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COMMISSION STAFF WORKING DOCUMENT

Country Report Cyprus 2016

**Including an In-Depth review on the prevention
and correction of macroeconomic imbalances**

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EXECUTIVE SUMMARY

Following the end of the economic adjustment programme for Cyprus on 31 March 2016, this country report assesses Cyprus's economy in light of the Commission's Annual Growth Survey published on 26 November 2015. The survey recommends three priorities for EU economic and social policy in 2016: re-launching investment; pursuing structural reforms to modernise Member States' economies; and responsible fiscal policies. At the same time, the Commission published the Alert Mechanism Report that initiated the fifth annual round of the macroeconomic imbalance procedure, in which a number of indicators suggest the possible presence of imbalances in Cyprus. The Alert Mechanism Report identified issues relating to the current account deficit, net international investment position (NIIP), losses in export market shares, private sector debt, and government debt, which warrant further in-depth review. In the present analysis, the Cypriot economy is considered as it stands today, without taking into account the economic effects of a possible future reunification.

Cyprus benefited from an economic adjustment programme, during which it emerged from recession, stabilised its financial sector, and consolidated its public finances; yet many challenges remain. Considerable economic imbalances, including an unstable and oversized financial sector and fiscal imbalances, led Cyprus to require financial assistance in June 2012. During the programme, the European Commission monitored the correction of imbalances *in liaison* with the European Central Bank (ECB), and, where relevant, with the International Monetary Fund (IMF). Credit tightening and the need for corporate balance-sheet restructuring led to a contraction of the economy and, consequently, to a surge in unemployment. Despite the many good achievements during the programme, the crisis has left legacy issues.

Reforms have started to bear fruit. The economy reached a turning point in 2015, with growth having resumed and unemployment starting to decline. However, potential growth has suffered from the recession and vulnerabilities remain in several areas, particularly as regards private and public indebtedness.

The recovery has been moderate and mainly driven by internal demand, while inflation has

remained negative. Real GDP grew by 1.6% in 2015. However, in nominal terms, economic growth was flat due to subdued price developments, which are reflected in a negative consumer price inflation rate (-1.6%). Private consumption has been one of the main driving forces of growth, with investment growth (excluding ship registrations) remaining low, government consumption contained, and net exports still subdued.

Although the labour market has started recovering, youth and long-term unemployment remain high, in a context of slowly rising job creation. The unemployment rate started to decline slowly in 2015, while employment grew by around 0.9%. However, youth and long-term unemployment remain high, at 33% of the young labour force and 7% of the total labour force, respectively.

Investment is still dampened by high corporate debt, and the housing market remains depressed. Credit to the economy continues to be subdued and banks struggle with a very high ratio of non-performing loans (around 55% on loans to households and non-financial corporations). This high level of non-performing loans weighs on banks' profitability and on their capacity to build up capital buffers. New lending is constrained by lack of viable projects in which to invest due to high private indebtedness and non-compliance with financial contracts. SMEs are overly dependent on bank lending, while alternative financing remains limited, which significantly hampers their ability to invest and grow.

Regarding the progress in reaching the national targets under the Europe 2020 Strategy, Cyprus has either reached or is making progress towards its targets on reducing greenhouse gas emissions, increasing the share of renewable energy, improving energy efficiency, reducing early school leaving and increasing the tertiary education attainment. On the other hand, progress towards Europe 2020 targets on the employment rate, investment in research and development and the reduction of poverty and social exclusion appears limited.

The main findings of the in-depth review contained in this country report, and the related policy challenges, are as follows:

- **There have been major reforms in the financial sector; notwithstanding, the ratio of non-performing loans in the banking sector remains high and constrains new credit.** Banks have drastically downsized their balance sheets and thoroughly restructured their operations. At the same time, bank supervision was redesigned and strengthened. However, the banking model remains based on a strong exposure to foreign deposits, while lending practices have not fully shifted away from an overreliance on collateral towards a more systematic use of risk-assessment tools. Rising provisions weigh on bank profits and capital base, while good investment opportunities are hard to find, given high private sector indebtedness and low payment discipline. New legislation on sales of loans and securitisation is set to allow a clean-up of banks' balance sheets.
 - **Private sector indebtedness is high and debt reduction is proving very slow.** The debt of non-financial corporations and households, as a share of Cypriot output, is among the highest in the EU. This debt-overhang stifles investment in the non-financial corporate sector, and depresses property markets. Declining incomes during the crisis have contributed to widespread non-compliance with debt contracts but cannot fully explain this phenomenon. Reforms have been introduced, notably in the areas of foreclosure and insolvency legislation to help unwinding unviable debts and support sustainable restructuring. However, the impact of the new legislative framework in reducing debt stocks has so far been limited. In particular, existing inefficiencies of the court system are among the factors that constrain the efficiency of the new framework. The sharp decline in house prices has depressed collateral values significantly, limiting the scope for borrowers to restructure debt through asset disposal, and creating incentives for strategic defaults. Further reforms to the still inefficient - despite some measures taken - system of issuance and transfer of title deeds are under discussion among the authorities and relevant stake holders, but an agreement had not been reached by the time of this publication.
 - **The net international investment position is among the most negative in the EU, but risks are significantly reduced.** Foreign holding companies and public debt account for a large share of the negative international investment position. Since these foreign companies interact relatively little with the Cypriot economy, they pose limited risks. Public debt largely represents official lending by the IMF and the European Stability Mechanism, the financial support mechanism of the euro area members, and is closely monitored in the context of post-programme surveillance. Nevertheless, without further export growth, a return to the current account deficits of the past could set the net international investment position on an unsustainable trajectory.
 - **While the fiscal outcomes under the programme have consistently outperformed the agreed targets, debt sustainability remains subject to sizeable risks.** Risks relate in particular to a possible reversal of the fiscal adjustment achieved under the program, to adverse macroeconomic shocks, and to insufficient implementation of fiscal-structural reforms set out during the programme, including the public administration reform.
- Other key economic issues analysed in this report which point to particular challenges for Cyprus are as follows:
- **Productivity-enhancing investment has persistently been weaker than the EU average and is holding back growth.** The recession and still fragile banking sector have further depressed investment, bringing it to one of the lowest levels in the EU (as a share of GDP). The lack of growth-enhancing investment is also attributable to shortcomings in the business environment, especially to poor contract enforcement, long court proceedings, administrative and regulatory burden, low incentives for innovation, and limited access to finance, in particular for SMEs. EU funds and financial instruments have been available to SMEs in Cyprus but the take up has so far been limited, partly owing to inefficient local coordination. Growth-enhancing strategies, including also a privatisation plan for public

utilities, are in place but have not yet been implemented.

- **Unemployment remains high, especially youth and long-term unemployment.** The reduction of this high unemployment will take time, also due to the limited capacity of the public employment services, and limited outreach of active labour market policies. The Cypriot labour market and wage setting system is relatively flexible, a feature that helped rebalancing in response to the crisis. Wage adjustment during the downturn has prevented higher unemployment and safeguarded external competitiveness. Discussions have recently started about extending by law collective agreements in some sectors (i.e. construction). While such a change aims at setting minimum standards in those sectors, in the absence of valid representativeness criteria, it might make the wage setting system less flexible and prevent effective adjustment. The wage indexation reform has not yet been fully adopted by the private sector. Labour productivity growth is subdued and skills development is inefficient: spending on education is above the EU average but outcomes are relatively poor. Moreover, participation in vocational education and training is low and the system lacks employers' engagement in the education of students.
- **The social situation has worsened during the crisis, although given the size of the shock that affected the economy, social indicators have withstood relatively well.** The share of people at risk of poverty or social exclusion peaked in 2013, but improved slightly in 2014. However, income inequality and the share of people living in low work intensity households continued to increase. The successful introduction of a guaranteed minimum income in 2014 is an important step towards a better targeted and more coherent welfare system in Cyprus, but it is still early to quantify its effects on social well-being.
- **The public sector is not fully efficient.** The public administration is marked by one of the highest wage bills (as percentage of GDP) in the euro area, but its efficiency (as measured by efficiency indicators) remains average. In particular, performance could be enhanced by increased mobility, the introduction of performance incentives, and increased availability of e-government services. While Cyprus' fiscal balances are back on track, there are still inefficiencies in allocating spending and collecting revenue. State-provided utilities (the Cyprus Telecommunications Authority and the Electricity Authority of Cyprus, in particular) are marked by high prices and are still relatively shielded from competition.
- **Cyprus's energy mix is heavily dependent on imported oil, and resource efficiency is lower than the EU average.** Reforms in the energy sector are set to increase energy efficiency by diversifying the energy mix, opening up the market and improving regulation, but implementation has been slow. Although climate policies are in place, respect for environmental regulations is weak and Cyprus lacks policies to improve its currently low resource efficiency.
- **The Cypriot health care sector is characterised by inefficiencies, which constrain access to adequate and effective care.** The economic crisis led to an increase in demand for public health care services, exacerbating the problems of inadequate access to care and ineffective care delivery in the public health care sector, due to both low funding and inefficient use of resources. At the same time there is over-capacity on the side of private health care providers. Such outcomes contribute to allocative inefficiencies and have led to a relatively high share of private expenditures in total health expenditures, mostly directed towards largely unregulated private health care providers. More autonomy for public hospitals and the creation of a National Health System are among the measures that have been discussed by the authorities and stakeholders to improve the adequacy and cost-effectiveness of the Cypriot health sector, but which have not yet been adopted.

1. SCENE SETTER: ECONOMIC SITUATION AND OUTLOOK

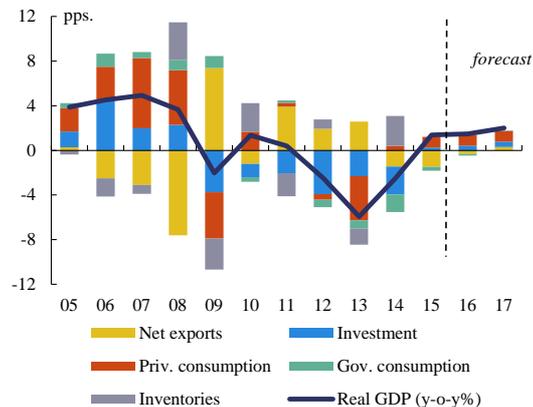
Economic growth

Growth resumed in Cyprus in 2015, following three consecutive years of contraction in real GDP, but is still far from buoyant. Real GDP was significantly hit by the crisis, declining by 2.4%, 5.9% and 2.5% in 2012, 2013 and 2014, respectively. Yet several consecutive quarters of expansion in 2015 confirmed that the deepest point of the recession was past, with real GDP growth for the year reaching 1.6%. Nominal GDP, however, remained flat, having fallen by about 7.2% in 2013 and a further 3.7% in 2014, following downward price adjustment. This low inflation trend, accentuated in 2014 and 2015 by lower energy prices, supported real private consumption. The latter recovered relatively faster than output, growing by 0.6% in 2014 and rising further in 2015. The other factor contributing to the resilience of private consumption was a lower debt-servicing ratio, explained by a decline in lending rates and an increase in the incidence of non-performing loans. Low inflation also supported tourism exports, but despite this, the contribution of net foreign trade to growth has remained subdued. In the course of macroeconomic adjustment public consumption was scaled down, while total investment fell significantly in both 2013 and 2014. Only in 2015 did investment begin a very mild recovery (Graph 1.1).

Growth is expected to be stronger in 2016 and 2017, driven by both domestic and external sources. It is forecast to gain momentum gradually and reach 2.0% in 2017⁽¹⁾. The support afforded by low energy prices is expected to begin to fade gradually in 2016, limiting the scope for acceleration in the growth of private consumption. At the same time, balance-sheet adjustments and increasing investment are expected to assist a return to more balanced growth. A shift towards external demand as a source of growth relative to domestic demand is also expected to facilitate a reversal of the economy's savings-investment position and help unwind current imbalances.

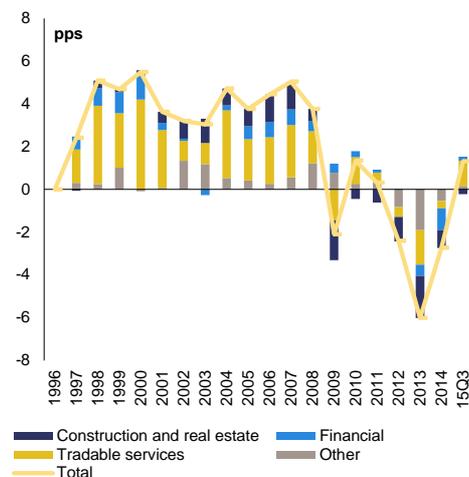
⁽¹⁾ This value is taken from the European Commission's winter forecast, which does not take account of 2015Q4 developments or of revisions of developments recorded in the first three quarters of 2015 that were published after the forecast's cut-off date.

Graph 1.1: Growth of GDP and components



Source: Commission services

Graph 1.2: GVA and contributions by sectors



Source: Eurostat

Tradable services sectors, which rely significantly on external demand, are leading the recovery, while activity in the construction and real estate sectors remains subdued. In the wake of the housing market bust, declining output in the financial, construction and real estate sectors contributed significantly to the contraction of GDP during the crisis. The recovery in 2015 was led mostly by tradable services sectors ⁽²⁾, including

⁽²⁾ In this analysis, tradable services sectors exclude construction, real estate, financial services, public

tourism and professional services, which rely significantly on foreign demand (Graph 1.2). In these sectors, cost-competitiveness was supported by low prices and the depreciation of the euro. Activity in the financial, construction and real estate sectors remained subdued well into 2015.

Price developments

HICP inflation has remained negative, owing largely to falling energy prices, though also in some measure to subdued core inflation, reflecting the ongoing adjustment. Declining wages and lower demand kept inflation low in 2013, and these effects were reinforced in 2014 by lower energy prices which drove the HICP inflation rate into negative territory. In 2015, inflation fell further to around -1.6% as a result of a further decline in energy prices and subdued non-energy inflation. Despite low prices, profit margins were supported by low wage inflation, which may have helped firms in some sectors rebalance their highly leveraged balance sheets and finance their investment needs under tight credit conditions. In 2016 and 2017, consumer price inflation is expected to rise slowly, as domestic price pressures increase and the lower energy price effect starts to fade away.

House prices are stabilising, but demand and supply conditions indicate that the house market recovery will be slow. The decline in house prices, observed since 2008, eased significantly in 2015. However, the market dynamics are still weak on both the demand and the supply side. On the domestic demand side, credit conditions remain relatively tight, unemployment is high, and households are over-indebted. On the supply side, the stock of unsold properties, which remains considerable, indicates that pressure for prices to increase will remain low for some time.

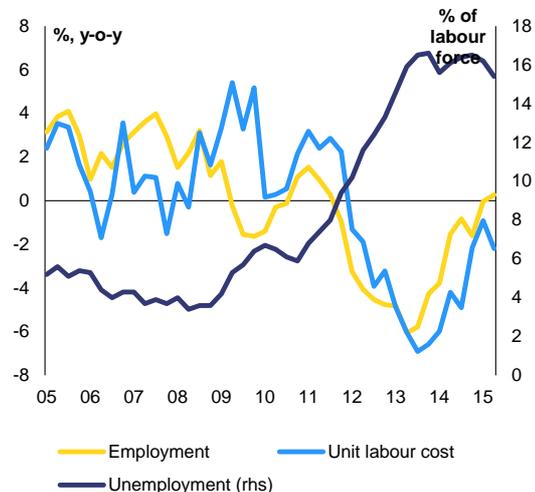
Employment and social inclusion

The labour market is recovering, but unemployment is still high, with youth and long-term unemployment a cause for concern. Labour market conditions deteriorated

administration, health, and education, even though some of these sectors attract foreign demand in Cyprus.

significantly as a consequence of the crisis, more markedly from 2011; unemployment rose sharply from about 5% before the crisis to around 16% in 2013 and 2014 (Graph 1.3). However, the trend reversed in 2015. Employment is now growing, but employment growth remains relatively low, and below what would be needed to absorb a significant proportion of current job-seekers. The youth unemployment rate receded significantly from a peak of 39% in 2013 to around 33% in 2015Q3, but long-term unemployment fell only marginally, remaining relatively high at around 7% of the labour force. Compensation per employee continued to decline in 2015 as part of labour market adjustment, but at a slower pace than that observed in previous years. As a result, unit labour costs fell more slowly. Unemployment is forecast to continue falling slowly in 2016 and 2017. With still high unemployment and low inflation expectations, wage growth is expected to moderate in 2016 and 2017.

Graph 1.3: Employment, Unit Labour Costs and unemployment



Source: Eurostat

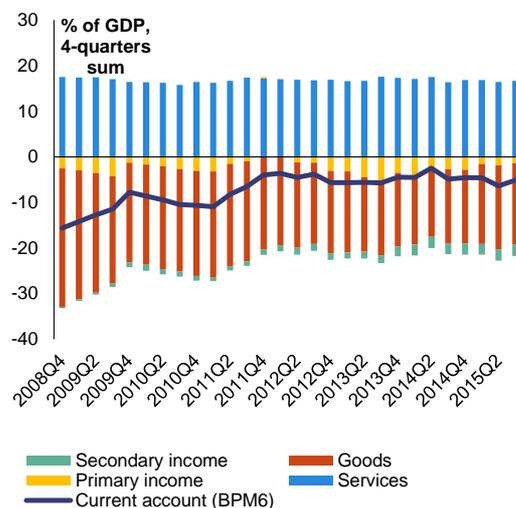
Due to sustained high unemployment the number of people at risk of poverty or social exclusion increased. Income inequality and the share of people living in low work intensity households continued to increase in 2014. Nonetheless, certain social indicators, including relative monetary poverty (the at-risk-of-poverty rate), have remained quite stable over the crisis and below the EU average. The replacement of previous public assistance benefits with a

guaranteed minimum income is set to improve social conditions, while reducing incentives for welfare dependence.

External balance

The current account balance remains negative. It deteriorated in 2015 as a result of weakening demand from the country's main trading partners and the recovery of import demand. The Cypriot current account has improved significantly in recent years, from about -15.6% in 2008 to around -4.6% in 2014 (Graph 1.4). This improvement, however, is fragile as it relied significantly on import contraction. Data for the first three quarters of 2015 shows already some deterioration, due mostly to a worsening balance of goods. The balance of services also worsened somewhat, reflecting the negative impact on tourism receipts of lower Russian tourist arrivals, and of weakening world trade. At the same time, trade balances also reflect a recovery in import demand.

Graph 1.4: Current account balance and components



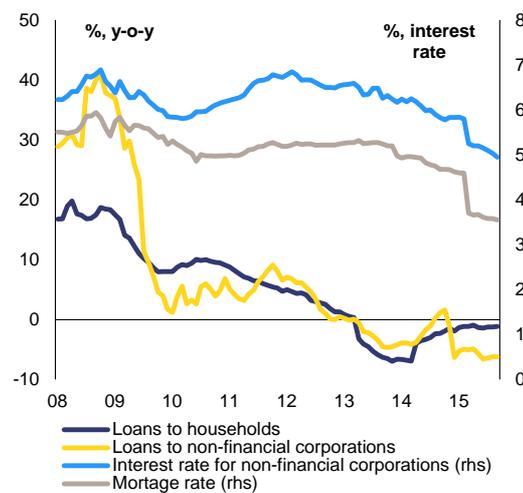
Source: Eurostat

Rebalancing Cyprus's very negative net international investment position remains a challenge. Cyprus's NIIP remains among the most negative in the EU, at around -140% of GDP. Despite the significant improvement in the current account, deficits around 5% of GDP can only stabilise Cyprus's net international investment position at its current very negative level.

Private and public debt

Private debt-to-GDP ratios are among the highest in the euro area. Private debt in Cyprus has been steadily growing as a share of GDP since 2004, reaching over 340% of GDP. Some of this debt (about 75% of GDP) corresponds to the liabilities of special purpose entities (companies registered in Cyprus but with most of their operations abroad), which are counted as residents according to ESA 2010, but whose links with the domestic economy are limited. Still, the remaining debt is also high, both for households (130%) and for non-financial corporations other than special purpose entities (140%). Notwithstanding the deleveraging pressures of existing firms, credit availability is still important, however, to promote new viable businesses, increase business dynamics, and foster the R&D and innovation.

Graph 1.5: Credit growth and interest rate on outstanding loans by sector



Source: European Central Bank

Credit growth is constrained by the private sector debt overhang and a very high level of non-performing loans. Declining incomes, in conjunction with excessive borrowing of the past and poor contract enforcement, exacerbated the problem of non-performing loans in the banking sector, which now affects about 55 % of the portfolio of loans to households and non-financial corporations. Even as credit stalls, the stock of non-performing loans keeps rising, largely owing to the capitalisation of interest accrued on unpaid debts. Enhanced restructuring efforts in 2015,

together with the enforcement of the reformed foreclosure and insolvency frameworks and the implementation of the recently adopted legislation enabling the sale of loans by banks, are expected to bring a new dynamics to the rebalancing of financial balance sheets. A rebalancing towards better asset quality is set to enable banks to fulfil their role in financing productive investments in the future. To date, credit growth remains subdued for both households and corporations, despite a significant reduction in lending rates (Graph 1.5).

Public finances have been consolidated to a large extent to secure the sustainability of public debt. Net of one-offs related to banking sector recapitalisation, the headline deficit is expected to have been reduced by about 5 ¼pps of GDP over 2012-2015, while from 2016, the headline balance is projected to remain in positive territory. This reflects the consolidation related to the economic adjustment programme, which required significant fiscal effort, covering all main categories on the expenditure and revenue sides. In addition, structural reforms, some of them in the fiscal area, are set to contribute to ensuring strong fiscal governance in the post-programme period. The debt-to-GDP ratio peaked at 109% of GDP in 2015. It is expected to decline gradually after that, supported by the economic recovery and primary surpluses. This downward trajectory is, however, subject to risks, stemming in particular from delays in implementing the privatisation and the public administration reform agenda.

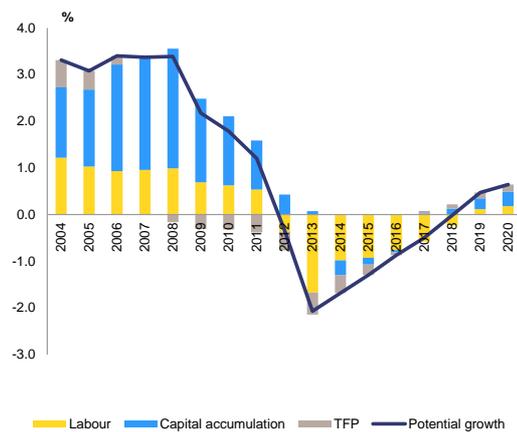
Potential growth

The crisis has taken a toll on Cyprus's growth potential, and investment has remained low. Potential output growth in Cyprus is estimated to lie below 1% in the medium term, on the back of an extremely subdued contribution from capital accumulation and relatively low total factor productivity growth (Graph 1.6). To revive its potential, Cyprus has put forward a list of pro-growth reforms that form the basis for the Cypriot Action Plan for Growth. The plan hinges on improving framework conditions for businesses, strengthening human capital and stepping up high-quality investment projects, including those supported by EU initiatives and EU funds to increase the export potential of the economy and its ability to attract foreign investment. Combined with growth-enhancing privatisations, reform of

the energy sector, and more incentives to innovation, this is set to help Cyprus boost investment and export growth and unwind its current imbalances.

Although Cyprus invests significant amounts of its budget in education and training, outcomes are unsatisfactory and the labour market relevance of skills is relatively low. The country invests more in education than the EU average (as a share of GDP). However, it performs below average in international surveys of educational outcomes, and the employability of recent graduates is below the EU average.

Graph 1.6: Potential growth and contributions

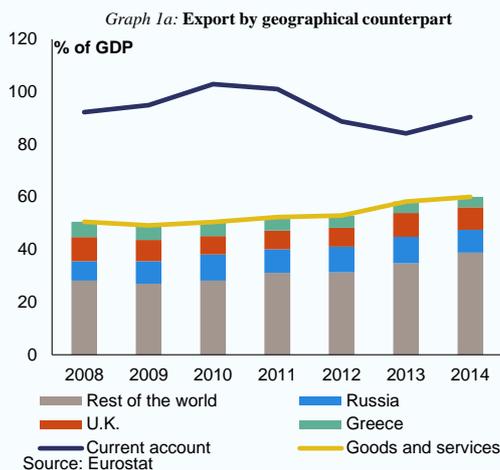


Source: European Commission

Box 1.1: Inward spillovers to Cyprus

As a very small open economy, Cyprus is affected by developments in the EU and the rest of the world through its trade in goods and services, FDI flows and other financial flows. Cyprus's GDP is about 0.1% of total EU GDP. The economy is very open, with trade (the average of imports and exports) representing about 60% of output, compared with an EU average of about 40%. Alongside trade, financial links – with both EU and non-EU countries - are important channels of contagion.

Cyprus's foreign assets and liabilities have been significantly concentrated in offshore centres and in non-EU countries, notably Russia. Data on net foreign assets by country is only available up to 2012 (the only data available up to 2014 concerns foreign investment by country). According to this data, Cyprus has been most notably a net creditor of offshore centres and a net borrower from the rest of the world, Russia in particular. Financial links with Greece were significantly reduced with the private sector involvement of 2011 and with the disposal of Cypriot banks' branches in Greece in 2013, but some linkages still remain. More recent data on FDI stocks show that in 2014 Cyprus was a net beneficiary of FDI from Luxembourg (EU 36.9bn)¹, Germany (EUR 7.7bn), Russia (EUR 4.3bn), the US (EUR 3.4bn), the Netherlands (EUR 1.2bn) and Greece (EUR 0.9bn)², followed by Ukraine (EUR 0.7bn), and the UK (EUR 0.7bn). As a net recipient of FDI, Cyprus runs deficits in the balances of primary and secondary income.



Cypriot trade is concentrated in a relatively small number of countries, but the crisis has shown that there is some capacity for substitution. Cyprus's most significant trading partners are Russia, the UK, and Greece. With the first two countries Cyprus runs a positive trade balance, while it has deficits with Greece. Tourism services represent the main exports to Russia and the UK. The economic crisis in Russia adversely affected tourism exports to this country in 2014 and 2015. In 2015, Cyprus was able to more than replace losses from the Russian market by increased arrivals from other destinations, especially the UK. However, tourist revenue was somewhat lower, as individual Russian tourists typically spend more than the average tourist.

As non-euro area countries are important counterparts for trade and financial flows, and the economy is highly dependent on imported oil, movements in the euro exchange rate and oil prices can cause major external shocks to the Cypriot economy. The weaker euro has helped sustain Cypriot exports during the crisis. As the euro recovers, this support is expected to fade, and measures to improve non-price competitiveness should become more important. At the same time, the Cypriot oil trade deficit represented

¹ Luxembourg's disproportionate importance reflects investments by multinational companies registered there.

² Negative stocks of outward FDI in Greece are not taken into account, as they derive from losses of Cypriot branches in Greece and are cancelled out by "other investment".

(Continued on the next page)

Box (continued)

about 6% of GDP in 2014 (see Section 3.4), and, setting aside a small share of renewable energy, energy production and transport are heavily dependent on imported oil. For this reason, low oil prices since 2014 have significantly reduced the price of energy in Cyprus and pushed HICP inflation below zero. Savings on the energy bill supported private consumption in 2014 and 2015. As indigenous gas develops and renewables penetrate further into the market, the economy's response to changes in oil prices is set to weaken.

High debt makes also Cyprus particularly vulnerable to changes in government bond yields that may be triggered by changes in reference interest rates. As yields increase in the future, Cyprus will find it more costly to finance itself on the market and meet its debt payment obligations. At the same time, Cypriot bond spreads could be influenced by developments in other economies.

Box 1.2: Investment challenges

Macroeconomic perspective

Investment contraction is gradually bottoming out, following a significant drop in construction investment on the back of the housing market collapse. A surge in private investment (Graph 1), driven by households' investment in dwellings (Graph 2), pushed total investment (as a share of GDP) to above the EU average in the years preceding 2008. In particular, asset re-pricing (i.e. land), coupled with the positive confidence effect of EU accession and subsequent euro adoption as well as easy financing conditions driven by excess liquidity in the banking sector have led to a formation of a housing bubble. Since the burst of the bubble, total investment, both public and private, has shown a steep decline and reached one of the lowest levels in the EU. Although investment is expected to have grown in 2015, the pick-up is due mainly to the larger number of ship registrations in Cyprus, while underlying investment growth still appears weak. ⁽¹⁾ In the medium term, private investment should pick up again as uncertainty in global markets and deleveraging needs diminish. Nevertheless, the overall investment gap with respect to the EU average will remain significant for some years to come.

Structural problems in the banking sector and the highest ratio of bad assets among banks supervised by the Single Supervisory Mechanism (SSM) resulted in very tight credit conditions that constrain investment. This is also reflected in the very high share of firms reporting that the most pressing problem for them is access to finance (Graph 3). The ratio of non-performing exposures (NPEs) is expected to have peaked. Nevertheless, around half of banks' exposures are non-performing (Section 2.1). A gradual reduction in bad assets, combined with increasing and more sustainable restructurings of non-performing loans, is expected to ease credit conditions in the future and support investment growth. Nevertheless, the high level of corporate debt is a major impediment to investment and potential output growth. Cypriot companies are among the most indebted in the EU, and their debt servicing costs remains among the highest in EU (Section 2.2). Investment remains subdued, even in sectors that fared relatively well during the crisis and that have been more successful in reducing their debt (e.g. the tradable sector).

Assessment of barriers to investment and ongoing reforms

Despite some progress with implementing structural reforms, productivity-enhancing investment appears to be low and held back by several structural shortcomings. Key issues are identified in the business and institutional environment in areas such as dealing with construction permits, contract enforcement and judicial procedures. Cyprus is experiencing subdued market dynamics and low competition in business services (Section 3.1 and Box 2.1.2). Low competition is reflected in high costs, e.g. Cypriot companies face electricity prices that are among the highest in the EU (Section 3.4) and mark-ups in the service sector are also estimated to be among the highest ⁽²⁾. There is a significant amount of red tape, the shortcomings of the justice system make contract enforcement relatively difficult, and the regulatory framework could be further improved. Numerous shortcomings exist in the research and innovation system which are reflected by the country's ranking in the 2015 Innovation Union Scoreboard (Section 3.1). Key issues relate to the limited business R&D, which is one of the lowest in the EU, and a policy tradition which favours academia over business competitiveness. The perception of the government's effectiveness is barely above the EU average, as there are a number of shortcomings

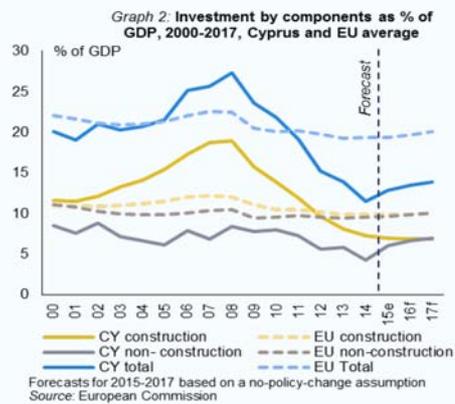
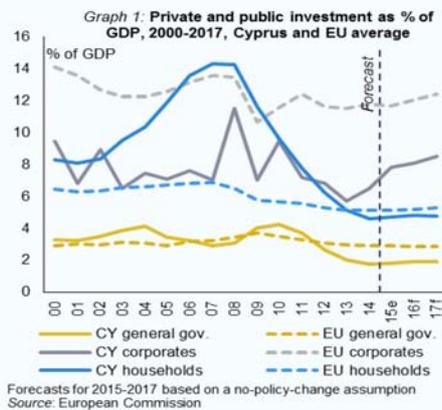
⁽¹⁾ New registrations of ships in Cyprus have a positive impact on investment. Since this is matched by their equally positive effect on imports, they have no net impact on GDP growth. Abstracting from ship registrations suggests that investment is slowly regaining momentum, and it should gather further strength through easing credit conditions.

⁽²⁾ Thym-Thyssen and Canton (2015)

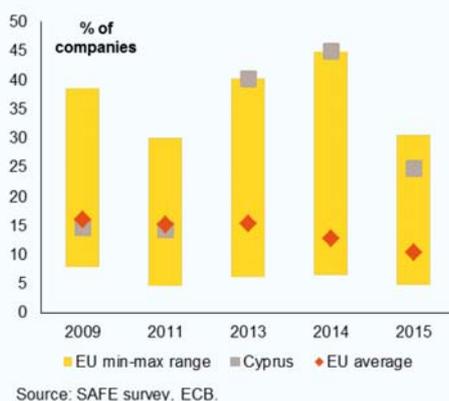
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Box (continued)

and inefficiencies in the way the public sector operates (Section 3.3). Public trust in politicians has declined significantly in the period after the crisis, and businesses see corruption as an obstacle to doing business (Section 3.3). In addition, businesses face significant financing constraints arising from factors including squeezed banking lending and limited access to alternative financing (Section 3.1). Competition issues and the country's relatively small market also impede investment activity. Consequently, despite some recent improvements Cyprus's ranking on various competitiveness and business environment indicators remains relatively poor.



Graph 3: Access to finance - Most pressing problem



fast-track administrative procedures; developing an action plan for smart regulation; and developing a national policy statement on entrepreneurship. Although this is encouraging, implementation of the reforms in the Action Plan for Growth is still in its initial phase. They are expected to be implemented in full over the next few years, when their full effect on growth should become apparent.

Improving the business environment and making it more conducive to growth would support both domestic and foreign investment. Initiatives to attract foreign investment, support innovative entrepreneurship and improve the business environment have been launched but not yet implemented (Section 3.1). Cyprus is currently implementing a new growth strategy, the Action Plan for Growth. The plan aims to restore more balanced and sustainable growth in Cyprus by tackling the weaknesses discussed in this box. Given their importance, three initiatives have also been included in the Memorandum of Understanding: developing a policy framework to facilitate strategic investments, including

Box 1.3: Contribution of the EU Budget to structural change

Cyprus is one of the main beneficiaries of the European Structural and Investment Funds (ESIF) and is eligible to receive some EUR 908 million from the Funds between 2014 and 2020. This is equivalent to 0.9% of GDP (on an annual basis) and 37.6% of the expected national public investment in areas supported by the ESIF.

A number of reforms were implemented to satisfy preconditions and ensure successful investments and effective delivery of the Europe 2020 objectives and targets (e.g. to strengthen competitiveness and innovation and support the shift towards the low-carbon economy). Reforms in areas such as next generation network infrastructure, risk prevention and management, water pricing policy and river basin management plan, waste management and legislation relating to environmental impact assessments and strategic environmental assessment are pending. If preconditions are not met by the end of 2016, the Commission may suspend interim payment to the priority areas of the programme concerned.

The programming of the Funds was based on priorities and challenges identified in recent years, partly in the context of the economic adjustment programme. It focuses on boosting competitiveness and economic growth by supporting entrepreneurship and innovation and helping develop an environmentally friendly, resource-efficient economy. Other priority areas are making public administration more efficient, helping reduce and prevent poverty, supporting vocational education and training, and supporting public employment services and employment, with a particular emphasis on youth employment through the specific Youth Employment Initiative allocation. Regular monitoring of implementation includes reporting in mid-2017 on how the funds have contributed to meeting Europe 2020 objectives and on progress on structural reforms designed to maximise the use of EU financing.

Financing under the new European Fund for Strategic Investments (EFSI), Horizon 2020, COSME, the Connecting Europe Facility and other directly managed EU funds would be additional to the ESIF. Following the first rounds of calls for projects under the Connecting Europe Facility, Cyprus has signed agreements for EUR 1 million in the energy field, EUR 272 thousand for telecoms projects, and EUR 4 million for transport projects. For more information on the use of ESIF in Cyprus, see: <https://cohesiondata.ec.europa.eu/countries/CY>.

Table 1.1: Key economic, financial and social indicators - Cyprus

	2003-2007	2008	2009	2010	2011	2012	2013	2014	forecast		
									2015	2016	2017
Real GDP (y-o-y)	4.2	3.7	-2.0	1.4	0.4	-2.4	-5.9	-2.5	1.4	1.5	2.0
Private consumption (y-o-y)	6.5	7.6	-6.2	2.6	0.5	-0.8	-5.9	0.6	1.8	1.6	1.4
Public consumption (y-o-y)	5.5	5.7	6.4	-2.1	1.3	-3.7	-4.1	-9.0	-2.4	-0.9	0.2
Gross fixed capital formation (y-o-y)	8.2	9.0	-13.7	-5.1	-9.3	-20.5	-15.2	-18.0	10.5	5.6	4.0
Exports of goods and services (y-o-y)	1.9	-0.7	-4.3	4.3	4.1	-1.1	1.8	-0.5	3.6	3.2	2.6
Imports of goods and services (y-o-y)	4.7	12.5	-15.0	6.2	-3.1	-4.4	-3.0	2.0	4.0	3.4	1.9
Output gap	2.8	5.5	1.2	0.8	0.0	-2.2	-6.0	-6.8	-4.3	-1.9	0.5
Potential growth (y-o-y)	3.3	3.4	2.2	1.8	1.2	-0.3	-2.1	-1.7	-1.3	-0.9	-0.5
Contribution to GDP growth:											
Domestic demand (y-o-y)	6.3	8.1	-6.8	0.1	-1.5	-5.1	-7.0	-3.7	2.1	1.7	1.5
Inventories (y-o-y)	-0.5	3.4	-2.8	2.6	-2.1	0.8	-1.4	2.7	-0.5	0.0	0.0
Net exports (y-o-y)	-1.6	-7.7	7.3	-1.3	3.8	1.9	2.6	-1.4	-0.2	-0.1	0.4
Contribution to potential GDP growth:											
Total Labour (hours) (y-o-y)	1.1	1.0	0.7	0.6	0.5	-0.4	-1.7	-1.0	-0.9	-0.8	-0.6
Capital accumulation (y-o-y)	1.9	2.6	1.8	1.5	1.0	0.4	0.1	-0.3	-0.1	0.0	0.0
Total factor productivity (y-o-y)	0.4	-0.2	-0.3	-0.3	-0.4	-0.4	-0.5	-0.4	-0.2	-0.1	0.1
Current account balance (% of GDP), balance of payments	-5.8*	-15.6	-7.7	-10.7	-4.0	-5.6	-4.5	-4.6	.	.	.
Trade balance (% of GDP), balance of payments	-3.0*	-12.9	-5.4	-6.6	-3.1	-1.1	1.1	0.7	.	.	.
Terms of trade of goods and services (y-o-y)	0.6	-1.7	0.4	-0.1	-0.6	0.3	-0.9	1.8	-0.9	0.3	-1.0
Capital account balance (% of GDP)	0.0*	0.2	0.3	0.3	0.4	0.2	1.4	0.8	.	.	.
Net international investment position (% of GDP)	16.0*	-79.9	-101.4	-112.9	-132.2	-128.3	-136.8	-140.7	.	.	.
Net marketable external debt (% of GDP) ¹	34.7*	-49.6	-57.1	-64.7	-92.5	-87.6	-103.0	-106.9	.	.	.
Gross marketable external debt (% of GDP) ¹	199.3*	530.8	626.6	590.3	551.2	522.4	464.3	482.4	.	.	.
Export performance vs. advanced countries (% change over 5 years)	.	-3.7*	-0.6*	-12.0*	-8.9*	-19.1*	-8.1	-21.7	.	.	.
Export market share, goods and services (y-o-y)	.	.	13.0	-15.3	-6.0	-8.1	2.4	-2.1	.	.	.
Net FDI flows (% of GDP)	-4.1*	8.2	-7.5	-5.5	15.9	14.1	6.7	7.0	.	.	.
Savings rate of households (net saving as percentage of net disposable income)	3.0	0.4	3.8	1.4	-0.4	-5.7	-11.7	-19.6	.	.	.
Private credit flow (consolidated, % of GDP)	17.4	30.1	7.9	13.4	13.0	13.6	-12.7	-8.4	.	.	.
Private sector debt, consolidated (% of GDP)	261.2	287.7	309.3	318.5	324.7	325.5	338.9	348.3	.	.	.
of which household debt, consolidated (% of GDP)	84.2	103.6	113.7	119.4	122.4	124.8	125.8	128.6	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	177.0	184.1	195.6	199.1	202.3	200.7	213.1	219.7	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	0.0	.	.	.	.	.	.	.	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	-7.4	-6.6	2.4	-1.5	5.8	5.7	9.2	16.2	8.2	7.4	6.4
Corporations, gross operating surplus (% of GDP)	24.8	20.0	19.6	19.9	20.8	21.9	23.5	22.8	24.6	24.5	24.2
Households, net lending (+) or net borrowing (-) (% of GDP)	-5.8	-9.5	-4.2	-3.8	-3.5	-5.3	-7.4	-11.0	-11.3	-11.6	-11.5
Deflated house price index (y-o-y)	5.2	0.5	-6.7	-7.9	-4.6	-5.9	-4.7	0.2	.	.	.
Residential investment (% of GDP)	10.3	12.2	9.8	7.9	6.1	4.9	4.0	3.3	.	.	.
GDP deflator (y-o-y)	3.7	4.5	0.2	2.0	1.8	2.1	-1.4	-1.2	-1.1	0.4	0.8
Harmonised index of consumer prices (HICP, y-o-y)	2.5	4.4	0.2	2.6	3.5	3.1	0.4	-0.3	-1.6	0.2	1.3
Nominal compensation per employee (y-o-y)	4.3	5.4	3.5	0.7	1.6	0.8	-3.3	-4.7	-0.8	1.1	1.4
Labour productivity (real, person employed, y-o-y)	0.7	1.1	-1.9	0.3	-0.1	0.8	0.1	-1.4	.	.	.
Unit labour costs (ULC, whole economy, y-o-y)	3.5	4.3	5.5	0.3	1.7	0.0	-3.4	-3.3	-1.5	0.4	0.6
Real unit labour costs (y-o-y)	-0.2	-0.2	5.2	-1.7	-0.1	-2.1	-2.1	-2.0	-0.4	0.0	-0.2
Real effective exchange rate (ULC, y-o-y)	2.6	3.0	2.6	-2.3	1.7	-3.2	-0.1	-3.2	-5.4	-0.2	.
Real effective exchange rate (HICP, y-o-y)	1.2	3.1	1.0	-4.1	0.1	-2.0	1.1	-0.5	-5.9	0.7	-0.7
Tax wedge on labour for a single person earning the average wage (%)	7.6	.	.	.	.	.	.	.	.	.	.
Tax wedge on labour for a single person earning 50% of the average wage (%)	6.3*	.	.	.	.	.	.	.	.	.	.
Total Financial Sector Liabilities, non-consolidated (y-o-y)	21.9	151.9	7.3	8.5	-8.2	-2.9	-15.6	1.2	.	.	.
Tier 1 ratio (%) ²	.	8.1	9.3	10.7	6.2	4.5	10.7	14.2	.	.	.
Return on equity (%) ³	.	13.4	6.8	6.7	-102.8	-164.9	-145.5	-8.6	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (4)	.	4.2	4.3	5.6	11.9	18.7	37.1	35.6	.	.	.
Unemployment rate	4.5	3.7	5.4	6.3	7.9	11.9	15.9	16.1	15.5	14.5	13.2
Long-term unemployment rate (% of active population)	1.0	0.5	0.6	1.3	1.6	3.6	6.1	7.7	.	.	.
Youth unemployment rate (% of active population in the same age group)	10.6	9.0	13.8	16.6	22.4	27.7	38.9	36.0	33.2	.	.
Activity rate (15-64 year-olds)	72.8	73.6	73.0	73.6	73.5	73.5	73.6	74.3	.	.	.
People at-risk poverty or social exclusion (% total population)	25.3	23.3	23.5	24.6	24.6	27.1	27.8	27.4	.	.	.
Persons living in households with very low work intensity (% of total population aged below 60)	4.0	4.5	4.0	4.9	4.9	6.5	7.9	9.7	.	.	.
General government balance (% of GDP)	-1.9	0.9	-5.5	-4.8	-5.7	-5.8	-4.9	-8.9	-1.0	0.1	0.4
Tax-to-GDP ratio (%)	31.7	35.0	32.0	32.2	32.1	31.6	31.6	34.2	33.4	33.4	33.6
Structural budget balance (% of GDP)	.	.	.	-5.2	-5.5	-5.1	-1.5	2.3	0.4	0.7	-0.1
General government gross debt (% of GDP)	60.9	45.1	53.9	56.3	65.8	79.3	102.5	108.2	108.4	99.9	95.0

(1) Sum of portfolio debt instruments, other investment and reserve assets

(2,3) Domestic banking groups and stand-alone banks.

(4) Domestic banking groups and standalone banks, foreign (EU and non-EU) controlled subsidiaries and foreign (EU and non-EU) controlled branches.

(*) Indicates BPM5 and/or ESA95

Source: European Commission, winter forecast 2015; ECB

2. IMBALANCES, RISKS AND ADJUSTMENT ISSUES

This section provides the in-depth review required under the macroeconomic imbalance procedure (MIP) ⁽³⁾. It focuses on the potential risks and vulnerabilities flagged in the Alert Mechanism Report 2016. The reasons for the high level of non-performing loans and other challenges faced by the financial sector are discussed, as are the developments in the debt of households and the corporate sector and the related deleveraging process. This section also discusses the sustainability of Cyprus's external debt position, and the still high public-debt-to-GDP ratio. It concludes with the MIP assessment matrix which summarises the main findings.

2.1. FINANCIAL SECTOR

The Cypriot banking system

The banking sector remains structured in four different segments, with large market concentration in a few banks. The four segments are: i) the cooperative credit sector, ii) three domestic banks, iii) subsidiaries of Greek banks, and iv) other foreign banks. Prior to the crisis, 75% of the deposits market share was held by the cooperative credit sector and three domestic banks, namely Bank of Cyprus, Cyprus Popular Bank, and Hellenic Bank ⁽⁴⁾. Subsidiaries of Greek banks and other foreign banks accounted for the remaining 25%. With the resolution of the Cyprus Popular Bank, the market share of Bank of Cyprus increased significantly.

The current banking sector is two-thirds of its pre-crisis size. Lax credit conditions and ample liquidity supported a domestic bank credit expansion before the crisis. This fuelled a real estate boom and brought the indebtedness of Cypriot households and companies to among the highest in the European Union (see Section 2.2). Cyprus' position as an offshore, low cost financial centre attracted substantial amounts of non-resident funding in search of both monetary yield and diversified financial services (Section 2.3). Consolidated assets held by the banking sector peaked at about 750% of GDP in 2009 (Graph 2.1.1), much above the EU average. In response to the crisis, Cypriot financial institutions significantly downsized their balance sheets and focused on the domestic market. Aggregate financial sector assets fell by a further 80% of GDP (Graph 2.1.1) when Cyprus Popular Bank was put under resolution ⁽⁵⁾. Insured deposits were

acquired by Bank of Cyprus, but uninsured deposits and other liabilities were converted into equity through a bail-in (see below) and merged into Bank of Cyprus.

Exposure to foreign economies has been significantly curtailed. Domestic banks, notably Cyprus Popular Bank and Bank of Cyprus, had increased their exposure to foreign economies in the run up to the crisis. Direct loans in Greece, for example, reached EUR20bn in 2012, i.e. about 110% of Cyprus's GDP. Developments in Greece at the time adversely affected the performance of Cypriot banks, which notably suffered a EUR4bn loss when the Greek private sector involvement cut the value of their Greek sovereign bonds holdings from about EUR5bn in March 2011, to EUR1bn in September 2012. In March 2013, the domestic banks sold their Greek operations, worth about 120% of GDP. This has further limited the exposure of the Cypriot banking system to any possible unfavourable developments in Greece.

The high level of collateralised lending posed challenges regarding the perception of credit risk. Lending practices used to rely on the availability of collateral and personal guarantees, only recently focussing on borrowers' debt service capacity. This has resulted in a large stock of collateralised loans in banks' balance sheets. Relatively low estimates of expected losses on collateralised loans have kept provisions at levels below the EU average, implying that Cypriot commercial banks' overall capitalisation compared more unfavourably to euro area banks than a direct comparison of capital adequacy ratios would suggest.

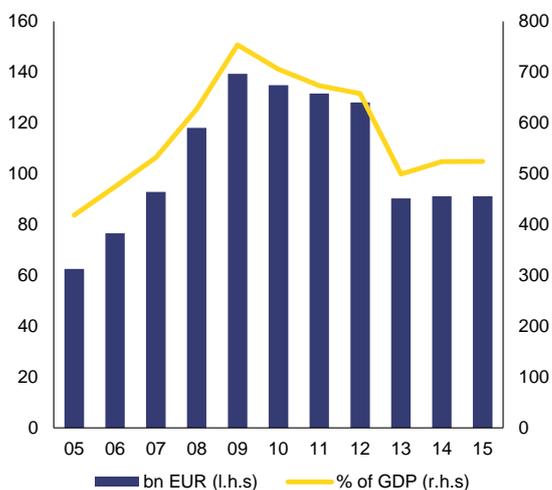
⁽³⁾ According to Article 5 of Regulation (EU) No. 1176/2011.

⁽⁴⁾ Commission (2013) The economic adjustment programme for Cyprus, May 2013, pp 15-16

⁽⁵⁾ Details of the downsizing of Cyprus's banking sector can be found in European Commission, 2015, *The Economic*

Adjustment Programme, Cyprus's 6th Review – Spring 2015, pp. 24-25.

Graph 2.1.1: Evolution of banking sector assets in Cyprus



Source: European Central Bank

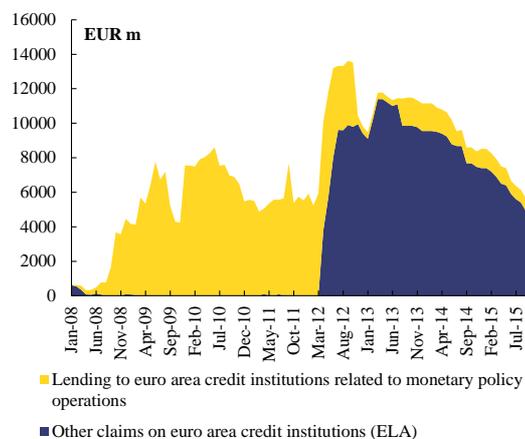
The recession in Cyprus contributed to further build up the stock of non-performing loans, compounding the weakness of the banking system. Cypriot banks expanded their domestic activity on the back of ample liquidity. Weakening domestic economic activity as of 2011, with debt servicing costs at high levels, pushed up the already high level of non-performing loans (Graph 2.1.4). Credit conditions tightened rapidly as banks increased their interest margins and reduced lending. The sovereign credit rating of Cyprus was gradually downgraded to below investment grade, market confidence evaporated and foreign deposits gradually left the Cypriot banking system, all of which generated increasing liquidity concerns. The Eurosystem provided all the necessary liquidity support to allow banks to pay out the fleeing deposits (Graph 2.1.2).

Managing capital requirements has been a significant challenge for the banking sector. An independent asset quality review and stress test were published in February 2013, revealing a EUR10bn⁽⁶⁾ capital shortfall in Cypriot banks. Given the size of the estimated capital shortfall, and especially its impact on public finances if funded by the government, the authorities chose to fund it through contributions from uninsured

⁽⁶⁾ The full report "Independent Due Diligence of the Banking System in Cyprus, February 2013" can be found here http://www.centralbank.gov.cy/media/pdf/CyprusIndependentDueDiligenceReport_18April.pdf.

depositors. The Central Bank of Cyprus, as resolution authority and in consultation with the Ministry of Finance, placed Bank of Cyprus and Cyprus Popular Bank in resolution. The bail-in generated EUR9.1bn of capital for the whole banking sector by converting into equity EUR1.2bn of junior debt, EUR0.1bn of senior debt and EUR7.8bn of uninsured deposits. Bank of Cyprus's capital position was improved through this bail-in, while capital in Hellenic Bank was shored up without relying on state aid, by raising capital on the market and by converting contingent convertible bonds into equity. The cooperative credit sector benefited from a EUR 1.5bn state recapitalisation funded through international financial assistance. Domestic banks' capital was replenished not only to compensate for past losses, but also in view of the expected further deterioration of their assets.

Graph 2.1.2: Liquidity support to banks in Cyprus



Source: Central Bank of Cyprus

Capital controls were introduced to manage the crisis and were lifted up once confidence in the system was restored. The government brought in these restrictive measures in March 2013 due to the loss of confidence in the banking sector. The restrictions, which were justified under the prevailing circumstances, were introduced to restore financial stability and contain the risks of contagion affecting other countries in the euro area. Since they constituted a serious limitation to the free movement of capital, they were designed to be proportionate to the objective of preventing risks to Cyprus's financial stability, and were applied for the minimum amount of time necessary

for that purpose. The authorities' prudent approach to administrative measures consisted of linking the relaxation steps to complying with specific milestones. These indicators were mostly related to the restructuring and resolution of financial institutions and to the tangible and sustainable return of depositors' confidence. About one year after the measures were brought in, considerable progress had been made towards eliminating them since the necessary milestones had been reached. All limitations were lifted in April 2015 ⁽⁷⁾.

The shortcomings of the prudential and regulatory framework played a role in the build-up of imbalances prior to the financial crisis. Regulatory requirements for investing excess liquidity in government debt resulted in a high exposure to the Greek sovereign and subsequent losses. There were also significant weaknesses in the regulation of cooperative credit institutions, which had systemic importance. Overall, poor risk management practices, insufficient capacity to exercise prudential oversight compared to the size of the financial sector, and excessive concentration of investments led to the unprecedented challenges for the system.

Structural reforms

The Cypriot authorities have taken important steps to improve the resilience of the banking system. These reforms were aimed at cleaning up banks' balance sheets and supporting the recovery of credit to the economy. The reforms have been based on three main objectives: i) strengthening the regulation and supervision of non-performing loans; ii) addressing the economy's indebtedness; and iii) making the financial system more transparent.

The Central Bank of Cyprus has improved its capacity to monitor and regulate banks' activities. One objective was to improve prudential oversight, notably by increasing the capacity and resources of the Central Bank of Cyprus and aligning the regulation and supervision of the cooperative banking sector to that of commercial banks. To improve the perception of

credit risk, a broader definition and classification of non-performing loans was introduced in July 2013, now also including fully collateralised loans. In addition, banks were recommended to base their lending decisions on the borrower's repayment capacity, rather than on personal guarantees and collateral value, and to promote a more active management of existing loans⁽⁸⁾. The Central Bank of Cyprus also stepped up its monitoring of banks' non-performing loans and early arrears management, notably by setting up and publishing loan restructuring targets for each bank. Finally, a single credit register was set up to improve information on borrowers.

The legal framework for private debt restructuring has been overhauled in order to accelerate the resolution of non-performing loans. The authorities took measures to facilitate the reduction of the large pool of non-performing loans. The Cypriot parliament adopted new legal frameworks for foreclosure and insolvency (see Box 2.1.1) to reduce the time and cost of enforcing loan collateral, while also incentivising repayment discipline. A troubled borrowers' framework was set up, including a Code of Conduct for banks and the mediation process between lenders and borrowers, headed by a Financial Ombudsman ⁽⁹⁾. Legislation on disentangling legal claims by transferring titles deeds (see Box 2.2.2) was also adopted in order to restore confidence in the housing market. Finally, the parliament adopted new legislation enabling the sale of loans to third parties. This should facilitate the cleaning up of banks' balance sheets by allowing banks to sell part of their distressed assets portfolio to investors and specialised companies, without having to obtain the consent of the borrower.

The law transposing the bank recovery and resolution directive was adopted in early 2016. Cyprus, contrary to many other Member States, already had a functioning national resolution framework before transposing the directive. In its very spirit, this framework was the precursor of the directive and has been applied already. For example, a dedicated Recapitalisation Fund was

⁽⁷⁾ Details of the restrictive measures applied in Cyprus can be found in European Commission, 2014, *The Economic Adjustment Programme, Cyprus's 4th Review – Spring 2014*, pp. 18-19.

⁽⁸⁾ make reference to the directive

⁽⁹⁾ Details about the policy initiatives addressing private sector debt restructuring and their monitoring framework can be found in European Commission, 2014, *The Economic Adjustment Programme, Cyprus 3rd Review – Winter 2014*, pp. 24-25 and pp. 26-27.

Table 2.1.1: Financial robustness indicators

in %	2012				2013				2014				2015		
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	June	Sep	Dec	Mar	June	Sep
NPLs, loans to legal entities (% of total)	18.0	18.9	20.3	22.6	24.7	30.2	39.7	44.4	45.6	49.1	50.4				
NPLs, loans to NFCs (% of total)												58.0	55.8	55.7	57.0
Restructured non-performing (% of total)						8.4	10.9	12.5	14.2	14.6	14.1	23.3	22.4	24.0	24.6
Restructured performing (% of total)						15.1	13.7	12.2	11.2	10.2	10.0	5.3	5.4	7.9	6.8
NPLs, loans to private individuals	18.0	18.9	20.3	22.6	24.7	35.1	39.4	43.3	47.6	49.4	50.8	52.7	53.9	54.9	56.1
Restructured non-performing (% of total)						2.7	4.6	6.7	8.8	8.5	8.4	13.9	15.0	16.5	17.5
Restructured performing (% of total)						11.9	12.0	10.4	11.0	10.3	9.1	8.9	8.3	8.6	7.7
Coverage rate	29.7	32.4	32.7	37.5	27.1	23.8	22.9	30.1	30.6	35.8	36.3	32.9	32.6	33.1	34.0
Cost-to-income ratio	41.0	49.7	51.6	55.6	49.9	52.4	53.4	53.4	37.9	37.0	39.3	40.4	41.2	35.3	43.4
Net interest margin	2.8	2.4	2.3	2.3	1.7	2.0	2.3	2.4	3.1	3.2	3.1	2.9	3.0	2.8	2.8
Core Tier 1 ratio	6.1	7.3	6.9	4.5	12.1	11.9	11.6	12.1	12.5	12.9	14.8	14.2	14.3	15.1	15.3
Return on assets	1.6	-1.9	-1.7	-3.4	-5.4	-3.4	-2.5	-4.3	0.1	0.3	0.1	-0.6	0.6	0.6	0.0

Source: Central Bank of Cyprus

created to make sure that state aid measures granted by Cyprus were in line with the directive. This fund is funded from a special levy imposed on all banks and credit institutions in Cyprus in a way that complies with ex-post contribution of the banking sector to support resolution financing.

Cypriot authorities have considerably strengthened their anti-money-laundering framework, although implementation challenges remain. The reform was designed to strengthen the preventive measures regarding due diligence, the use of introduced business⁽¹⁰⁾ and the reporting of suspicious transactions, while also improving transparency as regards the ultimate beneficiaries of accounts and trusts. Supervisory authorities implemented new risk-based inspection tools and increased the resources dedicated to combating money laundering. The exchange of information with foreign supervisors has also been improved. Moneyval gave a positive review of the effectiveness of customer due diligence in the Cypriot banking sector in a report published on 15 September 2014⁽¹¹⁾. However, the effectiveness of the action plan for combating money laundering still depends on the authorities' ability to enforce their prudential framework. So far, sanctions remain rare and appear untimely. For example, while the Central Bank of Cyprus carried out inspections in 2014, the first penalty arising from these inspections was imposed only in November

2015. One of the main reasons for this delay is staff shortages on the authorities' side.

Remaining challenges

Following three years of reform efforts, the high level of non-performing loans remains a key challenge for Cyprus. With around half of gross loans non-performing⁽¹²⁾, this is a key challenge, also recognised as a key issue in the 2016 Council recommendations for the euro area (Graph 2.1.3). The environment is now conducive to reducing non-performing loans, following the implementation of a wide range of reforms and given stronger economic growth, an improved liquidity situation and the lifting of the restrictive measures. Other remaining challenges include further improving of the banks' lending practices and profitability. The latter still relies to a large extent on the interest income accrued on bad loans.

⁽¹²⁾ Non-performing loans in the banking sector stood at slightly below 50% of gross loans at the end of 2015. Looking at households and companies only, non-compliance amounts to close to 60% of gross loans

⁽¹⁰⁾ 'introduced business' refers to the practice of relying on intermediaries to introduce new clients to banks and perform part of the bank's customer due diligence.

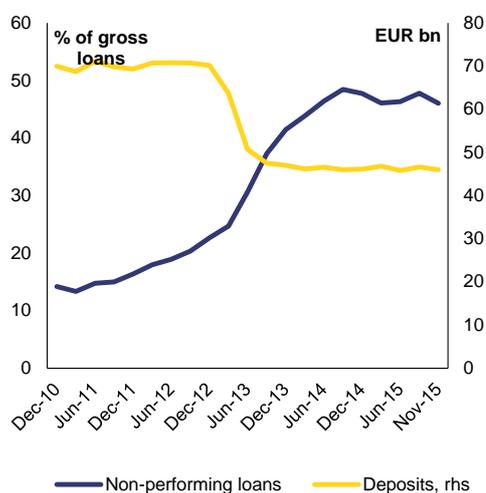
⁽¹¹⁾ The Moneyval report can be found here http://www.coe.int/t/dghl/monitoring/moneyval/countries/cyprus_EN.asp.

Table 2.1.2: Debt restructuring targets

Indicators	June 2015		September 2015		December 2015		March 2016	
	target	achieved	target	achieved	target	achieved	target	achieved
(1) Proposed solutions (%) (non-cumulative)	n.a.	6.1	9.4	6.2	11.5	n.a.	11.5	n.a.
(2) Concluded solutions (%) (non-cumulative)	n.a.	4.7	7.4	6.6	10.1	n.a.	10.1	n.a.
(3) Terms-being-met (%) (cumulative since Jan 2014)	n.a.	65.8	66.5	69.8	70.7	n.a.	70.7	n.a.
(4) Early-arrears cured (%) (non-cumulative)	n.a.	28.1	27.8	32.2	40	n.a.	40	n.a.

Source: Central Bank of Cyprus

Graph 2.1.3: Deposits and non-performing loans



Source: Central Bank of Cyprus

Efforts to restructure non-performing exposures have not yet shown tangible results.

Financial institutions have stepped up their debt restructuring efforts, but the results have been mixed so far. The share of restructured loans increased during 2015 (Table 2.1.1). However, the ratio of non-performing restructured loans to total loans increased as well, suggesting that many restructuring operations are not sustainable and are non-performing. In absolute terms, the rise in restructured loans was almost fully matched by that of non-performing restructured loans. In addition, the enhanced restructuring efforts are still falling short of the restructuring targets set in agreement with the Central Bank of Cyprus. This is, in particular, the case with respect to targets for the restructuring of non-performing loans (Table 2.1.2). On the other hand, banks' performance is in line with targets set for early arrears and new non-

performing loans. This suggests that banks have become more pro-active in preventing early arrears from turning into bad loans.

Existing backlogs and inefficiency in the justice system are likely to slow down the resolution of the non-performing loans. To bring non-performing loans down to sustainable levels, the infrastructure (auction rooms) and institutions (number of auctioneers and insolvency practitioners, insolvency service) have yet to be adequate and become operational. The banks are still assessing how best to use the new tools to maximise the expected return on their assets. The proper functioning of the system also depends on the ability of the judiciary to deal with court cases in a speedy manner (see Boxes 2.1.1 and 2.1.2). It may therefore take some time before the new tools can have a material impact on the level of non-performing loans.

The average level of capital adequacy, relatively moderate provisioning coverage and weak profitability may also slow down the resolution of non-performing loans. With a core equity tier 1 capital ratio of local financial institutions at 15.3%, the overall level of capital adequacy of Cypriot banks is broadly in line with the euro area average (Graph 2.1.4). Yet, most of the other euro area banking sectors are not burdened with such a high level of non-performing loans. Cypriot banks continue to operate in an environment that is still challenging, and they need to improve their capacity to generate profits sustainably in order to ensure adequate capitalisation in the long term. Relatively moderate provisioning levels and weak profitability are likely to weigh on the banks' capacity to generate or attract enough capital to absorb additional losses. This could limit their ability to restructure, write off or sell bad loans.

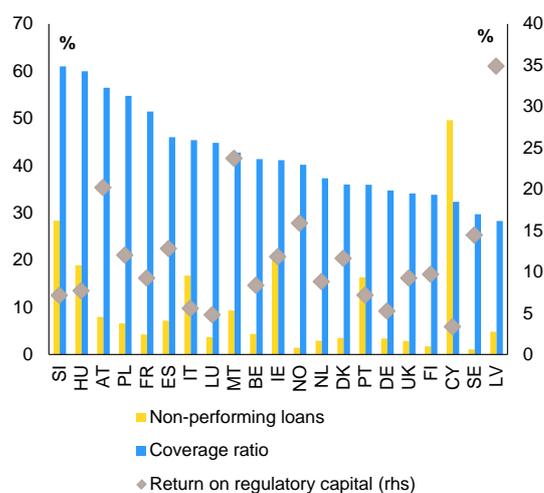
Table 2.1.3: Quantitative assessment of Cypriot banks' restructuring process

Category	Key performance indicators	Bank of Cyprus			Cooperative Group		
		Dec 2014	Sep 2015	Medium-term (2017)	Dec 2014	Sep 2015	Medium-term (2017)
Asset quality	90 days past due coverage	41%	41%	40 - 50%	44.3%	49.9%	> 45%
	Provisioning charge	3.6%	2.1%	<1.0%	1.3%	3.8%	< 2.0%
	90 days past due loans (bn EUR)	12.65	12.00	< 10	6.2	6.0	< 4.5
Funding	Loans-to-deposit ratio	141%	132%	< 150%	81.6%	74.3%	< 85.0%
Capital	Common equity tier 1	14.0%	15.6%	> 10%	13.6%	12.0%	> 15%
	Leverage ratio (assets/equity)	7.7x	6.9x	< 12x	11.3x	13.6	< 10x
Efficiency	Net interest margin	3.9%	3.9%	> 2.5%	2.7%	2.5%	> 2.5%
	Cost-to-income ratio	36.0%	38.0%	< 45%	37.4%	41.2%	< 42%
	Number of branches (target is for Dec 2015)	130	129	125	292	253	258
	Number of employees	4,334	4,341	< 4 100	2,703	2,659	2,580

Source: Bank of Cyprus, Cyprus Ministry of Finance

Bringing non-performing loans down to sustainable levels may therefore prove to be a gradual and drawn-out process.

Graph 2.1.4: Non-performing loans, provisions and profitability (June 2015)



Source: European Banking Authority (2015)

Banks are restructuring their operations to support their viability Banks have restructured their operations by downsizing their balance sheet, reducing their loan-to-deposit ratio, and improving capital and liquidity buffers. They are optimising their branch structure and reducing operational costs, while mostly complying with their targets for net interest margins. But this process is not over, in particular for the Cooperative credit sector, which is still implementing significant restructuring measures following its recapitalisation by the state in 2014 and 2015.

These capital injections were accompanied by restructuring measures designed to ensure the bank's viability. The restructuring plan includes consolidation of the group through the merger of the initial 93 local cooperative banks into 18 remaining units, streamlining and centralisation of key functions (risk, arrears, strategic management), changes to the legal structure to welcome private investors, and commitments to seek market funding in the future. Bank of Cyprus has also followed a restructuring plan, designed to make it less reliant on emergency liquidity assistance from the Eurosystem by divesting from foreign operations, downsizing foreign operations' balance sheets, and increasing deposits. The central bank monitors restructuring efforts through quarterly key performance indicators (Table 2.1.3). Greek subsidiaries, which have a systemic importance, have strengthened their liquidity buffers, although the improvement has not been uniform given the four banks' different business models and market exposures. The recapitalisation of the Greek parent banks in 2015, following an asset quality review and a stress test, also helped to indirectly strengthen the capital bases of their subsidiaries.

Despite the restructurings of banks' operation and more cautious lending policies, new loans are still subject to high arrears. Despite the updated directive on loan provisions and the increased focus on the debt servicing capability of borrowers rather than on collateral, a large share of loans still end up non-performing. Between 20% and 40% of loans granted in the course of 2013 and 2014 were non-performing by the end of the

year in which they were granted.⁽¹³⁾ This highlights the challenges that exist in identifying viable borrowers and investment projects in the context of excessive private sector indebtedness (see Section 2.2). The creation of a credit register in 2015 might help banks avoid lending to already troubled borrowers, although it would not help assess their repayment capacity, as it only collects data on liabilities. Moreover, there are now increasing pressures for banks to increase lending, potentially under-pricing risk, as ample and still rising liquidity is penalised by the negative rates on the ECB deposit facility.

The funding structure of the banks has improved but remains dependent on foreign deposits. The banks' deposit base stabilised since the last quarter of 2014 and remained stable at about EUR 46bn in 2015 (apart from a temporary decline in June 2015). The aggregate improvement in funding contributed to increasing banks' liquidity buffers and decreasing their reliance on emergency liquidity assistance from the Eurosystem. However, the inflow of deposits from non-residents outside the euro area remains subdued. A

diversification of bank funding sources from retail to hybrid and wholesale instruments would increase banks' loss absorption capacity, provide them with longer maturity funding and reduce their exposure to swings in depositors' confidence. In this respect, legislation allowing for loan securitisation, which is currently under preparation, aims to facilitate banks' long term funding.

The quality, independence, governance and administrative capacity of the non-banking supervisory authorities are relatively weak and associated with risks. The European Insurance and Occupational Pension Authority identified risks related to maintaining the current supervisory framework of the non-banking financial intermediaries, i.e. insurance companies and pension funds, which held assets amounting to about 30% of GDP in 2014. It highlighted that the current supervisory framework does not have the critical size or sufficient capacity to identify weaknesses and ensure the stability of this significant sector. It recommended consolidating the supervisory landscape by creating a new single authority supervising both the insurance and pension industries. So far, progress with the integration of the supervisory authorities has been limited.

⁽¹³⁾ Hellenic Bank (2015), the Cooperative Central Bank (2015) and Bank of Cyprus (2015)

Box 2.1.1: **Reform of the legal framework for private debt restructuring**

The Cypriot legal framework for private debt restructuring has undergone a broad reform. This reform introduces (i) for companies, a new debt restructuring (examinership) procedure and modernised law on the liquidation of companies, and (ii) for natural persons, new arrangements for restructuring debt and reforming the bankruptcy law. The reform also modernises the foreclosure law, streamlining procedures.

As regards the corporate insolvency regime, the existing law on the winding-up of companies has been updated, and a new corporate restructuring/rescue law has been established. The existing law now provides for a swift liquidation procedure for insolvent companies which cannot be rescued. A new corporate restructuring/rescue law (based closely on the Irish Examinership law) has been introduced to enable viable companies to be restructured with the help of an examiner (insolvency practitioner). The directors of the company would normally remain in control of the business.

The reform of the framework for personal insolvency has modernised the bankruptcy law and established new tools for restructuring household debt. The bankruptcy law was amended to permit automatic discharge of bankrupt individuals after 3 years, in line with EU best practice. It gives over-indebted individuals a better chance of a fresh start, on the basis of full cooperation, disclosure and surrender of assets. This discharge covers, for the first time, secured debt in order to permit a mortgage debtor to be released from a deficiency claim after loss or disposal of the property. The possibility of a debt discharge is an important development with regard to rehabilitation of entrepreneurs liable for the debt of a company, particularly in Cyprus, where the finances of SMEs are often intertwined with household finances, and personal property and guarantees are used to secure business loans, as mentioned in Section 2.2.

Two new insolvency tools were developed to help reduce the high levels of private debt. The Debt Relief Order (based on UK and Irish models) allows debt relief of up to EUR 25,000 for debtors who have virtually no assets, no income and who are at risk of social exclusion. The Personal Repayment Plan (mostly replicating the Irish Personal Insolvency Arrangement) establishes a procedure that enables an insolvent debtor, with the mandatory help of an insolvency practitioner, to develop a restructuring plan which, where possible, should avoid the sale of the primary residence. The plan, which could last up to 5-6 years, must be approved by the creditors (35% veto right, of all creditors). The Personal Repayment Plan contains a compulsory element which – in the event of failure to agree a restructuring – allows the debtor to apply to the court for its imposition on the creditors, with the objective of avoiding bankruptcy and foreclosure, subject to certain criteria (value of primary residence up to EUR 300,000 and total amount of debt up to EUR 350,000). Creditors must at least receive the bankruptcy liquidation value in a compulsory plan. The law establishing the Insolvency Service also regulates insolvency practitioners' eligibility criteria, training and licensing.

The new foreclosure legislation strikes a better balance between the rights of debtors and creditors. It allows mortgage creditors to conduct auctions/sales of collateral property without involving government agencies if a debtor defaults on payment for more than 120 days. There are clear timelines for all procedural steps, including appeals. This should significantly reduce the time required to foreclose a property in mortgage default, which could previously have taken about 20 years. This law applies to all types of property, including primary residences, and is expected to encourage more realistic engagement by debtors.

Implementation of the new foreclosure and insolvency framework has been slow. Full implementation of the foreclosure legislation has been delayed by slow progress in selecting locations for auctions, but the first auctions are expected to be held from the second quarter of 2016. As regards personal insolvency, by end-February 2016 490 Debt Relief Order applications had been made, and there were only 8 requests for Personal Insolvency Arrangements. There has been a commitment by the Cypriot authorities, in the context of the economic adjustment programme, to conduct an assessment of the functioning and of the first experiences of the private sector debt restructuring and foreclosure frameworks, with the aim of defining an action plan of modifications to those frameworks to correct any deficiencies, but as of mid-March 2016 such an assessment had not been initiated.

Box 2.1.2: **The efficiency of the justice system in Cyprus**

The efficiency indicators of Cyprus's justice system lag significantly behind the EU average. According to the forthcoming 2016 EU Justice Scoreboard, proceedings in the area of civil and commercial law are among the lengthiest in the EU and the backlog of pending cases is among the highest in the EU. The reasons are manifold: relatively low access costs, inefficient procedures, insufficient use of information and communication technologies in courts, underuse of Alternative Dispute Resolution methods, and the relatively modest budgetary resources allocated to the courts system.

No qualitative assessment of the justice system is published. Cyprus is among those Member States that do not conduct surveys among court users or legal professionals on the quality of the justice system. Moreover, the career of Cypriot judges does not include any compulsory training.

The Cypriot authorities plan to modernise the justice system. The main concern will be improving efficiency as regards general operations, management systems and the use of ICT in court. Various reforms have been adopted in civil, administrative and commercial justice to cut backlogs in court cases, which are often considerable. Amendments to civil law have been proposed to expedite enforcement of court judgments and make it more effective. There are also proposals to restrict the right to file appeals against interlocutory decisions during proceedings. A new administrative court started work at the beginning of 2016, the aim being to speed up administrative justice proceedings. The authorities also envisage setting up a Commercial Court, which may also operate in English with streamlined procedures, to reduce the length of time take to settle commercial disputes. In addition to the above, the Cypriot authorities envisage rationalising court fees and promoting the use of mediation.

To implement the new insolvency and foreclosure frameworks in full, and thus to reduce non-performing loans, an efficient justice system is a *sine qua non*. Implementing the modernised framework for personal and corporate insolvency and the new foreclosure legislation (see Box 2.1.1) depends largely on courts' ability to deal efficiently with the flow of applications by both borrowers and creditors, which is expected to be substantial. The efficiency of the court system should therefore have a bearing on the resolution of legal disputes to do with restructuring bad loans, as well as on litigation over the transfer of title deeds for mortgages properties (see Box 2.2.2). The swift resolution of such disputes could help clean up banks' balance sheet and have a positive effect on the investment environment in the housing sector.

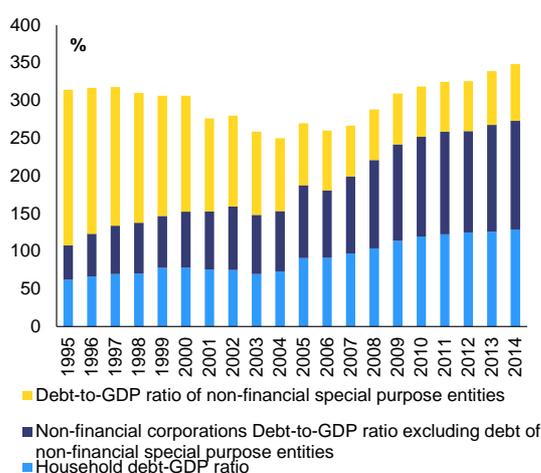
The efficiency of the justice system affects commercial and investment decisions. It is a key parameter in businesses' ability to enforce contracts and ensure that investment decisions are taken with sufficient legal certainty, as reflected in indicators of the ease of doing business and of global competitiveness⁽¹⁾. Modernising the Cypriot justice system would, therefore, be conducive to growth.

⁽¹⁾ World Bank (2016) and World Economic Forum (2015)

2.2. PRIVATE INDEBTEDNESS

In Cyprus, the ratio of debt to GDP is very high for both households and non-financial corporations (NFCs). The private debt-to-GDP ratio in Cyprus is now over 340%, which is among the highest in the euro area. One of the reasons for the high level of debt is that the debt of ship-owning special purpose entities (SPEs) registered in Cyprus is incorporated in the Cypriot national accounts (following the adoption of ESA2010) ⁽¹⁴⁾. This effect on Cypriot corporate debt amounted to roughly 75% of GDP in 2014 (Graph 2.2.1). It corresponds broadly to loans contracted abroad by companies which are virtually disconnected from the domestic economy. Setting this effect aside, debt related to other types of non-financial corporations rose steadily from about 45% of GDP in 1995 to 140% in 2014. Similarly, household debt rose from just over 60% of GDP to about 130%, in the same period.

Graph 2.2.1: Evolution of private sector indebtedness



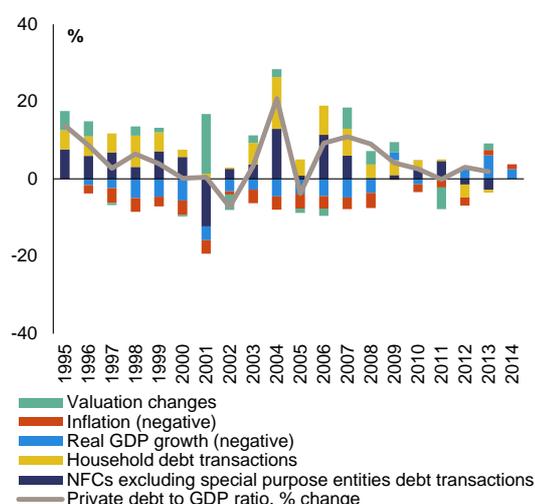
Source: Eurostat and Central Bank of Cyprus

The private debt-to-GDP ratio, excluding special purpose entities (SPEs), is the by-product of excessive credit growth before the crisis and significant decline in nominal GDP as the crisis unfolded. Between 2004 and 2008, following EU accession, private debt stocks increased significantly by an annual average of 16% a year, while nominal GDP growth averaged 8% a year. This led to a significant accumulation of debt relative to GDP, which, setting aside SPEs,

⁽¹⁴⁾ The role of these types of companies in the economy is discussed in more detail in section 2.3.

reached 200% already in 2008. Although the increase in private debt stocks slowed down subsequently, even declining in 2013 and 2014, the significant contraction in nominal GDP growth, due to both real GDP contraction and negative inflation, continued to feed into the non-SPE private debt-to-GDP ratio (Graph 2.2.2).

Graph 2.2.2: Growth in the private sector debt-to-GDP ratio (excluding SPEs), and contributions



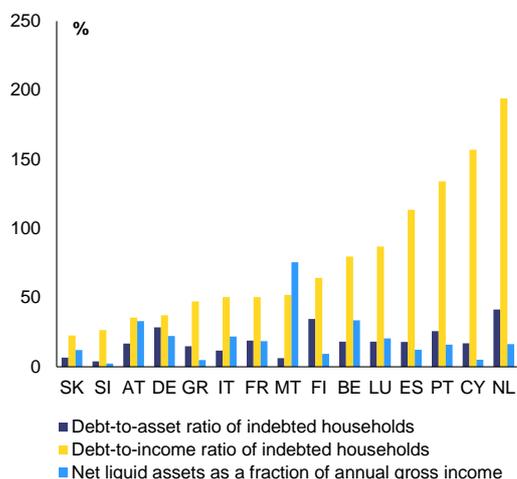
Source: Eurostat and Central Bank of Cyprus

There are important adverse feedback loops between low nominal growth and failure to reduce debt, which have been aggravated in Cyprus by the presence of high non-performing loans (NPLs). Lower nominal income growth not only increases the debt-to-GDP ratio directly by reducing the denominator, but also implies that households and corporations have less disposable income to make payments on their existing debt. It may drive some into default, increasing the stock of non-performing loans, which in Cyprus has reached around 55% of total loans to households and non-financial corporations. In the presence of non-performing loans total debt stocks continue to increase even if no new credit is provided, due to the capitalisation of interest accrued on delayed payments. Increasing non-compliance forces banks to increase provisions and exacerbates problems of asymmetric information, constraining the flow of credit to the economy that could be used to finance productive investment. Although most existing firms face important deleveraging pressures, new credit is crucial to promote viable projects, increase business dynamics, and foster the R&D

and innovation that can take the economy out of a low growth trap. Low potential growth (Section 3.1) exacerbates the risks of generating a vicious circle of low growth and high indebtedness.

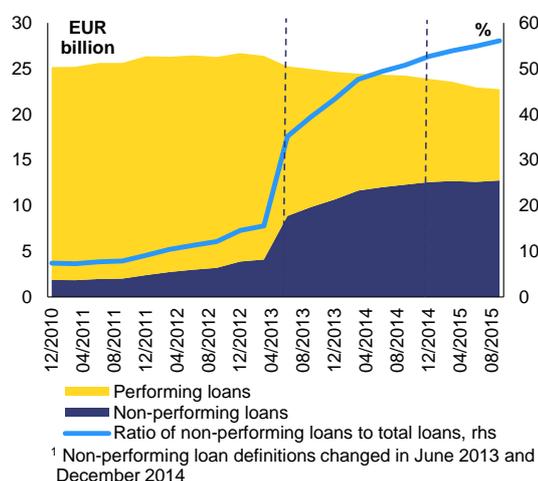
Cypriot household debt is on aggregate backed by asset holdings, but the assets of indebted households are relatively illiquid. The debt-to-asset ratio of Cypriot households as last measured by the Eurosystem Household Finance and Consumption Survey (2013) is below the euro-area average. However, the net liquid assets of indebted households are relatively small as a fraction of annual gross income, and the debt-to-income ratio is around 150%, second only to that observed in the Netherlands (Graph 2.2.3). Notice that, while aggregate Cypriot household data shows relatively large deposit holdings, this data corresponds to indebted households only, representing about 65% of the households surveyed. While indebted households in Cyprus have assets, these consist predominantly of real estate (which is used as collateral for obtaining credit). About 96% of households in the survey owned real estate.

Graph 2.2.3: Assets and income of indebted households



Source: The Eurosystem Household Finance and Consumption Survey Statistical Tables, first wave, 2013.

Graph 2.2.4: Household non-performing loans ratio¹



¹ Non-performing loan definitions changed in June 2013 and December 2014

Source: Central Bank of Cyprus

Household incomes have deteriorated since 2013, contributing largely, but not solely, to the high ratio of non-performing loans in the household sector. Household incomes deteriorated during the crisis due to lower wage growth and higher unemployment, which reached 16% in 2013, and remained at around 15.5% in 2015, as discussed in Section 3.2. Although data on non-performing loans is not comparable over time due to changes in definitions, the deterioration in household incomes is likely to have contributed to some extent to the high ratios observed since the crisis (Graph 2.2.4). It is important to bear in mind, however, that the observed increase in the non-performing loans ratio of households in 2013Q2 reflects in part the adoption of a stricter definition. Nevertheless, even for periods of consistent definition (within dashed lines), non-performing loans have been rising, alongside higher unemployment and wage deflation. Since the beginning of 2013, the reduction in household debt stocks has been driven by a decline in the stock of performing loans, while non-compliance continued to increase. Compared to other EU countries experiencing similar increases in unemployment and wage reduction (e.g. Portugal), the large share of non-performing household loans in Cyprus cannot be attributed solely to a deterioration in household

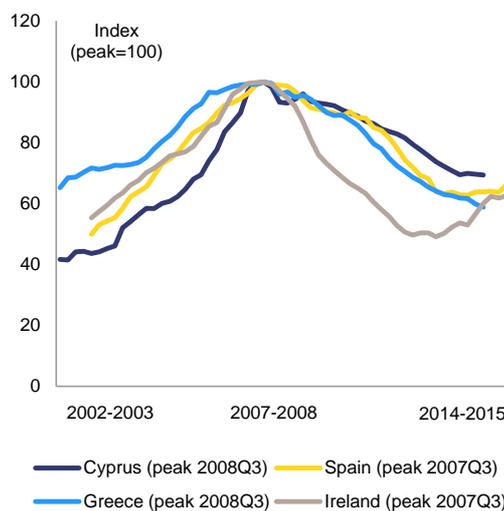
incomes⁽¹⁵⁾. Hence, strategic default must explain a non-negligible part.⁽¹⁶⁾

At the same time, the sharp fall in house prices has contributed to a significant decline in household wealth. Cypriot house prices peaked in 2008 (Graph 2.2.5), pushed up by strong demand by both Cypriots and foreigners, the latter representing a significant share of the market, accounting for about 50% of housing sales between 2004 and 2008. Relatively loose credit conditions led to a rapid increase in mortgage loans, as the global financial crisis was setting in and house prices were starting to fall, sustaining the Cypriot demand for housing, until the onset of the sovereign debt crisis in 2011. The latter prompted further decline in house prices, which fell overall by about 30% from their peak in 2008 to 2015Q3 (Box 2.2.1 provides more details of the housing market adjustment).

⁽¹⁵⁾ Broader cross-country comparisons have also identified Cyprus as an outlier in the relationship between unemployment rates and NPL ratios (see IMF (2014), 'Cyprus Staff Report for the Article IV Consultation', October).

⁽¹⁶⁾ The Central Bank of Cyprus is currently undertaking a study based on survey data on household income, expenditures, assets, and liabilities, to gauge the size of the problem of strategic default in Cyprus and its determinants.

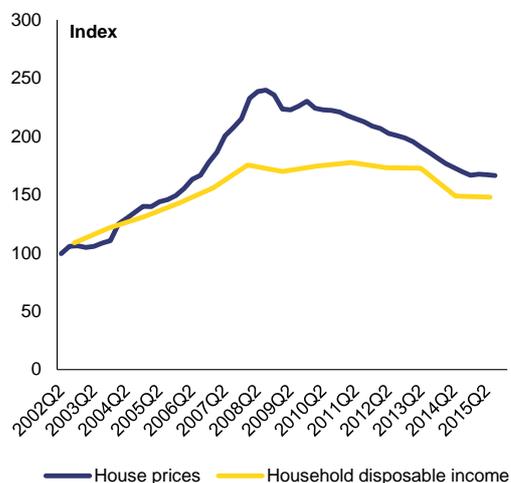
Graph 2.2.5: House prices, cross country comparison with peaks aligned



Source: European Central Bank

Overvaluation indicators suggest that house prices in Cyprus may adjust further under the current market conditions. Compared with the experience of other euro area countries, the adjustment in house prices in Cyprus appears to be relatively mild. Spain, Ireland, and Greece experienced steeper declines (in the range of 35% to 50%), with the adjustment in Greece still ongoing, see Graph 2.2.5). Turning to the house price-to-income ratio as a measure of overvaluation, this shows that there may still have been some over-valuation of Cypriot house prices in 2015, despite the sizeable correction from the overvaluation levels of 2008 (Graph 2.2.6). The supply side of the housing market also points to likely further weakness in price developments. Although the fall in residential investment, observed since its 2008 peak level, may have bottomed out in 2015, construction confidence remains subdued. Evidence suggests that there is still a need to absorb excess supply accumulated during the boom before the construction activity picks up (see also Box 2.2.1).

Graph 2.2.6: House prices and disposable income

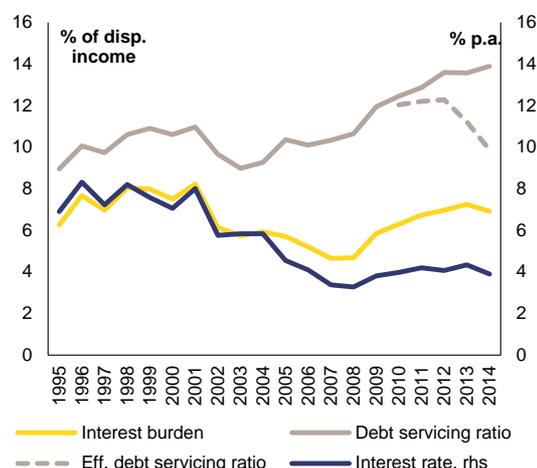


Source: European Central Bank and Eurostat

Depressed collateral values provide strong incentives for strategic default. The cumulative decline in house prices has depressed the collateral value of mortgages, leaving a significant number of Cypriot households with mortgage debt greatly exceeding the value of their house. This creates incentives for strategic defaults. Once these incentives lead a certain number of borrowers to default, evidence shows that a diffusion process sets in ⁽¹⁷⁾. The very high proportion of household non-performing loans over and above what is justified by income developments and unemployment in comparison with other EU countries suggests that this process has already set in in Cyprus.

⁽¹⁷⁾ see Guiso, L., Sapienza, P., and Zingales, R. (2013), 'The Determinants of Attitudes toward Strategic Default of Mortgages', *The Journal of Finance*, 68:4, pp.1473-1515.; This study shows that factor influencing willingness to default include the absolute and relative size of the home-equity shortfall, whether others have already defaulted and on the probability of becoming unemployed. Interestingly it does not matter whether the legal system is recourse or non-recourse.

Graph 2.2.7: Household debt servicing ratio

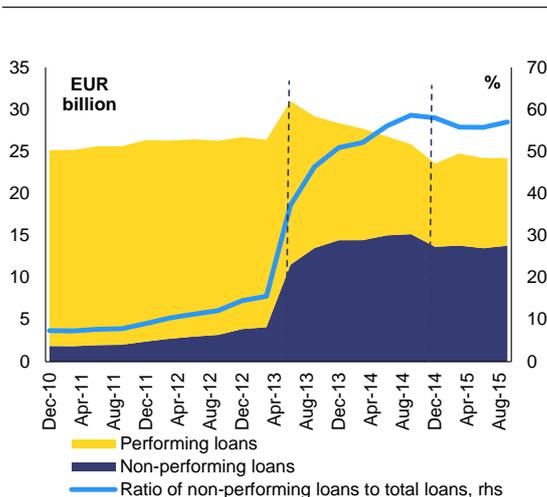


Source: Cystat, Eurostat, IMF, and European Commission

Lower household debt servicing has supported private consumption during the crisis, but this effect will be reversed as compliance increases. Despite declining interest rates, the interest burden of household has been almost flat, owing to the increase in the stock of debt (Graph 2.2.7). However, looking at the debt servicing ratio, which accounts for both the amortisation of loans and the interest burden, this has increased from 9% of disposable income in 2003 to 14% in 2014, the highest levels since 1995. As data on households' non-performing loans is available from 2010, a debt servicing ratio adjusted for non-payment can be calculated from that date onwards (grey dashed line in Graph 2.2.7). The increasing discrepancy between the unadjusted and the effective debt servicing ratio from 2010 shows the increasing share of income that Cypriot households chose not to allocate to debt-servicing and which therefore became available for consumption. Assuming that around 70% of this additional disposable income has been allocated to consumption, the support given by defaults to the growth in private consumption may have ranged from just below 0.5pps in 2010 and 2011 to as much as 1.7pps in 2014. As loan compliance increases, this support will pull out and, in a moderate growth environment with low inflation and relatively high unemployment, it is unlikely that disposable incomes would rise fast enough to compensate for the negative shock to private consumption growth.

The severity of this effect will depend on the pace of decline in households' non-performing loans.

Graph 2.2.8: Non-financial corporations non-performing loans ratio

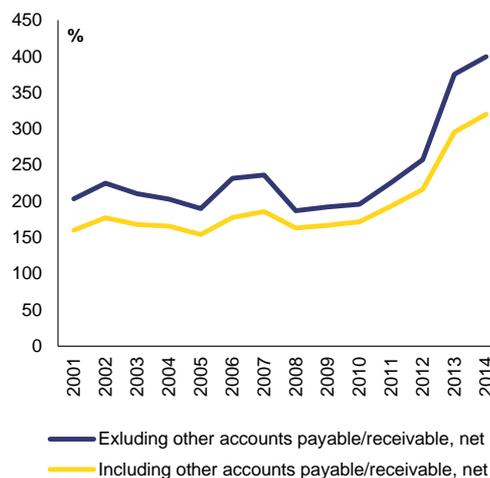


¹ Non-performing loans definitions changed in June 2013 and December 2014

Source: Central Bank of Cyprus

Non-financial corporate debt is also affected by a high level of non-performing loans, alongside a deteriorating liquidity position. The non-performing loans ratio for non-financial corporations is as high as that for households. As in the case of household loans, it is difficult to analyse a trend in the non-performing loans of corporations due to changes in definitions (Graph 2.2.8). According to the data, the non-performing loans ratio of non-financial corporations stood at around in 55% (average of the first three quarters of 2015). One explanation for non-compliance is the significant decline in the liquidity position of non-financial corporations in Cyprus since the start of the sovereign debt crisis in 2011. Even if one excludes the debt of ship-owning SPEs, the ratio of debt (loans and debt securities) to liquid assets (currency and deposits) deteriorated significantly for these companies, reaching about 400% in 2014 (Graph 2.2.9). However, the ratio improves if net accounts payable/ receivable are also included in the analysis. Accounts payable for non-financial corporations have ranged between 11-15% of GDP since 2004, while accounts receivable tend to be higher, between 20 and 23% of GDP. The main question is how liquid these accounts receivable are, as there are no readily available statistics on the performance of companies' receivables in Cyprus.

Graph 2.2.9: Non-financial corporations ratio of debt (excluding SPEs) to liquid assets



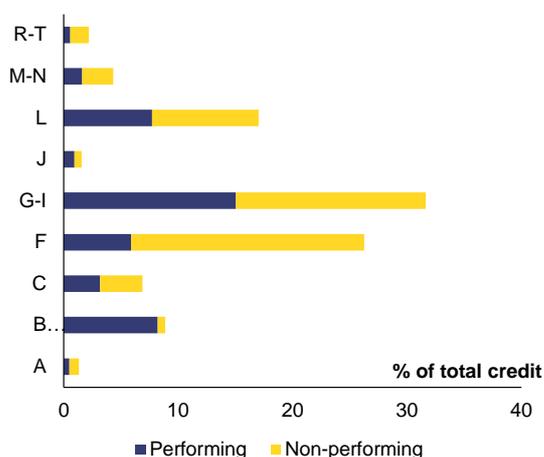
Source: Eurostat

Debt of non-financial corporations, excluding ship-owning SPEs, is highly concentrated in three sectors, largely related to property assets.

Data on domestic loans, available by NACE sectors and representing about 99% of non-SPEs domestic corporate debt, show that indebtedness is mostly concentrated in the sectors of construction, trade and tourism, and real estate (all linked to mortgage, i.e. collateralised, debt)⁽¹⁸⁾. Nevertheless, the shares of professional services and manufacturing sectors are not negligible either (Graph 2.2.10). The need for debt reduction, as measured by the ratio of non-performing loans by sector, is more evenly spread, but the effort to reduce debt has differed substantially across sectors, as well as the support from growth. As different industries have different optimal capital structures, the need to bring down debt levels can be better gauged from the percentage of non-performing loans by industry, rather than by analysing current debt stocks. According to this indicator, deleveraging is still required in virtually all sectors in Cyprus, with non-performing loans ratios hovering around 50 percent virtually across the board (Graph 2.2.11).

⁽¹⁸⁾ Data on debt securities is not available by NACE sectors, but loans represent about 99% of total non-financial corporations debt and, if we exclude SPEs, a significant proportion of it is domestic.

Graph 2.2.10: Distribution of domestic loan stocks, September 2015



A Agriculture; B D E Mining, electricity & water; C Manufacturing; F Construction; G-I Trade & tourism; J Information & communication L Real estate; M-N Professional, scientific & technical services; R-T Arts and other services.

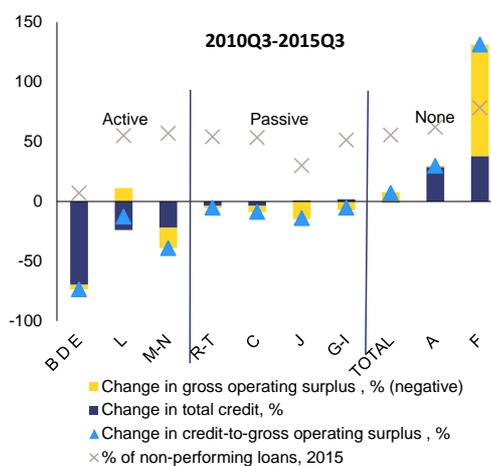
Source: Central Bank of Cyprus

Progress with reducing debt-to-income ratios has varied across sectors, largely depending on changes in their gross operating surplus, and other measures of profitability. In tradable services sectors, including professional services, information, trade and tourism, the reduction in the debt-to-income ratio relative to 2010 values has been supported by growth in the denominator, measured here by the gross operating surplus (GOS), while other sectors had to rely more on reducing significantly their debt stocks (Graph 2.2.11) ⁽¹⁹⁾. The construction sector, on the other hand, stands out with debt reduction severely hampered by a sharp decline in its gross operating surplus. Achieving a decline in the debt-to-income ratio in this sector, where gross operating surplus was still declining by 7% y-o-y in the first three quarters of 2015, requires a significant contraction in debt. It is important to note though that changes in debt stocks are not only determined by changes in flows. Other factors include valuation changes, write-offs, and interest accruals on non-performing loans, which are not singled out here, implying a rather broad definition of changes in debt. Consistently, the sectors in which profit mark-ups increased since 2010, or which did not experience

⁽¹⁹⁾ Gross operating surplus by sector is proxied here by gross value added minus compensation of employees.

a significant decline, were those reducing debt-to-income ratios by more, either actively or passively, with the exception of agriculture (Graph 2.2.12). In the construction sector, there is a clear link between falling profitability and increasing debt, mostly due to the capitalisation of interest accrued on the high stock of non-performing loans in this sector.

Graph 2.2.11: Growth in debt-to-gross operating surplus and non-performing loans by sector

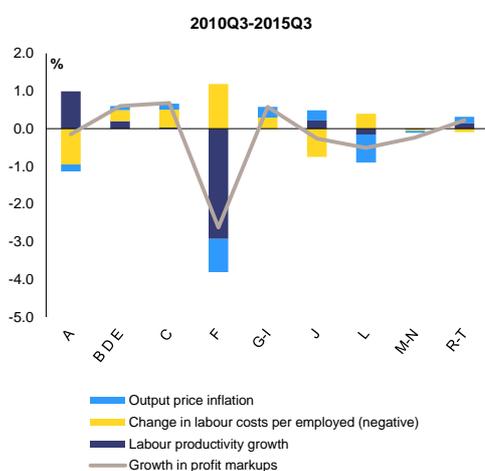


A Agriculture; B D E Mining, electricity & water; C Manufacturing; F Construction; G-I Trade & tourism; J Information & communication L Real estate; M-N Professional, scientific & technical services; R-T Arts and other services.

Source: Central Bank of Cyprus

In the construction sector, despite a substantial decline in labour costs, profits continue to decline due to a sharp fall in labour productivity, as the fall in employment in this sector did not accompany the fall in production. In this sector, the negative demand shock led to a significant fall in production. Since the amount of labour shed did not keep pace with the fall in production, there was a significant drop in labour productivity. Other sectors, however, managed to improve productivity between Q3-2010 and Q3-2015 by maintaining employment growth below the growth rate of output (see Graph 2.2.12).

Graph 2.2.12: Growth in profit mark-ups by sector



A Agriculture; B D E Mining, electricity & water; C Manufacturing; F Construction; G-I Trade & tourism; J Information & communication L Real estate; M-N Professional, scientific & technical services; R-T Arts and other services.

Source: Central Bank of Cyprus

The persistently high proportion of non-performing loans, even as deleveraging takes place in some sectors, suggests the presence of ‘zombies’, or unproductive firms whose non-compliance is overlooked by creditors, hampering the adjustment process. In Cyprus, the lack of incentives for triggering liquidation procedures for non-viable businesses enables ‘zombie’ firms to remain in the market.⁽²⁰⁾ Banks are often unwilling to push companies into bankruptcy (see also Section 2.1) as this implies calling in a non-performing loan and, most likely, writing off existing capital when provisions are low⁽²¹⁾. Fear of breaching minimum-capital requirements leads banks to roll over debt to unproductive firms, the so-called ‘zombies’. They

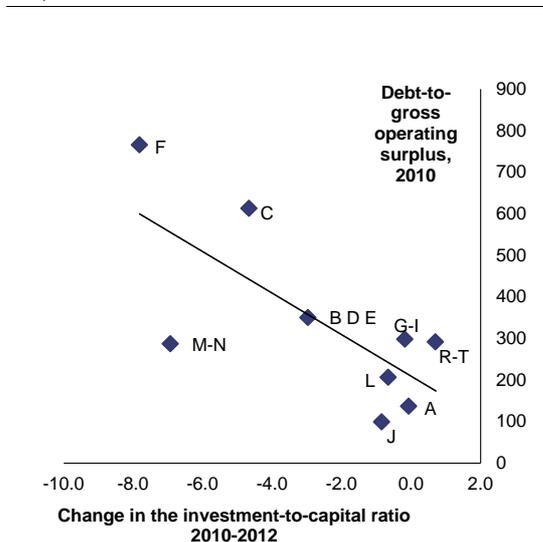
count on ‘zombies’ recovering as the economy picks up, when they may in fact be long insolvent and in some cases have even stopped production. The main problem is that studies have shown that keeping alive these unprofitable companies distorts competition throughout the economy by congesting the markets where they participate and depressing market prices for their products. This is notably the case of the real estate and construction sectors in Cyprus. This discourages entry and investment by new firms and banks see no particularly good lending opportunities. One important lesson from the literature is that speeding up adjustment and boosting growth requires allowing for the creative destruction needed for the economy to get out of a deflationary trap. Some sectors in Cyprus, including the construction sector, display a long-lasting adjustment, implying that further reallocation of economic resources and firms is to be expected. Reforms related to new sales of loans and securitisation legislation (see Section 2.1) are expected to help accelerate corporate restructuring, notably by facilitating the process of cleaning up banks' balance-sheets from non-performing debt by passing it on to those more equipped and with better incentives to deal with it, through a market based process⁽²²⁾.

⁽²²⁾ Only when the attitude of the Japanese government towards distressed borrowers changed in 2003, and non-performing loans started to decline in banks' balance sheets, did true corporate restructuring begin.

⁽²⁰⁾ There is a broad body of literature analysing the problem of ‘zombies’ and their effects on the economy, mostly focused on Japan, and there are a number of important similarities between the Cypriot financial crisis and the Japanese crisis of the 1990's. These studies use firm-level data, not available for Cyprus, but their policy implications may still be valid: see Caballero, R., Hoshi, T., Kashyap, A., 2008. Zombie lending and depressed restructuring in Japan. *American Economic Review* 98, 1943–1977; and Hoshi, T., Kashyap, A., 2010. Will the U.S. bank recapitalization succeed? Eight lessons from Japan, *Journal of Financial Economics* 97 (2010) 398–417; and references therein.

⁽²¹⁾ Low provisions increase the value of the option the banks have to wait and see if firms might recover, even if the probability is very low, because low provisions increase the costs of recognising losses today.

Graph 2.2.13: Investment and debt



A Agriculture; B D E Mining, electricity & water; C Manufacturing; F Construction; G-I Trade & tourism; J Information & communication; L Real estate; M-N Professional, scientific & technical services; R-T Arts and other services.

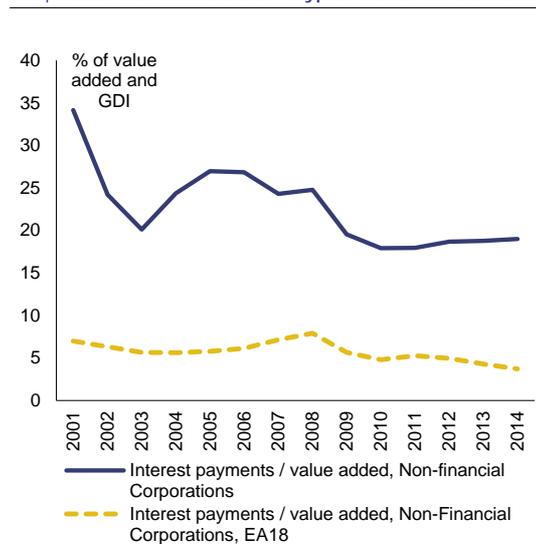
Source: Central Bank of Cyprus

The debt overhang has contributed to the sharp fall in non-financial corporations' investment during the crisis. There is a substantial body of evidence showing that firms' investment is dependent on liquidity and the strength of their balance sheets⁽²³⁾. A comparison between the decline in the investment-to-capital ratios (investment rates) across sectors and the sectoral distribution of the ratios of debt-to-gross operating surplus in 2010, shows a clear negative relationship (Graph 2.2.13), indicating that a debt overhang is likely to be one major root cause of the poor investment performance in Cyprus. The gross investment to capital ratio of non-financial

⁽²³⁾ In a world without financial frictions, financing decisions would not affect firms' decisions to invest; however, problems of asymmetric information and moral hazard make a firm's access to investment finance a function of its balance sheet. Weak balance sheets restrict firm investment financing, reducing investment rates. This is the basis of the financial accelerator theory developed by Bernanke, B., Gertler, M. and Gilchrist, S. (1999), 'The financial accelerator in a quantitative business cycle framework', in Taylor J. B. and Woodford M. (eds) Handbook of Macroeconomics, Volume I, North-Holland, which has been subsequently tested empirically by many, including Vermeulen, P. (2002), Business fixed investment: evidence of a financial accelerator in Europe. Oxford Bulletin of Economics and Statistics, 64: 213–231.

corporations in aggregate has fallen from 6% in 1995 to 2% in 2012 (latest available data)⁽²⁴⁾. It is also possible to observe that the share of net investment has virtually disappeared from the allocation of non-financial corporations surpluses since 2011 (Graph 2.2.14).

Graph 2.2.14: Interest burden - Cyprus versus the euro area

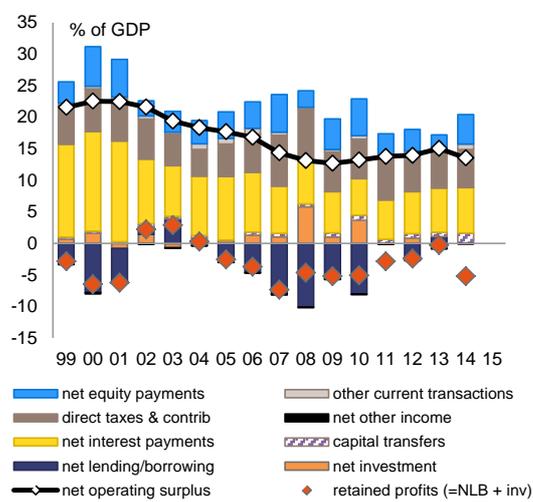


Source: European Commission

The interest burden of Cypriot non-financial corporations is high compared with the average for the euro area. High corporate debt has kept the interest burden of Cypriot non-financial corporations relatively high compared with their euro area counterparts, adding to their costs and making them less competitive (Graph 2.2.16). Despite downward adjustment in corporate interest rates in Cyprus in 2015, aligned with a reduction in deposit rates, this effect is not sufficient to bring Cypriot companies' interest burden down to the euro area average. The persistence of high interest burdens also increases the probability of default, in an environment where non-performing loans are already very high.

⁽²⁴⁾ Net investment is unavailable by NACE sectors for Cyprus.

Graph 2.2.15: Non-financial corporations surplus allocation



Source: European Commission

While the newly reformed foreclosure and insolvency frameworks in Cyprus provide better incentives for the rebalancing of private sector balance sheets, but their role in the deleveraging process has been so far limited.

The purpose of these frameworks is to create better incentives for households and non-financial corporations to actively seek to restructure their debts in a sustainably⁽²⁵⁾. The new legislation strikes a better balance between debtors' and creditors' rights and is expected to help bring viable debtors to the negotiating table, while facilitating the resolution of unviable debts, in line with the 2016 Council recommendations for the euro area. However, the laws adopted by parliament following prolonged discussions are cumbersome and make provision for the possible involvement of the courts at several stages in the process, in an already overburdened judicial system (see Box 2.1.2). Up to early 2016, the use of the new foreclosure law and insolvency tools

was still very limited, showing that their efficiency and implementation is not ensured in all respects (Box 2.1.1).

In parallel, reforms of the housing market and immovable property regulations are set to support the functioning of the foreclosure and insolvency frameworks, and rebuild the trust of property investors. These reforms are being discussed among the authorities and stakeholders, but no agreement on adoption had been reached as of early 2016 (see Box 2.2.2). Their purpose is to ensure that titles are promptly issued, that all sales contracts are properly registered, and that titles are speedily transferred to the final buyer of the property, all pre-requisites for a clear definition of property rights, and for contract enforcement. All of these conditions must be met if property rights are to be clearly defined and contracts enforced, creating better conditions for foreclosures and liquidations to start taking place in the case of unviable debts. This is a prerequisite for the process of creative destruction, a better allocation of resources, and the elimination of distortions, thus paving the way for higher long-term growth (see Section 3.1). Above all, these measures will help restore the trust of foreign investors, shattered during the crisis, and attract them back into the Cypriot market.

⁽²⁵⁾ It would seem that institutions negatively affected the paying culture of Cypriot households in the past. According to Le Blanc et al. (2015), in the first wave of the Eurosystem Household Finance and Consumption Network (HFCN) survey, held in 2010-2011, a relatively high percentage of Cypriot households (about 20%) reported having left bills unpaid to finance expenditure in excess of income, and a relatively low percentage reported selling assets (less than 1%) or running down accumulated savings (less than 30%), in comparison with other countries (Le Blanc J., Porpiglia, A., Teppa, F., Zhu, J., and Ziegelmeier, M. (2015), 'Household saving behaviour and credit constraints in the Euro area', ECB working paper 1790.

Box 2.2.1: The Cypriot housing market

From 2004 to 2008 there was a surge in housing investment on the back of high sales to both residents and foreigners, with non-residents representing about half the market. Between 2004 and 2008, sales were high, above the average change in the adult Cypriot population (Graph 1). Cypriot house prices peaked in 2008, pushed up by strong demand from both Cypriot residents and foreign buyers (predominantly from the UK and Russia) for holiday and retirement homes. As the European financial crisis set in and foreigners withdrew from the market, relatively loose credit conditions led to a rapid increase in mortgage loans, sustaining the domestic demand for housing to some extent until the onset of the sovereign debt crisis in 2011 (Graph 2). Together with the rapid increase in sales, credit-financed residential investment by developers surged until 2007 and faded only slowly afterwards. By 2010, this had resulted in a 35% increase in the housing stock compared with 2003, which proved difficult for the market to absorb, given the sharp decline in sales to non-residents (see also chapter 3.1 for an analysis of trends in construction investment).

The unanticipated fall in demand in 2008 set house prices on a steep downward trend. Between 2008 and 2009, non-residents' house purchases fell by about 84%, while demand from Cypriots fell significantly less, by about 37%. In 2011, the sovereign debt crisis prompted a further fall in sales, by an average of about 15% in both 2011 and 2012. Finally, in 2013, sales dropped by a further 28%, led by a significant reduction in sales to Cypriots. As a result, house prices fell overall as of 2015Q3 by about 30% in nominal terms and about 31% in real terms. However, the housing busts in other EU countries resulted in even steeper declines (35% in Spain and 50% in Ireland, in nominal terms), as illustrated in chapter 2.2.

The supply side has adjusted significantly, with investment and building permits falling sharply. Residential investment has fallen to a fifth of its 2008 peak level, with this downward drift extending into 2015. Construction confidence remains subdued, mainly due to an extremely negative assessment of order books, consistent with the small number of building permits granted. Data on the stock of unsold dwellings varies according to different sources and state of completion, but could range from 5 to 10% of total housing stock (or about 460% the average change in the Cypriot adult population). Muted supply side activity suggests that the existing supply of properties may not have yet been absorbed.¹

Demand remains subdued, as foreign buyers have not returned to the market, while residents' demand is still constrained by several factors. Sales data show that foreigners are not returning to the Cypriot market; sales to foreigners in 2015 were only about 12% of the 2007 peak. At the same time, residents' demand remains constrained by tight credit conditions amid excessive private indebtedness, and by high unemployment and depressed wages. Short-term house price dynamics are largely determined by households' ability and willingness to finance housing assets through credit, irrespective of the housing market's valuation level. Cyprus is the EU country facing most pressure to reduce debt, on both the supply and the demand side (see section 2.2).

House prices appear to be still above equilibrium level and house price inflation is likely to remain subdued. The Commission's winter forecasts for house prices in Cyprus suggest that prices could rise in nominal terms in 2016⁽²⁾. However, this prediction should be approached with caution, as it is very sensitive to changes in model parameters and to the data source used (Eurostat versus the European Central Bank). Many other indicators suggest that houses are still overvalued and that further downward adjustment, particularly in real terms, may still be needed under current market conditions. Firstly, the difference between the actual inflation-adjusted house price and its filtered trend (Graph 4), which characterises the 'severity' of the upward and downward cyclical phases, combining the magnitude and duration of the peak-to-trough and trough-to-peak phases, reveals that by 2015Q1 the bear phase had only attained about 78% of the boom's 'severity'. Secondly, price-to-rental and price-to-income ratios, despite significant correction between

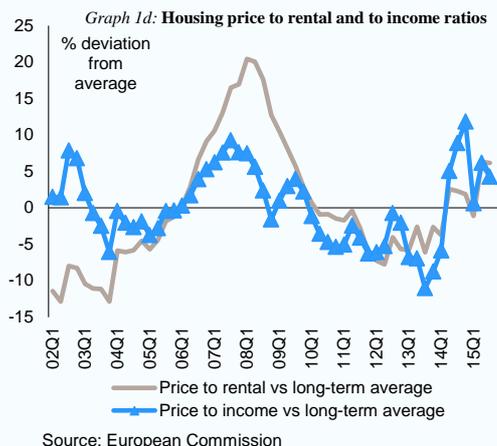
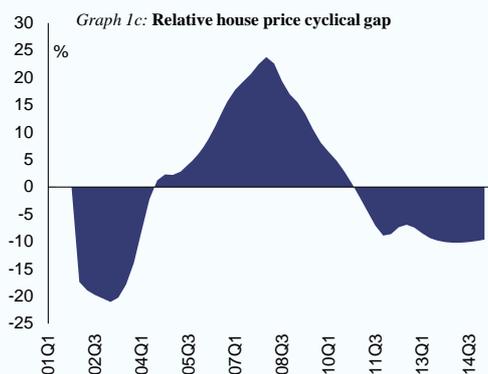
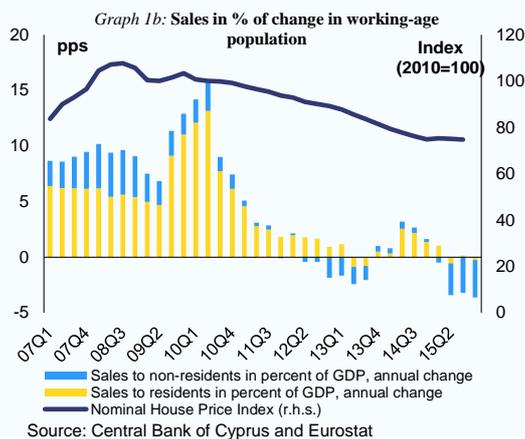
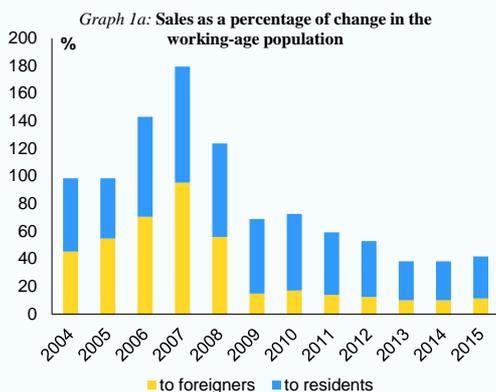
¹ Estimates of the stock of unsold housing units based on land registry data vary according to the methodology used. If estimated on the basis of the land registry value of sales contracts of titles remaining to be issued, the stock is at least 18,000; if estimated on the basis of the difference between building permits and sales contract registrations, it could be around 50,000 at most. Back-of-envelope calculations using sales data also yield estimates within this range. Assuming that investment in houses each year is determined by the number of units sold in that year and that new houses take two years to go on the market for sale, over-investment can be estimated as sales minus sales two years previously. Adding this gap, between 2018 and 2015, gives about 28,000 unsold properties. However, this calculation underestimates the stock of unsold houses if there were also houses left unsold before 2018.

² European Economic Forecast: Winter 2016, Institutional paper 020, February, Box 1.4.

(Continued on the next page)

Box (continued)

2009 and 2013, are currently about 5% above their long-term averages (Graph 5). Finally, fragile credit market conditions mean that, while the housing market may be starting to show signs of stabilising, the outlook for house prices is still negative on this front. In general, past episodes of housing cycles suggest that house prices tend to undershoot the equilibrium levels in their downward phase.



As of 2015Q2, a significant proportion of property owners in Cyprus were legal persons with mortgaged debt. According to land registry data, as of 2015Q2, about 4.5% of property owners in Cyprus are legal persons, among which there are a large number of titles encumbered by mortgage debt. This debt is concentrated in real estate development and construction, as well as in trade and tourism (see Section 2.2). For a significant share of dwellings, although developers still hold legal title (and frequently) mortgages, properties have been fully purchased and inhabited by households (see Box 2.2.2 on property rights transfer). On the household side, Cypriot home owners also hold a large percentage of mortgage debt, while foreign buyers, who co-financed their home purchases with loans from Cypriot banks, especially up to 2010, are also a non-negligible category of debtors.

Box 2.2.2: Title deeds issuance and transfer

About a third of the housing stock built and sold since 2000 is still legally owned by the sellers. With over 40 000 such cases, this is a major problem. Typically, the home buyer has paid the developer most of the sales price, or even its entirety, and has become a *de facto* owner. However, legally, the seller - usually a developer - still owns the property, as the transfer of the title deed has not taken place.

Unpaid developer mortgages prevent the transfer of ownership of the properties to home buyers. In most cases, the developer has failed to repay the mortgage loan for building the property, despite having received the proceeds of the sale. In such cases, banks are typically reluctant to release the mortgage, a necessary step before the property can be transferred to the final buyer. Outstanding loans to developers and home buyers entangled in the title deed problem are estimated to form a considerable share of non-performing loans (NPLs).

The difficulty in transferring title deeds complicates the enforcement of loan payments and the restructuring of non-performing loans. Home buyers who have not received their title deeds may have an incentive to default on their home loans, since the bank that granted the mortgage (or other creditors) cannot foreclose on their property. Instead, it is the bank of a non-performing developer who has the right to seek foreclosure on the property. However, that would lead to evicting the home buyer, who would be left with only a junior claim to the foreclosure proceeds. Foreclosing on such *de facto* sold, but not transferred, property, though legal, would seriously undermine the attractiveness of Cyprus property market to foreign investors and would be politically and socially unacceptable. This is why banks have not sought to foreclose developers' projects, and the Cypriot House of Representatives barred them from doing so until September 2015. In essence, this problem limits the tools available to banks to enforce loan repayment and to incentivise debtors in difficulties to resolve their loans arrears.

In 2015, legislation was adopted to establish legal certainty, by protecting the buyers that have fulfilled their contract requirements, for sales contracts registered by end-2014, the so-called "legacy cases". This legislative framework addresses the existing cases of title deeds issued but not transferred. While a small proportion of title deeds transfers have already been achieved under this legislation, others are blocked in court procedures and the remaining are waiting to be processed. Thus, automaticity has not been ensured.

Legislative proposals are under discussion to create legal certainty and disentangle the convoluted claims on title deeds by swiftly transferring property rights to home buyers. They would ensure that home buyers who have paid the purchase price in full will have their titles deeds transferred, allowing unsecured construction loans to be converted into a mortgage, which will allow banks to release provisions and strengthen their equity¹. At the same time, unpaid developer mortgages on sold property will be shifted, whenever possible, to unsold assets of the developer. A system of dedicated bank accounts will ensure that any remaining payment on property sales will be used to repay the developers' creditors.

There are also significant problems with the issuance of title deeds, stemming from slow administrative processes. The authorities have a substantial backlog in *issuing* title deeds, i.e. the land registry has not completed the cadastral division of development projects into apartments or homes. A new property within a larger development (a new flat for example) for which the title has not yet been issued does not exist legally, so it cannot be transferred to its buyer. This administrative backlog mostly stems from the pre-2011 legal situation that made issuing title deeds conditional on full compliance with building and planning permits (themselves subject to long delays). The large number of uncertified and inhabited buildings may also pose significant hazards to citizens and needs to be addressed.

¹ According to the Central Bank of Cyprus, bank provisioning practice classifies purchasers' loans that relate to a property on which there is also a developer's loan as unsecured. Shifting the developer's mortgage will change the purchaser's loans into collateralised mortgages, increasing incentives for servicing the loans and thus removing the loss provisioning.

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Box (continued)

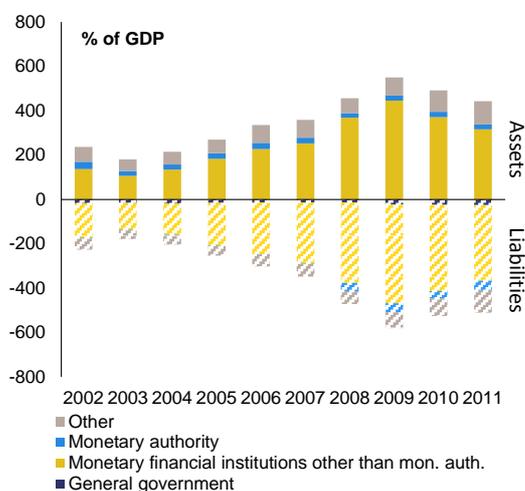
Progress has been made on speeding up title deed issuance, but procedures are still lengthy and uncertain. Since 2013, roughly half of the backlog in title deed issuance has been cleared. However, the still complex title deeds issuance procedures are not supporting a swift cleaning of the backlog, which still remains substantial, despite significant administrative efforts undertaken. There is still no centralised enforcement of local certification and penalties are limited. A building can be inhabited for several years without steps being taken to remedy the non-existence of a title deed. So far, legislations have been amended for allowing self-certification of completion for small buildings and introduce penalties for the major stakeholders involved (owner, designer, supervisor engineer and building contractor) responsible for impediments. However, still pending are the legislative frameworks for the implementation of the reform of local authorities, for the enforcement and remedy periods regarding the certification of non-certified completed buildings and unauthorized works, and for the enforcement of timely issuance of building compliance certificates by the relevant authorities.

The difficulties in issuing and transferring title deeds hamper competitiveness and deter international investors. The Cypriot property market has been very dependent on foreign investors, particularly as regards the most distressed assets (middle-class coastal holiday homes). Foreign investment in the property market has dwindled with the crisis, and given the title deeds situation, has not returned to Cyprus. A return of foreign investment would support the recovery of the housing market, and thus would help improve banks' balance sheets.

2.3. EXTERNAL SUSTAINABILITY

Cyprus's status as an offshore financial centre has led to a sizeable investment position vis-à-vis the rest of the world. In the years before the crisis, Cyprus built up a reputation as a financial centre. Driven by the inflow of foreign deposits into domestic banks, Cyprus's gross external liabilities grew rapidly to reach close to 12 times GDP in 2009. This figure includes foreign companies established in Cyprus, attracted by Cyprus's corporate tax regime (Section 3.3) and the ease with which holding companies can be established and managed. Such companies, known as special purpose entities, have limited impact and interaction with the domestic economy. Their production is mainly reflected in value added generated in the sectors of transportation, professional business services and financial services, but they also import services which leaves GDP broadly unchanged. Excluding foreign holding companies, gross external liabilities reached nevertheless 600% of GDP in 2009 (Graph 2.3.1).

Graph 2.3.1: International investment position, gross

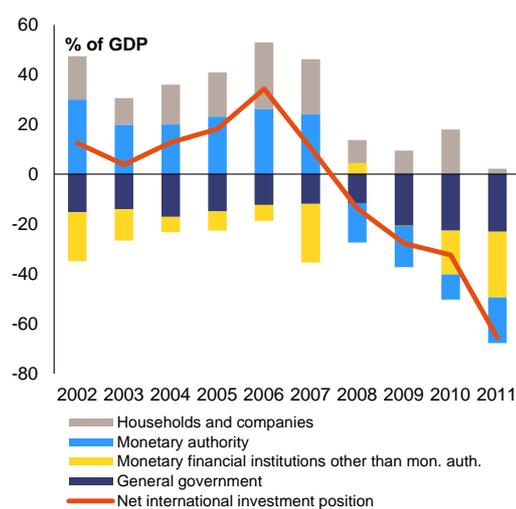


(1) Data in BPM5 terms
Source: Eurostat

The sizeable inflow of foreign deposits was accompanied with the acquisition of sizable liquid foreign assets. Foreign deposit inflows were initially channelled into the acquiring foreign assets. They allowed banks, among other things, to expand their operations in Greece, both in terms of direct loans and purchase of government securities (see Section 2.1). Despite the sizeable inflows of

foreign deposits, banks' net international investment position narrowed (Graph 2.3.2).

Graph 2.3.2: Net international investment position



(1) Data in BPM5 terms, i.e. excluding foreign holding companies
Source: Eurostat

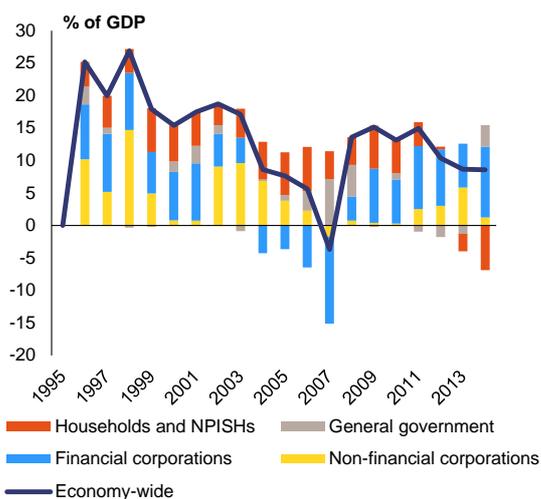
Inflows of direct investment in Cyprus helped finance a widening current account deficit in the run up to the crisis. Increasing demand from abroad for holiday homes in the mid-2000s supported one of the most intense housing price booms in the euro area (see section 2.2). In the years preceding the crisis, foreigners accounted for around half of all residential purchases in Cyprus (See Box 2.2.1). While loans from Cypriot banks played an important role in funding foreign home purchases, buyers also provided funding from abroad. These foreign financing flows, in combination with inflows of other foreign investment in Cyprus (see section 3.1), helped finance the widening current account deficit in the run-up to the crisis.

The worsening current account balance reflected above all a decline in savings. The savings-investment balance declined rapidly in the run-up to the crisis, mainly due to decreasing savings of foreign holding companies⁽²⁶⁾ (Graph 2.3.3). In fact, increasing payments of distributed income pushed savings of foreign holding companies to -15% of GDP in 2007. Data on the

⁽²⁶⁾ SPEs are in national accounts and BoP data treated as financial corporations other than MFIs.

net international investment position including foreign holding companies are only available from 2008 onwards. Nevertheless the negative savings of foreign holding companies suggests that their external position also deteriorated sharply in the run-up to the crisis. By 2008, the net international investment position of the economy reached -80% of GDP. A rough estimate, comparing discontinued data excluding foreign holdings companies and new data including foreign holding companies, suggests that foreign holding companies accounted for around -60pps of the total net international investment position of -80% of GDP in 2008 (see discussion below and Graph 2.3.6).

Graph 2.3.3: Savings by institutional sector

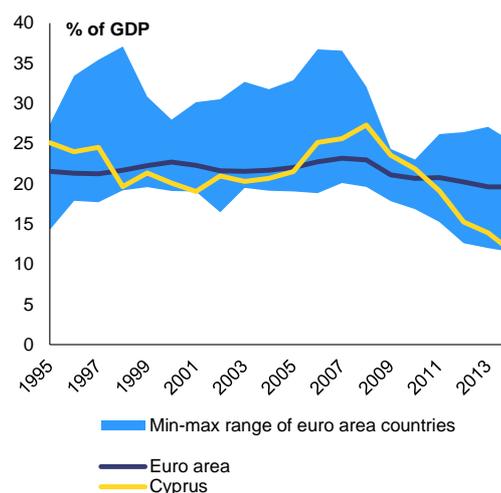


Source: Eurostat

An increase in construction investment also contributed to the worsening current account, albeit to a lesser extent than the fall in savings. Investment rose in the years before 2008 against the backdrop of a booming housing market and high demand for holiday homes from foreigners (Box 2.2.1), ample liquidity and lax credit conditions (see also Section 2.1). This pushed the investment-to-GDP ratio to above the euro area average (Graph 2.3.4 and Section 3.1). The increasing investment, particularly residential, intensified the downward pressure on the current account. Productivity-enhancing investment into machinery and equipment nevertheless remained muted in the run-up to the crisis, with non-construction investment (as a share of GDP)

persistently below the EU average, suggesting the presence of structural barriers to investment (Box 1.1.2 and Section 3.1).

Graph 2.3.4: Total investment

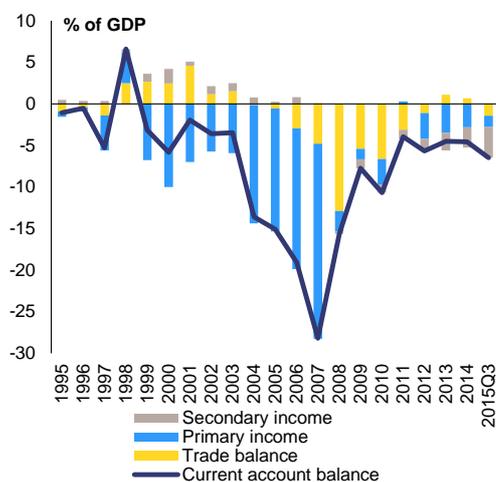


Source: European Commission

From the trade and income perspective, the worsening current account balance was driven mainly by an increasingly negative income balance. The current account balance turned negative in 1999 and has continued to fall since then, reaching -28% in 2007, mainly due to decreasing net primary income balance caused by negative net interest income and negative net distributed income of corporates (Graph 2.3.5).

Worsening goods and services balances intensified the downward pressure on the current account balance from the primary income account. In the years before the crisis, the trade balance went from a surplus of 7% of GDP in the early 2000's to a deficit of 13% of GDP in 2008. With investment and private consumption providing significant support to growth in the years preceding the crisis, the high import content, particularly of investment, weighed heavily on the current account. Moreover, Cyprus's almost total dependence on imported energy and oil products has persistently brought down the trade balance-to-GDP ratio by about 5-6pps over the past decade (see Section 3.3).

Graph 2.3.5: Current account balance



Source: Eurostat

Cyprus lost significant export market shares in goods markets in the years preceding the crisis.

Despite having moved up on the technological ladder and specialising geographically in countries with higher growth, Cyprus lost significant export market shares in the years preceding EU accession. A constant market share analysis suggests that the loss in export market shares is mainly a consequence of deteriorating price competitiveness⁽²⁷⁾.

Declining tourism receipts explain most of the falling share of service exports in GDP.

Although tourism is one of the main economic sectors, tourism receipts as a ratio to value added have declined. While exports of travel services accounted for nearly 20% of GDP in 2001, their share fell to around 10% in 2008. Over that period, Cyprus managed to attract tourists with a higher average spending per day; however, weak developments in the number of tourist arrivals weighed on the overall income generated in the tourism sector. Professional business services, also a major sector of the economy, maintained a relatively stable share of 8% of GDP during the same period.

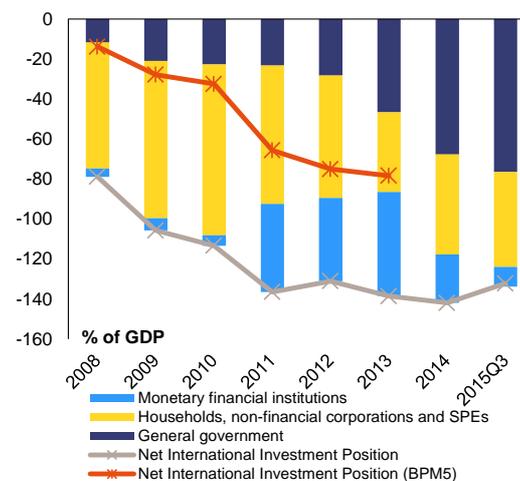
⁽²⁷⁾ See the Box entitled "Cyprus export performance in goods markets" in European Commission (2015), 'The Economic Adjustment Programme: Cyprus 6th Review', Spring.

Recent developments and outlook for the external position

In recent years, the net international investment position has stabilised at levels that are far more negative than in other EU Member States.

The net international investment position has gradually worsened, reaching around -140% of GDP in 2011, and has since stabilised at this level. The stabilisation was associated with a stabilisation of the current account balance at around -5% of GDP (see discussion below). It is estimated that foreign holding companies accounts for around 60pps of the negative net international investment position (Graph 2.3.6). Since foreign holding companies interact to a limited extent only with the domestic economy, the spillover risks associated with them are relatively well contained. The negative net external position of the general government has gained more importance, particularly following the emergence of the sovereign debt crisis, reaching around -75% of GDP. Most of this is accounted for by programme financing and a loan from the Russian government in 2011 (Section 2.4). The increasing reliance of the financial sector on central bank funding in 2011-13 is reflected in the net investment position of the Central Bank of Cyprus and movements in Target2 balances. Households and non-financial corporations have a small but positive financial position vis-à-vis the rest of the world.

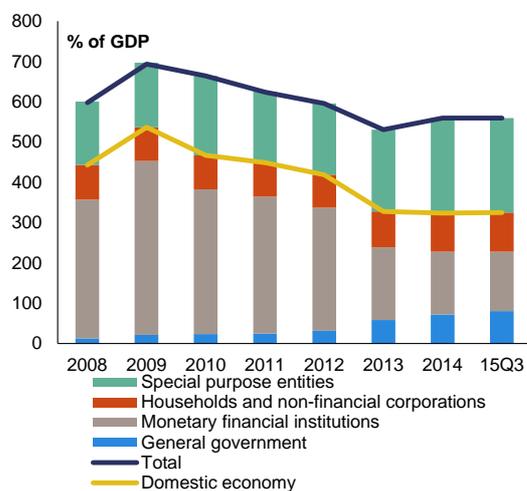
Graph 2.3.6: Net international investment position



(1) Net international investment data in accordance with BPM5 exclude foreign holding companies

Source: Central Bank of Cyprus and Eurostat

Graph 2.3.7: Gross external debt



Source: Eurostat

Although more than half of the financial liabilities are non-debt creating liabilities, gross external debt stood at more than five times GDP in 2015. Cyprus' sizeable gross external debt in Cyprus has fallen since 2009, hovering at around 550% of GDP since 2013, on the back of a significant downsizing of the banking system (Graph 2.3.7), and in particular the sale of banking subsidiaries in Greece (Section 2.1)⁽²⁸⁾. It is estimated that around 220pps of GDP is related to the debts of foreign holding companies⁽²⁹⁾ which leaves external debt proper at 330% of GDP. The gross external debt of households and non-financial corporations has been broadly stable since 2008. With few foreign assets, the general government's external debt mirrors developments in the net external position to a large extent.

Sizeable external debt leaves Cyprus exposed to external shocks and changes in market sentiment. Although external debt has been reduced since 2008, its high level leaves Cyprus vulnerable to external shocks and changes in sentiment surrounding the Cypriot economy. This in particular relates to the sizeable foreign deposits in the Cypriot banking system, which are considered as a less stable funding source than

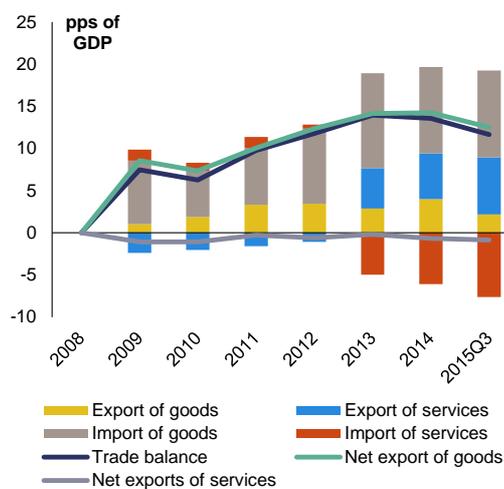
⁽²⁸⁾ The increasing external debt in 2014 reflected an expansion of companies with foreign holdings, rather than an increase in the debt of existing companies residing in Cyprus.

⁽²⁹⁾ Publicly available data on foreign liabilities of financial corporates other than MFIs provides a rough estimate of the external debt of foreign holding companies.

domestic deposits. With the financial sector stabilising, tapping interbank markets may help mitigate some of the risks arising from the persistent reliance on foreign deposits.

The current account balance has stabilised since 2011 at around -5%. Improvements in the primary income account and an import contraction explain the bulk of the improvement in the current account balance since 2007. While the correction of the income balance mainly reflects the transactions of foreign holding companies, the adjustment of the trade balance relates to domestic activities. The contraction in imports of goods since 2008 amounts to 12pps of GDP (Graph 2.3.8) and explains most of the improvement in the trade balance. More recently, a revival in exports of tourism and telecom services, coupled with falling oil prices have supported the rebalancing and helped push the trade balance into surplus. However, export growth has been insufficient to offset the negative impact from increasing imports. The stabilisation of the current account balance observed since 2011 also reflects a drop in deposit rates and the outflow of foreign deposits from the banking system. A return to previous high deposit rates and an increasing inflow of foreign deposits are likely to put downward pressure on both the current account and the net international investment position.

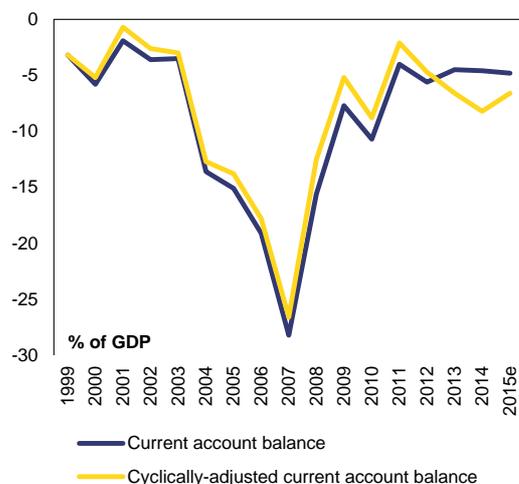
Graph 2.3.8: Cumulative trade balance adjustment



Source: Eurostat

Further improvements in the current account balance are needed to reduce the highly negative net international investment position to below the MIP threshold. The cyclically adjusted current account balance, which takes into account the output gap of Cyprus and its main trading partners, suggests that the current account would have been around $-6\frac{1}{2}\%$ of GDP if economic conditions normal (Graph 2.3.9). With the net international investment position having stabilised at around -140% of the GDP over the recent past with a current account deficit of around 5% of GDP, normalising economic conditions would imply a future deterioration of the external position, which may entail further funding risks for the economy. Narrowing the net international investment position excluding foreign holding companies down to -35% of GDP within the next ten years would, according to European Commission estimates, require current account surplus of around 1.3% of GDP each year (if foreign holding companies are included then the objective of -35% for the overall NIIP becomes too ambitious requiring current account surpluses of around 8% a year). Improving the export performance would support the current account balance, while also supporting GDP growth, which is currently constrained by the high level of domestic debt, both private and public (Sections 2.2 and 2.4).

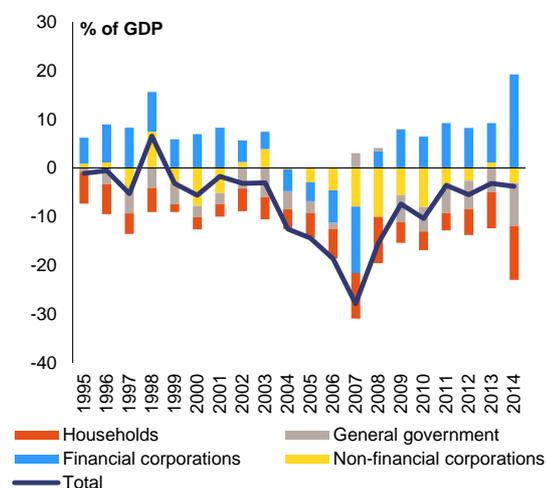
Graph 2.3.9: Cyclically-adjusted current account balance



Source: Eurostat

If households and companies were to save more, this would help external rebalancing and restore the soundness of the banking system. From the savings-investment perspective, in the recent past, the improving balance of both financial and non-financial companies was offset by declining household savings. This has put rebalancing on hold (Graph 2.3.10) ⁽³⁰⁾. The declining savings of households mainly reflects a response to the crisis and an attempt to smooth out consumption. The wage adjustment and the increase in unemployment has reduced disposable income has made it more difficult for households to increase their savings and correct the savings-investment imbalance. This has brought the savings-investment balance and the net lending balance of households further down into negative territory (Graph 2.3.10) ⁽³¹⁾. Without a correction of savings and the negative net lending balance, in the absence of valuation effects, households would resume accumulating debt and increase the already high vulnerabilities associated with high debt.

Graph 2.3.10: Net lending



Source: Eurostat

⁽³⁰⁾ The increase in the net lending balance of financial corporations reflects the recapitalisation of the Coops in early 2014, of 8.6% of GDP, which is reflected in the public accounts and has resulted in a general government headline deficit of 8.8% of GDP.

⁽³¹⁾ European Commission (2016) and Section 3.3

2.4. SUSTAINABILITY OF PUBLIC FINANCES

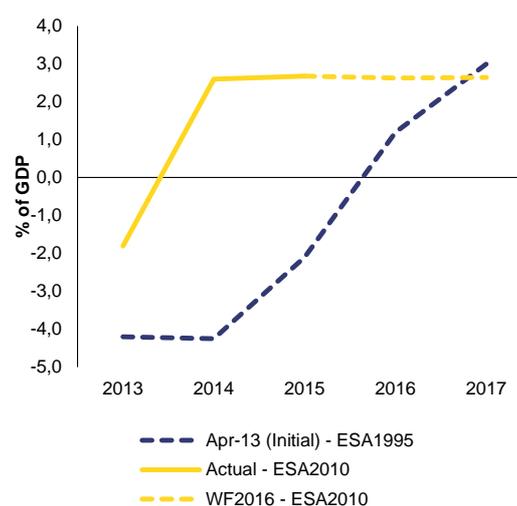
Fiscal developments have largely out-performed the primary balance targets that were set at the onset of the programme. Net of the one-off effect from banking recapitalisation, the 2015 primary surplus grew to 2.7% of GDP (see Graph 2.4.1). This was 5pps of GDP better than initial programme projections. The primary balance improved marginally from 2014, on the back of stabilising revenue and primary expenditure, and despite factors beyond government control (such as new location rules regarding VAT on e-commerce services, the impact on revenue of the establishment of the national resolution fund, and a decrease in dividend income from the Central Bank of Cyprus). With a headline government balance deficit of ½ % of GDP in 2015, these developments are expected to lead to a deficit of well below 3% of GDP, even when taking into account the recapitalisation of the cooperative credit institutions in 2015 (1% of GDP). The primary balance forecast for 2016 has also been revised upwards by 1.5pps of GDP (to 2.6% of GDP) compared with the initial programme projections and is expected to stay constant in 2017⁽³²⁾. The debt level is forecast to be well below 100% of GDP by 2020, as envisaged at the onset of the programme.

The debt-to-GDP ratio, which was contained by revisions to the denominator, is expected to set out on a downward trajectory, supported by good fiscal performance and economic recovery. Projected debt developments have been significantly affected by an upward revision of nominal GDP in the context of the introduction of ESA2010. This revision together with changes related to new data sources amounted to about 10pps of GDP. According to the updated projections, the debt-to-GDP ratio peaked at about 109% in 2015 and is projected to fall to below 90% of GDP in 2020. This is significantly lower than the 105% projected at the on-set of the economic adjustment programme for 2020. The debt path reflects the fact that financing needs over the programme period were lower than initially expected, as a result of good fiscal performance and lower than envisaged financing needs in the financial sector. Overall, the economic recovery

⁽³²⁾ This estimate is based on the European Winter 2016 Economic Forecast. Under the programme, the primary balance target for 2017 is higher, since it assumes additional measures fiscal effort to achieve the targets set in the MoU.

and the strong fiscal performance remain favourable for future development of the debt trajectory (see Box 2.4.1).

Graph 2.4.1: Primary balance (general government)



(1) Both scenarios include the compensation of pension funds amounting to 1.8% of GDP in 2013. Both scenarios exclude the one-off effects of banking recapitalisation in 2014 and 2015.

Source: Commission services.

Robust programme performance, the economic recovery and continued access to the ECB's expanded asset purchase programme have contributed to decreasing yields on Cyprus's foreign-law bonds and Treasury bills. In February 2016, the yields for ten-year-to-maturity bonds and three-month Treasury bills stood at 4.1% and 0.5%, respectively. Notably, a ten-year Eurobond of EUR 1bn issued in November 2015 had, despite the longer tenor, a lower spread compared to a seven-year bond issued in May 2015. The decrease in Treasury bill yields was facilitated by regular Treasury bill auctions. Nonetheless, the yields still remain relatively high compared to peers, largely due to concerns regarding the banking sector asset quality and potential spillovers from the financial sector to the wider economy.

The debt maturity profile has improved. The exchange of market debt for official funds and debt management operations in the context of bond issues in 2014 and 2015, have contributed to a more favourable debt amortisation profile. Sizeable amortisations are only expected from

2019 onwards, taking thus pressure off the immediate post-programme period. The weighted average debt maturity has been improved by around 3 years throughout the programme period and is now about 9 years, while debt that falls due within one year has been reduced by around 7% to 6% of total debt. Loans account for about 70% of Cyprus' debt, most of them from official sources.

Cyprus' government bond credit rating has been increasing since mid-2013, but remains below investment grade ⁽³³⁾. The main reasons for the rating upgrades are that macroeconomic and fiscal developments have been better than expected at the start of the economic adjustment programme, and that capital controls have been removed. However, the remaining vulnerabilities in the financial sector, public debt, which remains high, and weaknesses in domestic demand and investment are likely to continue weighing on Cyprus' credit ratings.

At the onset of the programme, the Cypriot authorities set up a monthly fiscal reporting scheme, which has significantly improved fiscal surveillance. Since the programme began, CYSTAT, in cooperation with the Ministry of Finance, has been preparing a monthly fiscal reporting scheme (including data on the general government's budget execution and debt developments), using an integrated Financial Information Management System (FIMAS). This comes in addition to the quarterly General Government budget execution data, which is officially submitted to EUROSTAT and published around 27 days after the end of the quarter. The overall reporting scheme has been continuously improved during the programme period and has contributed significantly to analysing and monitoring fiscal developments. Better use of FIMAS has also helped improve public expenditure control.

The Cypriot authorities have made significant progress with regard to fiscal-structural

⁽³³⁾ In October and November 2015, Fitch and Moody's credit agencies upgraded Cyprus' credit rating by two notches. Despite an earlier upgrade of Cyprus' credit rating by Standard and Poor's Rating Services (S&P), it is still kept at least three notches below the investment grade. In December 2015, DBRS also upgraded Cyprus by one notch.

reforms, which will help ensure public finances sustainable. These include reforms in three key areas: 1) public financial management, 2) the pension system, and 3) revenue administration (see section 3.3).

As regards public financial management, the House of Representatives adopted the Fiscal Responsibility and Budget System Law in 2014, providing a comprehensive and transparent legal framework for sound practices. It applies to the entire general government and ensures compliance with EU requirements. The Fiscal Responsibility and Budget System Law ensures a strategic approach at budget preparation stage, including multi-annual fiscal targets and expenditure ceilings, and a medium-term budgetary framework laying down a medium-term strategy for meeting targets and complying with ceilings. Secondary legislation attached to the Fiscal Responsibility and Budget System Law is expected to be adopted. It should lay down, inter-alia, procedures for budget preparation, requirements for within-year budgetary adjustments, and the responsibilities of commitment control officers.

Further, to limit the fiscal risk from the large exposure to contingent liabilities, the Cypriot authorities have established a guarantee office under the Treasury, which has taken over responsibility for managing existing and future government guarantees, and for assessing the fiscal risk stemming from them. The authorities have also prepared a policy for issuing government guarantees and a manual on procedures for their management. Both were adopted by the Council of Ministers in August 2015. All of these steps will contribute significantly to limiting the risk from contingent liabilities in the future.

The Council of Ministers also adopted a medium-term debt management strategy in December 2014, which was updated in December 2015. This strategy and the corresponding annual financing plan are important milestones on the way to preparing for debt management after the programme. The Public Debt Management Office is continuing to build the strategies and skills needed to gain stable market access after the programme. The basis for this is an action plan set up with the help of the ESM which sets out specific steps and timelines for improving investor

relations and the organisational capacity of the Public Debt Management Office.

A major reform of the whole public pension system (the government employees' pension scheme and the general social insurance scheme) was undertaken by the Cypriot authorities in late 2012. The reform aimed at reducing projected spending and ensuring adequate financing through contributions. Among the measures taken were an increase in the minimum age for retirement with full pension entitlements, including provisions for its automatic adjustment every five years in line with changes in life expectancy; the introduction of a penalty to provide disincentives to and lower expenditure for early retirement; gradual increases in contributions and minimum contributory period; a temporary freeze of pensions; and the treatment of pensions as personal and therefore taxable income. It has significantly improved the system's long-term viability by stabilising the public pension spending as a share of GDP until 2060 (estimated at 10.2% of GDP in 2060, 0.2pps lower than in 2013 and 6.2pps lower than the estimation prior to the 2012 reform) and increasing its financing through increase in contributions by employees, employers and the State (estimated at 9.8% of GDP in 2060, 2.8pps higher than in 2013).⁽³⁴⁾ A recent actuarial study shows that the reform has reduced the projected increase in pension expenditure for the whole public spending system over 5% of GDP in the long run, making it one of the lowest in the EU (whereas it was one of the highest, after Luxembourg, before the reform). Furthermore, the Budget Law stipulates reduced indexation of government employees' sector top-up pensions⁽³⁵⁾. By mainly targeting the increase in average effective working career against life spent in retirement and by the closure of the top-up Government Employees Pension Scheme to new members, the reform did not significantly affect the adequacy of pension payments under the

pension scheme⁽³⁶⁾. Moreover, low income pensioners can apply to the new guaranteed minimum income scheme (see Box 3.2.1).

Social transfer schemes have been rationalised through improved targeting, which has helped put this expenditure category on a stable path, despite the worsening labour market. The consolidation of benefits and the use of information technology for the Guaranteed Minimum Income scheme have helped make expenditure control more efficient and mitigated the associated risks, while allowing for better targeting to those mostly in need (see also Section 3.2 and Box 3.2.1).

Significant reforms of tax administration are in progress. They are designed to make revenue collection more effective and efficient, to improve taxpayer compliance, and to limit tax fraud and evasion. The aim is to achieve a lasting increase in tax revenue. (See details of implementation in Section 3.3).

Significant risks remain, even if fiscal developments have out-performed expectations during the programme. The remaining fiscal risks notably stem from: a) reversal of fiscal adjustment achieved under the programme or an adverse macroeconomic and financial environment (e.g. low growth and subdued credit supply — see Section 3.1); b) insufficient implementation of structural reforms, including in particular the implementation of the privatisation and public administration reform agenda (see Section 3.2); and c) difficulties in maintaining market access at reasonable borrowing costs. Positively, fiscal risk stemming from banking sector spillover is reduced through the implementation of EU Bank Recovery and Resolution Directive, which limits the financial sector exposure of the Cyprus sovereign and reduces the importance of what had been a major hindrance to its credibility.

⁽³⁴⁾ For the estimations and detailed analysis, see '2015 Ageing Report: Economic and budgetary projections for the 28 EU Member States (2013-2060)' and Cyprus country fiche: http://europa.eu/epc/working_groups/ageing_en.htm.

⁽³⁵⁾ The Government Employees Pension Scheme provides supplementary pensionable benefits to its members in addition to the benefits of the General Social Insurance Scheme, covering every person gainfully employed in Cyprus, both in public and private sector.

⁽³⁶⁾ According to Cyprus country fiche for the Aging Working Group of the EPC, average new pension over economy wide average wage is expected to increase from 44% in 2014 to 49% in 2060.

Box 2.4.1: **Debt sustainability assessment**

The public debt-to-GDP ratio rose sharply after 2008, but after peaking in 2015 is expected to decline owing to the significant efforts made under the economic adjustment programme. In line with the overall pro-cyclical expenditure stance, the debt-to-GDP ratio rose by about 7% of GDP to about 64% of GDP during 2000-2003, after which it fell to about 45% of GDP in the run-up to the euro area accession in 2008. The years following accession and prior to the crisis were marked by a loose fiscal stance and a slowdown in growth as a result of the global financial crisis and the bursting of the Cypriot housing market bubble (see Box 2.1.1), later compounded by the Vasilikos power plant incident in 2011. All this combined pushed the debt-to-GDP ratio up significantly. During the crisis, the public debt further increased, notably due to the public support granted to the financial sector. All in all, the debt-to-GDP ratio is expected to have peaked at 109% of GDP in 2015, and to decline steadily in the medium term. The main supporting factors in that regard are the projected continuation of primary fiscal surpluses in 2017 and beyond, the projected positive growth, and large stock-flow adjustment items, including privatisation proceeds (see Graph 1a).

The significant reduction in the interest bill during the programme period was driven largely by the replacement of market financing by official financing. Liability management exercises and declining yields on the newly issued bonds have also helped reduce the projected interest bill in the first years after the programme as compared to initial expectations. The interest bill increased markedly during the economic crisis, by around 1% of GDP over 2010-2013. Since then, has been brought down by about 0.3% of GDP, mainly by replacing market financing by official financing. While incurring an upfront cost when buying back debt at a market premium, this type of liability management exercises has allowed Cyprus to reduce the interest burden in future years. In addition, the yields achieved in the latest bond issues have also helped lower the projected interest bill. It is expected to fall by another 0.5% of GDP by 2017 and to increase after that as a result of higher market interest compared with that charged on ESM and IMF funding.

Stock-flow adjustments have contributed significantly to debt developments in recent years. They had a significant impact on the debt ratio in 2013 owing to the recapitalisation of the banking sector amounting to about 7% of GDP. In 2016, these adjustments are expected to lead to a steep decline of the debt-to-GDP ratio, largely driven by privatisation proceeds, a large proportion of which are expected to be used for debt buybacks, and the finalisation of the loan-asset swap⁽¹⁾.

Changes in the debt trajectory continue to be sensitive to the macroeconomic and fiscal performance. Reducing (Increasing) real GDP growth permanently by 0.5pps would trigger upward (downward) revision of the debt trajectory by about 5pps of GDP by 2026 (see Graph 1b). The effect of a permanent inflation increase (decrease) by 0.5pps would be similar. An *enhanced* negative (positive) macro shock would exacerbate the increasing (decreasing) effect on the debt-to-GDP ratio (see Graph 1c). Higher (lower) short- and long-term market interest rates by 1 pps would have only a limited effect on the debt trajectory (see Graph 1d). If privatisation proceeds were lower than current estimates, the debt trajectory would be revised upward.

All in all, looking at the various scenarios projected and the main results, Cyprus still faces risks of fiscal stress in the short-term and moderate sustainability risks in the medium term, while long-run risks are low⁽²⁾. Moderate risks in the *medium run* emerge from the analysis of the sustainability gap indicator S1. According to this analysis, reaching a structural primary balance of 2.4% of GDP by 2022 from the currently forecast structural primary balance of 2.1% of GDP in 2017 would be required to reach the reference value of 60% debt-to-GDP ratio by 2030. The S2 indicator suggests low risks to public finances in the *long run*, showing that only a very small structural primary surplus of 0.1% of GDP would be required to ensure sustainability of public finance in the long run. However, in the *short run* (i.e. within one year),

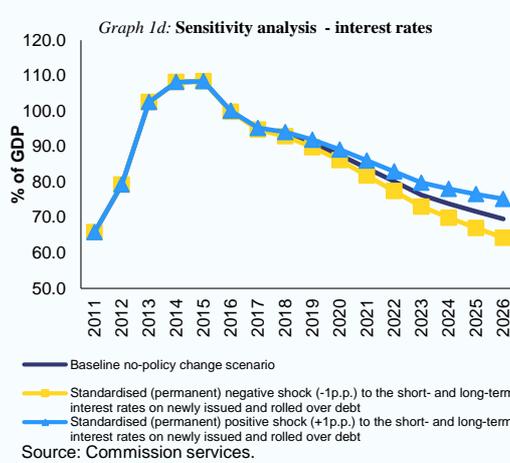
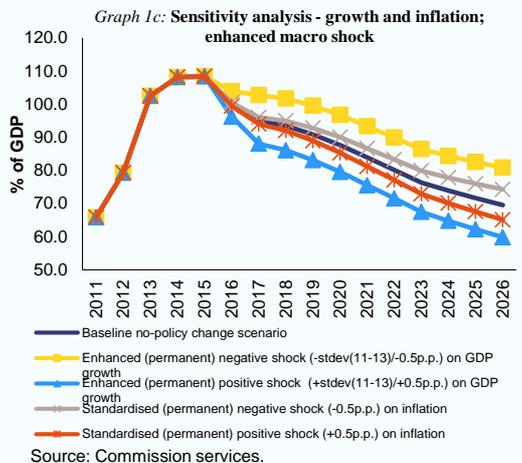
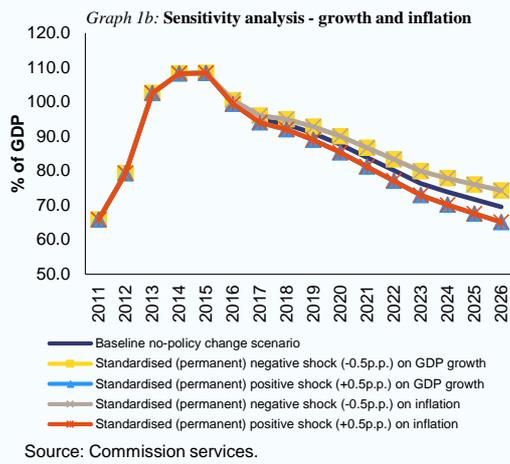
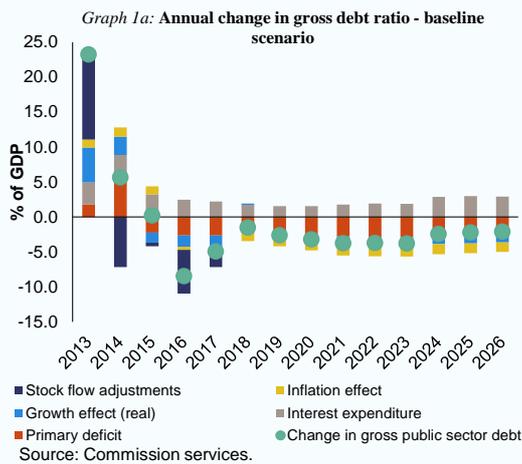
⁽¹⁾ The CBC debt swap is subject to a decision by the CBC board. The independence of the CBC, and compliance with the Treaty and the rules and procedures underpinning the euro system, are paramount.

⁽²⁾ The debt sustainability assessment and risk classification rely on the methodology used in the Fiscal Sustainability Report for 2015 (Institutional Paper 018, January 2016). See also footnote (3).

(Continued on the next page)

Box (continued)

Cyprus appears to face risks of fiscal stress, as suggested by the fact that the S0 indicator is above the critical threshold, despite being reduced, with risks mainly stemming from the macro-financial side of the economy. Indeed, the large share of non-performing loans in the banking sector could represent a source of short-term contingent liability risk, although risks stemming from banking sector spillover are contained through the implementation of the EU Bank Recovery and Resolution Directive (BRRD), which limits the financial sector exposure of the Cyprus sovereign ⁽³⁾.



⁽³⁾ The medium-term sustainability indicator S1 shows the additional adjustment required, in terms of a cumulated gradual improvement in the government structural primary balance over 5 years (starting from the year after the forecast, currently 2018), to reach a 60% public debt-to-GDP ratio by 2030, including financing for any future additional expenditure arising from an ageing population. The long-term sustainability indicator S2 shows the upfront adjustment to the current government structural primary balance (kept then constant at the adjusted value forever) required in order to stabilise the debt-to-GDP ratio over the infinite horizon, including financing for any additional expenditure arising from an ageing population. The S2 indicator does not therefore incorporate any specific debt ratio requirement, thus the indicator has to be taken with caution for high-debt countries in relation to SGP requirements. The short-term sustainability indicator S0 is a composite indicator aimed at evaluating the extent to which there might be a fiscal stress risk in the short term (the upcoming year), stemming from the fiscal, as well as the macro-financial and competitiveness sides of the economy.

2.5. MIP ASSESSMENT MATRIX

Table 2.5.1: Macro imbalances procedure: assessment matrix

	Gravity of the challenge	Evolution and prospects	Policy response
Imbalances (unsustainable trends, vulnerabilities and associated risks)			
Financial sector imbalances	<p>At around 55% in September 2015, the non-performing loans (NPLs) ratio for households and corporate loans remains among the highest in the euro area and has not yet been put on a sustainable declining trend.</p> <p>Provisions are low in view of downside risks to housing collateral value, as well as risks of changes in valuation policies.</p> <p>Banks are not yet able to generate profits in a sustainable manner to ensure adequate capitalisation.</p>	<p>The increase in restructured loans was almost fully off-set by the increase of non-performing restructured loans (...). In addition, the enhanced restructuring efforts are still falling short of the restructuring targets set in agreement with the Central Bank of Cyprus (p.17).</p> <p>The high level of collateralised lending poses challenges regarding the perception of credit risk (...). Relatively low estimates of expected losses on collateralised loans have kept provisions at levels below the EU average (p.14).</p> <p>The capital adequacy of Cypriot banks has increased closer to the euro area average, but capacity to build up further capital buffers is hampered by low profitability and high NPL risks (p.18).</p>	<p>Banks have strengthened arrears management processes, targets for restructurings have been introduced, but current provisioning level may not incentivise banks to seek the liquidation of unviable debtors (p.18).</p> <p>Reforms of the foreclosure, insolvency and land registry frameworks were carried out but banks and debtors have been reluctant to make use of them (p. 18).</p>
Private debt	<p>Private debt in Cyprus is above 340% of GDP, among the highest level in the EU. Debt of non-financial corporations (other than ship-owning special purpose entities) has trebled since 1995 to reach 140% of GDP in 2014, while household debt has doubled to about 130%.</p> <p>Low nominal growth and a depressed property market aggravate the problems of excessive debt.</p>	<p>Private debt has not been declining in % of GDP. Deleveraging pressures remain strong with high unemployment, tight credit conditions, and high rates of default, but low nominal growth is making debt reduction challenging (p.23).</p> <p>Declining property prices have created incentives for strategic defaults in mortgage debt. Indicators suggest that property prices will adjust further down under current market conditions (p.25)</p> <p>Corporate debt is concentrated in the sectors of construction, real estate and trade and tourism. The adjustment of these sectors may require further reallocation of domestic resources, to avoid prolonging market distortions (p.27)</p>	<p>Foreclosure and insolvency legislation have been reformed in order to allow for swifter contract enforcement, as well as the restructuring of viable debts, but efficiency is not yet ensured (p.30).</p> <p>Further delaying the liquidation of unviable borrowers and the restructuring of viable debts can prolong market distortions (p.28).</p> <p>Reforms of land registry regulations are being discussed to enable insolvency proceedings and help Cyprus regain the trust of investors, particularly foreign investors, but have not yet been adopted (p.30).</p>

(Continued on the next page)

Table (continued)

External balance	<p>Adjusted for special purpose entities (SPEs) external liabilities are at around 330%.</p> <p>The sizable external debt poses limited but non-negligible risks from external shocks and changes in market sentiment.</p>	<p>Following a marked deterioration, the net international investment position of Cyprus has stabilised at around -140% of GDP. A significant proportion of this relates to SPEs, while the bulk of the remaining negative position relates to government debt. (p.37).</p> <p>The current account balance witnessed a marked improvement between 2007 and 2011, which was associated with the stabilisation of the NIIP. However, as it has been mostly due to a domestic demand contraction, which is likely not sustainable going forward (p.38).</p>	<p>Fiscal prudence and fiscal structural reforms have contributed put public debt, (including external) on a sustainable path (p.37).</p> <p>Measures have been taken to improve cost competitiveness, including by a reform of wage indexation, but improving non-price competitiveness remains challenging, and productivity-enhancing investment is low (section 3.1).</p>
Public debt	<p>Cyprus has a high level of public debt, which makes the country vulnerable to changes in financial or economic conditions that may increase financing costs.</p> <p>Significant risks to debt-sustainability will remain if fiscal-structural reforms are not fully implemented.</p>	<p>The debt-to-GDP ratio is projected to peak in 2015 at about 109% and decline to about 80% of GDP in 2020 (section 2.4 p.40).</p> <p>Fiscal developments have largely outperformed primary balance targets, but achieving the envisaged targets in the post-programme period will require the continuation of the authorities' commitment to prudent budget execution and fiscal structural reform (section 2.4 p.42).</p> <p>Cyprus' government bond credit rating has improved since mid-2013, but remains below investment grade (section 2.4 p.41).</p>	<p>The Cypriot authorities have made significant progress with regard to fiscal consolidation and fiscal-structural reforms, which will contribute to ensuring sustainable public finances, but risks remain, especially in view of delays in the implementation of the privatization plan and the fiscal administration reform (section 2.4 p.42).</p>
Adjustment issues			
Long-term growth	<p>In order to overcome Cyprus' public, private and external indebtedness, regaining sustained long-term growth in Cyprus is crucial. As past growth drivers (construction and financial services) have been significantly hit by the crisis, it has become absolutely necessary to diversify into new sources of growth.</p>	<p>Growth has surprised on the positive side reaching 1.6% in 2015, but mostly due to tail winds from low energy prices and euro depreciation. When tail winds subside, growth is likely to reduce as the Cyprus economy is highly indebted and the export performance remains subdued.</p>	<p>An Action Plan for Growth has been developed, including measures fostering the shipping and tourism sectors, as well as the business environment, to enhance domestic investment and attract foreign investment. However, most of the reform items still need to be implemented.</p>

(Continued on the next page)

Table (continued)

Unemployment	Unemployment remains high and is only slowly declining. Labour market adjustment is key to prevent hysteresis, improve long-term growth, and mitigate social distress.	In 2015, labour market conditions improved, with employment slightly increasing and unemployment receding somewhat to around 15%. However, youth unemployment and long-term unemployment remain high at 33% and 7% respectively.	Labour market policies have been implemented, targeting the youth, and more recently also the long-term unemployed. However deficiencies remain in the provision of public employment services, and in the monitoring and evaluation of labour market policies.
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Conclusions from IDR analysis

- Cyprus is characterised by large stock imbalances in the form of a private, public, and external debt overhang. Adjustment of private sector bank debt is impaired by a non-performing loans ratio exceeding 50%. This level of non-compliance hinders the normal functioning of the banking sector, depressing credit to investment and slowing down growth, further undermining the reduction of debt-to-GDP ratios.
- Significant current account adjustment has been driven by import contraction, but is characterized by cyclical elements and falls short of putting external debt on a sustainable path. Despite slowly receding, unemployment remains at high levels, and the rate of investment as well as the growth potential of the economy are subdued.
- Important reforms have been initiated in the context of the Macroeconomic Adjustment Programme, notably regarding the foreclosure and insolvency frameworks, arrears management, public finances, and competitiveness. However, several reforms initiated under the programme remain to be adopted, in particular regarding the courts system, public administration and state owned enterprises, including public utilities, regulatory authorities, property market regulations, and the health sector. Likewise, further measures necessary to foster the sustainable workout of bad debts have been identified.

(*) The first column summarises 'gravity' issues which aim at providing an order of magnitude of the level of imbalances. The second column reports findings concerning the 'evolution and prospects' of imbalances. The third column reports recent and planned relevant measures. Findings are reported for each source of imbalance and adjustment issue. The final three paragraphs of the matrix summarise the overall challenges, in terms of their gravity, developments and prospects, and policy response.

Source: Commission services

3. ADDITIONAL STRUCTURAL ISSUES

While section 2 addresses imbalances and adjustments, this section analyses other structural economic and social challenges facing Cyprus. It looks at issues relating to the main obstacles to competitiveness, with a focus on the business environment. It also analyses developments in the labour market and the social situation, efficiency gaps in the public sector, and the main issues arising in connection with energy, climate policies and the environment. Finally, it considers the challenges in reforming the healthcare sector.

3.1 OBSTACLES TO GROWTH

Cyprus growth potential has been negatively affected by the crisis; however, the latter also revealed inherent weaknesses of the economy.

This section attempts to disentangle the direct effects of the crisis on the economy's growth potential from the inherent structural and institutional weaknesses that the crisis came to reveal.

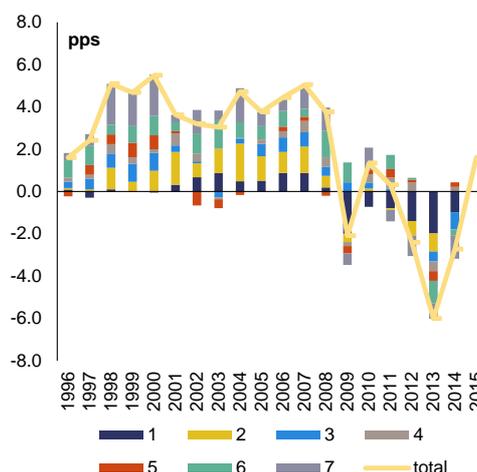
Growth, productivity, and investment

Following a decade of real GDP growth averaging 4% annually, growth slowed significantly in the wake of considerable imbalances in 2008. This strong growth was driven by domestic demand on the back of a booming housing market and soaring private debt (see Box 2.2.1 and Section 2.2). Fuelled by a rapid credit expansion and relying on just a few sectors, such as trade and financial and construction services, it has proven to be unbalanced and unsustainable. Since 2009, growth has slowed down significantly following the global financial and economic crisis (Graph 3.1.1). This was initially due to lower demand and compounded by the bursting of the housing market bubble and the related slump in construction activity. Although growth resumed in 2015, the recession reduced real output to 12 % below pre-crisis level. This is one of the largest adjustments in the EU.

A significant reduction of labour utilisation partly explained the weakness in growth. Graph 3.1.2 shows the contribution to growth from labour utilisation from a growth accounting exercise, broken down further into contributions from labour force participation, employment, and hours worked per person employed. Since 2008, a significant fall in the employment rate (driven to a large extent by the construction sector) explains most of the weakness in labour utilisation (Section 3.2 provides an in-depth analysis of labour market

developments and the drivers of the slump in employment).

Graph 3.1.1: Real gross value added and contribution to growth by sector



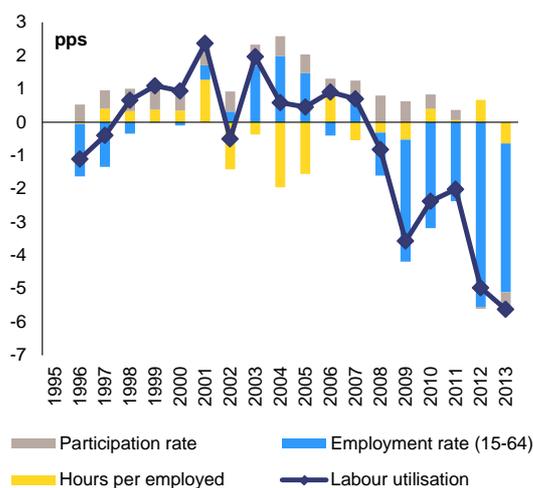
(1) Construction, (2) wholesale and retail trade, (3) financial and insurance services, (4) professional business services, (5) Public administration, and (6) other.

Source: European Commission.

Declining labour productivity also contributed to the weakness in growth. Prior to 2008, labour productivity growth contributed to GDP growth together with an expanding population. The growth of output per labour input in this period was driven to a large extent by growth in total factor productivity, i.e. the efficiency with which labour and capital were utilised in the production process. The contribution from capital deepening was much more limited. Between 2008 and 2013, however, this was reversed. Total factor productivity made a negative contribution, while capital deepening supported hourly productivity growth during that period (Graph 3.1.3). A closer look suggests that the support from capital deepening is largely a result of a significant drop

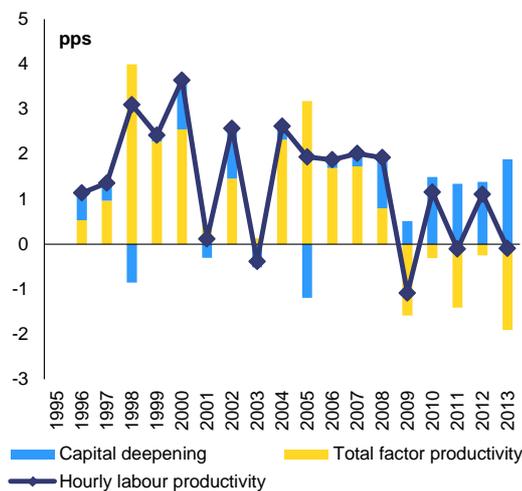
in labour input, rather than higher investment and more use of capital in the production process.

Graph 3.1.2: Contribution to growth from labour utilisation



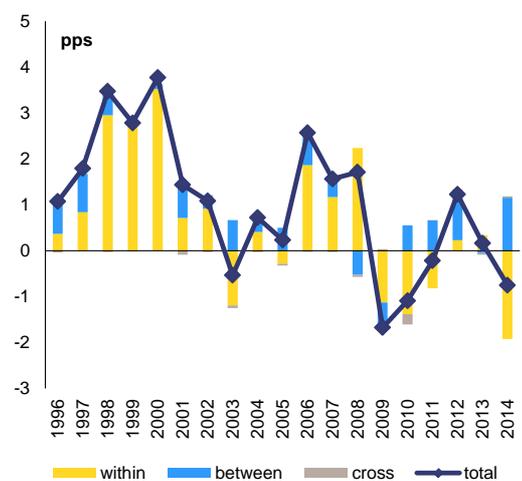
Source: European Commission.

Graph 3.1.3: Contribution to growth from hourly labour productivity



Source: European Commission.

Graph 3.1.4: Shift-share breakdown of productivity growth



Source: European Commission.

Productivity growth in Cyprus appears to be attributable largely to productivity developments *within* sectors, while productivity growth *between* sectors has less of a role. The contribution from within sectors reflects the share attributable to productivity growth if one assumes there is no reallocation of labour from one sector to another. The contribution from *between* sectors, on the other hand, is the share of productivity growth attributable to the reallocation of workers between sectors. Efficiency gains within sectors drove productivity growth before the crisis, but that reversed in 2008. Since 2008, a shift away from the construction sector, which was not very productive, has supported economy-wide productivity gains. This is evident from the contribution made by the reallocation of labour between sectors shown in Graph 3.1.4.

Weak productivity may continue to hold back potential growth. While slowing labour productivity growth appears normal at the beginning of a recession, reflecting the fact that employment lags behind in reacting to activity, the prolonged period of weak labour and total factor productivity growth since 2009 suggests that other forces, such as institutional barriers and market failures are at play.

The fall in total factor productivity growth in Cyprus can be attributed to shortcomings in the areas of competition, technology, human capital, and institutions. Investment by domestic firms is currently held back by the high level of indebtedness (Section 2.2), but there are also more structural weaknesses holding back investment. The business environment is subject to regulatory weaknesses and burdensome red tape, which may deter foreign investment and the hiring of foreign experts.

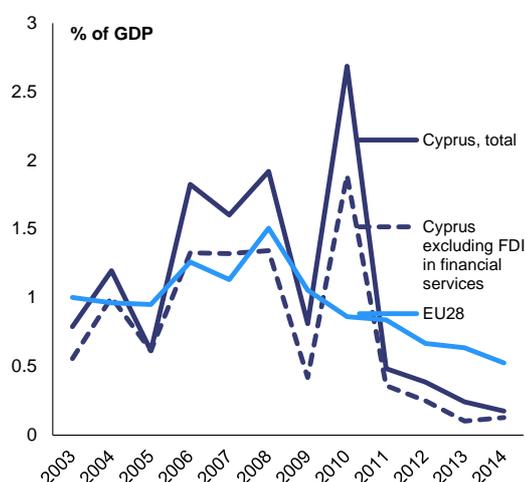
Cyprus experiences low competition in business services. This is reflected by its mark-ups in the service sector, which are among the EU's highest⁽³⁷⁾. The small size of Cyprus's market appears to hold back competitiveness, according to various competitiveness surveys, such as the Small Business Act. This survey also suggests that the use of e-services remains lower than in other EU countries, and shelters domestic companies from foreign competitors. Moreover, company birth and death rates are relatively low compared with other EU countries, suggesting that entry and exit barriers are impeding the efficient allocation of resources across the economy.

Technology adoption and knowledge-sharing appear weak. Spending on research and development is among the lowest in the EU (see discussion below). Hiring employees from non-EU countries remains restrictive and burdensome and hinders the efficient allocation of resources. Moreover, foreign direct investment in non-financial services in Cyprus has remained relatively limited in recent years. Since 2011, greenfield foreign direct investment in Cyprus has fallen to levels below the EU average. Foreign direct investment in sectors showing more resilience over the past few years, such as tourism and professional business services, has also been much more limited.

Human capital and the educational attainment of the population are among the highest in the EU and have been increasing over the past decades. And even though Cyprus already has one of the highest shares of the general population with a tertiary education, the country has managed to increase this share further in the recent past and maintain its leading position in the EU. The population's high level of educational attainment has nevertheless been associated with one of the largest shares of overqualified workers in the EU (Section 3.2). This suggests that Cyprus has an important employability potential that, if used more efficiently, could support productivity growth.

⁽³⁷⁾ Thym-Thysen and Canton (2015).

Graph 3.1.5: Greenfield foreign direct investment



Source: FDI markets, Financial Times and own calculations.

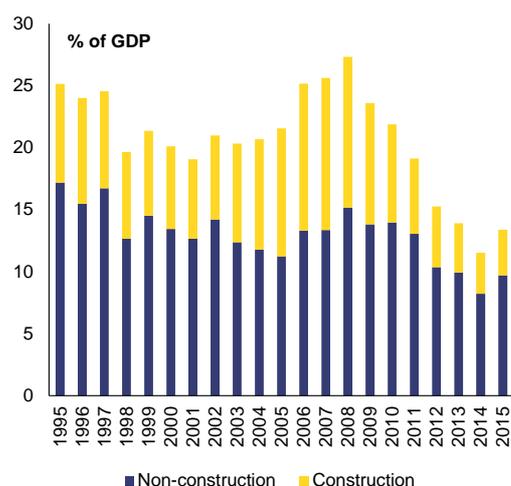
The justice system and the system for consumer protection in Cyprus have a number of shortcomings. Cyprus has one of the lowest EU rankings on indicators for enforcement of contracts. This reflects the excessive length of civil and commercial legal proceedings and the backlogs of pending court cases (see Box 2.1.2). In addition, indicators of consumer trust and respect for consumer rights are among the EU's lowest, particularly as regards perceived unfair commercial practices in the real estate and financial sectors⁽³⁸⁾.

Investment activity has weakened significantly since 2008. Prior to the crisis, investment contributed significantly to real growth in Cyprus, where investment increased from around 20% of GDP in 2000 to about 27% of GDP in 2008. This increase was supported by a growing share of construction investment, backed by rising house prices (see Box 2.2.1). The bursting of the housing bubble in 2008 has significantly reduced construction investment, dragging down investment to 12% of GDP, well below the average EU level. Investment in equipment and other areas has also fallen in response to the cyclical economic weakness, to the lack of credit (see discussion below and Section 2.1), and to the high corporate indebtedness and ensuing need for balance sheet adjustment (Section 2.2). Setting

⁽³⁸⁾ Market Monitoring Survey 2015', results to be reported in upcoming 'Consumer Markets Scoreboard 2016'.

cyclical factors aside, however, there seem to be some obstacles to investment, including productivity-enhancing type of investment, which is relatively low.

Graph 3.1.6: Investment



Source: AMECO, European Commission.

Residential and to a lesser extent non-housing construction investment have slowed down markedly in recent years. When the housing bubble burst in late 2008, residential investment nosedived (Graph 3.1.6). This is also reflected in the nearly 80 % decline in nominal gross value added in the construction sector. Given the protracted weakness of the residential activity investment, beyond what would have been expected by changes in property prices, construction and financing costs, it appears that a large stock of residential properties accumulated in the years before the crisis has not yet fully been absorbed by the market (see Box 2.2.1). Non-housing construction investment appeared initially quite resilient to the crisis as public investment provided support to growth in the first phase of the recession in 2009-11. However, the subsequent need for fiscal consolidation and lower public investment finally led to a decline also in non-housing construction investment.

Beyond construction, other investment remains weak compared with other EU countries. That was already the case in the years before the crisis, and the cyclical upswing in machinery and equipment investment was much more muted than

the boom in construction investment that was observed. Similarly, this type of investment reacted less to cyclical developments in the downturn. Despite the cyclical weakness observed in recent years, the relatively subdued level of non-construction investment observed over a longer period of time suggests an important role for structural barriers in determining its low levels.

Barriers to investment and growth

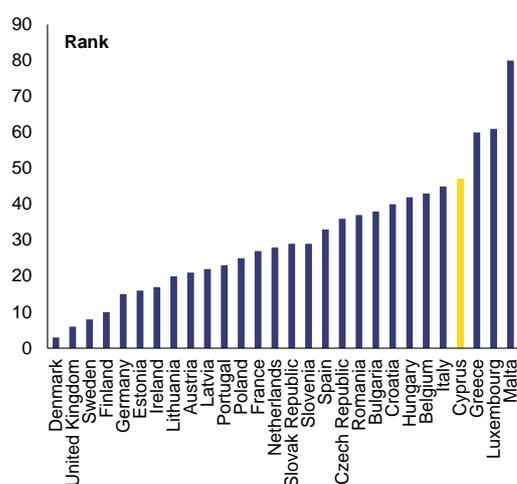
The investment environment in Cyprus is burdensome. Key bottlenecks are identified in areas such as dealing with construction permits, contract enforcement and judicial procedures (see Box 1.2). After implementing a wide range of reforms under the economic adjustment programme, Cyprus is among the economies that have improved their international ranking most, having advanced thirteen spots in the 2016 World Bank Doing Business rankings. However, it still ranks relatively poorly in various competitiveness and business environment indicators by comparison with other EU countries ⁽³⁹⁾ (Graph 3.1.7).

The Action Plan for Growth addresses the most important weaknesses identified in the business environment, but implementation is at an early stage. This growth strategy is the fourth pillar of economic reforms, coupled with the fiscal, financial and structural policies envisaged in the economic adjustment programme. It aims to improve competitiveness and facilitate investment by creating a more transparent and efficient environment for conducting business in Cyprus. Strengthening entrepreneurship, promoting better regulation and modernising the way the public sector operates, in line with the 2016 Council recommendations for the euro area, are also key elements of the plan. Given their importance, these initiatives have also been included in the Memorandum of Understanding. The key priority sectors identified are tourism and shipping. The National Tourism Strategy and the accompanying action plans for its implementation are expected to be in place by the third quarter of 2016. The European Commission, through the Structural Reform Support Service, supports the Cypriot

⁽³⁹⁾ World Bank Doing Business Index: 47th out of 189 countries, Global Competitiveness Index: 58th out of 130 countries.

authorities with the implementation of their growth strategy by mobilizing technical assistance for supporting several activities. The effective and timely implementation of the Action Plan for Growth, in line with the Partnership Agreement 2014-2020, would contribute to reforming the economy and boosting productivity-enhancing investment.

Graph 3.1.7: Ease of Doing Business world ranking, 2016



Source: World Bank.

The regulatory environment for business services in Cyprus remains relatively restrictive. An in-depth assessment of the regulation of business services showed that Cyprus is among the EU countries with the most restrictive regulations⁽⁴⁰⁾. The reforms of ‘closed professions’, started during the economic adjustment programme, are virtually completed, except for the reform of engineering professions (engineers, architects, land surveyors etc.), which is still to be finalised. The main pending issue is the restrictive shareholding requirements imposed on companies in the engineering field. However, Cyprus has still not submitted its national action plan on modernisation of regulated professions in the context of the mutual evaluation exercise. Removing all barriers in this area is likely to create new opportunities for service providers to enter the market, enabling productive companies to grow.

⁽⁴⁰⁾

<http://ec.europa.eu/DocsRoom/documents/13328/attachments/1/translations/en/renditions/native>.

The general regulatory framework in Cyprus presents a number of challenges. Currently, the country ranks below the EU average regarding regulatory quality, while the use of ex ante evaluations in the legislative process is in its early stages only⁽⁴¹⁾. Cyprus also seems to be lagging behind in conducting consultations during the law-making process and reporting the results. Under the umbrella of the Action Plan for Growth, the Action Plan for Smart Regulation is designed to make future laws and regulations more business-friendly. Its key aspects include developing skills and improving processes by introducing impact assessments in the law-making process. It is also supposed to be embedding a culture of better regulation and building capacity in this regard within the public administration.

The administrative burden with respect to construction permits is considerable⁽⁴²⁾. According to the ‘ease of doing business survey’, it takes 617 days, i.e. more than four times the OECD average, to get a construction permit. Particularly burdensome is the procedure for updating land titles, which is also required in order to sell property. This procedure can take six to eight months and sometimes as much as eight years. Applications to the municipality of Nicosia for building permits and final inspections can take over a year. The government is aware that it is important to streamline permit procedures, especially where strategic investment is concerned, if investment is to take off again. A new procedural and legal framework, including the setting-up of a fast-track mechanism, is expected to be put in place by mid-2016.

Spending on research and development is among the lowest in the EU. National spending on research and development stood at around 0.5 % of GDP in 2014. Cyprus’s national Europe 2020 target is the EU’s least ambitious. Private sector involvement is very limited, reflecting that research was traditionally the prerogative of academia, rather than business. Support for science-based entrepreneurship is also very weak. Some challenges arise from the country’s peripheral and remote location and the fact that its research and development system is still very

⁽⁴¹⁾ World Bank worldwide governance indicators.

⁽⁴²⁾ According to 2016 WB Doing Business, Cyprus has the worst performance of all EU countries.

young. Still, research and development governance lacks guidance, vision and a consistent strategy. No systematic evaluations of programmes are being carried out, and funding is still spread over many research areas. On the positive side, Cyprus has approved its smart specialisation strategy for building the competitive advantages of the economy by matching research and innovation to business needs. Moreover, Cyprus exhibits a stable and crisis-resistant growth over time in the area of entrepreneurial activity⁽⁴³⁾. The national policy statement on entrepreneurship adopted in 2015 has five priority strands that set quantitative targets where possible: developing an entrepreneurial culture, improving the business environment, business innovation, enhancing access to financing and facilitating access to markets.

Table 3.1.1: Research and development indicators for Cyprus

	2014	EU average ⁽¹⁾	EU Rank
R&D Intensity (as % of GDP)	0.5	2.0	27
Public expenditure on R&D as % of GDP	0.3	0.7	26
Business enterprise expenditure on R&D as % of GDP	0.1	1.3	28

(1) EU average for the latest available year (2) Values in italics are estimated or provisional.

Source: Commission services

Access to finance is a pressing issue for businesses⁽⁴⁴⁾. Bank lending has been reduced and poses a significant constraint for small and medium-sized businesses trying to access finance (Section 2.1). In addition, access to alternative financing sources such as venture capital is limited, not least because entrepreneurs are not aware of alternative investment funds. Small and medium-sized businesses have less financial literacy, so their skills and opportunities for participating in and benefit from available funding programmes are limited⁽⁴⁵⁾. The banking sector in Cyprus is able to implement basic financial instruments only, and is not equipped to assess early stage business risks. Scarce funding, coupled with high rates of non-performing loans, weigh on small businesses' capacity to invest, especially in

⁽⁴³⁾ Cologne Institute for Economic Research, IW policy paper, 2/2016

⁽⁴⁴⁾ According to the 2015 access to finance of enterprises from ECB, 25% of entrepreneurs consider access to finance to be the most pressing issue, compared with 10% in the EU as a whole.

⁽⁴⁵⁾ National Policy Statement on Entrepreneurship, Nov. 2015

innovative and more risky projects. Exploring alternative financing instruments while also improving businesses' 'investment readiness' would increase opportunities for innovative companies to grow.

Reliable access to finance is a key driver of sustainable and balanced growth. Several financial instruments were put in place in recent years, but results are somewhat mixed. The government managed to put in place three financial instruments with the European Investment Bank to support entrepreneurship and improve access to finance for small and medium-sized businesses. The Cyprus Entrepreneurship Fund (CYPEF) supports both working capital and investment loans for SMEs. This risk-sharing facility has been less successful so far, partly because Cypriot banks have tightened credit conditions. A Trade Finance Facility offers guarantees for foreign banks to provide trade finance to Cypriot small and medium-sized companies and Mid-Caps. The European Investment Bank's Multi-Beneficiary Intermediated Lending provides additional funding at advantageous interest rates and longer maturities (up to twelve years). This programme has helped cut the cost of funding for businesses.

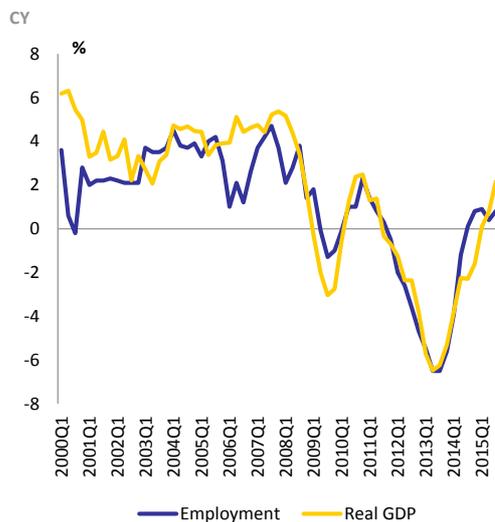
There are also opportunities to stimulate financing from the European Fund for Strategic Investments (EFSI), in combination with ESIF support and through EU competitive programmes. The take-up of financial instruments under the programming period 2014-2020 has been so far limited. In addition, the proposed organisational structure in the government for dealing with the management of EU-instruments such as ESIF, EFSI is pending confirmation. In general, the access to finance issue falls under the responsibilities of various ministries, which may limit the opportunities for using the resources available to the full extent and makes it more difficult for businesses to be aware of the funds that exist. EU competitive programs such as COSME and H2020 are accessible to local financial intermediaries who could apply directly. However, the take-up of similar programs in the previous programming period was very limited.

3.2. LABOUR MARKET, EDUCATION AND SOCIAL CHALLENGES

Labour market developments and institutions

The resumption of economic growth after three years of recession, coupled with flexible labour market institutions, has supported a relatively swift even mild recovery of the labour market. The improvement in GDP growth in 2015 has been accompanied by positive employment developments (Graph 3.2.1). Job creation is slowly rising and unemployment started to fall for the first time since the crisis hit the country in 2011, reaching 15.6 % in 2015 ⁽⁴⁶⁾.

Graph 3.2.1: Employment and GDP growth



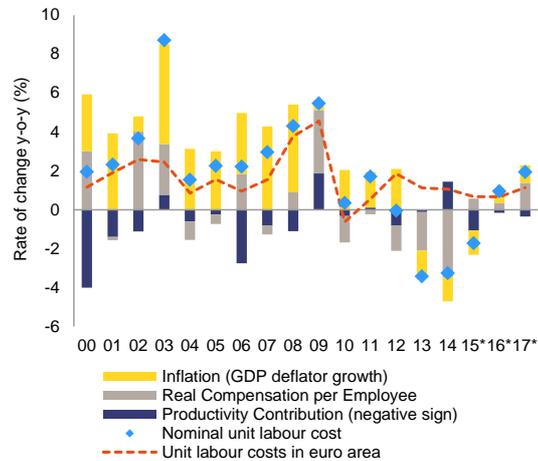
Source: Eurostat (domestic concept), European Commission calculations

Rapid downward adjustment of compensation per employee during the downturn prevented higher unemployment and safeguarded Cyprus' external competitiveness. During the crisis, the Cypriot labour market benefited from its long history of effective social dialogue (as described below), enabling a consensus to be reached between employees and employers on the need for downward wage adjustments. As a result, but also due to composition effects associated with the retirement of older workers and their replacement by cheaper labour, the growth of labour costs has been significantly below the value consistent with

⁽⁴⁶⁾ Average of first three quarters of 2015 - seasonally adjusted.

a constant real effective exchange rate ⁽⁴⁷⁾ from 2012 onwards. Together with resuming productivity growth (see Graph 3.2.2), this adjustment has allowed for a continued alignment of unit labour costs compared with other EU member states and the international market, helping to improve Cyprus' external position. This rapid wage adjustment has helped Cyprus to accommodate the impact of the recession.

Graph 3.2.2: Breakdown of rate of change of unit labour cost



Years with *** refer to figures based on European Commission forecasts.

Source: Eurostat, European Commission calculations

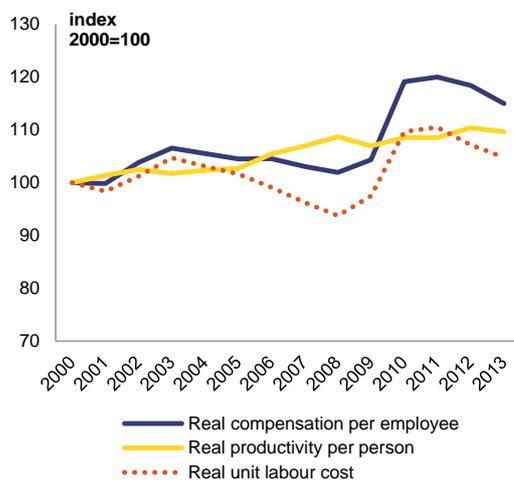
Collective bargaining has traditionally played a leading role in regulating wage setting in the Cypriot economy. The system of collective bargaining at company and sector level allows for a certain degree of flexibility. More specifically, as agreements have opening clauses and can be renegotiated as needed, they facilitate efficient collective bargaining outcomes in many sectors. Discussions have started, however, in the context of the renegotiation of collective agreements in the construction and tourism sectors, to extend by law certain provisions of these agreements, including wage floors, working hours, and overtime pay, to all employees and firms in the sector. Such a change in labour market institutions is intended to set minimum standards in the above-mentioned sectors, but in the absence of valid

⁽⁴⁷⁾ Arpaia, A. and Kiss, A. (2015), 'Benchmarks for the assessment of wage developments: Spring 2015', DG EMPL Analytical Web Note 2/2015.

representativeness criteria for the negotiating parties, automatic extensions could negatively affect labour market outcomes⁽⁴⁸⁾.

Adjustments in the wage indexation system are expected to further support the labour market recovery. In the run-up to the economic crisis that hit Cyprus in 2011, the application of automatic wage indexation (COLA) harmed price-competitiveness and allowed labour costs to inflate much faster than productivity (Graph 3.2.3). Responding to the crisis, indexation rules were reformed in the public sector, Indexation thus became annual, as opposed to bi-annual, and partial (at 50 % of inflation) as opposed to full. Moreover, automatic suspension during recessions was introduced. In the private sector, though, although COLA is suspended until end-2016, no agreement like that in the public sector has been reached on the adoption of partial indexation. However, the private sector has agreed to less frequent indexation and the suspension of COLA during recessions.

Graph 3.2.3: Labour costs and productivity developments compared

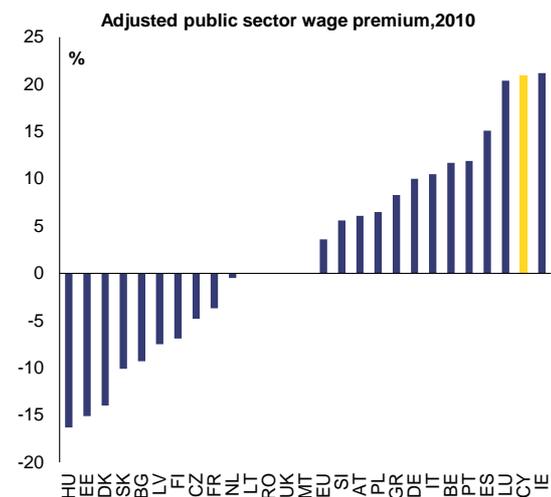


Source: Eurostat, European Commission calculations

There is still a significant dichotomy between the public and the private sub-sectors of the labour market. While the share of employment in the public sector is broadly in line with the euro

area average, labour costs (relative to GDP) are among the highest (see Section 3.3). If public sector wages are compared with those in the private sector, even controlling for education, experience, and other individual characteristics, there is a public wage premium that is estimated to be among the highest in the EU (Graph 3.2.4). With a relatively large wage premium, the public sector is likely to attract the most skilled workers, but risks constraining the supply of skilled labour in the private sector. Although recent labour cost adjustments in the public sector are likely to have brought down the public-private pay gap (see section 3.3), it is likely to remain relatively high.

Graph 3.2.4: Skill-adjusted public sector wage premium



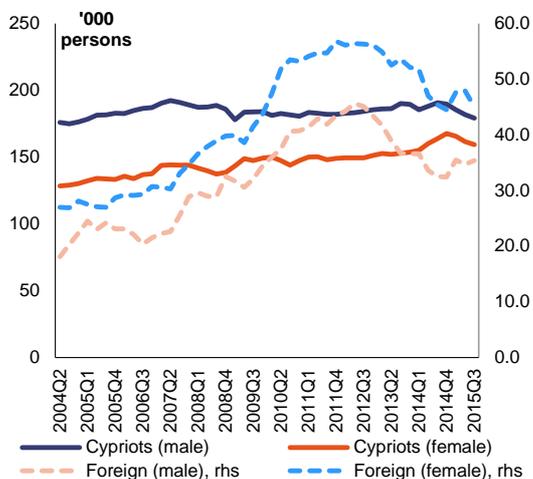
Source: De Castro, F., Salto, M., and Steiner, H. (2014), 'The gap between public and private wages: new evidence for the EU', EC Economic Papers 508, October.

Labour market participation in Cyprus is relatively high and fairly stable. Even when the situation on the labour market worsened and employment rates fell in 2011, participation rates remained relatively stable. However, the average masks differences between the Cypriot population and foreigners. During the crisis, many non-nationals, and to a lesser extent, nationals, left the country, thus contributing to a reduction in the labour force. However, this effect was offset to some extent by an increasing number of nationals looking for work. More recently, there are signs that this trend could be reversing, meaning a mild recovery in the participation of non-nationals and lower numbers for nationals. Labour market participation in those two groups also differs by

⁽⁴⁸⁾ Villanueva, E. Employment and wage effects of extending collective bargaining agreements. IZA World of Labor 2015.

gender. While men have stronger participation rates among nationals, women are in the majority among foreigners (Graph 3.2.5). In a context of stable participation, the increase in unemployment has been mostly driven by a worsening in employment figures, which intensified in 2011 and started reversing in 2014. Men continue to have slightly higher employment rates than women, but the rates are gradually converging (Graph 3.2.5).

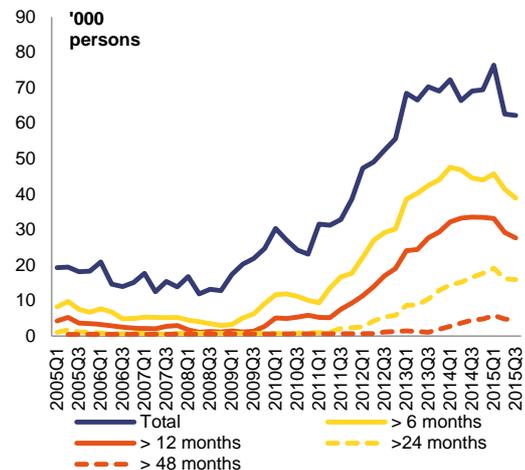
Graph 3.2.5: Labour force participation by nationality and sex



Source: Eurostat, European Commission calculations

Despite the recovery, unemployment remains high, especially youth and long-term, especially youth and long-term unemployment. The recession that started in 2011 put long-term unemployment (more than 12 months) on a steep upward path (see Graph 3.2.6), reaching 7.7 % of the labour force in 2014. This type of unemployment tends to be more persistent; even when the inflow to unemployment slows down, transit to long-term unemployment tends to continue, as those already unemployed gradually become more detached from the labour market. However, long-term unemployment figures fell significantly for the first time in 2015.

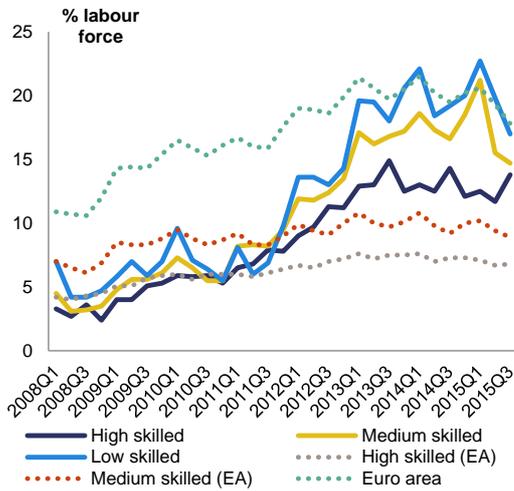
Graph 3.2.6: Unemployment by duration



Source: Eurostat, European Commission calculations

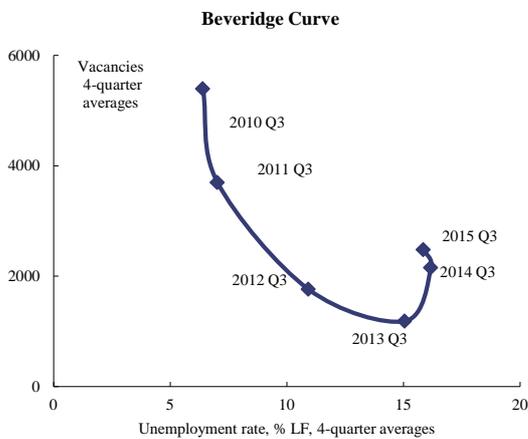
Highly skilled workers account for a significant share of total unemployment. Between 2008 and 2013, unemployment rose substantially for all skill levels (see Graph 3.2.7). In contrast to other euro area countries, there was a big rise in unemployment among highly skilled Cypriot workers as well. While unemployment rates for highly skilled people are generally significantly lower than for the low-skilled, this pattern does not apply to Cyprus. The probable reason is the large supply of workers with tertiary education (see education paragraph for further information) who face low demand for highly-skilled labour after the crisis. Additionally, the Beveridge curve (showing unemployment figures together with registered vacancies) after the recovery shows an increasing number of job vacancies while unemployment remains fairly constant (Graph 3.2.8). This shift could be an additional suggestion of worse matching conditions, or could indicate a skills mismatch. However, more observations would be needed to assess whether the effect is purely cyclical.

Graph 3.2.7: Unemployment rate by skill level, age 15-64 (per cent)



Source: Eurostat, European Commission calculations: Skill levels are defined in terms of ISCED11 classification of qualifications (cat. 0-2 for low-skilled; cat. 3-4 for medium-skilled; and cat. 5-8 for high-skilled)

Graph 3.2.8: Beveridge Curve



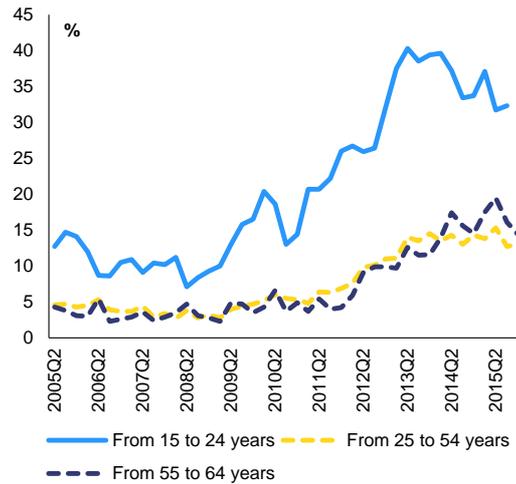
Source: Eurostat and Cystat, European Commission calculations

Youth unemployment is falling, but remains well above pre-crisis levels. At 32.6 % in September 2015⁽⁴⁹⁾, it is significantly above the EU average (20.1 %). The youth unemployment rate (15-24) is more than double the overall

⁽⁴⁹⁾ Eurostat, Unemployment rate by sex and age groups - monthly average,% (une_rt_m)

unemployment rate ⁽⁵⁰⁾. Young people are also in a precarious situation in the labour market, as reflected by the very high share of involuntary temporary contracts among young people ⁽⁵¹⁾.

Graph 3.2.9: Unemployment rate by age groups (percent)



Source: Eurostat, European Commission calculations

The rate of young people not in education, employment or training (NEET) is historically high and above the EU average. It reached 17.1% in 2014 in the 15-24 age group. Unlike most EU countries, the NEET rate in Cyprus is positively correlated with educational attainment, as measured by the International Standard Classification of Education (ISCED) level ⁽⁵²⁾. In other words, the higher the educational level, the higher the incidence of NEETs. For example, 25.1% of 15-29-year olds with ISCED level 5-6 are NEETs, whereas the share is 19.9 % for those with ISCED 3-4 and 11.8 % for those with ISCED level 0-2 (2013 figures). This should be seen in a context where the employment rate of people who have completed upper secondary education (20-34 years) is among the lowest in the EU, and is still 30 pp below its 2008 level⁽⁵³⁾. The high and

⁽⁵⁰⁾ 32.6% compared to 15.1% in Q3 2015; Eurostat, Unemployment rate by sex and age groups - quarterly average,% (une_rt_q).

⁽⁵¹⁾ 78.7% in 2014; Eurostat, Main reasons for temporary employment (15- 24) lfsa_etgar (reason 'could not find permanent job').

⁽⁵²⁾ Incidence of NEETs rate by educational level and Member States (15-29 only) in 2013, Eurofound, 'The diversity of NEETs' - forthcoming.

⁽⁵³⁾ 47.6% in 2014; Eurostat, Employment rates of upper secondary graduates (20-34 years), edat_lfse_24.

persistent youth unemployment and NEET rates increase the risk of young people becoming disengaged from the labour market.

The reform of the system of active labour market policies is mostly progressing through the implementation of the Youth Guarantee (YG), as part of the national action plan for youth employment. The youth employment initiative in Cyprus covers about a third of young people. Additionally, a number of schemes financed by the European Social Fund and/or national funds have been launched to support employment among other social groups, including women, the long-term unemployed, the self-employed, social enterprises and other disadvantaged groups such as people with disabilities. The number of people expected to take part in employment programmes was 3 400 in 2015 (about 4.8 % of those unemployed and 0.8 % of the labour force in the first half of 2015). The projected figures for 2016 and 2017 are 15 500 and 8 000 respectively, the big increase in 2016 being due partly to the frontloading of actions in the context of the youth employment initiative, but also to delays in launching the schemes planned for 2015. The attractiveness of ALMP schemes being implemented varies considerably. Schemes placing young unemployed (people who have completed tertiary, secondary, and post-secondary education) in business and other organisations to give them work experience have had higher participation than others, such as subsidised employment in the retail sector. The preliminary assessment is that policy responses are not yet comprehensive enough. So far, there is no fully-fledged outreach strategy for non-registered NEETs. A comprehensive tool is gradually being used to monitor and evaluate the programmes, and the results from this assessment will be crucial in identifying further weaknesses.

Public Employment Services (PES) still lack the capacity to respond to carry out their extended tasks and meet higher demand for their services. While registrations in the public employment service rose by 55% from 2009 to March 2015, staff numbers expanded by less than 15 % during the same period, with the proportion of staff dealing directly with the unemployed having fallen from about 73 % to 66 %. The measures set out in the Memorandum of Understanding (section 4.4.ii) to improve the

administrative capacity of the public employment service continue to be delayed. This affects service provision to all jobseekers, and especially the implementation of the Youth Guarantee and the recent long-term unemployment initiative. Public employment services' capacity for activation is further hampered by year-to-year fluctuations in active labour market policy budgets, which accounted for almost two thirds of spending by public employment service in 2015.

Delays in the strengthening public employment services (including structural changes) are holding back the reduction of the high youth and long-term unemployment rates. The package of measures planned to strengthen the public employment services is not yet in place. Even if staff is increased by 35 counsellors in 2016, as is planned, the public employment services' projected capacity will still be inadequate for coping with the entire pool of unemployed people. However, a budget of EUR 5.7 million has been allocated and is available to improve the administrative capacity of labour market institutions through the European Social Fund Operational Programme for 2014-20. The Cypriot Authorities have already committed EUR 2 million of this to public employment services.

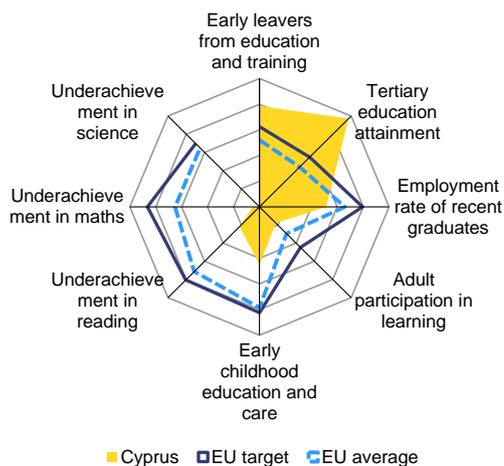
Education and training

There is a fairly mixed picture as regards the performance of Cyprus' education and training system. Early school leaving has declined steadily in recent years and the tertiary attainment rate is one of the highest in the EU (Graph 3.2.10). However, while public expenditure on education as a share of GDP is amongst the highest in the EU, the quality of educational outcomes is insufficient, with an unsatisfactory performance in basic skills by students (Graph 3.2.11) and young adults alike. Moreover, recent graduates have the lowest employability rates in the EU. Finally, the higher education system is responding sluggishly to the changing economic structure and adapting only slowly to future skills needs. This remains a major cause for concern.

The level of public spending on education is high, but there are efficiency problems. While spending levels were reduced considerably in response to the crisis, only three other EU countries invested more public funds in education

than Cyprus in 2013, as measured by the share of GDP (6.5 % compared with a 5.0 % EU average). However, the country performed inadequately in basic skills in mathematics, reading, and science in the 2012 OECD PISA survey (Graph 3.2.11). However, there have been several recent reforms of primary and secondary education (e.g. the zones of educational priority, see more under social inclusion), but their effects are not yet clearly visible. Finally, while the teaching profession itself remains a very financially attractive employment option, the 2013 OECD Teaching and Learning International Survey (TALIS) provides a mixed picture for the quality of teaching in Cyprus, in particular regarding the level of teacher training.

Graph 3.2.10: Overall performance of the education and training sector vs. EU average and targets

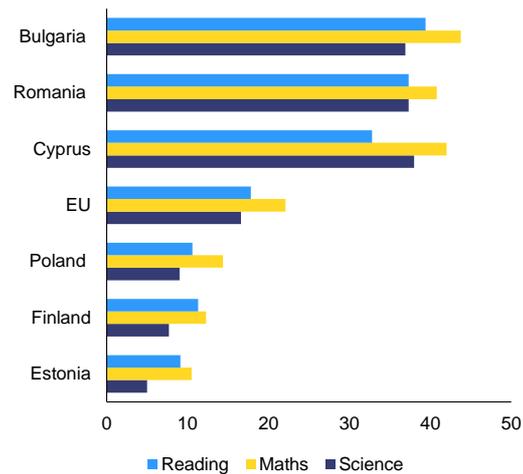


Source: the Education and Training Monitor (European Commission, 2015)

Important progress has been made with respect to early school leaving, but many socio-economic disparities persist. Cyprus has already reached its Europe 2020 national target on early school leaving and is continuing to make significant progress on tackling the issue. In 2014, the early school leaving rate was 6.8 %, compared with an EU average of 11.1 %, down from 12.7 % in 2010. However, this improvement masks significant disparities. Young Cypriot men are almost four times more likely to leave school prematurely (11.2 %) than young women (2.9 %), and the gender gap is widening. Foreign-born students have a much higher risk of dropping out

of education (19.5 %) than those born in Cyprus (4.6 %).

Graph 3.2.11: Percentage of low-achievers in basic skills (PISA 2012)

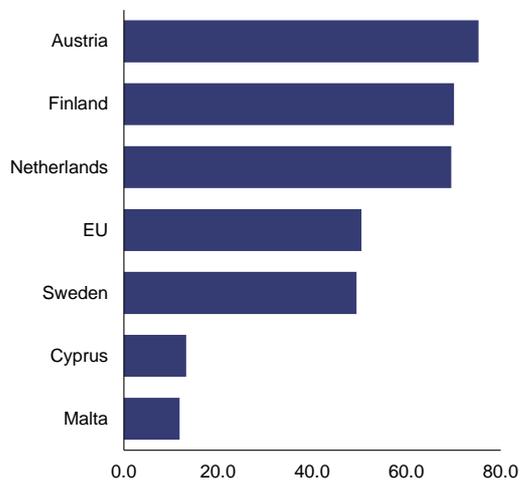


Source: OECD (2013)

Although higher education is widespread, the employability of recent graduates remains a challenge. Cyprus has the EU's second highest tertiary education attainment rate (52.5 %, compared to the European average of 37.9 % in 2014). This is well above its Europe 2020 national target of 46 %. However, employability prospects for recent graduates (ISCED 5-8) have been relatively poor, though improving, with a rate of 72.4 % in 2014, compared to the EU average of 80.5 %. This shows that the transition from education to the labour market remains difficult in Cyprus. The establishment of the new Quality Assurance and Accreditation Agency (QAAA) should improve the situation in higher education.

Cyprus had one of the lowest participation rates in upper secondary vocational education and training (VET) in the EU. It came to 13.6 % in 2013, compared to the EU average of 48.9 %, with general education clearly predominating as a result (Graph 3.2.12). However, official national sources report a sizeable increase to 19% in 2014.

Graph 3.2.12: Percentage of vocational education and training students at ISCED 3 level



Source: Source: Eurostat (2013).

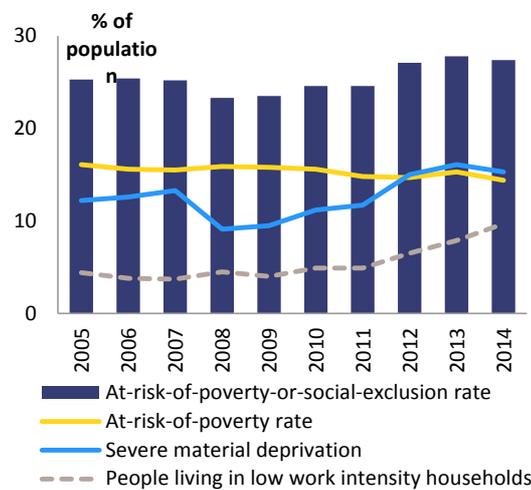
As regards VET, the lack of employer engagement in the education of students is reflected in the weak component of work-based learning in schools. The economy consists predominantly of small and medium-sized enterprises and micro-enterprises, for which providing work-based learning and apprenticeships to students of VET programmes is a challenge. In this context, the implementation of VET reform is still work in progress. The new modern apprenticeship (NMA) programme provides a learning pathway for young people, including those who have dropped out of formal education, but remains a rather unattractive option. Targeting a broader group of young people and expanding work-based learning provision at both secondary and tertiary levels remain major challenges. However, the setting-up and up-grading of post-secondary VET institutes (MIEEK) is a major step forward in attracting more students to this pathway.

Social protection

The risk of poverty and social exclusion in Cyprus increased in recent years, in the context of a deteriorating labour market, but, social indicators have withstood the crisis relatively well. The number of people at risk of poverty or social exclusion rose from 2009, reaching 27.8 % of the total population in 2013 (Graph 3.2.13). In 2014 it slightly decreased to 27.4 % but remained

above the EU average (24.5 %). The at-risk-of-poverty rate (i.e. monetary poverty) fell from 15.3 % in 2013 to 14.4 % in 2014, still below the EU28 average of 17.2 %. Severe material deprivation also fell from 16.1 % in 2013 to 15.3 % in 2014, but remained well above the EU28 average of 9 %. There were some improvements as regards in-work poverty, which fell from 8.9 % in 2013 to 7.8 % in 2014.

Graph 3.2.13: At-risk-of-poverty rate and its components



Source: Eurostat, European Commission calculations

The percentage of children at risk of poverty started to decline, but participation in early childhood education and care is below the EU average. The percentage of children at risk of poverty fell from 15.5 % in 2013 to 12.8 % in 2014. However, participation in early childhood education and care (ECEC) is slightly below the EU average⁽⁵⁴⁾. There is evidence⁽⁵⁵⁾ of a social gradient, with children from families in the lowest income quantile having least access to childcare.

Other social indicators such as the share of people living in low work intensity households and inequality continue their worrying upward trend. The share of people living in very low work

⁽⁵⁴⁾ For children aged 0-3, coverage reached 25% of children, as compared to the EU28 average of 27% and the Barcelona target of 33% for this age group. For children 3-mandatory school age coverage stood at 80% compared to the EU28 average of 82% and the Barcelona target of 90% for this age group.

⁽⁵⁵⁾ Employment and Social Developments in Europe 2016 p.294.

intensity households ('quasi-jobless households') continued to rise against the backdrop of still weak labour market conditions, reaching 9.7 % in 2014 (a 1.8 pp increase compared to 2013). Inequality (as measured by the S80/S20 i.e. the ratio of the income of the richest 20 % to that of the poorest 20 % of the population) increased considerably between 2009 and 2013 and continued to rise in 2014, reaching 5.4 and passing the EU average for the first time in recent years.

Unemployment benefit coverage of those unemployed for less than 12 months remains relatively low. At 20% in 2014, it was 17 pps lower than the EU average. This reflects a maximum duration of benefits for 26 weeks in 2015, while eligibility conditions do not appear particularly strict ⁽⁵⁶⁾. Replacement rates after 6 months of unemployment seem to be in line with the EU average, but fall afterwards.

Cyprus' social welfare system has undergone a major reform in recent years. In 2014, parliament adopted the 'Guaranteed Minimum Income and Social Benefits Act', which replaced the previous Public Assistance legislation. This reform is expected to improve the targeting and

coherence of the system, while also alleviating poverty and reducing social exclusion (see Box 3.2). The streamlining and administrative consolidation of benefits outside the GMI (disability benefits, student benefits) is also proceeding, although at a slower pace.

Through the ESF Operational Programme for 2014-20, the Cypriot Authorities have committed themselves to taking complementary actions against social exclusion, especially for children. The 'Actions for social and school inclusion' project is an example of complementary measures aimed at reducing the risk of low-achievement, poverty and social exclusion. It builds on the 'zones of educational priority' (ZEP) project, financed by the 2007-13 ESF Operational Programme. The project will expand the scope of the 'zones of educational priority' by providing more flexible networks of schools with educational priority, including individual schools wishing to participate in the programme. The impact of such measures is however uncertain as regards both early school leaving and low achievement in basic skills, the latter being still a cause for concern.

⁽⁵⁶⁾ The beneficiary needs to have been insured for at least 26 weeks up to the date of unemployment and paid and assimilated insurance in the contribution year preceding unemployment should be at least 39% of the yearly Basic Insurable Earnings ceiling or EUR 3,537.

Box 3.2.1: The Cypriot welfare reform

The welfare system in Cyprus suffered from a number of inefficiencies. The system, comprising the public assistance benefit, the unemployment benefit, and a multiplicity of other benefits administered by various ministries was seen as too fragmented, poorly targeted, uncoordinated, vulnerable to abuse, and providing no incentives for reintegration in the labour market. To help tackle some of these problems, a new guaranteed minimum income (GMI) scheme has been introduced to consolidate certain benefits and achieve better targeting.

The new guaranteed minimum income (GMI) scheme has replaced the previous public assistance benefit with a top-up allowance required for eligible households to meet their basic needs. Under the new scheme, basic needs are defined on the basis of a predetermined minimum consumption basket, with additional allowances for housing costs and taxes, and care services. Some benefits, including student grants, special disability benefits, and housing benefits for refugees continue to be administered outside the GMI, although efforts are being made to centralise data in a single registry.

The purpose of defining clear eligibility criteria and the cross-checking information is to ensure that resources are spent on those most in need. The GMI legislation lays down clear eligibility criteria (Table 1). Information provided in GMI applications can be cross-checked with third-party sources including social security, banks and the land registry. This makes the system fairer and precludes abuse. If applicants are rejected because they do not meet the eligibility thresholds, they can appeal, and the application is then reassessed if information supporting the appeal is provided.

The new system introduced more precise and better targeted eligibility criteria for people in need, streamlining the number of people receiving public assistance in Cyprus. Despite changes in the GMI legislation in 2015, which relaxed certain eligibility criteria, the introduction of GMI has led to a lower than expected number of beneficiaries. Prior to the reform, there were 61 500 families receiving social benefits in Cyprus, including pensioners. As of mid-March 2016, beneficiaries under GMI amounted to 25 508 families. The lower number of beneficiaries can be attributed to lower than expected applications by retirees, as well as to a relatively high rejection rate under the GMI criteria (63% rejection rate), largely due to applicants having assets or deposits exceeding thresholds. Presently, about 27% of family heads benefiting from GMI are unemployed, 16% are working poor, 21% are pensioners, and 36% are inactive due to disability, domestic care responsibilities or other reasons (statistics provided by the Cyprus Ministry of Labour and Social Insurance).

Source: GMI legislation, 2014, and 2015 amendment.

Table 1:

GMI eligibility criteria

Characteristics	Income	Asset conditions
EU nationals or, in special cases, nationals of non-EU countries	The total household income should be below:	Movable property excluding deposits up to €5 000
Legal residence in Cyprus for at least 5 years	480 for a single adult household	Cash deposits up to €5 000 + €1 000 per dependent, or up to €20 000 if blocked for immediate use
Actively searching for work or a better paid occupation by registering with the public employment services, or otherwise certified as unable to work	+ 240 for each household member aged 14 or over	Immovable property up to 300 square meters or not exceeding €100 000, unless the property cannot be sold due to encumbrances
At least 28 years old unless married, a single parent, an orphan, a disabled person, or a person at the legal care of the Director of Social Welfare (otherwise can benefit as dependent only)	+ 144 for each household member aged under 14	

(Continued on the next page)

Box (continued)

The new system contains much stronger activation mechanisms. To be eligible for GMI, beneficiaries must be registered with the public employment services and be willing to participate in active labour market programmes, looking for a job if they are unemployed, or better paid work, if they belong to the working poor. Once registered, GMI recipients cannot turn down a job offer, without acceptable justification. Failure to register or to accept a job offer without justification triggers an investigation by the public employment services, which can lead to a recommendation either to withdraw GMI, or to refer the person concerned to social intervention services. However, the public employment service faces serious capacity constraints. No data is yet available on the participation of GMI recipients in active labour market programmes and on their activation.

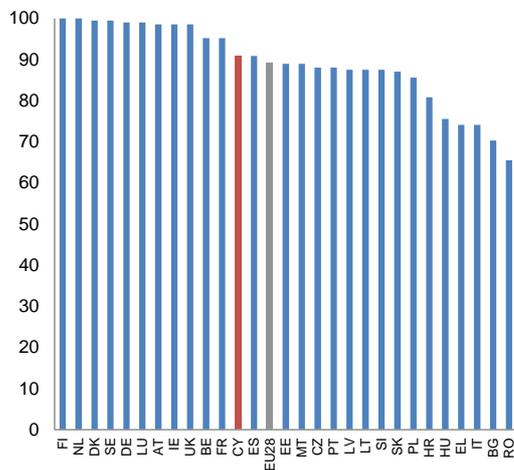
The Guaranteed Minimum Income is expected to reduce the intensity of poverty in Cyprus. Preliminary simulations during its design phase concluded that the new system would have a small impact on the incidence of relative poverty (at-risk-of-poverty rate), a considerable positive impact on the intensity of relative poverty, and would significantly reduce absolute poverty. However, a full assessment of the new system based on actual data has yet to take place.

3.3. PUBLIC SECTOR

Public administration

Despite one of the costliest civil services in the EU, Cyprus has an average index of government effectiveness in the context of the EU. The public wage bill is among the highest in the euro-area, both as a share of total general government spending and as a share of GDP (see Graph 3.3.4). Despite the significant resources allocated to the public administration, the perception of the government's effectiveness is barely above the EU average.

Graph 3.3.1: Government Effectiveness Index



(1) Government effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.

Source: World Bank

Public sector wages are mainly driven by institutional mechanisms, not by performance. They are determined by an indexation mechanism combining general increases and a cost of living allowance (COLA), also used in the private sector (see section 3.2). According to World Bank calculations, from 2007 to 2012 COLA was the main driver of pay increases. In 2013 the system was reformed to make indexation annual rather than bi-annual and partial (at 50 % of inflation) rather than full, and to enable indexation to be suspended during the programme period and recessions. The impact of promotion and performance on the pay level is comparatively marginal, as current salary scales allow public employees to benefit from automatic wage

increases throughout their career. As a result, employees who are not promoted are remunerated at similar rates to those who are. This tends to isolate wage developments from the level of productivity.

More efficient human resources management is constrained by rigid rules which do not encourage performance. To prevent patronage, the public administration developed strict rules on human resources management. Entry-level selection is open and based on written examinations, but seniority, rather than performance, is the main determinant of career progression. Employee appraisals have little impact on promotion decisions, as most civil servants receive the highest possible marks in appraisals.

The reform of the recruitment and promotion system is designed to reward performance better. As part of its economic adjustment programme, Cyprus initiated a reform of its recruitment and promotion mechanisms which broadens eligibility criteria for positions both at entry and promotion levels. If implemented, this would increase competition between candidates, including those from the private sector and the broader public sector, and contribute to creating a wider public sector labour market. The reform also sets new methods for assessing skills, combining written examinations, assessment centres and structured interviews. It also introduces a more transparent and systematic performance appraisal system. The new promotion system will take performance ratings into account and differentiate them through a guided distribution system. One of the key implementation challenges may reside in the Government's lack of flexibility to adjust the assessment criteria over time, as any change must be approved by law.

Despite the planned reform of the Public Service Commission, decision-making remains centralised. The human resources system is relatively centralised, as most appointments and promotions decisions are taken by a central body, the Public Service Commission. This limits managerial autonomy, flexibility and accountability. The reform package is designed to improve the Public Service Commission, by introducing stronger selection criteria, building its capacity, imposing more stringent control and

supervision mechanisms, and restricting members' length of service. However, this does not address the issue of excessive centralisation of human resources decisions, despite managers' opinion being given more weight. This limits the flexibility of human resources management, and prevents managers from being held accountable for their units' results.

Low employee mobility weighs on the administration's ability to adapt to the changing needs of the population and of the economy. There are strong legal and cultural barriers to mobility within the administration, which impedes the reallocation of resources according to priorities. Due to legal constraints on mobility across government entities, only technical and clerical employees are considered interchangeable. The use of secondments as an alternative tool for mobility has been developed, but presents a series of disincentives for employees as regards career progression. The hurdles to mobility undermine the government's ability to establish an internal labour market and adapt public service activities to the country's needs. This is proving particularly critical in the current context of recruitment freeze and overall staff reduction.

The reform of mobility rules is designed to create a more flexible public service. The proposed reform would increase the incentives for mobility by broadening schemes of service, creating a cross-cutting public sector labour market, simplifying secondment procedures and introducing mandatory redeployments. This could enable the administration to redeploy resources more flexibly according to the needs of the service. Effective implementation of this reform will notably depend on the provision of appropriate training opportunities to allow staff to adapt to new tasks, and on mobility being perceived as an advantage in terms of career progression. It will have to overcome a mobility-averse work culture by providing an adequate set of incentives.

The authorities also plan to tackle sector-specific deficiencies. A series of sectoral reviews allowed the government to identify challenges regarding key ministries and to formulate relevant action plans. The action plans range from reorganising ministries along policy lines (agriculture) to the complete overhaul of

government entities (companies' registrar). This effort will continue in 2016, but may be hampered by the uncertainty generated by the cross-cutting reform of the public administration. The review of local government highlighted the strong potential for efficiency gains in managing local public services. The reform plan adopted by the authorities to address these concerns aims to achieve economies of scale by clustering public services; however, no fiscal impact study has been conducted to assess potential efficiency gains.

Perceived corruption in the public administration is a challenge ⁽⁵⁷⁾. A recent survey highlights the perception among businesses that patronage, bribery or abuses of power are significant problems in the public administration. 87 % of companies agree that corruption hampers business competition in Cyprus. According to the World Economic Forum, corruption is seen as the third most problematic factor for doing business in Cyprus. In 2014, there was only one bidder in 31% of public procurement procedures and no call for tender in 22% ⁽⁵⁸⁾. Promising developments include ongoing reforms to professionalise public procurement at local level and a political party funding law enacted in December 2015. The Action Plan for Growth promotes measures minimising the potential for corruption in the public administration and improving corporate governance. These include: assessing the current anti-corruption institutional set-up, prioritising policy areas in terms of incidence of corruption, and developing an anti-corruption plan. The reform and simplification of the public sector is designed to reduce opportunities for and incentives to engage in corruption. However, a constitutional amendment necessary for asset disclosure has not yet been adopted, and the Coordinating Body against Corruption remains without full-time staff.

The supply of digital public services in Cyprus ranks below the EU average. The percentage of e-Government users (i.e. the percentage of Internet users who have sent completed forms to public

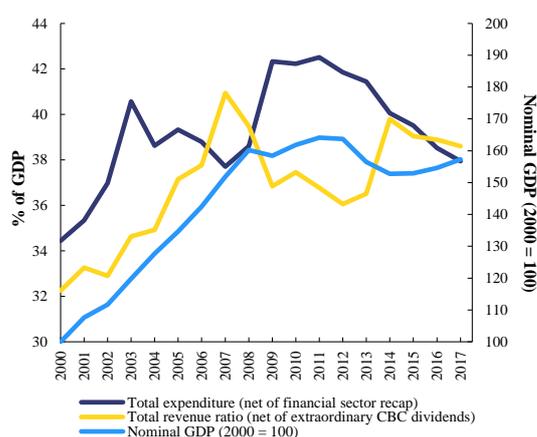
⁽⁵⁷⁾ Cyprus is one of those countries where the perception of corruption has increased most over the last two years. Source: Flash Eurobarometer 428. Businesses' attitude toward corruption in the EU.

⁽⁵⁸⁾ http://ec.europa.eu/internal_market/scoreboard/performance_per_policy_area/public_procurement/index_en.htm

authorities online) is below the EU average (28 % vs an EU average of 33 %). The adoption of medical data exchange is also below average and weighs on the efficiency and diversity of services offered by health systems. Digital public services produce efficiency gains for businesses, the public, and the public administration itself. Cyprus plans to upgrade e-government services by introducing electronic signatures, creating a single point of contact for tele-services and developing a web portal for small businesses.

Public expenditure

Graph 3.3.2: Expenditure and revenue ratio (general government)

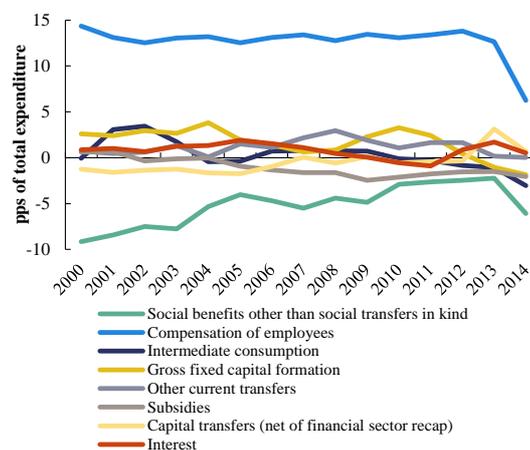


Source: Eurostat and Commission Services

The Cypriot authorities have made significant progress under the economic adjustment programme towards putting public expenditure on a sustainable path. Expenditure policy took a largely pro-cyclical stance during 2000-2003, followed by stronger control policies in the pre-euro area accession phase (2004-2007). The years following the adoption of the euro, in 2008-2010, were marked by a loose stance, showing an increase in the expenditure ratio by about 4pps of GDP against broadly constant nominal GDP. All in all, the expenditure ratio increased by about 8pps of GDP during 2000-2010. This trend was reversed in 2010 and the expenditure ratio has been on a declining path, despite broadly constant nominal GDP in 2011 and declining nominal GDP during 2012-2014. This highlights the significant efforts made under the economic adjustment programme to bring expenditure back onto a sustainable path.

The structure of public expenditure shows convergence towards the euro area average, although significant differences remain with respect to certain items. During 2000-2014, most expenditure categories as a share of total expenditure were in line with the euro area average. Other categories where the differences were more pronounced have since broadly converged on the euro area average. Notably, compensation of employees was significantly higher than the euro area between 2000 and 2012, but this difference was reduced by almost 10pps of total expenditure during the programme. Social transfers were lower than for the euro area in 2000-2014, but converged by 2012. The gap widened again in 2013-2014, suggesting the impact of streamlining social transfers during the programme. Public investment was volatile and (at times significantly) higher than in the euro area over 2000-2012. However, the gap narrowed by about 4pps of total expenditure over 2010-2014, and spending on this category is now below that in the euro area.

Graph 3.3.3: Total expenditure (general government) Difference Cyprus - Euro area



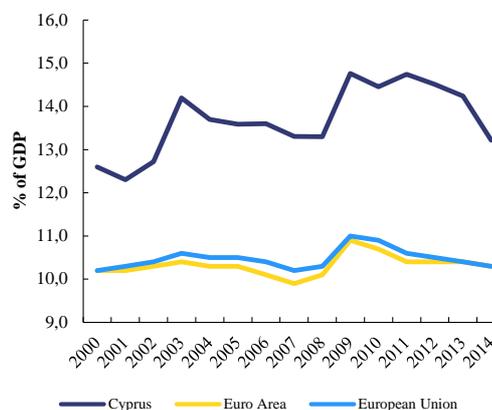
Source: Eurostat

The compensation of employees in the public sector has been a key explanatory factor behind expenditure developments. The compensation of employees, one of the biggest items in the public expenditure bill, rose on average by 4% per year over 2001-2014, significantly above the annual EU27 growth rate (of 2.7%). Developments were largely driven by the rise in public employment, combined with public sector wage developments.

Notably, between 2000 and 2014, employment in the general government sector increased by about 2.6%, largely reflecting developments in the central government sector.

Measures taken in the context of the economic adjustment programme contributed to a decline in compensation of employees, which however remains above euro area average. The adjustment programme included several measures to address the size of the public sector, including (i) cutting public sector employment by at least 4500 posts between 2012 and 2016, (ii), freezing the hiring of new personnel on first entry posts in the broader public sector, (iii) implementing a policy of recruiting one person for every four retirees, and (iv) implementing a four year plan to eliminate at least 1880 permanent posts. Further, measures focussing on wage reductions and freezes of general wage increases for the public and broader public sector were implemented and are in place until end-2016. Notably, in 2012, increased uncertainty about possible plans to reform the generous public pension system contributed to a significant public sector retirement wave, which put downward pressure on compensation of employees, even though this was partly dampened by an increase in pension annuities and lump-sum retirement payments. Taken together, all the above mentioned measures contributed to a decrease in compensation of employees over 2011-2014 of 1.3pps of GDP, while a further decline of 0.6pps of GDP is projected until 2017. However, those measures were not sufficient to bring compensation of employees to values in line with the euro area average (Graph 3.3.4).

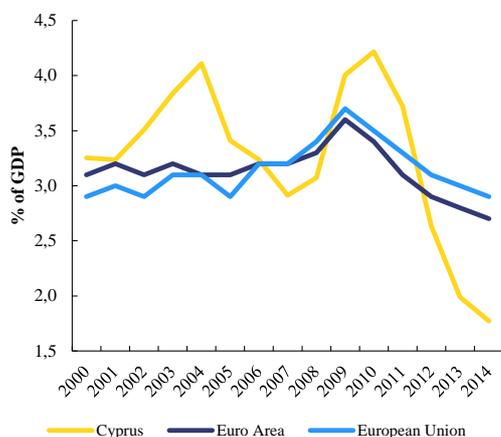
Graph 3.3.4: Compensation of general government employees



Source: Eurostat

To safeguard the achievements made and move towards a public sector wage bill more in line with the euro area average, the authorities envisage a horizontal reform of the public administration. The reform, which is set to be implemented by end-2016, seeks to introduce a mechanism that ensures the sustainability of public finances by containing the growth rate of the wage bill, preventing unjustifiable increases and ensuring that the wage bill, as a share of GDP, moves towards levels more in line with the euro area average. As a principle, the granting of general increases will be decided by the government, after consultation with social partners, taking into consideration the state and the developments in the economy. The proposed mechanism is expected, under plausible macroeconomic assumptions, to lead to a decreasing compensation of employees (as a share of GDP) in the medium term, freeing resources that could be used to support public investment.

Graph 3.3.5: Gross fixed capital formation (general government)



Source: Eurostat

The relatively low level of public investment contributes to the economy's subdued growth potential. Public investment since 2000 has been volatile, peaking in 2011 and sharply dropping thereafter. It rose markedly in the run-up to EU accession in 2004 and subsided thereafter until the euro was brought in in 2008. After a sharp increase in 2009-2011, it has been on a downward trend, reaching the euro area level in 2013 (see Graph 3.3.5). While the fall in investment partly reflects a return to a more normal pattern, the programme provides for efforts to reduce uncertainty, restart bank lending, and improve the business environment. These aim to improve the prospects for efficient public and private investment (see Section 3.1).

Public revenue

The general government revenue ratio has recovered to its pre-crisis levels. It reached 39.5% of GDP in 2015, compared to 36.1% in 2012). This recovery was powered by the sizeable revenue measures package implemented and by the relevant structural reforms introduced. These counterbalanced the revenue losses linked to the bursting of the housing market bubble, the fall in private consumption and the reduction of wealth. Although it has kept the same revenue ratio, Cyprus is about 7.3% below its peak revenues of 2008, with unfavourable labour market conditions and reduced economic activity.

Reliance on indirect taxes is strong, partly linked to cyclical developments. Indirect taxes increased following the hikes in the VAT and excise duties tax rates (14.7% of GDP in 2015) and they are expected to move together with GDP in the long-term. The share of direct taxes to total tax revenue dropped mainly due to low corporate profitability and reduction in households' income. In addition, declining direct taxes also reflect their significant reliance on the banking sector, through the rather high tax rate on interest earned on deposits. In the long term, direct taxes are expected to pick up in line with improved employment conditions and corporate profitability. There was some compensation for the fall in direct taxes in the form of the increased share of social contributions, due to hiked contribution rates. The proportion of other tax categories stayed broadly constant.

Tax transparency and tax information exchange have improved significantly. Following significant changes in the legal framework and the practical implementation of the international standards in this area, the OECD Global Forum has assessed Cyprus as "largely compliant" as regards international tax cooperation, thereby reversing the previous negative rating. Moreover, the intergovernmental agreement between Cyprus and the USA to implement the "Foreign Account Tax Compliance Act" (FATCA) entered into force in 2015. In addition, Cyprus has committed itself to and enacted legislation to implement the common reporting standard for automatic exchange of financial account information, which was developed by the OECD. However, at EU level Cyprus is slow to provide specific information; in particular, there are delays in providing information on tax expenditures, as required by Council Directive 2011/85/EU, and in responding to data requests on tax and VAT collection gaps. This hinders detailed assessment of tax collection.

Several features of Cyprus' tax system can be used in aggressive tax planning structures⁽⁵⁹⁾.

⁽⁵⁹⁾ For an overview of the most common aggressive tax planning structures and the provisions (or lack thereof) necessary for these structures to work, see Ramboll Management Consulting and Corit Advisory (2016), Study on Structures of Aggressive Tax Planning and Indicators, European Commission Taxation Paper n°61. It should be

The absence of anti-abuse rules⁽⁶⁰⁾ and the absence of withholding taxes on dividend, interest and royalty⁽⁶¹⁾ payments made by Cyprus-based companies vis-à-vis third countries are particularly relevant. Furthermore, tax rules like the one concerning the tax residence of companies⁽⁶²⁾ or the patent Box regime⁽⁶³⁾ could prompt or facilitate aggressive tax planning.

Significant reforms of the tax administration are in progress. These are designed to make revenue collection more effective and efficient, to improve taxpayer compliance, and to limit tax fraud and evasion. The aim is to increase tax revenue. A comprehensive compliance strategy for risk identification and analysis has been developed to address collectible and unencumbered debt, with the pilot run on garnishing of bank accounts having been started. Still, the tax administration has, however, low use of pre-filing and e-filing⁽⁶⁴⁾ and is less cost efficient at a EU comparison (1.2% compared to 1.0% of EU⁽⁶⁵⁾). In addition, important organisational reforms, namely the integration of the VAT service and the inland revenue department into a single tax department, as well as a single registration process for tax payers, are in the process of being implemented. The preparation of a tax procedure code and the creation of a Large

Taxpayer Office are important milestones of this reform. Towards these milestones, both important progress and some delays have been observed. The significant advancement made supported Cyprus' "doing business" 2016 competitiveness ranking. The delays observed (in both the integration of regional tax offices and in the adoption of the tax procedure code) are holding up the revenue prospective.

To combat undeclared work, Cyprus is considering structural reforms, which could further support revenues. The reforms, complemented with European Commission- driven technical assistance, include legislative amendments and a revision of processes, to improve Cyprus performance in the area of labour and social inspections and to safeguard the labour market. Given the strong exposure of some sectors of the economy to undeclared work, confronting it would support public finances, particularly through indirect taxes and social contributions.

As a step towards more growth-friendly taxation, Cyprus has put forward a reform of its property tax regime, though there are difficulties with its adoption. One of the least growth-detrimental taxes is considered to be the recurrent property taxation⁽⁶⁶⁾. Despite some progress on limiting exemptions and shifting away from transaction fees, there is a serious delay in the adoption of the comprehensive immovable property tax reform⁽⁶⁷⁾, which has been a programme commitment designed to make the tax burden fairer and the tax administration more effective. Although updated property valuations have been finalised, scepticism in the Parliament has been delaying the adoption of the legislative framework for the comprehensive reform.

State-owned utilities

Cyprus intends to privatise a series of State-owned entities in order to improve

noted that country-specific information provided in the study gives the state of play on May/June 2015.

⁽⁶⁰⁾ For example, Controlled Foreign Companies (CFC) rules; thin capitalisation or interest limitation rules, or rules to counter mismatches in tax qualification of domestic companies or partnerships and those of a foreign state.

⁽⁶¹⁾ A withholding tax on royalty payments is however levied when IP rights are used locally (in Cyprus).

⁽⁶²⁾ Based on this rule, companies which are incorporated in Cyprus are not regarded as being resident there for tax purposes if their management and control is exercised abroad.

⁽⁶³⁾ The Code of Conduct Group (Business Taxation) has endorsed the new standard on patent Boxes which was adopted by the OECD in its 2015 report on BEPS Action 5 and has agreed that existing EU patent Box regimes are not compatible with this standard. The Group has undertaken to monitor the rollback of existing patent Box regimes as well as the compliance of new ones with the new standard.

⁽⁶⁴⁾ OECD (2015), Tax Administration 2015: Comparative Information on OECD and Other Advanced and Emerging Economies, OECD Publishing, Paris, pp. 249-256. http://www.keepeek.com/Digital-Asset-Management/oecd/taxation/tax-administration-2015_tax_admin-2015-en#page253

⁽⁶⁵⁾ Cost per net collection (per 100 units of 2013 revenues), data source OECD (2015), cited in: Tax Reforms in EU Member States, 2015 and Tax assessment framework

⁽⁶⁶⁾ Tax Reforms in EU Member States, 2015 and Tax assessment framework, 2015

⁽⁶⁷⁾ The IPT reform includes: (i) further shift from transaction to recurrent taxation, (ii) the streamlined tax administration, and (iii) the broader tax base with limited exemptions and recently updated property values. Since 2011, property tax rates have been increased, allowing for higher tax revenues, but properties are still being valued at 1980 prices, despite the 2013 general re-evaluation, and tax administration has not been streamlined.

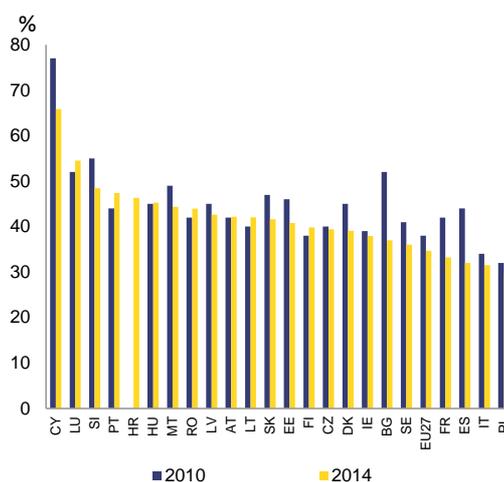
competitiveness. As part of the economic adjustment programme Cyprus committed to implement a privatisation plan comprising entities from various sectors such as transportation (port of Limassol), energy (Electricity Authority of Cyprus), telecommunications (Cyprus Telecommunications Authority), real estate, games (State Lottery). As of March 2016 only the concession of the port of Limassol made material progress, as the granting of the concession was pending parliamentary approval. These privatisations are designed to attract foreign investors as well as strategic expertise, so as to improve competitiveness.

The telecoms sector, dominated by state-owned operator CyTA, has relatively high prices and a significant level of concentration. CyTA is fully state-owned and was recognised by the National Regulatory Authority as having significant market power in all telecoms markets. Its market share has gradually decreased since the introduction of competition in 2004 but remains dominant. At around 65%, its market share in 2014 was significantly higher than the market shares of main mobile operators in other EU countries (Graph 3.3.6). Competition remains moderate as reflected in the relatively high level of prices, notably with regards to broadband and on the reduced number of mobile licences, the third having been granted only in 2014. The cost of international connectivity for Cyprus's isolated network is also considered a driver of operators' costs. High prices, together with relatively low digital skills, result in lower than average internet usage (see Graph 3.3.7). 26 % of the Cypriot population has never used the internet (the EU average is 16.4 %). This is likely to weigh on overall productivity growth.

The privatisation of CyTA aims to bring efficiency gains to the telecoms sector. The Cypriot Government intends to privatise CyTA in 2016 through a tender procedure, in order to attract experienced strategic investors. Although it is possible that only a minority share or part of the group would be privatised, the aim is to strengthen CyTA's governance by involving international investors and trigger efficiency gains by implementing international best practices. Together with rising competition from smaller players, which could weigh on prices, privatisation may ultimately facilitate the use of information and communication technologies in the economy

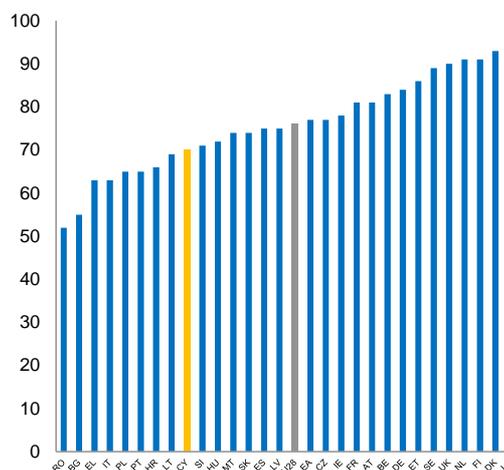
by improving the quality of service and diversifying supply.

Graph 3.3.6: Main mobile operator market share (%)



Source: European Commission, Digital Agenda Scoreboard

Graph 3.3.7: % of individuals using Internet at least once a week (2015)



Source: European Commission, Digital Agenda Scoreboard

Cyprus has decided to unbundle EAC, the state-owned electricity company, to increase transparency and facilitate competition. The decision to unbundle the electricity network from EAC's generation and supply activities potentially opens the way for fundamental changes including the entry of new players in the market and an expansion in the share of renewable energy sources. The ownership unbundling of EAC aims to create the preconditions for open and equal access to the electricity grid and is also intended to streamline decision-making and the investment process. Cyprus's decision to unbundle the electricity distribution and transmission networks from the commercial activities of the incumbent is a major step forward, allowing for a clear separation of interests between the various

functions in the electricity sector. Its aims include preventing cross-subsidies between commercial and monopolistic activities, and discouraging discriminatory behaviour towards competitors and new entrants. A strong grid company, integrating the operation of transmission and distribution, would also have the critical size to ensure its independence. Finally, unbundling tends to reduce the regulator's information asymmetry vis-à-vis the electricity sector and also enhances the system's financial transparency. To reap the full benefits of the reform, Cyprus will make a complex set of regulatory, commercial and strategic choices (Section 3.4). This represents both an opportunity and a risk to the overall process.

3.4. ENERGY, ENVIRONMENT AND CLIMATE

Energy sector

Electricity prices in Cyprus are among the EU's highest, given the country's heavy reliance on imported oil. The electricity prices for industrial consumers and households are among the highest in Europe, weighing on households' real disposable income and broader economic competitiveness. The high electricity tariffs are due largely to the relatively high cost of using oil products as the primary energy source for power generation. This in turn puts high pressure on the trade balance (see section 2.3), Cyprus having a negative contribution estimated at close to 6 % of GDP in 2014 (Graph 3.4.1).

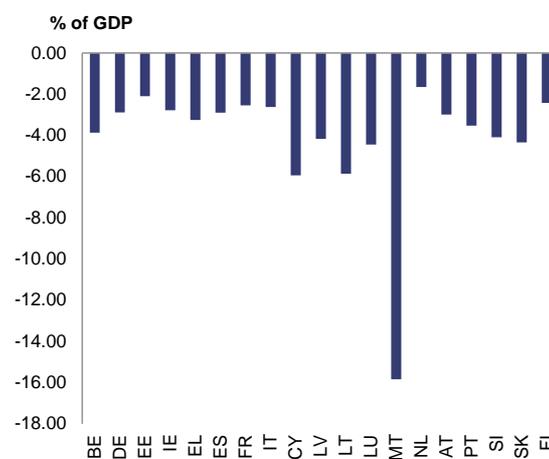
The authorities intend to diversify the energy mix by facilitating the introduction of natural gas and renewable energy sources. The Cypriot government is developing a comprehensive strategy for exploiting its potentially large off-shore gas reservoir and transforming its domestic energy sector (including expanding renewable energy sources). This includes a roll-out plan for the gas infrastructure; setting up a Sovereign Wealth Fund (currently being legally vetted) well anchored in the Fiscal Responsibility and Budget System Law; and an outline of the market organisation and regulatory regime for the domestic energy sector and gas exports.

However, there is currently no indication of when and how Cyprus will be supplied with natural gas. DEFA, the state-owned gas company, announced the failure of the open competition for the supply of gas to Cyprus. Moreover, the government is still negotiating the monetisation of the domestic off-shore gas field Aphrodite with private partners. How the field is to be exploited is still undecided. The authorities are contemplating building a subsea pipeline to carry gas onshore to Cyprus, although the funding, operation and timeline of such a project remain open. The Aphrodite field is widely considered too small for a domestic LNG plant, although additional gas fields may be found. Moreover, foreseeable domestic demand (mostly from electricity generation) may not be sufficient to cover the potential costs of a pipeline connection from the field to mainland Cyprus. A reported alternative is to build a subsea pipeline towards Egypt, where the gas might be sold in the domestic market or

exported through one of the two Egyptian liquefaction plants.

Cyprus is so far complying with its commitments to developing renewable energy sources. With a renewable energy share in gross final energy consumption of 8.1 % in 2013, Cyprus seems on track to reach its target for 2020, although this is largely a result of the drop in energy consumption following the crisis. Moreover, the planned trajectory for the remaining years up to 2020 includes faster annual growth of the renewable energy share, in line with Cyprus's high potential in this area. With a 1.1 % share in 2013, however, Cyprus is lagging behind in renewable energy use in transport and could have difficulty reaching the binding 10 % target by 2020.

Graph 3.4.1: Energy trade balances as a share of GDP



Source: Eurostat

Major capital investment needs have been identified. The authorities are committed to promoting market reforms and improving energy efficiency. Significant capital investment needs can be expected in the medium term for generation and transmission networks, to develop additional renewable sources capacities and bring new primary energy sources to the network. Moreover, given the increasing importance of the distribution grid, investment is likely to be needed to develop smart grids and energy storage facilities. These requirements may put additional pressure on prices

in the short term, requiring consistent reforms of the energy market to improve efficiency.

The electricity market reform is designed to promote competition and diversify the primary energy mix. The authorities' decision to unbundle distribution and transmission grids from supply and generation, and the development of a market pool arrangement, represent a major step forward, opening the way for future energy policy decisions. If well designed and properly implemented, they are expected to lead to a major overhaul of the market framework and the way it operates. A more competitive market is expected to create the conditions for reducing mark-ups and boosting efficiency and innovation. In addition, the expected diversification of the primary energy mix in power generation (through introducing natural gas and increasing the share of renewables, notably solar power) is expected to lead in the long term to cheaper input costs. However, the electricity Transmission System Operator recently announced that the electricity market opening process could be postponed until mid-2018⁽⁶⁸⁾.

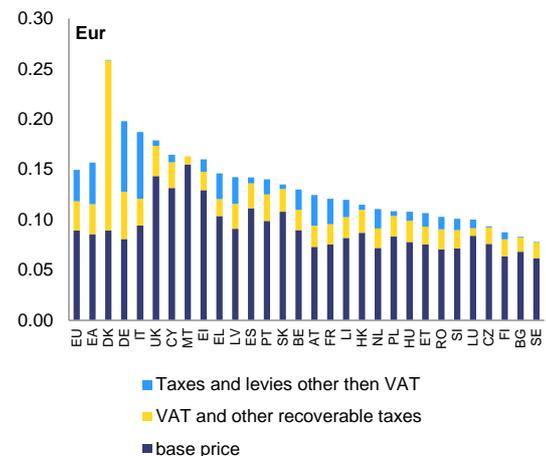
The energy regulator CERA currently lacks capacity, notably in terms of technical expertise and human resources. There is a need to ensure its independence from the state-owned utility EAC so as to bolster the perception of a fair and transparent regulatory framework. Evidence also points to the need for strengthening its human resources, and its financial and administrative independence. The authorities are willing to mobilise additional technical assistance via domestic and external channels, while searching for alternative ways to provide adequate staff resources by encouraging for example public sector mobility. Effective regulatory oversight of both the historical incumbent and of new entrants is expected to be a key factor for the development of effective competition in the electricity market.

The authorities intend to design and implement reforms designed to boost competitiveness through lower electricity prices, potential additional tax revenues and a more favourable trade balance. The planned exploitation of

⁽⁶⁸⁾ The Cyprus derogation expired on 1 January 2014; by then consumers were supposed to be able to choose their supplier. This is currently impossible, as EAC is the only available electricity supplier.

Cyprus's natural gas resources is expected to create the conditions for a long-term drop in prices and to help create a stable revenue flow. It is expected to do this thanks to the emergence of new competitors on the market, technological innovations, and improvements in the energy sector's environmental footprint.

Graph 3.4.2: Industrial consumer energy prices



Source: Eurostat

Environmental issues

Resource efficiency is relatively low in Cyprus. Cyprus performs below the EU average in terms of resource productivity (how efficiently the economy uses material resources to produce wealth), with EUR 1.31/kg (EU average: 1.95) in 2014⁽⁶⁹⁾. Investment in achieving a more circular economy with greater resource efficiency would have a positive impact on the economy, the environment and employment.

The waste management sector is not performing as well as it might. In Cyprus, although municipal waste generation has decreased over the years, it still remains significantly higher than the EU average (624 kg/y/inhabitant compared to around 481 kg on average). Most municipal waste goes into landfill (79 %, compared to 31 % for EU average). Only 12 % is recycled and 9 % composted (EU – 27 % recycled, 15 % composted). The amount of biodegradable waste going into landfill remains high at 82 %. Cyprus

⁽⁶⁹⁾ <http://ec.europa.eu/eurostat/web/europe-2020-indicators/resource-efficient-europe>.

has taken steps to upgrade its waste management system, via improving separate collection and recycling rates. However, managing waste efficiently and fulfilling the obligations from the EU Directives on waste remains a challenge. The Council of Ministers approved the updated national Waste Management Plan (for municipal waste) and the Waste Prevention Programme in November 2015. It was the lack of these plans that had led to Cyprus's suspension of EU funds for the 2014-2020 programming period.

Water is an extremely significant resource for Cyprus and its scarcity remains a major challenge for the island. Protecting water resources by implementing EU water and marine legislation entails investments to ensure the long-term availability of high-quality water, an essential resource for many economic activities (agriculture, agro-food industry, energy production, tourism, etc.). Water management implies technological and organisational innovations which contribute to overall job creation, economic growth and competitiveness.

Cyprus shows relatively weak compliance with EU environmental legislation regarding infrastructure development, and in doing so, may jeopardise its natural capital. Cyprus's very rich natural environment and biodiversity is among its strongest assets. Protecting and promoting its natural capital contributes to developing revenues in tourism, one of Cyprus' main economic activities. Cyprus is one of the countries with the largest

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network as a percentage of its total territory. However, the environmental assessments that are mandatory under EU and national law are often not carried out appropriately in many infrastructure projects in protected areas. This weakens legal certainty, slows down projects and can lead to environmental damage.

Climate policies

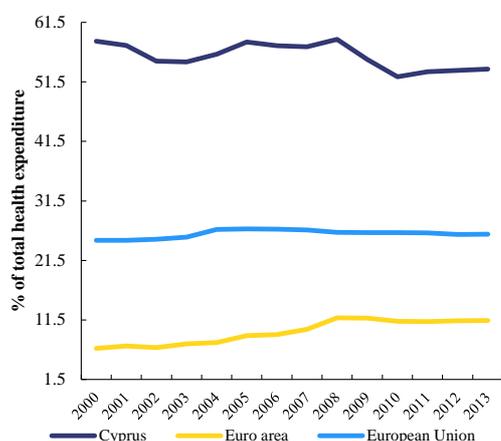
Cyprus is well on track to meet its greenhouse gas emission target. It is required to reduce CO₂ emissions in the sectors not covered by the EU Emissions Trading System by 5% in 2020 compared to 2005, and is expected to achieve this with a wide margin. A special ad hoc committee within the Ministry of Agriculture, Rural Development and Environment developed the 'Low Carbon Development Strategy of Cyprus'. In the draft roadmap, Cyprus stated that it would meet its commitments on greenhouse gas emissions by reducing dependence on fossil fuels. This would be done by promoting renewable energy sources, energy efficiency and climate-friendly technologies. Cyprus also aims to increase carbon sequestration from the atmosphere through afforestation, re-vegetation and land use changes.

There is no policy to address the environmental impact of the transport sector. This sector is much more energy-intensive in Cyprus than in most of the EU. Average emissions of newly registered passenger cars are at levels above the EU average. There are no specific, climate-related programmes in place for the transport sector. Consequently, no relevant policy developments were observed in 2015.

3.5. HEALTH CARE SECTOR

Cyprus lacks universal healthcare coverage, and presents challenges as regards high out-of-pocket payments and access to care. The health care system has long been criticized for failing to effectively cover the population, leading to significant unmet needs, while access to healthcare is inadequate and ineffective. There are long waiting lists for certain surgical operations and high-cost screening tests exacerbate inequalities in access to care (HiT, 2012).⁽⁷⁰⁾ In fact, unmet needs due to cost are significantly higher in Cyprus than in other EU countries. Similarly, inequalities in access to care between income groups are pronounced (ESTAT EU-SILC data, 2013). In 2013, Cyprus had the highest share of out-of-pocket payments in the EU (around 46% of total health expenditure was paid out-of-pocket, compared to the EU average of 15.8%) and the lowest shares of public expenditure on healthcare in the EU (46% vs. the EU average of 76%). As a result, the share of private expenditure in total health expenditure is considerably higher than the euro area and EU averages (see Graph 3.4.1).

Graph 3.5.1: Private health expenditure (% of total health expenditure)



Source: World Bank World Development Indicators.

In addition, the provision and funding of healthcare is fragmented between public and largely unregulated private providers of healthcare services. The current system has led to inefficient use of resources and inequities in access

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http://www.euro.who.int/__data/assets/pdf_file/0017/174041/Health-Systems-in-Transition_Cyprus_Health-system-review.pdf

to care. Prices, capacity, and care quality in the private sector are largely unregulated, and the costs and volumes of the services provided are inadequately monitored. Also, no coherent framework is being implemented to match up the public and private healthcare services that are provided separately. As a result coverage is inadequate and ineffective. On the one hand, the increased demand for public healthcare services driven by the economic crisis has put further strain on the already over-burdened public healthcare sector. On the other, private healthcare providers' overcapacities are exacerbated (HiT, 2012). This leads to allocative inefficiencies.

The Cypriot authorities have delayed the implementation of the National Health System (NHS), aimed at addressing the challenges of the health care sector. This commitment was made in the context of the economic adjustment programme and its fulfilment is now envisaged for 2018 (against end-2015 envisaged at the on-set of the programme). The main goals of NHS are: (i) ensuring universal healthcare coverage; (ii) ensuring the long-term fiscal sustainability of the public health care expenditure; (iii) overcoming the fragmentation of uncoordinated provision of private and public care; (iv) improving the sector organisation and monitoring; and (v) producing better quality of care. The main challenges and implementation risks of the National Health System relate to preparing the legal framework, enabling effective competition between public and private health facilities and making public health facilities financially sustainable, as well as building up the necessary IT-infrastructure for monitoring the financing and provision of care.

Hospital autonomisation is a pre-condition for the implementation of the National Health System, with a view to securing the financial sustainability of the system. In 2015, the Cypriot authorities have started defining a new strategy for hospital autonomisation, and the related bill is being prepared. However, the envisaged timelines for implementing the strategy appear to leave very little room for preparing public hospitals for competition with private hospitals under of the National Health System.

Progress on healthcare reform under the economic adjustment programme has been generally weak, and challenges remain. Reforms

in recent years focused on securing short-term viability, while failing to address the inherent challenges that the Cypriot healthcare system faces. The measures taken include stronger means-tested financing of public healthcare and introducing financial disincentives for unnecessary use of medical care. Progress towards implementing the National Health System has been weak, due to the fact that several reforms identified as important stepping stones (such as e.g. hospital autonomisation, primary healthcare reform and the finalisation of the tender for the necessary IT-infrastructure) have been constantly postponed. If there are any further delays, it is questionable whether the National Health System will be a reality by 2018, as planned.

ANNEX A

Overview table

2015 CSR implementation: As Cyprus followed a macroeconomic adjustment programme from 2013 to 2016, no Country-Specific Recommendations were made during that period.

Europe 2020 (national targets and progress)	
Target	Summary assessment
Employment rate: 75% - 77% of the population aged 20–64 should be employed by 2020.	In 2014 the employment rate in the age class 20-64 stood at 67.6%, 7.4pp below the lower bound set in the national target. The employment rate is increasing, but remains largely below the values reached in the pre-crisis period, when CY was already fulfilling its national target.
Research and development target: Increase research and development expenditure to 0.5% of GDP by 2020.	<p>Overall, no progress towards the target with R&D intensity stagnating at 0.47% of GDP in 2014. Cyprus plans to increase the annual expenditure on Research, Development and Innovation until 2020, and to focus on the quality of spending.</p> <p>According to the Innovation Union Scoreboard 2015 index, Cyprus is a "moderate innovator" with a declining performance from 2012 onwards.</p> <p>The National Committee for Research, Innovation and Technological Development (NCRITD) identified complex and lengthy procedures in the system of incentives and a lack of policies promoting cooperation between academia (universities and research centres) and businesses.</p> <p>The current governance of the R&D system may not be robust enough to allow a focused approach of the limited financial resources at hand.</p>
Renewable energy target: 13% of gross final energy consumption from renewable sources.	<p>With a renewable energy share of 9% in 2014, Cyprus is on track to reach the target for 2020. It has met the second interim target of 5.6%. However, since the trajectory is not linear, the final target will need to be achieved by means of a stronger annual average growth of the renewable energy share, in line with Cyprus' high potential in this area.</p> <p>With 1.1% share in 2013, Cyprus is however lagging behind in renewable energy sources use in transport and could have difficulty to reach the binding 10% target by 2020.</p>
Emissions in the sectors not covered by the EU ETS must decrease by 5% in 2020 compared to 2005.	According to the latest national projections submitted to the Commission and taking into account existing measures, it is expected that the target will be achieved by a wide margin.
Energy efficiency target: absolute level of primary consumption of 2.2 Mtoe	Gross inland primary energy consumption has been reduced significantly in the last few years and therefore the absolute objective has been achieved. Nonetheless, over 90% of Cyprus's energy consumption is covered by imported oil and oil products.
Early school leaving target:	Cyprus has already reached the Europe 2020 national target as

<p>Reduce the rate of early school leavers to 10% by 2020.</p>	<p>regards early school leaving, while still continuing to make significant progress in tackling this issue. In 2014, the early school leaving rate was 6.8% (compared to an EU average of 11.1%), down from 12.7% in 2010. However this improvement masks a significant number of disparities. In Cyprus young men are almost four times more likely to leave school prematurely (11.2%) than young women (2.9%), and the gender gap is widening. Foreign-born students have a much higher risk of dropping out from education (19.5%) compared with students born in Cyprus (4.6%).</p>
<p>Tertiary education target: Increase participation in higher education to 46%.</p>	<p>Higher education is generalised, but the employability of recent graduates is still a major issue. Cyprus has one of the highest tertiary education attainment rates in the EU with 52.5%, compared to the European average of 37.9% in 2014 and largely outperforms its Europe 2020 national target of 46%. Employability prospects for recent tertiary education graduates (ISCED 5-8) have been relatively low, but are improving with a rate of 72.4% in 2014 compared to the EU average of 80.5%.</p>
<p>Target for reducing the population at risk of poverty or social exclusion in number of persons: Reduce the number of people at risk of poverty or social inclusion by 27,000 persons or decrease to 19.3% of the population.</p>	<p>The number of people at risk of poverty or social exclusion had been increasing since 2008, reaching 27.8% of the total population in 2013. In 2014 it has slightly decreased to 27.4% (corresponding to 54,000 persons at-risk-of-poverty or social exclusion more than in 2008). Based on these figures, the national target for 2020 appears far from reach.</p>

ANNEX B

MIP Scoreboard

Table B.1: MIP Scoreboard

			Thresholds	2009	2010	2011	2012	2013	2014
External imbalances and competitiveness	Current account balance, (% of GDP)	3 year average	-4%/6%	-12.7*	-11.4	-7.5	-6.8	-4.7	-4.9
	Net international investment position (% of GDP)		-35%	-101.7	-113.2	-132.6	-128.7	-136.4	-139.8
	Real effective exchange rate - 42 trading partners, HICP deflator	3 years % change	±5% & ±11%	3.5	0.0	-3.0	-5.9	-0.8	-1.4
	Export market share - % of world exports	5 years % change	-6%	-9.0*	-19.4*	-16.8*	-26.8*	-15.4	-26.7
	Nominal unit labour cost index (2010=100)	3 years % change	9% & 12%	7.5	21.7b	22.8	16.6	-2.0	-7.7p
Internal imbalances	Deflated house prices (% y-o-y change)		6%	-6.7	-7.9p	-4.6p	-5.9p	-4.7p	0.3p
	Private sector credit flow as % of GDP, consolidated		14%	8.0	13.4	13.1	13.6	-12.7	-8.5
	Private sector debt as % of GDP, consolidated		133%	309.2	318.6	324.6	325.4	338.9	348.3
	General government sector debt as % of GDP		60%	53.9	56.3	65.8	79.3	102.5	108.2
	Unemployment rate	3 year average	10%	4.3	5.1	6.5	8.7	11.9	14.6
	Total financial sector liabilities (% y-o-y change)		16.5%	11.5	8.5	-6.1	-5.9	-15.7	0.7
New employment indicators	Activity rate - % of total population aged 15-64 (3 years change in p.p)		-0.2%	0.0b	-0.3	-0.1	0.5	0.0	0.8
	Long-term unemployment rate - % of active population aged 15-74 (3 years change in p.p)		0.5%	-0.3	0.6	1.1	3.0	4.8	6.1
	Youth unemployment rate - % of active population aged 15-24 (3 years change in p.p)		2%	3.8	6.4	13.4	13.9	22.3	13.6

(1) See page 2 of the AMR 2016. (2) House price index: e = Eurostat estimates. (3) Unit labour cost for 2010 break in time series. Since the indicator is a three year % change the break affects the series until the 2012 figure.

Source: European Commission, Eurostat and Directorate General for Economic and Financial Affairs (for Real Effective Exchange Rate), and International Monetary Fund

ANNEX C

Standard tables

Table C.1: Financial market indicators

	2010	2011	2012	2013	2014	2015
Total assets of the banking sector (% of GDP) ¹⁾	706.0	673.4	658.1	499.8	524.0	524.4
Share of assets of the five largest banks (% of total assets)	64.2	60.8	62.5	62.3	63.4	:
Foreign ownership of banking system (% of total assets)	30.6	35.5	34.6	29.2	29.6	:
Financial soundness indicators:						
- non-performing loans (% of total loans) ²⁾	5.8	10.0	18.4	38.6	44.9	44.7
- capital adequacy ratio (%) ²⁾	12.4	12.1	7.3	14.0	15.4	16.2
- return on equity (%) ²⁾	12.0	-59.4	-62.3	-39.8	0.8	7.3
Bank loans to the private sector (year-on-year % change) ¹⁾	5.9	6.9	4.2	-9.4	-4.2	3.6
Lending for house purchases (year-on-year % change) ¹⁾	13.4	4.8	0.3	-6.8	-2.8	-3.0
Loan to deposit ratio ¹⁾	103.9	112.6	119.3	152.3	152.1	152.1
Central Bank liquidity as % of liabilities ¹⁾	4.9	5.1	9.0	15.7	12.4	6.9
Private debt (% of GDP)	318.6	324.6	325.4	338.9	348.3	:
Gross external debt (% of GDP) ³⁾ - public	:	:	:	:	:	:
Gross external debt (% of GDP) ³⁾ - private	:	:	:	:	:	:
Long-term interest rate spread versus Bund (basis points)*	185.7	317.9	550.5	493.0	483.7	404.1
Credit default swap spreads for sovereign securities (5-year)*	149.7	638.0	1196.2	943.9	423.1	330.6

1) Latest data in November 2015.

2) Latest data Q2 2015.

3) Latest data June 2015. Monetary authorities, monetary and financial institutions are not included.

* Measured in basis points.

Source: IMF (financial soundness indicators); European Commission (long-term interest rates); World Bank (gross external debt); Eurostat (private debt); ECB (all other indicators).

Table C.2: Labour market and social indicators

	2010	2011	2012	2013	2014	2015 ⁴
Employment rate (% of population aged 20-64)	75	73.4	70.2	67.2	67.6	67.8
Employment growth (% change from previous year)	1	0.5	-3.2	-6	-1.1	0.7
Employment rate of women (% of female population aged 20-64)	68.8	67.7	64.8	62.2	63.9	63.9
Employment rate of men (% of male population aged 20-64)	81.7	79.6	76.1	72.6	71.6	72.1
Employment rate of older workers (% of population aged 55-64)	56.3	54.8	50.7	49.6	46.9	47.8
Part-time employment (% of total employment, aged 15 years and over)	9.5	10.2	10.7	12.7	14.1	13.6
Fixed term employment (% of employees with a fixed term contract, aged 15 years and over)	14	14.1	15	17.4	18.9	18.4
Transitions from temporary to permanent employment	22.1	22.7	24.3	19.1	17.9	-
Unemployment rate ¹ (% active population, age group 15-74)	6.3	7.9	11.9	15.9	16.1	15.6
Long-term unemployment rate ² (% of labour force)	1.3	1.6	3.6	6.1	7.7	7.0
Youth unemployment rate (% active population aged 15-24)	16.6	22.4	27.7	38.9	36	33.3
Youth NEET ³ rate (% of population aged 15-24)	11.7	14.6	16	18.7	17	-
Early leavers from education and training (% of pop. aged 18-24 with at most lower sec. educ. and not in further education or training)	12.7	11.3	11.4	9.1	6.8	-
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	45.3	46.2	49.9	47.8	52.5	-
Formal childcare (30 hours or over; % of population aged less than 3 years)	16	17	19	22	-	-

1) Unemployed persons are all those who were not employed but had actively sought work and were ready to begin working immediately or within two weeks.

2) Long-term unemployed are peoples who have been unemployed for at least 12 months.

3) Not in Education Employment or Training.

4) Average of first three quarters of 2015. Data for total unemployment and youth unemployment rates are seasonally adjusted.

Source: European Commission (EU Labour Force Survey).

Table C.3: Expenditure on social protection benefits (% of GDP)

	2009	2010	2011	2012	2013	2014
Sickness/healthcare	4.6	4.5	4.6	4.5	4.5	-
Invalidity	0.7	0.7	0.7	0.7	0.7	-
Old age and survivors	8.4	9.3	9.8	10.8	11.9	-
Family/children	2.0	1.9	1.8	1.5	1.4	-
Unemployment	0.9	1.0	1.1	1.4	1.8	-
Housing and social exclusion n.e.c.	1.0	1.0	0.9	0.6	0.4	-
Total	19.0	19.8	20.5	20.6	21.8	-
of which: means-tested benefits	2.5	2.7	2.7	2.9	2.7	-
Social inclusion indicators						
People at risk of poverty or social exclusion ¹ (% of total population)	23.5	24.6	24.6	27.1	27.8	27.4
Children at risk of poverty or social exclusion (% of people aged 0-17)	20.2	21.8	23.4	27.5	27.7	24.7
At-risk-of-poverty rate ² (% of total population)	15.8	15.6	14.8	14.7	15.3	14.4
Severe material deprivation rate ³ (% of total population)	9.5	11.2	11.7	15.0	16.1	15.3
Proportion of people living in low work intensity households ⁴ (% of people aged 0-59)	4.0	4.9	4.9	6.5	7.9	9.7
In-work at-risk-of-poverty rate (% of persons employed)	6.8	7.3	7.3	7.9	8.9	7.8
Impact of social transfers (excluding pensions) on reducing poverty	33.1	33.6	37.0	37.4	37.0	41.5
Poverty thresholds, expressed in national currency at constant prices ⁵	9257	9088	9305	8958	8148	7363
Gross disposable income (households)	-1	5	3	-5	-5	-4
Inequality of income distribution (S80/S20 income quintile share ratio)	4.4	4.5	4.3	4.7	4.9	5.4

1) People at risk of poverty or social exclusion (AROPE): individuals who are at risk of poverty (AROP) and/or suffering from severe material deprivation (SMD) and/or living in households with zero or very low work intensity (LWI).

2) At-risk-of-poverty rate (AROP): proportion of people with an equivalised disposable income below 60 % of the national equivalised median income.

3) Proportion of people who experience at least four of the following forms of deprivation: not being able to afford to i) pay their rent or utility bills, ii) keep their home adequately warm, iii) face unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) enjoy a week of holiday away from home once a year, vi) have a car, vii) have a washing machine, viii) have a colour TV, or ix) have a telephone.

4) People living in households with very low work intensity: proportion of people aged 0-59 living in households where the adults (excluding dependent children) worked less than 20 % of their total work-time potential in the previous 12 months

5) For EE, CY, MT, SI and SK, thresholds in nominal values in euros; harmonised index of consumer prices (HICP) = 100 in 2006 (2007 survey refers to 2006 incomes)

Source: For expenditure for social protection benefits ESSPROS; for social inclusion EU-SILC.

Table C.4: Structural policy and business environment indicators

	2009	2010	2011	2012	2013	2014
Performance indicators						
Labour productivity (real, per person employed, y-o-y)	:	:	:	:	:	:
Labour productivity in industry	-2.0	2.7	-1.7	-2.5	5.2	1.8
Labour productivity in construction	-14.5	-2.4	-5.2	-5.1	-17.7	-8.0
Labour productivity in market services	2.2	3.3	0.2	1.2	-0.6	-3.9
Unit labour costs (ULC) (whole economy, y-o-y)	:	:	:	:	:	:
ULC in industry	5.2	26.1	3.0	-0.4	-11.7	-1.2
ULC in construction	16.5	29.2	8.7	2.3	3.2	12.9
ULC in market services	-0.9	21.8	1.9	0.6	0.3	0.2
Business environment						
Time needed to enforce contracts ¹ (days)	735.0	735.0	735.0	735.0	735.0	735.0
Time needed to start a business ¹ (days)	8.0	8.0	8.0	8.0	8.0	8.0
Outcome of applications by SMEs for bank loans ²	0.6	:	0.7	:	1.4	1.3
Research and innovation						
R&D intensity	0.5	0.5	0.5	0.4	0.5	0.5
Total public expenditure on education as % of GDP, for all levels of education combined	8.0	7.9	7.9	6.7	:	:
Number of science & technology people employed as % of total employment	40.5	42.1	45.4	47.7	48.8	50.4
Population having completed tertiary education ³	30.5	32.1	33.7	35.0	35.4	36.4
Young people with upper secondary level education ⁴	87.3	86.2	87.6	87.8	89.5	92.4
Trade balance of high technology products as % of GDP	-1.2	-3.1	-1.4	-1.0	-0.2	-1.3
Product and service markets and competition						
OECD product market regulation (PMR) ⁵ , overall	:	:	:	:	:	1.7
OECD PMR ⁵ , retail	:	:	:	:	:	1.7
OECD PMR ⁵ , professional services	:	:	:	:	:	3.1
OECD PMR ⁵ , network industries ⁶	:	:	:	:	:	2.6

1) The methodologies, including the assumptions, for this indicator are shown in detail here: <http://www.doingbusiness.org/methodology>.

2) Average of the answer to question Q7B_a. "[Bank loan]: If you applied and tried to negotiate for this type of financing over the past six months, what was the outcome?". Answers were codified as follows: zero if received everything, one if received most of it, two if only received a limited part of it, three if refused or rejected and treated as missing values if the application is still pending or don't know.

3) Percentage population aged 15-64 having completed tertiary education.

4) Percentage population aged 20-24 having attained at least upper secondary education.

5) Index: 0 = not regulated; 6 = most regulated. The methodologies of the OECD product market regulation indicators are shown in detail here: <http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm>

6) Aggregate OECD indicators of regulation in energy, transport and communications (ETCR).

Source: European Commission; World Bank — Doing Business (for enforcing contracts and time to start a business); OECD (for the product market regulation indicators); SAFE (for outcome of SMEs' applications for bank loans).

Table C.5: Green growth performance

		2009	2010	2011	2012	2013	2014
Macroeconomic							
Energy intensity	kgoe / €	0.19	0.18	0.17	0.17	0.15	:
Carbon intensity	kg / €	0.61	0.59	0.57	0.55	0.54	:
Resource intensity (reciprocal of resource productivity)	kg / €	1.49	1.37	1.34	1.01	0.85	0.87
Waste intensity	kg / €	:	0.14	:	0.13	:	:
Energy balance of trade	% GDP	-4.6	-6.0	-6.8	-7.6	-6.4	-5.9
Weighting of energy in HICP	%	12.03	10.57	8.73	9.41	9.53	9.33
Difference between energy price change and inflation	%	-16.5	18.9	14.0	17.9	-7.0	-8.8
Real unit of energy cost	% of value added	7.3	7.3	7.3	:	:	:
Ratio of environmental taxes to labour taxes	ratio	4.0	4.1	4.1	4.4	3.9	3.8
Ratio of environmental taxes to GDP	ratio	2.8	2.8	2.8	2.6	2.7	3.1
Sectoral							
Industry energy intensity	kgoe / €	0.19	0.17	0.16	0.14	0.17	:
Real unit energy cost for manufacturing industry	% of value added	17.0	17.0	17.0	:	:	:
Share of energy-intensive industries in the economy	% GDP	4.85	5.06	4.76	4.46	4.24	:
Electricity prices for medium-sized industrial users	€ / kWh	0.13	0.16	0.19	0.23	0.20	0.18
Gas prices for medium-sized industrial users	€ / kWh	:	:	:	:	:	:
Public R&D for energy	% GDP	0.00	0.00	0.00	0.00	0.00	0.00
Public R&D for environmental protection	% GDP	0.01	0.00	0.00	0.00	0.00	0.00
Municipal waste recycling rate	%	8.3	15.1	20.7	22.1	21.4	:
Share of GHG emissions covered by ETS*	%	52.1	50.6	47.5	47.3	48.3	52.7
Transport energy intensity	kgoe / €	1.00	0.96	1.04	1.03	0.92	:
Transport carbon intensity	kg / €	2.21	2.14	2.23	2.21	1.96	:
Security of energy supply							
Energy import dependency	%	96.3	100.8	92.4	97.0	96.4	:
Aggregated supplier concentration index	HHI	1.1	0.2	0.0	0.0	:	:
Diversification of energy mix	HHI	0.92	0.91	0.91	0.90	0.88	:

General explanation of the table items:

All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2005 prices)

Energy intensity: gross inland energy consumption (in kgoe) divided by GDP (in EUR)

Carbon intensity: greenhouse gas emissions (in kg CO₂ equivalents) divided by GDP (in EUR)

Resource intensity: domestic material consumption (in kg) divided by GDP (in EUR)

Waste intensity: waste (in kg) divided by GDP (in EUR)

Energy balance of trade: the balance of energy exports and imports, expressed as % of GDP

Weighting of energy in HICP: the proportion of "energy" items in the consumption basket used for the construction of the HICP. Difference between energy price change and inflation: energy component of HICP, and total HICP inflation (annual % change)

Real unit energy cost: real energy costs as a percentage of total value added for the economy

Environmental taxes over labour taxes and GDP: from European Commission's database, 'Taxation trends in the European Union'

Industry energy intensity: final energy consumption of industry (in kgoe) divided by gross value added of industry (in 2005 EUR)

Real unit energy costs for manufacturing industry: real costs as a percentage of value added for manufacturing sectors

Share of energy-intensive industries in the economy: share of gross value added of the energy-intensive industries in GDP

Electricity and gas prices for medium-sized industrial users: consumption band 500–20 000 MWh and 10 000–100 000 GJ; figures excl. VAT.

Municipal waste recycling rate: ratio of recycled municipal waste to total municipal waste

Public R&D for energy or for the environment: government spending on R&D (GBAORD) for these categories as % of GDP

Proportion of greenhouse gas (GHG) emissions covered by EU Emission Trading System (ETS): based on greenhouse gas emissions

(excl land use, land use change and forestry) as reported by Member States to the European Environment Agency)

Transport energy intensity: final energy consumption of transport activity (kgoe) divided by transport industry gross value added (in 2005 EUR)

Transport carbon intensity: greenhouse gas emissions in transport activity divided by gross value added of the transport sector

Energy import dependency: net energy imports divided by gross inland energy consumption incl. consumption of international bunker fuels

Aggregated supplier concentration index: covers oil, gas and coal. Smaller values indicate larger diversification and hence lower risk.

Diversification of the energy mix: Herfindahl index over natural gas, total petrol products, nuclear heat, renewable energies and solid fuels. * European Commission and European Environment Agency

Source: European Commission (Eurostat) unless indicated otherwise