,7	0,8	1,3	2,1	1,4
Productivity	0,3	0,6	0,6	0,6	0,6
Total employment	2,8	3,2	2,8	2,6	2,5
Unemployment rate (% of labour force)	12,9	11,5	9,8	8,2	7,0

Sources: Cystat, CBC.

to be contained by the impact associated with the recruitment of professional soldiers in the National Guard around end-2016, whose wages are lower than the average wage of other civil servants.

In 2018, 2019 and 2020, compensation per employee is forecast to exhibit continuous annual increases of 1,9%, 2,7% and 2%, respectively. This is mainly attributed to the improvement in domestic economic conditions and the consequent improvement in the labour market, thus resulting in wage increases across both the public and private sectors. The increase in compensation per employee reflects, other than wage increases due to increments, the granting of wage increases due to wage indexation and annual general increases. The relatively higher annual increase in compensation per employee in 2019 compared with 2018 and 2020 is due to the increase in contributions to the Social Insurance Fund since January 2019, which affects wages both in the private and public sectors.

Productivity is projected to increase by 0,6% in 2017, in addition to the 0,3% increase recorded in the previous year (**Table A.10**, p. 49). In the period 2018 - 2020, it is expected to register an increase of 0,6% per annum as a result of the implementation of various structural reforms in recent years, especially during the economic adjustment programme period. The unit labour costs index, mainly driven by developments in compensation per employee but also productivity growth, is projected to increase by 0,8% in 2017 (**Table A.10**, p. 49) after four consecutive years of decline (cumulative contraction of the order

of 11,2%). In the period 2018 – 2020, it is forecast to record further growth reaching 1,4% at the end of the projection horizon. Cyprus will nevertheless still retain its comparative advantage compared with the rest of the euro area on account of competitiveness gains in recent years.

National accounts

According to the latest available preliminary data relating to the first nine months of 2017, GDP recorded a year-on-year growth of 3,8% (seasonally adjusted data). The better-than-expected path of the Cyprus economy reflects developments across almost all sectors of production. On the basis of latest available data and in conjunction with leading economic indicators, the Cyprus economy is projected to record a growth rate of 3,8% in 2017 (**Table A.11**).

Specifically, real private consumption is expected to rise by 2,2% in 2017, following an increase of 3,3% in 2016, reflecting mainly the rise in disposable income, the historically low interest rates, tax concessions (such as the abolition of the immovable property tax), and the increase in employment and wages. In addition to the positive impact on private consumption, wage growth is expected to have a positive effect on the savings of households, which used their accumulated savings to smooth their consumption during the economic crisis. Regarding public consumption, an increase of 3,1% is projected for 2017, compared with a decline of 0,4% in 2016, mainly due to the increase in compensation of employees. In turn, this is

TABLE A.11 National accounts projections in real terms
(annual change, %)

	2016	2017f	2018f	2019f	2020f
GDP	3,0	3,8	3,4	3,2	3,1
Private consumption	3,3	2,2	2,0	2,0	2,0
Public consumption	-0,4	3,1	1,0	1,9	0,8
Gross fixed capital formation	35,0	12,0	8,6	7,9	7,0
Exports of goods and services	3,9	-0,1	4,4	4,2	4,1
Imports of goods and services	6,6	0,6	3,9	4,1	3,9

Sources: Cystat, CBC.

attributed to the increase in public employment, partly on account of the recruitment of professional soldiers by the National Guard in late 2016. Gross fixed capital formation is projected to decelerate to 12% in 2017 compared with an increase of 35% in the previous year, driven by the transfer of economic ownership of mobile transport equipment (mainly ships) of SPEs. Adjusted for the impact of SPEs, gross fixed capital formation is projected to register a larger annual increase in 2017 compared with that observed in 2016. This is due to the implementation of specific investment projects by the public and, more importantly, the private sector. It should be noted that gross fixed capital formation in the public sector for 2017 includes the purchase of ships for the coastguard, expected to take place at the end of the year under review.

Exports of goods and services are forecast to register a marginal decline of 0,1% in 2017, compared with an increase of 3,9% in 2016, influenced by transactions in mobile transport equipment (mainly ships) of SPEs in 2017 compared with the previous year. Adjusted for the impact of SPEs, exports are expected to record further growth in 2017, mainly due to the increase in revenues from tourism, telecommunications, computer and information services, as well as transport (especially sea transport). At the same time, imports of goods and services are forecast to register a marginal increase of 0,6% in 2017, compared with an increase of 6,6% in 2016, driven the aforementioned transactions of SPEs. Adjusted for the impact of SPEs, imports of goods and services are forecast to register

a significant acceleration compared with 2016. The increase in imports of goods is largely due to imports for consumer, intermediate and capital goods, in line with projected developments in domestic demand and, in particular, investment.

At the same time, the observed increase in new loan contracts, supported by the historically low interest rates and increased demand, is expected to support economic activity. The successful completion of the Republic of Cyprus' economic adjustment programme in March 2016 and the recent upgrades of the sovereign rating by various rating agencies have contributed to the gradual return to the markets, despite the fact that Cypriot government bonds continue to be classified as non-investment grade. Standard and Poor's have the most favourable rating (17 March 2017) classifies the sovereign rating at BB+, one notch below investment grade. The ongoing consolidation of the banking sector should also be noted, with the latest available data on NPLs showing further declines, but to a lesser extent than previously expected.

Given the aforementioned positive dynamics in the domestic economy, it is projected that GDP will record further growth in the period 2018-2020, albeit at a decelerating rate, reaching 3,1% at the end of the projection horizon.

In particular, private consumption is expected to register an increase of around 2% per annum, partly owing to the recovery in disposable income. An increase of 8,6% is projected in gross fixed capital formation in 2018, with further increases of 7,9% and 7%



1

Introduction

2

Macroeconomic
Developments
and Projections

expected in 2019 and 2020, respectively¹⁴. This is mainly attributed to improved expectations regarding the investment prospects in the energy, tourism and transport sectors as well as, to a lesser extent, the extension of tax incentives associated with capital investment rebates. Significant private sector investment projects amounting to about €3 billion, with a significant share of these financed via foreign funds, have already commenced and are scheduled to be completed by 2020. Among other projects, a number of residential, commercial and mixed developments, including the two marinas in Paralimni and Ayia Napa, a number of luxury hotels and the casino, are expected to provide a boost to the economy in the coming years. The construction and operation of the casino is a major project which will enrich the tourist product, further extend the tourism season and create new jobs. In addition, the ongoing efforts to create an appropriate legal framework, including a fast-track strategic investment mechanism, is expected to encourage high value added investments.

Public consumption is also projected to exhibit an increase of 1%, 1,9% and 0,8% in 2018, 2019 and 2020, respectively, mainly due to the increase in wages. As mentioned above, the increase in public consumption is attributed to the reinstatement of public sector wage increases as from 2017, in line with the increase in public sector employment. Also,

14. Due to the volatility in imports and exports of mobile transport equipment (mainly ships), it is extremely difficult to forecast the aforementioned series. Therefore, it is assumed that the level of transactions associated with these series for the years 2018-2020 remains at the 2017 levels. Consequently, the rate of change in imports and exports, as well as in gross fixed capital formation, adjusted for the impact of transactions in mobile transport equipment does not differ relative to the unadjusted series.

the relatively higher increase in the growth rate of public consumption in 2019 compared with the other two years is driven by the increase in social contributions to the Social Insurance Fund as of January of the year under review.

Exports of goods and services are projected to register an increase of around 4,2% per annum over the period 2018 - 2020. Tourism in particular is expected to perform extremely well both in terms of arrivals and receipts in the coming years, given the extension of the tourism season during the autumn and spring months. Also, the increase in accommodation capacity in terms of available rooms (new hotels and extensions to existing hotels) will significantly support the increase in demand. As regards the maritime sector, efforts to strengthen it through improvements in the cluster of services, existing infrastructure (including ports) as well as the international reputation of the Cyprus flag seem to have borne fruit. Additionally, the improvement in competitiveness, partly owing to the significant declines in wages, production costs and the cost of companies overall in recent years, has generally contributed to buoyant exports. Imports of goods and services, which are driven to a large extent by imports of consumer, intermediate and capital goods, are forecast to increase by around 4% per annum during the projection horizon, in line with the projected growth in private consumption and, in particular, investment.



1

Introduction

2

Macroeconomic
Developments
and Projections

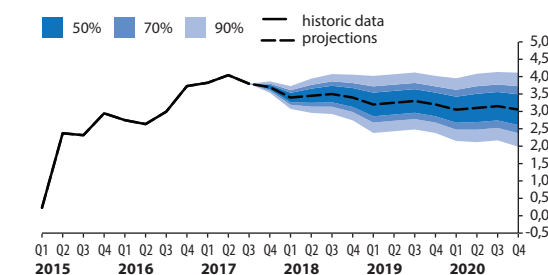
Risk assessment of macroeconomic forecasts¹⁵

The projections relating to the GDP (Table A.11, p. 51), as well as HICP and HICP excluding energy and food (core inflation) (Table A.9, p. 48) are considered to form the baseline scenario. The confidence intervals associated with the baseline scenario forecasts for GDP and HICP are outlined in Charts A.35 and A.36, respectively. The confidence interval regarding the baseline projection for core inflation is shown in Chart A.37. As analysed in more detail below, risks to the GDP and inflation forecasts are considered to be balanced.

Regarding GDP, a slower than expected progress by banks in terms of lowering the high level of NPLs could negatively affect economic activity since it puts at risk the reduction of non-financial private sector debt. A high level of private sector debt would act as a constraint on further growth in new loans, despite the acceleration observed thus far, as credit institutions would refrain from lending to indebted households and non-financial corporations. In addition, downside risks relate to a possible deterioration in external demand for services as a consequence of the adverse economic conditions that may prevail in the UK as a result of Brexit. Although individual sectors, such as tourism, may be affected to a manageable degree (for example, due to access to other markets such as Russia), these risks are not expected to have a material impact on GDP.

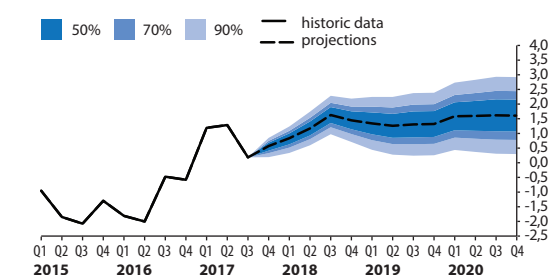
Upside risks are associated with a higher than expected implementation rate of inve-

CHART A.35 Real GDP fan chart
(annual change, %)



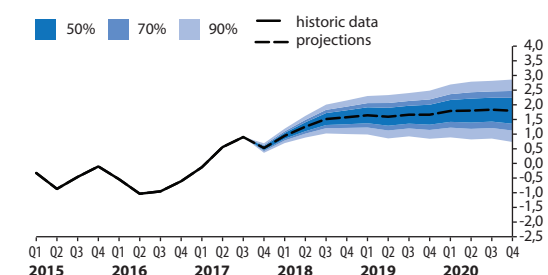
Source: CBC.

CHART A.36 HICP fan chart
(annual change, %)



Source: CBC.

CHART A.37 HICP excluding energy and food fan chart
(core inflation)
(annual change, %)



Source: CBC.

15. For further information regarding the methodology of the risk assessment of macroeconomic projections, see Economic Bulletin, June 2015, p. 67.

stment plans both by the public and the private sectors. The operation of five smaller satellite casinos as of 2018 is expected to have a positive impact on GDP through the diversification of the tourism product as the relevant effects are not incorporated into the baseline forecast scenario. As regards other investments (hotels and business centres), the higher value added arising from these projects may have a positive impact on the macroeconomic environment beyond that which is associated with the construction of the projects in question. In relation to public investment, a higher than envisaged implementation rate of various new infrastructure developments and co-funded projects, such as university and research facilities as well as major road projects, could lead to a further economic boost.

The increase in net new loans that could materialise beyond what is expected could also contribute further to growth, in particular private investments. Greater use of financial resources available from European Structural and Cohesion Funds as well as funding from the European Investment Bank and the European Bank for Reconstruction and Development, could also contribute to a higher than expected increase in investment. Investments related to the exploration of new gas reserves in the Republic of Cyprus' Exclusive Economic Zone could have a further impact on the macroeconomic outlook. Any exploitation of commercially viable natural gas reserves could lead to higher revenues, directly and indirectly, via increased economic activity. However, such revenues are unlikely to come on stream within the forecast horizon.

With respect to inflation, and in line with GDP risks, the main downside risks relate to a possible deterioration in external demand for services. In addition, downside risks are associated with a possible deterioration in domestic credit conditions in case the high level of NPLs is not effectively addressed.

The main upside risks to inflation relate to a better-than-expected improvement in the domestic economic outlook as mentioned above. Additionally, upside risks are associated with higher than expected growth in demand for tourism services, higher oil prices and a possible depreciation of the euro against the US dollar.



1

Introduction

2

Macroeconomic
Developments
and Projections

Technical Notes



1

Introduction

2

Macroeconomic
Developments
and Projections

(A) Domestic monetary aggregates

All monetary aggregates' data exclude the CBC.

On 1 July 2008, a new definition of residents of Cyprus entered into force (Statistical Purposes Directive, 2008). As a result, MFIs reclassified a large number of organisations or customers' businesses with limited or no physical presence in Cyprus, known as 'special purpose entities (SPEs), from non-residents to residents. The effect of this change is excluded from the monetary and financial statistics series presented in this publication, which reports domestic residents data excluding SPEs. For purposes of normalisation and comparability of monetary time series, data have been further processed by the CBC's Economic Analysis and Research Department.

The calculation of annual percentage changes is based on the methodology used by the ECB. More specifically, the growth of monetary aggregates is calculated based on the monthly differences in outstanding amounts adjusted for amounts that do not arise from transactions, such as reclassifications/other adjustments, revaluation adjustments and exchange rate adjustments, so as to reflect changes due to net transactions.

The above methodology has been adopted since the December 2009 edition of the *Economic Bulletin*. In previous editions of the *Bulletin*, the growth rate of monetary variables was calculated as the annual

percentage change of outstanding balances at the end of the period. Details of the methodology can be found in the *Monetary and Financial Statistics*, published by the Statistics Department of the CBC, which is available on the CBC website.

(B) Balance of Payments

The present statistical collection system adopted as of June 2014, is based on the methodology of International Monetary Fund (BPM6), which has also been adopted by the EU, as well as on additional requirements and the level of detail required by both the Statistical Service (Eurostat) and the European Central Bank (ECB).

The adoption of BPM6 by the external statistics of the Cyprus took place in June 2014. In October 2014 was the first publication of the data. The published data for BoP, IIP and external debt cover the period from 2008 to date.

The application of new manuals provided the opportunity to adopt broader changes and revisions to improve the coverage and quality of the statistics of the external sector. Specifically, in addition to the incorporation in all external statistics produced and published of the special purpose entities that are registered / incorporated in Cyprus, the CBC has also upgraded the collection systems and compiling statistics of the external sector, giving greater emphasis to the application of new research and the use of available administrative sources.

(C) National Accounts

In June 2014 Cystat implemented the new statistical standards for the historical data series since 1995. The ESA 2010 replaces ESA 1995 and is based on the System of National Accounts (ESA) 2008 which is in the process of being implemented worldwide. The aim is to adapt the national accounts to the current economic environment, advances in methodology and changing user needs. Regarding the sectoral classification, ESA 2010 provides a clearer separation between non-financial corporations and corporations that are not directly engaged in the non-financial activities. In particular, holding companies of non-financial corporations and other so-called captive financial institutions as well as certain Special Purpose Entities (SPEs) are now classified under a new category. In parallel, the investment funds sector is now separated from the remaining part of other financial intermediaries and insurance companies are shown separately from pension funds. The ESA 2010 has also adopted changes to the financial accounts.

More details on the methodology of compiling the balance of payments and the national accounts are available in the Box1 p.51 of the December 2014 *Economic Bulletin* and on the website of the CBC.