

3 Financial system

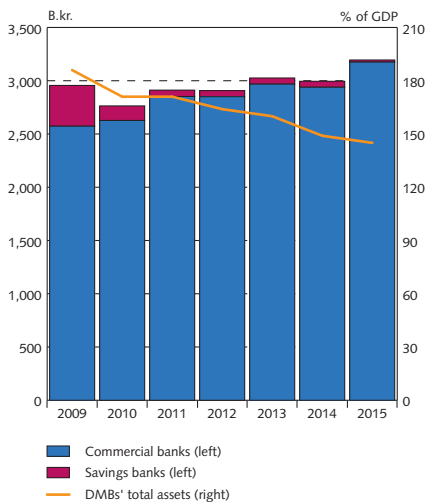
This chapter describes the Icelandic financial system. It covers the credit system, including deposit money banks (DMB), commercial banks' financial position, the Housing Financing Fund (HFF), and the pension funds along with the bond, equity, and foreign exchange markets in Iceland.

Overview of the credit system

At year-end 2015, total assets in the credit system¹ amounted to roughly four times Iceland's GDP. The combined assets of DMBs were about one-and-a-half times GDP. The DMBs and the Housing Financing Fund (HFF) account for a total of 96% of all credit institution assets.

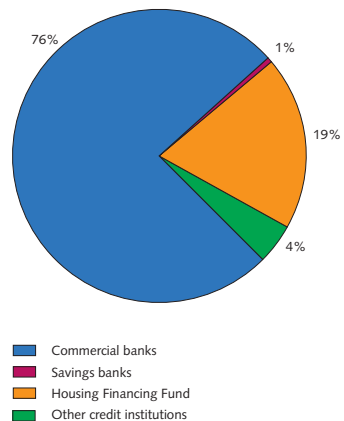
At the end of June 2016, there were four commercial banks and four savings banks operating in Iceland. Two of the commercial banks, Landsbankinn hf. and Íslandsbanki hf., are owned by Icelandic State Financial Investments (ISFI), which administers the Government of Iceland's holdings in financial institutions. Arion Bank hf. is majority-owned by Kaupskil, which represents the old

Chart 3.1
DMBs' total assets¹



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

Chart 3.2
Credit institutions' total assets¹



1. Parent companies. December 2015.
Source: Central Bank of Iceland.

1. The credit system in Iceland 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.)	31.12.2008	31.12.2010	31.12.2012	31.12.2014	31.12.2015
Banking system ¹	27.3 (4,632)	25.2 (3,878)	22.4 (3,809)	24.4 (3,758)	26.8 (3,794)
- Central Bank of Iceland	7.0 (1,187)	8.6 (1,328)	6.3 (1,075)	6.2 (957)	6.7 (948)
- commercial banks	20.1 (3,417)	17.1 (2,627)	16.8 (2,850)	19.1 (2,939)	22.5 (3,175)
- savings banks	4.5 (768)	0.9 (137)	0.3 (57)	0.4 (56)	0.1 (20)
Other credit institutions	7.6 (1,284)	7.3 (1,129)	6.3 (1,076)	6.7 (1,030)	6.9 (979)
- Housing Financing Fund	4.3 (733)	5.4 (836)	5.2 (876)	5.3 (824)	5.7 (803)
Pension funds	9.8 (1,665)	12.9 (1,989)	14.4 (2,439)	19.0 (2,935)	23.2 (3,284)
Insurance companies	0.7 (122)	0.9 (138)	0.9 (155)	1.1 (169)	1.2 (171)
Mutual funds, investment and institutional funds	1.2 (212)	1.8 (284)	2.4 (410)	3.2 (488)	4.1 (586)
State loan funds	0.7 (125)	1.0 (161)	1.1 (192)	1.5 (226)	1.5 (210)
Total assets	47.3 (8,040)	49.3 (7,579)	47.6 (8,081)	55.8 (8,605)	63.9 (9,025)

1. Because debts between the Central Bank and the DMBs are netted out, banking system assets do not balance with the total assets of the Central Bank and the DMBs.

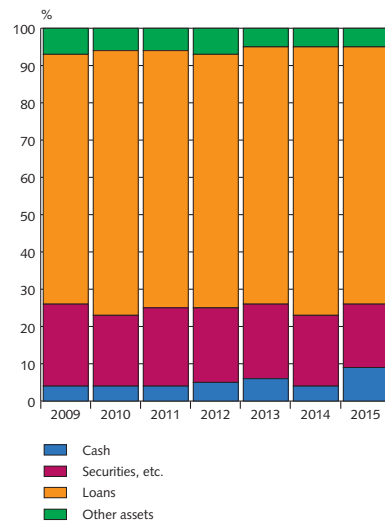
Source: Central Bank of Iceland.

Kaupthing Bank's creditors, but ISFI has a 13% stake in the bank. 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.

Commercial banks' financial position

The commercial banks' assets consist largely of loans. At year-end 2015, total lending amounted to 15.6 billion euros (2,204 b.kr). The vast majority was to domestic households and non-financial companies, with 39% indexed to the CPI, 45% non-indexed, and around 16% foreign-denominated. Since the financial crisis, the commercial banks have undertaken extensive restructuring of their household and corporate loan portfolios. Default ratios declined more or less steadily from 2010 until the latter half of 2015. At the end of 2015, only 2% of the three large commercial banks' loans were non-performing, down from a peak of 20% at the end-2010.

Chart 3.3

Commercial banks' assets¹

1. Parent companies.

Source: Central Bank of Iceland.

Chart 3.4
Default ratios of the three largest commercial banks¹

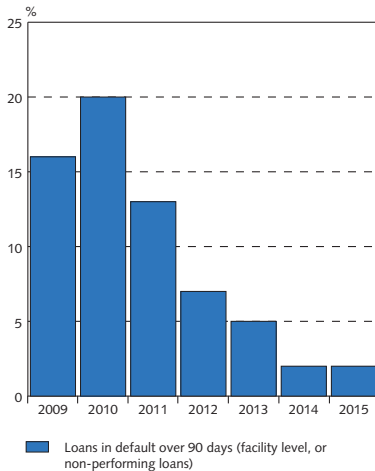
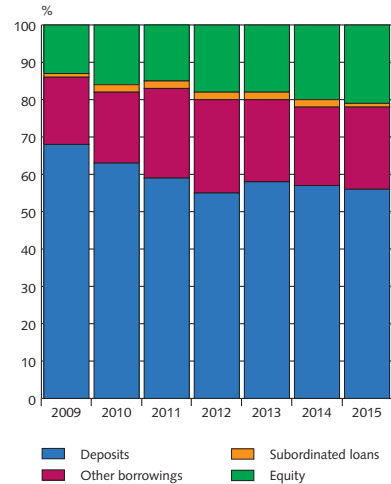


Chart 3.5
Commercial banks' funding¹



The Icelandic commercial banks are funded mainly by customers' deposits. At the end of 2015, deposits comprised 56% of their total funding and their deposit-to-lending ratio was 81%. The vast majority of deposits (94%) are held by Icelandic residents. Of total deposits, more than 10% are indexed to the CPI and around 16% are foreign-denominated. The majority of deposits (68%) are payable on demand or within one month, whereas 82% can be withdrawn within three months and 87% within six months. The banks' market funding has increased in recent years and comprised more than 9% of total funding at year-end 2015.

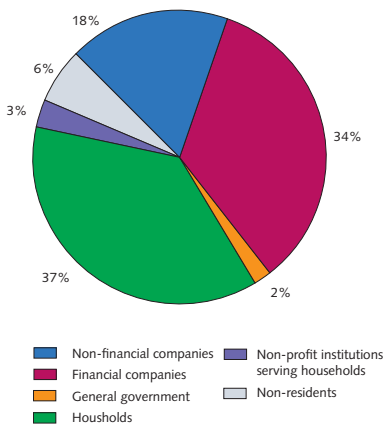
In 2015, the three largest banks received investment-grade credit ratings. That year, Icelandic banks issued more securities in foreign credit markets than at any time since their establishment in 2008, and their borrowing terms have been improving. The banks have issued mainly in euros, Norwegian kroner, and Swedish kronor, and in 2016 they added issues in US dollars. To an increasing degree, the banks fund their mortgage lending portfolios with covered bond issues, which accounted for 3.6% of total funding at year-end 2015.

In recent years, Iceland's large commercial banks have generated strong profits, and their capital position is robust. At the end of 2015, their capital adequacy ratios were just over 28%, including 27% in Tier I capital, well above the Financial Supervisory Authority's (FME) required minimum. A significant portion of the banks' profit has stemmed from temporary items such as write-ups and sales of holdings in companies and valuation increases in loans. At year-end 2015, restructuring of asset portfolios was nearly complete. At the beginning of 2016, the Financial Stability Council (FSC) recommended that the FME impose three capital buffers: a capital buffer for systemically important financial institutions, a systemic risk buffer, and a countercyclical capital buffer. More specifically, the FSC recommended (1) that a 2% capital buffer be im-

posed on systemically important financial institutions as of 1 April 2016; (2) that a systemic risk buffer amounting to 3% of risk-weighted domestic assets be imposed on systemically important deposit-taking institutions as of 1 April 2016; and (3) that a 1% countercyclical capital buffer be imposed on all financial institutions, effective 12 months after the date of the FME's decision. A capital conservation buffer, which took effect at the beginning of 2016, does not require a recommendation from the Council and will rise in increments to 2.5% by the beginning of 2017. Capital buffers may only include Tier 1 capital. In March 2016, the FME took a decision in accordance with the FSC's recommendations. When fully implemented in 2017, the combined capital buffers imposed on the three largest banks will be 8.5%. Given the banks' strong capital position, the implementation of the buffers is not expected to prove onerous.

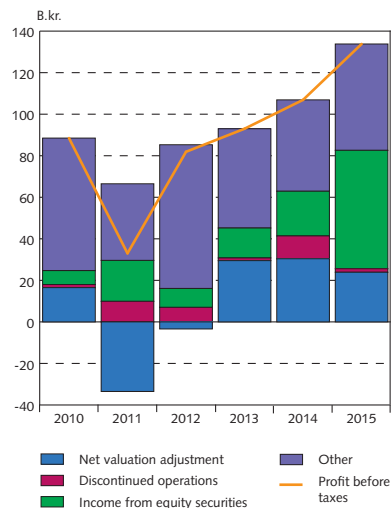
The Central Bank of Iceland sets rules on credit institutions' minimum liquid assets in Icelandic krónur and foreign currencies and rules on their funding ratios in foreign currency. The rules are based on the liquidity coverage ratio (LCR) and net stable funding ratio (NSFR), which are issued by the Basel Committee and used as an international reference. The Icelandic 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 both liquidity in foreign currency and overall liquidity. 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. The rules on the funding ratio are intended to limit maturity mismatches and the extent to which the banks can depend on unstable short-term funding to fi-

Chart 3.6
Deposit owners¹



1. Commercial banks, parent companies. December 2015.
Source: Central Bank of Iceland.

Chart 3.7
The three largest commercial banks' profit before tax and irregular and estimated items¹



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

nance long-term assets that could prove difficult to sell. All of Iceland's commercial banks met the liquidity and funding requirements, both in foreign currencies and overall, 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 15% of the capital base. All of Iceland's commercial banks met the foreign exchange requirements by a sizeable margin as of this writing.

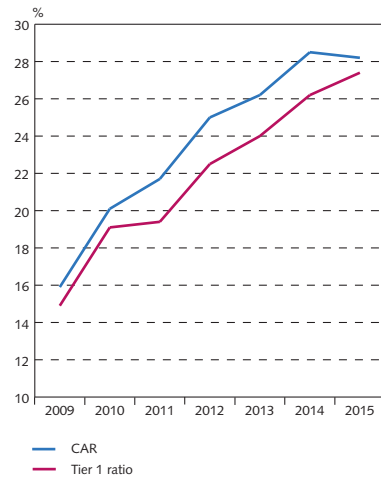
The Housing Financing Fund

The largest single entity in the group classified as "other credit institutions" is the Housing Financing Fund (HFF), whose assets constituted more than 80% of the total assets of other credit institutions. The HFF is an independent Government institution that grants mortgage loans to individuals, municipalities, companies, and organisations in order to finance house purchases and construction projects. The HFF has financed its mortgage lending by issuing indexed HFF bonds, which are backed by a Government guarantee. Prepayments and extra payments by HFF customers have increased in recent years, and no HFF bonds have been issued since January 2012. Since the financial crisis, losses and uncertainty about the HFF's loan quality has adversely affected the Fund's equity, and the Treasury has provided HFF with capital contributions. In 2015, the HFF's capital ratio exceeded the long-term target of 5% for the first time since 2007, measuring 5.5% by the year-end.

Pension funds

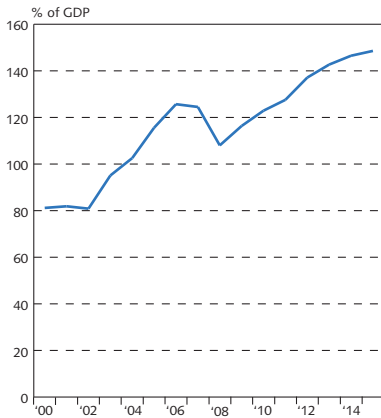
The Icelandic pension fund system consists of pension funds for public employees, on the one hand, and a number of occupational pension funds, on the other. Membership of pension funds is mandatory and all wage earners and employers pay contributions to the funds (see Chapter 2). By and large, it is 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 2015, there were 26 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 23 billion euros (3,300 b.kr.), or nearly one-and-a-half times GDP. Before the financial crisis in 2008, pension fund assets peaked at 126% of GDP in 2006. Since then they have increased by 52% in real terms, owing to improved returns, robust employment growth, and rising wages. As of end-2015, the majority of the funds' assets were domestic, whereas foreign assets accounted for just over 22% of total assets. 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 43%. Iceland's pension funds also participate in lending activity within the financial system, and about

Chart 3.8
Commercial banks' capital adequacy ratios¹



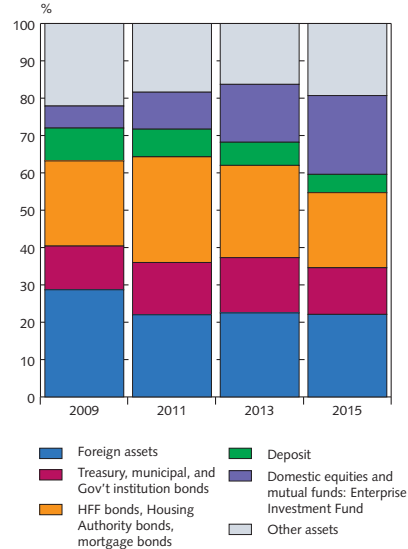
1. Largest commercial banks, consolidated figures.
Source: Commercial banks' annual reports.

Chart 3.9
Pension funds' total assets



Source: Central Bank of Iceland.

Chart 3.10
Pension funds' assets



Source: Central Bank of Iceland.

8% of their assets are indexed loans granted to fund members. The pension funds' activities are supervised by the Financial Supervisory Authority (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 Dutch pension funds.

Payment intermediation

Currently, 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) of Greiðsluveitan ehf., a subsidiary of the Central Bank of Iceland; and the securities settlement system of the Icelandic Securities Depository (ISD). The RTGS system is most important systemically because of its primary function of settling high-value interbank payments. It settles individual payment instructions amounting to at least 75 thousand euros (10 m.kr.) between participants, with immediate finalisation. 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. A graphic representation of system turnover relative to annual GDP and the number of transactions in all three systems can be seen in Chart 3.11.

The Central Bank is responsible for the operational soundness of its 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

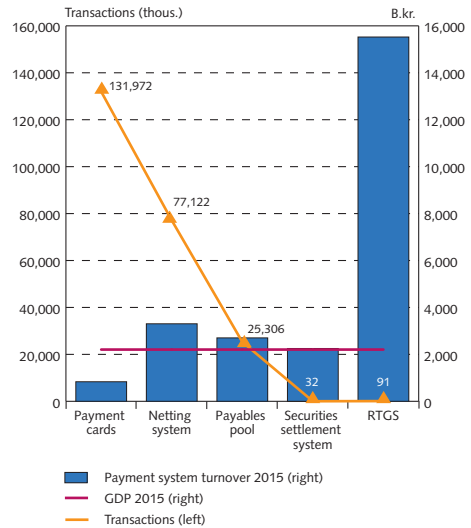
CPSS (now CPMI) and IOSCO's Principles for Financial Market Infrastructures (e. PFMI). The Icelandic FME is responsible for supervising individual payment service providers and their infrastructure.

The Central Bank of Iceland has the exclusive right to issue banknotes and coin in Iceland. The currency is called the króna (pl. krónur). A total of 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 Nasdaq Iceland stock exchange and the Nasdaq Central Securities Depository

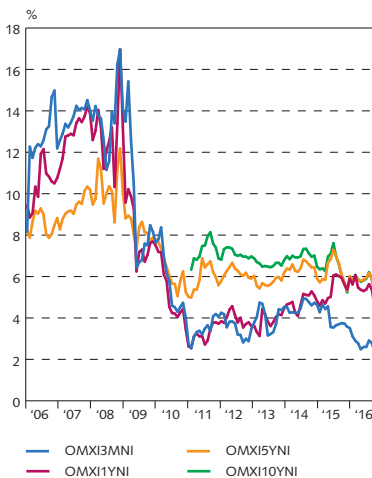
Iceland currently has one authorised stock exchange operated by Nasdaq Iceland hf., where public securities listing and securities trading are carried out. Nasdaq Iceland hf. is a part of the Nasdaq Group and is licensed to operate a regulated market as well as a multilateral trading facility (MTF),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

Chart 3.11
Payment systems¹



1. Banknotes and coin in circulation at year-end 2015 amounted to 48,9 b.kr. The payables pool includes unpaid claims in the Icelandic banking system; e.g., general claims, bonds, bills and giro remittance slips. Sources: System operators, Central Bank of Iceland.

Chart 3.12
Yields on non-indexed bond indices
At month-end January 2006 - August 2016



Source: Nasdaq Iceland.

Chart 3.13
Yields on indexed bond indices
At month-end January 2006 - August 2016



Source: Nasdaq Iceland.

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 assigning international securities identification number (ISIN) codes to instruments issued in Iceland. It operates two National Market Practice Groups that aim to develop and harmonise procedures in the Icelandic post-trade environment.

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 41% of market value as of end-June 2016 (6.3 billion euros, 856 b.kr).
2. Housing Financing Fund (HFF) bonds, which are inflation-indexed, interest-bearing bonds with an annuity format. Their market share was 23% at the end of June 2016, and their market value was 3.6 billion euros (491 b.kr).
3. Bond issued by Government agencies, private corporations, or institutions such as banks. Their share of the market was 33% at the end of June 2016 (5.1 billion euros, 700 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-2016, the market value of bonds issued by public entities or firms owned by them amounted to 76% of total issuance. Second, indexed issues are prominent in Iceland's domestic market (31%), as all HFF

Table 3.2 Bond market — market value 30.6.2016

	<i>Value in EUR millions</i>	<i>Share %</i>
Treasury securities	6,413	42
Treasury bills (3m and 6m)	148	
Treasury bonds (2, 5, and 10 years)	5,072	
Treasury bonds – CPI-indexed	1,194	
Housing Financing Fund	3,593	23
Corporate bonds	1,987	13
Financial institution securities	1,522	10
Municipal bonds	984	6
Foreign bonds	614	4
Bank bills	271	2
Total value	15,383	

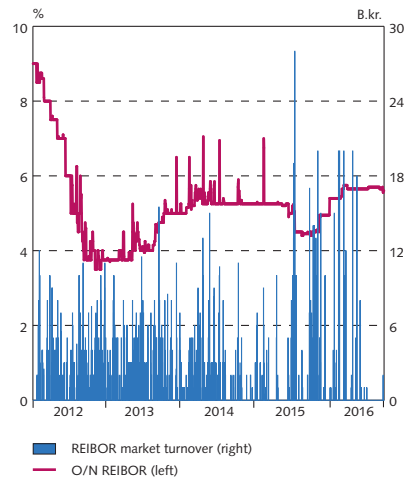
Source: Nasdaq Iceland.

Chart 3.14
Equity market, OMXI8 index
Daily data 2 January 2009 - 31 August 2016



Source: Nasdaq Iceland.

Chart 3.15
REIBOR interest rate (O/N) and
REIBOR market turnover
Daily data 4 January 2012 - 31 August 2016



Source: Central Bank of Iceland.

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. In the first half of 2016, 10-year inflation-indexed bond yields fluctuated between 2.1% and 3.0%, while 10-year nominal bond yields fluctuated between 5.2% and 6.9%. Bond market turnover amounted to 13.6 billion euros (1,995 b.kr.) in 2015.

Equity market

The number of companies listed on the Icelandic stock exchange has risen in recent years, and total market capitalisation has increased. As of end-June 2016, a total of 17 companies were on the Nasdaq Iceland Main List and another three were listed on the First North market. At that time, the market value of Main List companies was 7 billion euros (966 b.kr.), or approximately 44% of year-2015 GDP, up from 3.5 billion euros (543 b.kr.) at the beginning of 2014. The OMXI8 index stood at 1,777 points as of end-June 2016.

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 at 868 million euros (127 m.kr.) in 2015.

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 12 months. Trading on the market is almost

solely 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 three participants in the market: Arion Bank, Landsbankinn, and Íslandsbanki. Market turnover totalled 2.4 billion euros (351.5 b.kr.) in 2015.

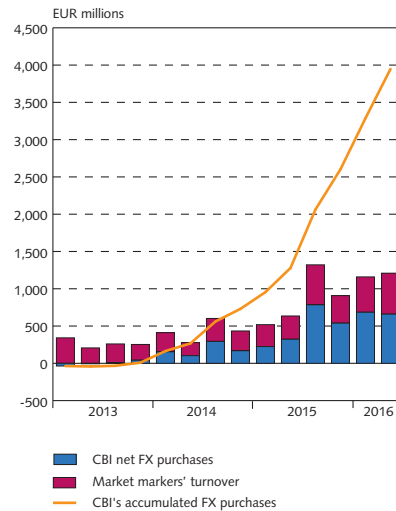
Foreign exchange market

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 was 3,383 million euros (492.7 b.kr.) in 2015, and the Central Bank's share was 1,872 million euros (272.4 b.kr.) (see Chapter 5).

Chart 3.16
Interbank foreign exchange market
Q1/2013 - Q2/2016



Source: Central Bank of Iceland.