3 Financial system

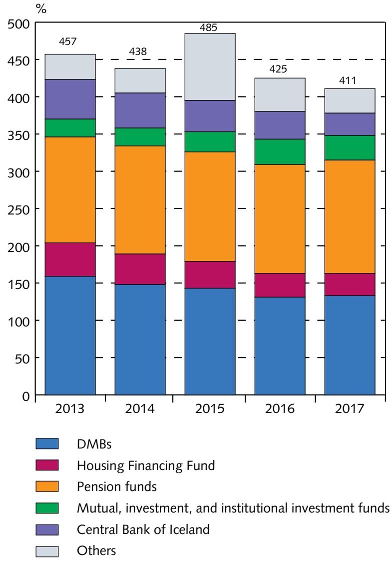
This chapter describes the Icelandic financial system. It covers the credit system, including deposit money banks (DMB), commercial banks' financial position, the Housing Financing Fund (HFF), and the pension funds, as well as Iceland's bond, equity, and foreign exchange markets.

Overview of the credit system

At year-end 2017, total assets in the credit system[1] amounted to roughly four times Iceland's GDP. Pension funds have the largest share, or about 37% of financial system assets. The combined assets of DMBs were about one-and-a-third times GDP. The three largest banks represent 97% of the DMB sector and are classified as domestic systemically important banks (D-SIB) by the Financial Stability Council.

Chart 3.1

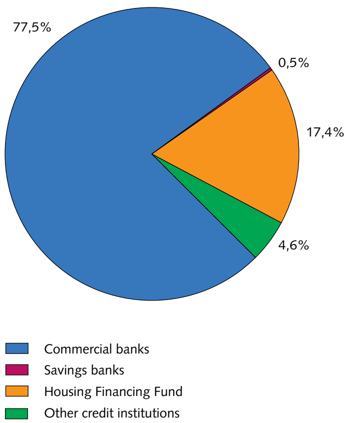
Financial system: Assets as % of GDP[1]



1. Parent companies.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 3.2

Credit institutions' total assets[1]



1. Parent companies. December 2017.
Source: Central Bank of Iceland.

1. The credit system consists of the banking system, pension funds, insurance companies, mutual funds, investment and institutional funds, State loan funds, and other credit institutions, the largest of which is the Housing Financing Fund (HFF).

Table 3.1 Credit system assets

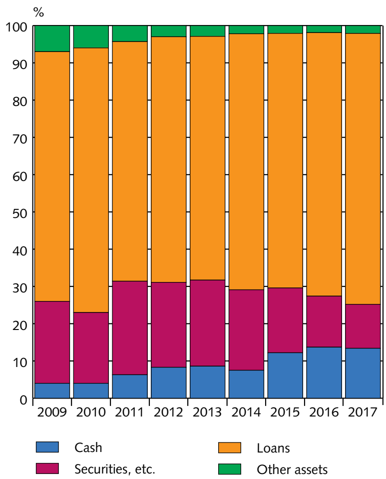
Assets, EUR billions (b.kr.)	*31.12.2010*	*31.12.2012*	*31.12.2014*	*31.12.2016*	*31.12.2017*
Central Bank of Iceland	8,6 (1,328)	6,3 (1,075)	6,2 (957)	7,6 (901)	6,1 (765)
Deposit-taking corporations[1]	18,0 (2,765)	17,1 (2,909)	19,4 (2,997)	27,0 (3,222)	27,2 (3,405)
- Commercial banks	17,1 (2,627)	16,8 (2,850)	19,0 (2,939)	26,8 (3,199)	27,0 (3,381)
- Savings banks and other deposit-taking corporations	0.9 (139)	0.3 (59)	0.4 (59)	0.2 (23)	0.2 (24)
Money market funds (MMF)	0,1 (13)	0,1 (20)	0,3 (51)	1,5 (177)	1,3 (158)
Non-MMF investment funds	1,8 (271)	2,3 (390)	2,8 (437)	5,6 (668)	5,5 (686)
Other financial intermediaries	9,3 (1,428)	8,0 (1,352)	8,6 (1,328)	14,4 (1,720)	11,3 (1,407)
-Housing Financing Fund	5,4 (836)	5,2 (876)	5,3 (824)	6,6 (787)	6,1 (761)
Financial auxiliaries	0,2 (36)	0,3 (49)	0,4 (59)	0,4 (52)	0,4 (55)
Insurance companies	0,9 (138)	0,9 (155)	1,1 (169)	1,5 (177)	1,5 (186)
Pension funds	12,9 (1.989)	14,4 (2.439)	19,0 (2.935)	30,1 (3.584)	31,1 (3.894)
Total assets	51,8 (7.969)	49,4 (8.389)	57,8 (8.932)	88,1 (10.500)	84,4 (10.556)

1. Excluding the Central Bank.
Source: Central Bank of Iceland.

At the end of 2017, there were four commercial banks and four savings banks operating in Iceland. Two of the three large commercial banks, Landsbankinn hf. and Íslandsbanki hf., are owned by Icelandic State Financial Investments (ISFI), which administers the Government of Iceland's holdings in financial institutions. The third large commercial bank, Arion Bank hf., is now wholly owned by private entities after the Icelandic government sold its 13% stake in the bank in February 2018. The savings banks are small compared to the commercial banks, with total assets amounting to less than 1% of total DMB assets. The activities of the commercial and savings banks are directed primarily towards serving the domestic economy.

Chart 3.3

Commercial banks' assets[1]



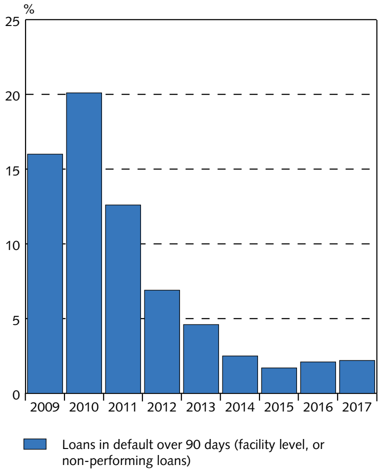
1. Parent companies.
Source: Central Bank of Iceland.

Commercial banks' financial position

The commercial banks' assets consist largely of loans. At year-end 2017, total lending amounted to the

Chart 3.4

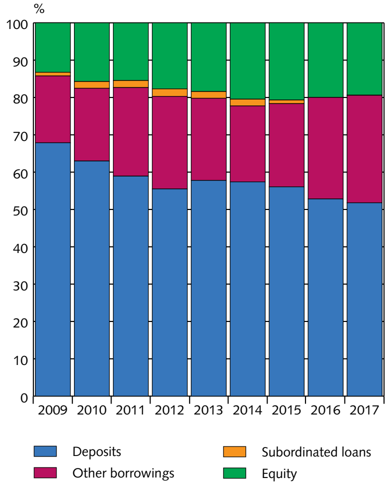
Default ratios of the three largest commercial banks[1]



1. Parent companies, book value.
Sources: Financial Supervisory Authority, Central Bank of Iceland.

Chart 3.5

Commercial banks' funding[1]



1. Parent companies.
Source: Central Bank of Iceland.

equivalent of 19.7 billion euros (2,458 b.kr). The largest share was to domestic households and non-financial companies, with 41% indexed to the CPI, 44% non-indexed, and around 15% foreign-denominated. The commercial banks have undertaken extensive restructuring of their household and corporate loan portfolios since the financial crisis in 2008. The D-SIBs' default ratios were steady at around 2% in 2016 and 2017, after having peaked at 20% in 2010. Furthermore, D-SIBs' loan quality has improved, as collateral used to secure loans has risen more in value than the credit stock in the last two years.

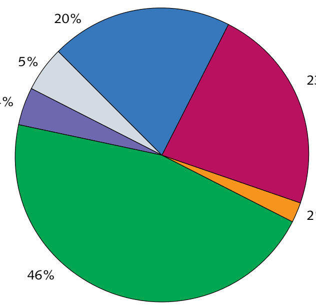
The Icelandic commercial banks are funded mainly by customer deposits. At the end of 2017, deposits comprised 52% of their total funding and their deposit-to-lending ratio was 66%, whereas equity amounted to 19% of funding. Most of the deposits (95%) were held by Icelandic residents. Of total deposits, 9% were indexed to the CPI and around 10% were foreign-denominated. The majority of deposits (72%) are payable on demand or within one month. The banks' market funding has increased in recent years and comprised more than 27% of total funding at year-end 2017. To an increasing degree, the banks fund their mortgage lending portfolios with covered bond issues, which accounted for 7% of total funding at year-end 2017. The banks have issued bonds in foreign credit markets under their medium-term note (MTN) programmes. They have issued mainly in euros, Norwegian kroner, Swedish kronor, and US dollars, and their borrowing terms have been steadily improving in recent years. This is due both to favourable foreign market conditions for bank funding and to the increasing strength of the Icelandic economy, which has been reflected in credit rating upgrades. In October 2017, the rating agency S&P Global upgraded all of the banks from BBB to BBB+ ratings, with a stable outlook.

In recent years, D-SIBs have generated strong profits, and their capital position is robust. Until 2017 a significant portion of the banks' profit stemmed from temporary items such as writeups and sales of holdings in companies and valuation increases in loans. The restructuring of the banks' asset portfolios is largely complete, and in 2016-2017 the banks saw a drop in irregular and estimated income, which in 2017 accounted for just under 9% of total income, as opposed to nearly 15% in 2016 and 24% in 2015. As a result, the banks must rely more on their core operations in the future to generate profits. At the end of 2017, their capital adequacy ratios were 25%, including 24.3% in Tier I capital, and had declined by about 2-3 percentage points in the last three years because of dividend payments. The D-SIBs' leverage ratio, a measure of equity relative to total non-risk-adjusted assets, was just under 17% at year-end 2017. Credit rating upgrades and improved access to market funding gives the D-SIBs greater scope to change their funding structure as regards the composition and size of their capital base. However, the D-SIBs will have to meet the Financial Supervisory Authority's (FME) required capital minimum, which was just over 20% as of year-end 2017. In addition, the banks will have to be prepared for an increase in required capital buffers as the financial cycle gains strength.

The Basel III capital buffers have been incorporated into the law. The capital conservation buffer is set by law at 2.5%. The Financial Stability Council (FSC) has recommended using the three other buffers and the Financial Superiority Authority has announced their implementation. The announced buffers are: a capital buffer for systemically important financial institutions, amounting to 2%; a buffer for systemic risk, amounting to 3% of risk-weighted domestic assets; and a countercyclical capital buffer, which is set at 1.25% as of late 2017 but is set to rise to 1.75% effective May 2019. When fully implemented in May 2019, the combined capital buffers imposed on the D-SIBs will be 9.25% of risk-weighted assets.

Chart 3.6

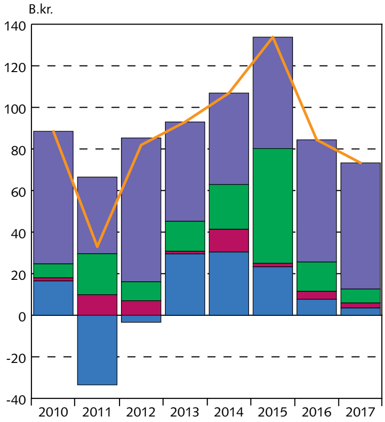
Deposit owners[1]



1. Commercial banks, parent companies. December 2017.
Source: Central Bank of Iceland.

Chart 3.7

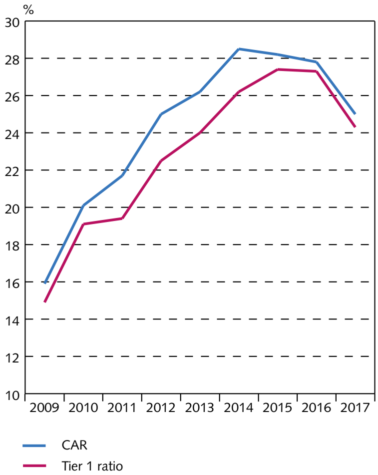
The three largest commercial banks' profit before tax and irregular and estimated items[1]



1. Consolidated figures.
Sources: Commercial banks' annual accounts, Financial Supervisory Authority, Central Bank of Iceland.

Chart 3.8

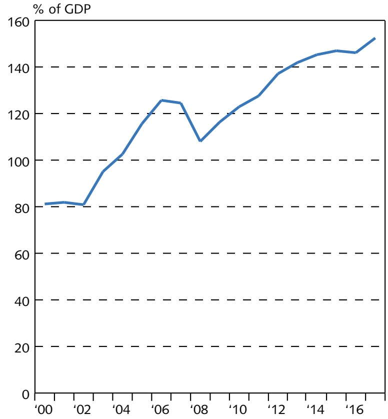
Commercial banks' capital adequacy ratios[1]



1. Largest commercial banks, consolidated figures.
Source: Commercial banks' annual reports.

Chart 3.9

Pension funds' total assets



Source: Central Bank of Iceland.

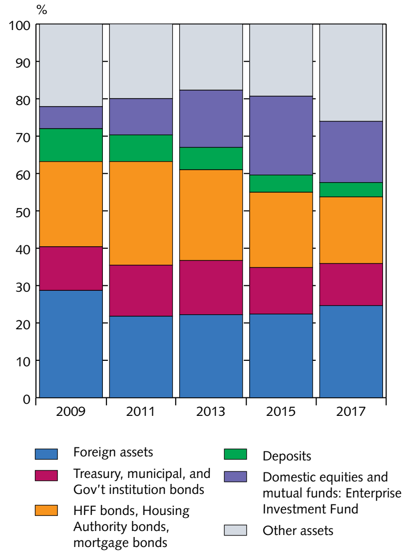
The Central Bank of Iceland sets rules on credit institutions' minimum liquid assets (liquidity coverage ratio, LCR). The LCR rules assume that banks must always have sufficient high-quality liquid assets to cover net outflows for the next 30 days under stressed conditions. The banks must fulfil requirements for all currencies combined, as well as for all foreign currencies combined. The Central Bank also sets rules on credit institutions' funding ratios in foreign currency (net stable funding ratio, NSFR, in foreign currencies). Rules on credit institutions' minimum net stable funding ratio (NSFR) in foreign currencies took effect in December 2014. The funding ratio is intended to ensure a minimum level of stable one-year funding in foreign currencies, thereby restricting the degree to which the commercial banks can rely on unstable short-term funding to finance long-term foreign-denominated lending. All of Iceland's commercial banks met the liquidity and funding requirements, both in foreign currencies and overall, by an ample margin at the time this publication went to press. The Central Bank of Iceland also sets rules on credit institutions' foreign exchange balance so as to limit foreign exchange risk by preventing credit institutions' foreign exchange balances from exceeding defined limits. The permissible open foreign exchange balance is 10% of the capital base for D-SIBs and 15% for other credit institutions. All of Iceland's commercial banks met the foreign exchange requirements by a sizeable margin as of this writing.

The Housing Financing Fund

The HFF is an independent Government institution that previously served primarily as a lending institution granting mortgage loans to individuals, municipalities, companies, and organisations in order to finance house purchases and construction projects. In 2016, the role and main tasks of the HFF changed with the passage of amending legislation. The institution is now responsible for implementation of housing policies instead of functioning primarily as a credit institution. The HFF financed its mortgage lending by issuing indexed HFF bonds, which are backed by a Government guarantee. No HFF bonds have been issued since January 2012, however. In recent years, the HFF has been beset by large-scale retirement of loans, although the Fund has attempted to mitigate the negative effects of the prepayments on its interest rate spread by investing in asset-backed indexed bonds. In 2017, the HFF's capital ratio exceeded the long-term target of 5%, measuring 8.5% by the year-end.

Chart 3.10

Pension funds' assets



Source: Central Bank of Iceland.

Pension funds

The Icelandic pension fund system consists of pension funds for public employees, on the one hand, and a number of occupational pension funds, on the other. Membership of pension funds is mandatory, and all wage earners and employers pay contributions to the funds (see Chapter 2). By and large, it is a funded system. About 90% of assets are held by coinsurance divisions, and about 10% consist of third-pillar pension savings held in custody by pension funds. At the end of 2017, there were 24 pension funds operating in Iceland, with total assets amounting to just over one-third of financial system assets. At that time, total pension fund assets amounted to 31.5 billion euros (3,933 b.kr.), or just over 1.5 times GDP. Since the financial crisis in 2008, pension fund assets have increased by 74% in real terms, owing to improved returns, robust employment growth, and rising wages. As of end-2017, the majority of the funds' assets were domestic, whereas foreign assets accounted for nearly 25% of total assets. The share of the funds' foreign assets declined somewhat following the adoption of capital controls in November 2008, but the share of foreign assets has increased since the controls were liberalised, as the pension funds have actively invested abroad. The pension funds' largest asset classes are marketable bonds and bills, at about 46% of total assets, and stocks and unit share certificates, at about 40%. Iceland's pension funds also participate in lending activity within the financial system, and just over 8% of their assets are loans granted to fund members, mainly housing-related. The pension funds' activities are supervised by the FME, and their investment policies are subject to strict criteria defined in the Act on Mandatory Pension Insurance and on the Activities of Pension Funds, no. 129/1997. Relative to GDP, Iceland's pension funds are the second-largest in the OECD, surpassed only by the Netherlands.

Payment intermediation

The Central Bank is responsible for the operational soundness of systemically important payment systems. Furthermore, the Bank is responsible for oversight of systemically important financial market infrastructure, including the securities settlement system. The Bank applies the CPSS (now CPMI) and IOSCO's Principles for Financial Market Infrastructures (e. PFMI). The FME is responsible for supervising individual payment service providers and their infrastructure, as well as supervising centralised securities depositories.

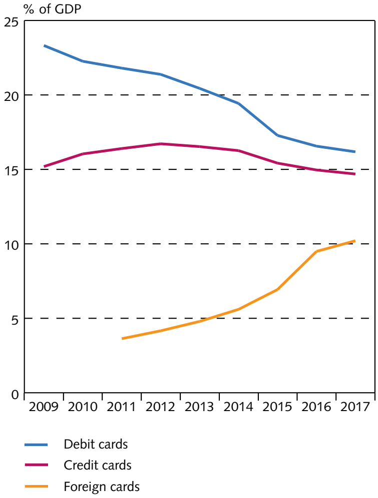
Three systemically important payment and settlement systems are operated in Iceland: the Central Bank Real-Time Gross Settlement (RTGS) system; the retail payment system (netting system) owned by Greiðsluveitan ehf., a subsidiary of the Central Bank of Iceland; and the securities settlement system owned by Nasdaq CSD Iceland. The RTGS system plays a key role in the Icelandic financial system. It is used for settlement of high-value interbank payments amounting to at least 80 thousand euros (10 m.kr.), transferring customer payments between the Central Bank's account holders, settlement of monetary policy transactions in Iceland, and settlement of payments for other settlement systems in the Icelandic payment system infrastructure. Net interbank positions of the other two systemically important systems are settled in the RTGS system at predefined intervals: the retail payment system twice a day at 8:30 and 16:30 hrs. GMT, and the securities settlement system twice a day at 11:45 and 15:00 hrs. GMT, with delivery of securities versus payment (DvP). All three systems use Central Bank money during the settlement process.

The Central Bank of Iceland has the exclusive right to issue banknotes and coin in Iceland. The currency is called the króna (pl. krónur). Five denominations of banknotes (10,000, 5000, 2000, 1000, and 500 kr.) and five denominations of coins (100, 50, 10, 5, and 1 kr.) are valid as legal tender in Iceland. The value of banknotes and coin in circulation at year-end 2017 was 482 million euros (60.3 b.kr.), or around 2.4% of GDP.

Payment cards are commonly used in Iceland by international comparison. The value of debit and credit card transfers has increased steadily over a number of years, in line with rising GDP,

Chart 3.11

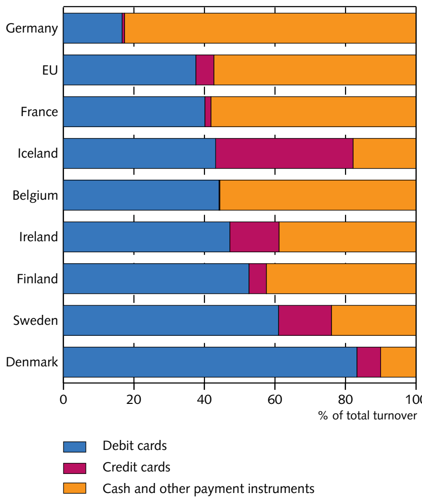
Use of card payments and foreign cards in Iceland



Source: Central Bank of Iceland.

Chart 3.12

Use of cash and other payment instruments in 2016



Sources: European Central Bank, Eurostat, Central Bank of Iceland.

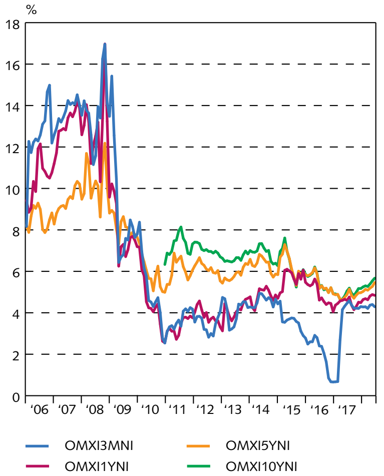
but the share of payments made with cash and foreign cards has risen considerably, concurrent with growth in tourism.

The Nasdaq Iceland stock exchange and the Nasdaq Central Securities Depository
Iceland currently has one authorised stock exchange, operated by Nasdaq Iceland hf., where public securities listing and securities trading are carried out. Nasdaq Iceland hf. is a part of the Nasdaq Group and is licensed to operate a regulated market as well as a multilateral trading facility (MTF), the First North Iceland market. Both issuer rules and trading rules are largely harmonised with the sister exchanges run by Nasdaq in the Nordic countries (Stockholm, Helsinki, and Copenhagen).

Nasdaq CSD Iceland hf. is one of five central securities depositories (CSD) owned by the Nasdaq Group. The CSD is a registry, depository, and clearing house for securities in dematerialised (electronic) form. The main role of the CSD is to provide centralised registration and notary services for dematerialised securities in the Icelandic market and to maintain securities accounts at the top-tier level. The CSD is responsible for settling transactions with dematerialised securities. It also provides shareholder registry services to issuers, processes corporate actions, and provides information services. Settlement is carried out using Central Bank money. The CSD is a national numbering agency (NNA) assigning international securities identification number (ISIN) codes to instruments issued in Iceland. It operates two national market practice groups (NMPG) whose aim is to develop and harmonise procedures in the Icelandic post-trade environment.

Chart 3.13

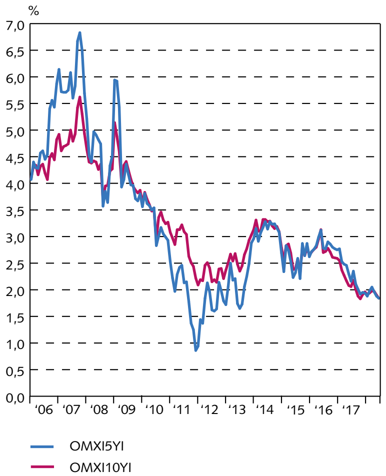
Yields on non-indexed bond indices
At month-end January 2006 - August 2018



Source: Nasdaq Iceland.

Chart 3.14

Yields on indexed bond indices
At month-end January 2006 - August 2018



Source: Nasdaq Iceland.

Bond market

The Icelandic bond market consists of a primary market and a secondary market that is operated primarily on the Nasdaq Iceland exchange. Icelandic bond issues can be divided into three broad categories:

1. Nominal and inflation-indexed Treasury bonds. These are the largest bond series in the Icelandic market, amounting to 28.8% of market value as of end-June 2018 (5.7 billion euros, 707 b.kr).
2. Housing Financing Fund (HFF) bonds, which are inflation-indexed, interest-bearing bonds with an annuity format. Their market share was about 29% at the end of June 2018, and their market value was 5.8 billion euros (718 b.kr.).
3. Bond issued by Government agencies, private corporations, or institutions such as banks. Their share of the market was 40% at the end of June 2018 (7.9 billion euros, 977 b.kr.).

The Icelandic bond market has several features that set it apart from bond markets in other countries. First, public entities are the largest issuers of listed bonds. By mid-2018, the market value of bonds issued by public entities or firms owned by them amounted to 69% of total issuance. Second, indexed issues are prominent in Iceland's domestic market (36%), as all HFF bonds are indexed to the CPI, although indexed bond issuance has diminished in recent years. Third, secondary market turnover is concentrated in bonds carrying a State guarantee. Fourth, yields on the Icelandic bond market have been high in international comparison because interest rates have been higher in Iceland than in other industrialised countries, due to a wider positive output gap in recent years, higher inflation, and other factors. In the first half of 2018, ten-year inflation-indexed bond yields fluctuated between 1.90% and 1.93%, while ten-year nominal bond yields fluctuated between 5.11% and 5.42%. Bond market turnover amounted to 10.3 billion euros (1,240 b.kr.) in 2017.

Table 3.2 Bond market — market value 30.6.2018

	Value in EUR millions	*Share %*
Treasury securities	5,822	29
Treasury bills (3m and 6m)	126	
Treasury bonds	4,192	
Treasury bonds – CPI-indexed	1,505	
Housing Financing Fund	5,783	29
Corporate bonds	2,846	14
Financial institution securities	3,078	16
Municipal bonds	1,400	7
Foreign bonds	543	3
Bank bills	294	1
Total value	19,766	

Source: Nasdaq Iceland.

Equity market

As of end-June 2018, eighteen companies were listed on the Nasdaq OMX Iceland Main List, and five were listed on the First North market. Össur hf.[2] was delisted from the Main List in November 2017, and the real estate company Heimavellir hf. and the commercial bank Arion Bank hf. were listed in Q2/2018. Companies on the Icelandic stock exchange market belong mainly to the industrial, financial services, real estate, and communication services sectors.

Since 2010, total turnover on the Icelandic stock exchange market has steadily increased. As of end-June 2018, the market value of Main List companies was 8 billion euros (995 b.kr.), or approximately 39% of year-2017 GDP, broadly the same as at end-June 2016. The OMXI8 index stood at 1,716 points as of end-June 2018.

Money market

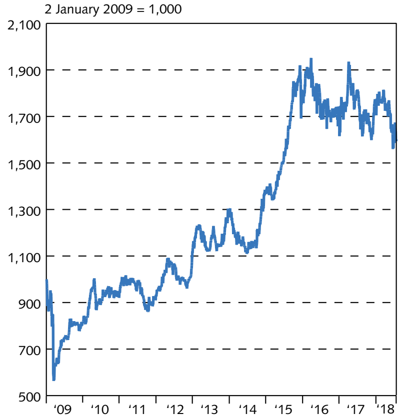
The money market consists of the interbank loan market and a secondary market. Secondary market trading is concentrated largely in very short-term Treasury bonds, Treasury-guaranteed bonds, and Treasury bills. Treasury bill turnover in the secondary market totalled 15.8 million euros (1.9 b.kr.) in 2017.

The Central Bank of Iceland oversees the interbank market for krónur, where trading consists of unsecured loans between market makers. Members must submit indicative bid and ask quotes on various maturities ranging from overnight to twelve months. The vast majority of trading on the market is for one week or less. Once a day, the Central Bank fixes REIBID and REIBOR rates for the market. As of this writing, there are four participants in the market: Arion Bank, Íslands-

Chart 3.15

Equity market, OMXI8 index

Daily data 2 January 2009 - 31 August 2018

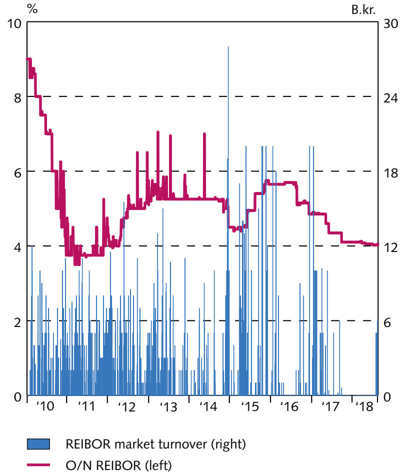


Source: Nasdaq Iceland.

Chart 3.16

REIBOR interest rate (O/N) and REIBOR market turnover

Daily data 4 January 2010 - 31 August 2018



Source: Central Bank of Iceland.

2. Össur hf. shares are now listed only on Nasdaq Denmark.

banki, Kvika banki, and Landsbankinn. Kvika banki joined the interbank market in February 2017. Market turnover totalled 1 billion euros (123.8 b.kr.) in 2017.

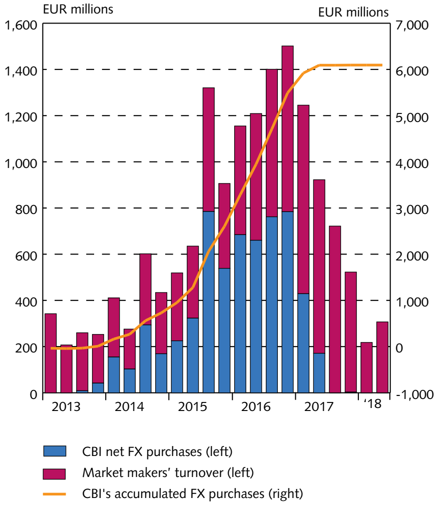
Foreign exchange market

At present, there are three market makers in the foreign exchange market for Icelandic krónur: Arion Bank, Íslandsbanki, and Landsbankinn. Market makers conduct foreign exchange transactions among themselves during market hours and pledge to maintain continuous bids and offers in euros. Prices are quoted in krónur per euro, and each bid submitted is in the amount of one million euros. The market is open from 09:15 hrs. to 16:00 hrs. on weekdays.

The Central Bank oversees the interbank foreign exchange market, can trade with market makers, and publishes the daily official exchange rate of the króna based on the price offered by market makers. The Central Bank is not a market maker, however, and is therefore not obliged to conduct transactions with other market makers, even if requested to do so.

Turnover in the foreign exchange market totalled 3,380 million euros (407.4 b.kr.) in 2017, and the Central Bank's share was 690 million euros (83.1 b.kr.) (see Chapter 5).

Chart 3.17
Interbank market for foreign exchange
Q1/2013 - Q2/2018



Source: Central Bank of Iceland.