MOODY'S
INVESTORS SERVICE

ISSUER IN-DEPTH
30 September 2017

Rate this Research

RATINGS

Iceland

	Foreign Currency	Local Currency
Gov. Bond Rating	A3	A3
Country Ceiling	A3/P-2	A1
Bank Deposit Ceiling	A3/P-2	A1

TABLE OF CONTENTS

Analyst Contacts

Kristin Lindow 212-553-3896
Senior Vice President
kristin.lindow@moodys.com

Polina Gotmann 49-69-70730-725
Associate Analyst
polina.gotmann@moodys.com

Dietmar Hornung 49-69-70730-790
Associate Managing Director
dietmar.hornung@moodys.com

Yves Lemay 44-20-7772-5512
MD-Sovereign Risk
yves.lemay@moodys.com

Government of Iceland - A3 Stable

Annual credit analysis

Overview and outlook

Iceland's (A3 stable) credit strengths include economic flexibility and wealth, which provide significant shock-absorption capacity, and the ownership of a deep natural resource base that affords robust growth potential. Growth is now on a more sustainable footing than it was in the pre-crisis era given the rebalancing of the economy and large external surpluses, which are reducing the country's once-sizeable public and external debt. Strong institutions focus on avoiding the vulnerabilities that led to the 2008 banking sector collapse. Iceland has a long tradition of broad cooperation and consensus on economic matters between the government, employers and employee associations. A well-funded pension system, long working lives and favorable demographics are also supportive of long-term fiscal sustainability.

Iceland's credit challenges include its economy's small size, relatively limited diversification, openness and small currency area, which increase its vulnerability to shocks and cause volatility in annual growth rates. The country's substantial, though reduced, exposure to external risks requires careful management to protect economic and financial stability. In addition, large contingent liabilities derived from state-owned companies would pose risks to public finances if they were to crystallize on the government's balance sheet.

We could upgrade Iceland's ratings should the decline in debt and debt service ratios exceed our expectations at the time of the September 2016 upgrade to A3, assuming that the government's management of the economy and banking system is sufficiently cautious to ensure that the boom-bust cycles and macro imbalances of the past are avoided.

Downward pressure on Iceland's ratings could develop if economic or financial volatility re-emerges and threatens public or external debt sustainability, such that the authorities would again have to resort to broad capital controls.

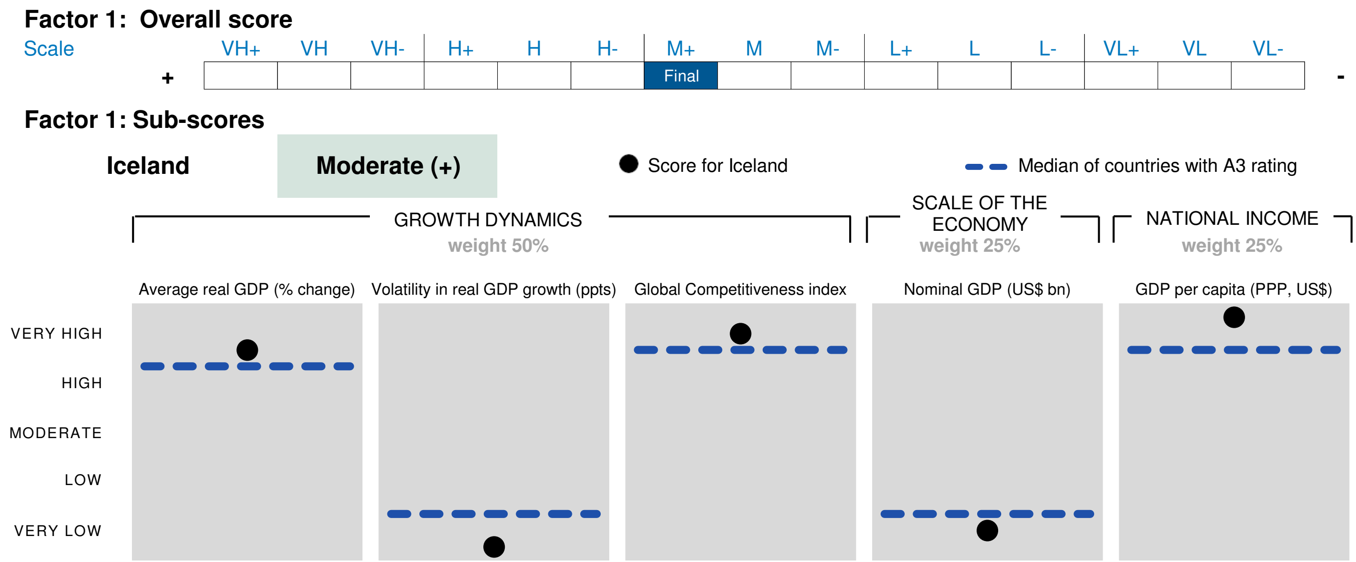
This credit analysis elaborates on Iceland's credit profile in terms of economic strength, institutional strength, fiscal strength and susceptibility to event risk, which are the four main analytic factors in Moody's Sovereign Bond Rating Methodology.

THIS REPORT WAS REPUBLISHED ON 2 OCTOBER 2017 WITH A CORRECTION ON PAGE 8 REFERENCING THE AMOUNT OF OFFSHORE KRONER REMAINING IN ICELAND. THE CORRECT FIGURE IS ISK 90,00 MILLION.

Rating rationale

Our determination of a sovereign's government bond rating is based on the consideration of four rating factors: economic strength, institutional strength, fiscal strength and susceptibility to event risk. When a direct and imminent threat becomes a constraint, that can only lower the preliminary rating range. For more information please see our Sovereign Bond Rating Methodology.

Economic strength: Moderate (+)



Economic strength evaluates the economic structure, primarily reflected in economic growth, the scale of the economy and wealth, as well as in structural factors that point to a country's long-term economic robustness and shock-absorption capacity. Economic strength is adjusted in case excessive credit growth is present and the risks of a boom-bust cycle are building. This 'credit boom' adjustment factor can only lower the overall score of economic strength.

Note: In case the Indicative and Final scores are the same, only the Final score will appear in the table above.

According to our sovereign bond methodology, Iceland exhibits "Moderate (+)" **economic strength**. Iceland's GDP-per-capita is among the highest of the sovereigns that we rate, despite the significant loss in wealth owing to the banking and currency crisis. Iceland also benefits from strong, albeit very volatile, real GDP growth. It is also highly competitive as suggested by the global competitiveness index, in which it stands out compared with its close peers. Iceland's F1 assessment is in line with similarly rated Latvia (A3 stable), Lithuania (A3 stable), Peru (A3 stable), higher rated Slovakia (A2 positive), lower rated Slovenia (Baa1 stable) and Portugal (Ba1 positive).

Factors that constrain Iceland's economic strength relate to its economy's small size and relatively limited diversification, along with its openness and small currency area, which increase its vulnerability to shocks and cause volatility in annual growth rates.

Peer comparison table factor 1: Economic strength

	Iceland A3/STA	M+ Median	Latvia A3/STA	Lithuania A3/STA	Peru A3/STA	Portugal Ba1/POS	Slovakia A2/POS	Slovenia Baa1/STA
Final score	M+		M+	M+	M+	M+	M+	M+
Indicative score	M+		M	M+	M+	M+	M+	M-
Nominal GDP (US$ bn)	20.3	138.6	27.7	42.7	195.3	204.6	89.6	44.7
GDP per capita (PPP, US$)	49,135.6	24,028.8	25,709.8	29,622.0	13,209.9	28,933.3	31,338.8	31,709.9
Average real GDP (% change)	3.6	3.1	3.1	3.1	4.1	0.7	3.2	1.9
Volatility in real GDP growth (ppts)	4.7	3.4	6.7	6.6	2.8	2.2	4.1	4.0
Global Competitiveness Index	5.0	4.3	4.4	4.6	4.2	4.5	4.3	4.4

Iceland recovered from its severe financial crisis thanks in part to its population's wealth

Iceland's average income falls into the highest decile of the sovereigns we rate, despite a four-year slump following the banking system's collapse in October 2008. Iceland's GDP per capita rose to $49,136 on a purchasing power parity (PPP) basis in 2016, up 17% from $41,869 in 2008. This exceeds the 2016 median of Aa-rated sovereigns ($48,095) and makes Iceland a clear outlier in the A rating range (median of $30,824) with the exception of Ireland (A2 stable) ($69,230).

High incomes were a key factor that helped Icelandic households to absorb the shock of the financial crisis, and they also benefit from substantial accumulated pension assets. Households have been able to draw upon their supplementary pension savings for debt repayment and consumption purposes, following legislation approved by parliament in 2015, and this access has now been extended to 2019. In spite of – or perhaps because of – this, households' net financial position has steadily improved to approximately 147% of GDP as of yearend 2015 (latest available data). Unfunded pension liabilities, which are confined to the pension fund for public employees, are modest, and the government paid a significant amount into the public system in the fourth quarter of 2016 to close the gap further.

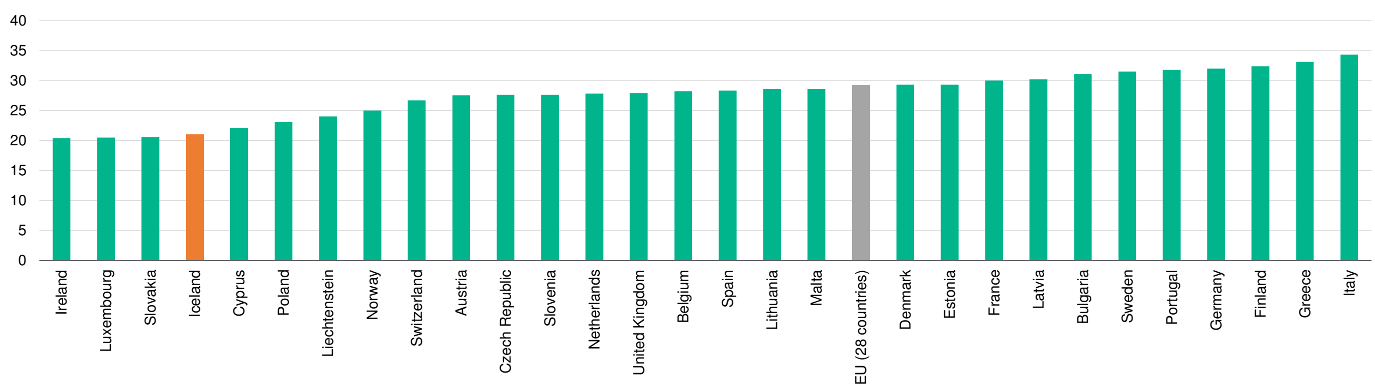
Corporate and banking system balance sheets are also relatively unleveraged by advanced country standards, the former due to strong economic growth and the latter attributable to weak lending by the new commercial banks coming out of the financial crisis. Companies' debt halved as a share of GDP from 160% in the first quarter of 2012 to 80% in the fourth quarter of 2016. Also, as we discuss in the fiscal strength section, the government's net debt position has shrunk to about 35% of GDP at present.

Favorable demographics stand out among other sovereign nations

In addition to the generally healthy financial situation, Iceland's demographics are more favorable than in many other advanced or developing nations because of exceptionally long working lives, good fertility rates, the high share of working women and the flexibility of the labor force (see Exhibit 1). The latter is one reason why high wage awards given in 2015 did not lead to higher inflation, since at times of strong labor demand and full employment, Icelandic companies import workers from other countries, mainly other Nordics and East European countries, who then return home when those jobs disappear.

Exhibit 1

Iceland has one of the lowest old age dependency ratios among European peers

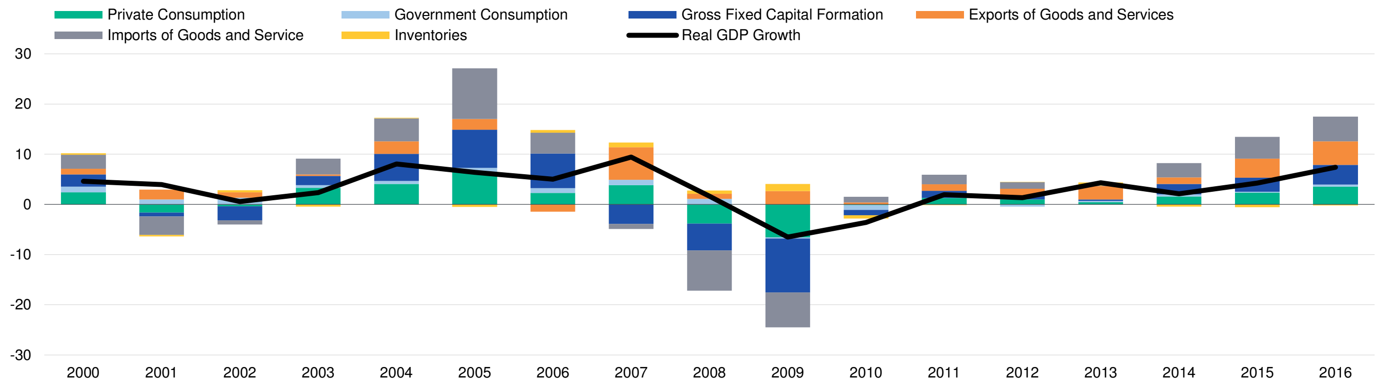


Sources: Eurostat, Moody's Investors Service

Torrid tourism-driven growth in 2016...

The Icelandic economy expanded by 7.4% in 2016, the fastest annual rate in a decade, driven by increased investment, private consumption and exports, notably in the fast-growing tourism sector (see Exhibit 2). Iceland's tourism industry has boomed in recent years for a variety of reasons, notably the country's unique natural beauty. Global awareness of Iceland's natural attractions rose significantly after the eruption of the Eyjafjallajökull volcano in 2010, which put the country in newspaper headlines around the globe.

Exhibit 2
Real GDP growth has rebounded strongly
Contribution to real GDP growth, percentage points



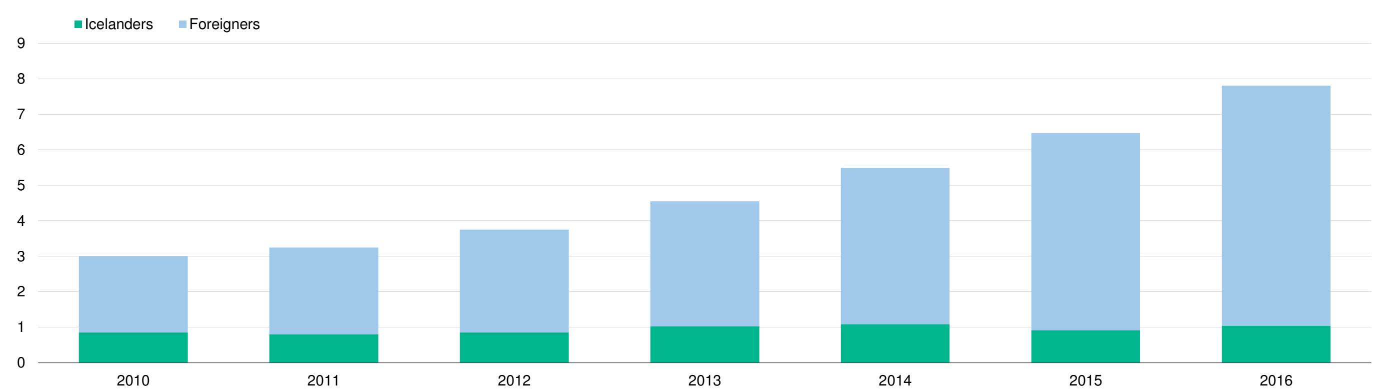
Sources: Haver Analytics/Statistics Iceland, Moody's Investors Service

The tourism industry has served as a positive external shock to both the economy and the balance of payments, becoming the largest sector of the economy and the single most important source of export revenue. The industry accounted for 39% of all exports of goods and services in 2016, surpassing the historical leading export sector, marine products (20%). Indeed, exports of travel-related services increased by 121% between 2013 and 2016 to ISK289 billion ($2.67 billion at the current exchange rate).

The expansion of tourism has yielded an inflow of foreign currency that drove up the value of the krona in 2016 and early 2017, although this pressure has subsided since the liberalisation of capital controls. Similarly, the government's revenues from tourism-related activities (such as VAT-taxable turnover) increased sharply last year, partly due to a broadening of the entities to which these taxes applied, and we expect such revenues will continue to expand, although at a much slower rate.

Foreign tourist arrivals increased by roughly 40% last year to 1.8 million – nearly six times the size of Iceland's 330,000 population – following a 34% increase in 2015 and an average increase of 18% each year between 2011 and 2014. Overnight hotel stays, which better reflect the income derived from the sector, increased by 15% last year, reaching 7.8 million (6.8 million foreigners and 1 million locals), up from 6.5 million in 2015 (see Exhibit 3).

Exhibit 3
Overnight stays have increased significantly since 2010
Overnight stays in all types of registered accommodation 2010-2016, million



Sources: Icelandic Tourist Board, Moody's Investors Service

Employment in the tourism industry has also increased along with arrivals, up by 19% in 2016, with particularly high growth (36%) among travel agencies and tour operators. Given the small size of Iceland's population, the industry has had to rely on foreign labor to staff its growing operations, which provides some cushion against a potential downturn in the sector.

...but an unexpectedly soft landing so far this year

The economy has continued to expand this year but at a slower pace of about 5%, again led by buoyant domestic demand and tourism exports. Tight monetary and fiscal policy are part of the explanation, as is the appreciation of the krona. In line with these developments, the unemployment rate has fallen further from a 3% average in 2016. The rate is volatile because of high seasonality during the year, but we expect the annual average rate to drop to 2.7% this year and 2.5% next year, the lowest rates since before the banking sector collapse in the second quarter of 2008.

As far as the major sectors of the economy outside of tourism, the fisheries sector is still trying to make up for lost activity during a lengthy strike at the beginning of the year, one factor that explains the drop in real GDP in the first quarter relative to the fourth quarter of 2016. Barring labor strife, Iceland’s aluminum production plants normally operate at full capacity because they are extremely cost- and energy-efficient by other producers’ standards.

Tourism numbers are being restrained by capacity issues, including availability of flights and hotel rooms despite rapid expansion. The type and length of stay as well as the composition of tourist spending are also being affected by the stronger krona. Partly for these reasons, we expect growth to taper off to 3.5% next year.

Despite the torrid pace of growth, inflation has remained low and below the central bank's 2.5% inflation target. However, an upcoming wage round for most public sector unions poses risks to inflation, particularly if the increases exceed budget and lead other unions to reopen their agreements early next year. The 2015 wage round led to very large wage increases, ranging between 21% and 30% over three years, as various unions piggy-backed on other unions' increases. The anticipated burst of inflation never materialized then because of terms of trade gains as the currency strengthened and oil and other commodity prices fell, in addition to the flexibility of the labor force. Now, with virtually full employment and the elimination of capital controls, overly high wage increases could push up inflation past target levels, although that is not our base case.

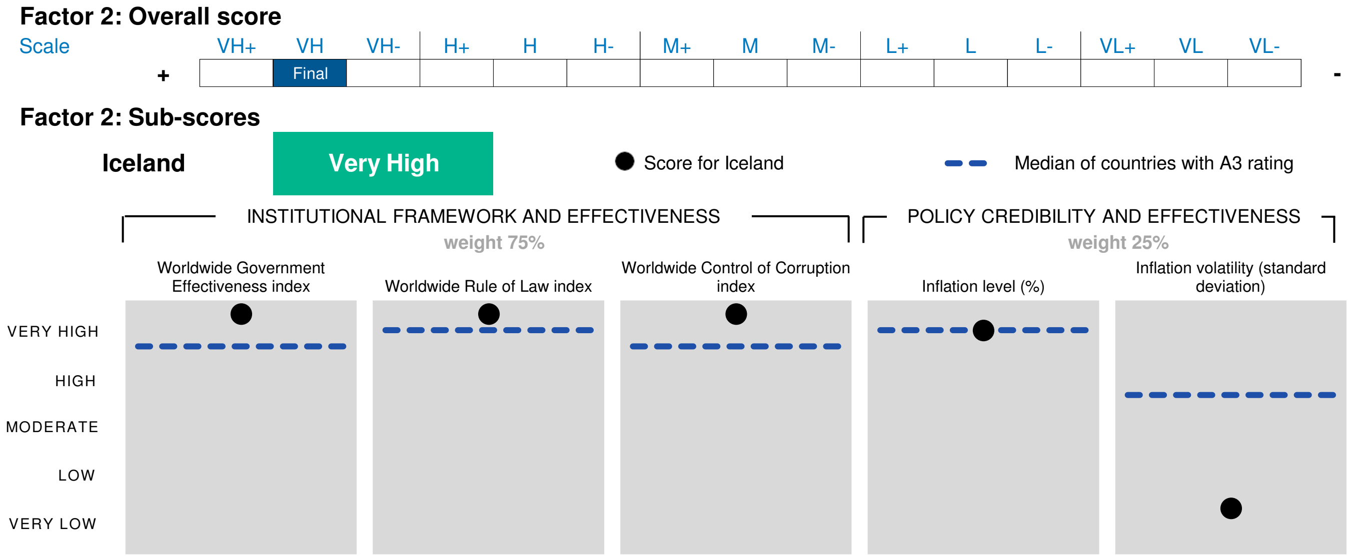
Tourism poses a variety of risks in addition to benefits

Despite a very positive outlook for the tourism industry, its rapid expansion is not without challenges. The inflow of tourists has strained the domestic infrastructure, particularly outside of the capital, Reykjavik. However, the permanency of such high levels of tourism – tastes may suddenly sway vacationers to other destinations – limits the logic behind too rapid an expansion of hotel space for fear of investing in infrastructure that will ultimately be unused.

Although not yet a considerable risk, loans to the industry now constitute around 7% of the loan portfolios of Iceland's commercial banks. Should banks become overly concentrated in the industry, a sudden slowdown in tourist inflows could have repercussions on the still-recovering banking sector.

Lastly, the potential negative impact on Iceland’s pristine environment – a key draw for tourists – has many in the nature-loving country concerned. Government authorities and interest groups are working to develop a long-term strategy to preserve both the environment and the economic benefits of tourism, including the promotion of sustainable tourism.

Institutional strength: Very High



Institutional strength evaluates whether the country's institutional features are conducive to supporting a country's ability and willingness to repay its debt. A related aspect of institutional strength is the capacity of the government to conduct sound economic policies that foster economic growth and prosperity. Institutional strength is adjusted for the track record of default. This adjustment can only lower the overall score of institutional strength.
Note: In case the Indicative and Final scores are the same, only the Final score will appear in the table above.

We assess Iceland's **institutional strength** as "Very High", mainly reflecting the country's strong scores in the Worldwide Governance Indicators (WGI). Iceland ranks in the 86th percentile of the WGI's measure of government effectiveness, the 87th percentile for rule of law and the 94th for control of corruption, well above the A-rating category median. Iceland benefits from clear competitive strengths in areas such as its high-quality education system, an innovative and high-tech-oriented business sector, an efficient labor market and well-developed infrastructure.

Moreover, the authorities have made significant progress in bringing the economy, the financial system and the public finances back onto a sustainable path. The government has implemented important changes to its institutions and to the banking sector's regulatory framework – with the latter focusing exclusively on domestic lending – so as to avoid a repeat of the factors that led to the crisis. Finally, Iceland has a long tradition of broad cooperation and consensus on economic matters between the government, employers and employee associations, which is an important aspect of the economy's resilience and credit strength.

Iceland's peers with the same "Very High" score are all higher rated, including Austria (Aa1 stable), Belgium (Aa3 stable), Japan (A1 stable), Ireland (A2 stable), Estonia (A1 stable), and Israel (A1 stable).

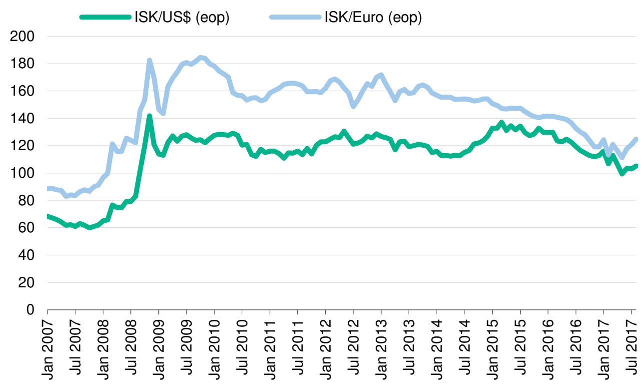
Peer comparison table factor 2: Institutional strength

	Iceland A3/STA	VH Median	Austria Aa1/STA	Belgium Aa3/STA	Japan A1/STA	Ireland A2/STA	Estonia A1/STA	Israel A1/STA
Final score	VH		VH	VH	VH	VH	VH	VH
Indicative score	VH		VH+	VH+	VH+	VH	VH	VH+
Gov. Effectiveness, percentile [1]	85.0	83.5	88.8	80.5	94.0	82.0	76.1	82.8
Rule of Law, percentile [1]	87.3	85.8	93.2	85.8	85.0	88.0	84.3	77.6
Control of Corruption, percentile [1]	94.0	86.5	87.3	88.8	86.5	89.5	79.8	77.6
Average inflation (%)	2.6	1.6	1.8	1.6	0.9	0.9	2.0	1.0
Volatility in inflation (ppts)	3.9	1.5	1.0	1.5	1.2	2.7	3.5	1.8

[1] Moody's calculations. Percentiles based on our rated universe.

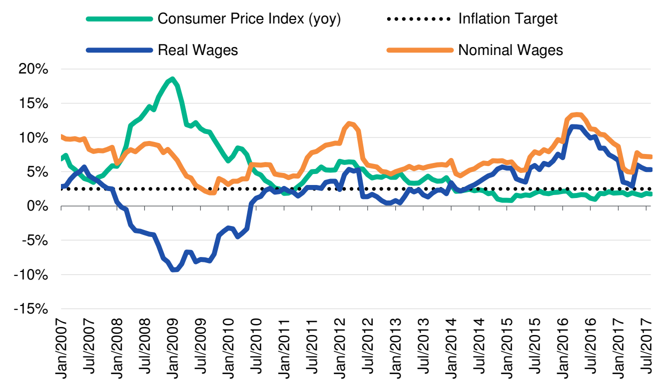
The monetary policy framework is based on inflation targeting, and following comprehensive rule changes in 2009 is now much more transparent. Monetary policy is also better aligned with the fiscal policy stance now than before the crisis, which has translated into positive but not excessively positive real interest rates in the past few years. After rising into the double digits after the 2008-09 depreciation, price rises have been moderate (average annual rate of 1.7% in 2016, up modestly from 1.6% in 2015) owing to low oil import prices and a further steep appreciation of the krona (see Exhibits 4 and 5).

Exhibit 4
Exchange rate movements over the last 10 years...



Sources: Haver Analytics, Central Bank of Iceland, Moody's Investors Service

Exhibit 5
...have had a major impact on inflation, while wage increases have had only limited impact



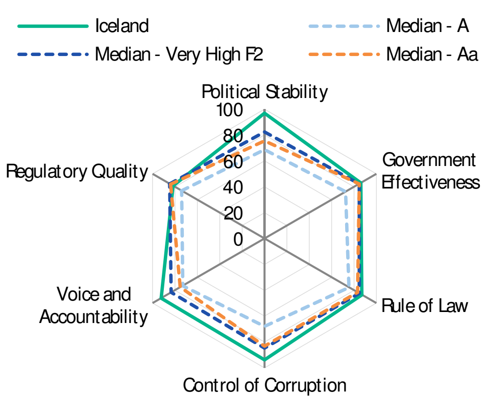
Sources: Haver Analytics, Statistics Iceland, Moody's Investors Service

Debates among both politicians and technocrats have been taking place for several years over the effectiveness of "plain-vanilla" inflation targeting, i.e. relatively weak monetary policy transmission. That said, the removal of capital controls has not been accompanied by increased financial instability for the very small, open economy (the openness ratio is approximately 100%), thanks to the authorities' foresight to implement a capital flow mechanism to discourage speculative capital inflows beforehand.

International surveys convey similarly strong assessments of institutional strength

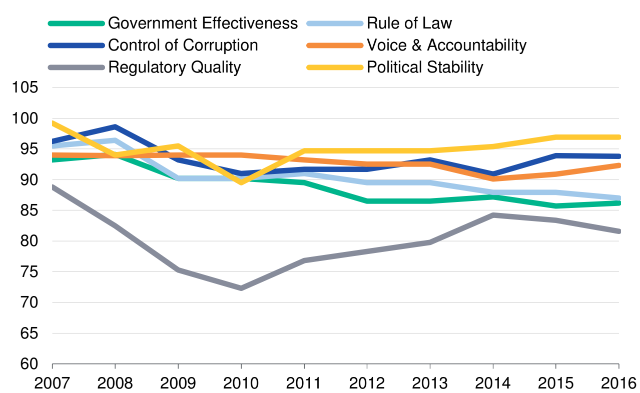
As mentioned previously, Iceland scores very highly in terms of WGI quantitative indicators again in the latest readings for 2016. Although the new rankings have declined marginally from prior years, Iceland's rankings remain well above the A and even Aa rating category medians and are more consistent with Aaa median levels (see Exhibits 6 and 7) and its highly rated Nordic peers.

Exhibit 6
Iceland's scores suggest very high levels of institutional strength...
(Percentile of Moody's rated sovereigns, 2016)



Sources: Haver Analytics, Moody's Investors Service

Exhibit 7
...although some of them showed a deterioration in comparison to 2007



Sources: Haver Analytics, Moody's Investors Service

Careful capital account liberalization provides further evidence of institutional strength

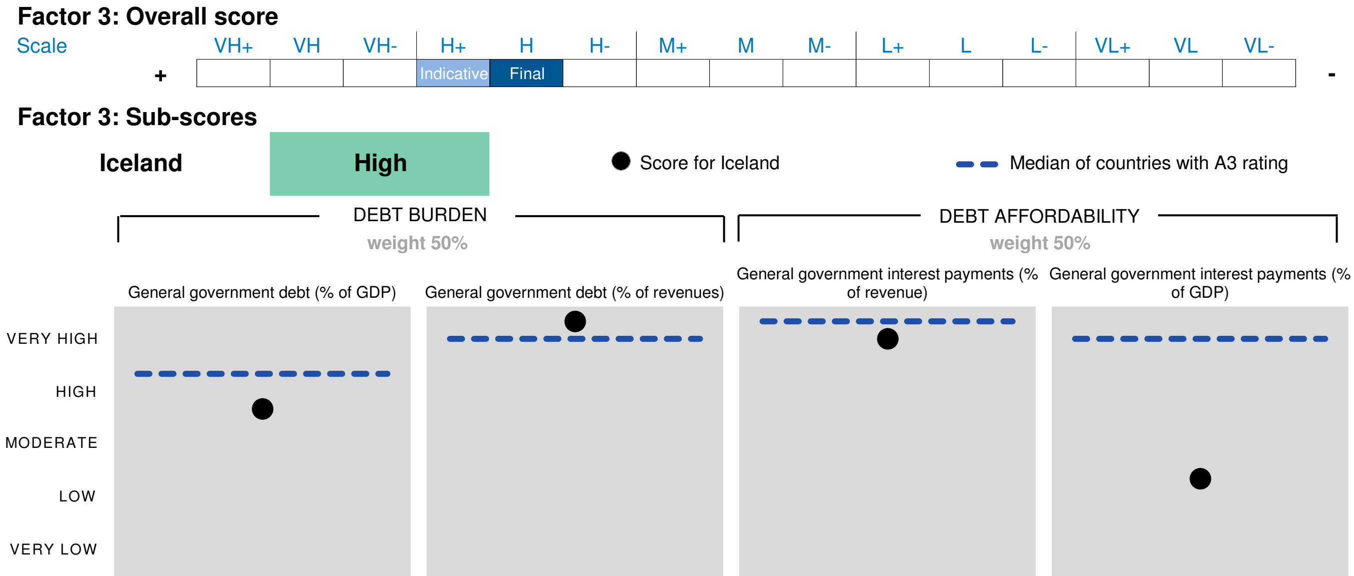
The normalization of the economic and financial situation in Iceland following its banking crisis and recession required careful implementation as well as careful removal of its strict capital account restrictions. On 14 March 2017, Iceland removed almost all remaining capital controls, signaling the country's return to economic normalcy more than eight years after the collapse of 90% of its banking system.

The CBI's updated foreign exchange rules remove nearly all remaining restrictions on the cross-border movement of currencies, enabling residents to participate in foreign exchange transactions, hedging and lending activities abroad, as well as to make foreign investments. Requirements for residents and exporters to repatriate foreign currency have also been removed. Restrictions aiming to limit the carry trade also remain in place to reduce speculative capital flows.

The withdrawal of capital controls was made possible after the Central Bank of Iceland (CBI) concluded an agreement to purchase most of the offshore krona assets that remained after last year's auctions. At this point, only about ISK 90,000 million in offshore krona remain outstanding, mainly in government securities that have not yet matured or in central bank certificates of deposits.

We expect the removal of controls to boost fixed direct investment (FDI), such as new investments that would take advantage of Iceland's competitive and green energy resources. While new FDI was not subject to the controls, companies were likely deterred from investing to some extent by the substantial administrative costs related to the restrictions. In addition, the removal of capital controls has also reduced the risks associated with the “hothouse effect” of forcing households, pension funds and other investors to keep their capital invested in Iceland. Such restrictions drove asset prices higher in the country and exposed investors to concentration risk.

Fiscal strength: High



Fiscal strength captures the overall health of government finances, incorporating the assessment of relative debt burdens and debt affordability as well as the structure of government debt. Some governments have a greater ability to carry a higher debt burden at affordable rates than others. Fiscal strength is adjusted for the debt trend, the share of foreign currency debt in government debt, other public sector debt and for cases in which public sector financial assets or sovereign wealth funds are present. Depending on the adjustment factor the overall score of fiscal strength can be lowered or increased.

Note: In case the Indicative and Final scores are the same, only the Final score will appear in the table above.

Fiscal strength is set at “High” instead of the indicative “High (+)” to account for large contingent liabilities, including the explicit guarantees provided to the Housing Finance Fund (HFF) and the National Power Company. Iceland has made a substantial progress in reducing its debt in recent years. The score is a function of Iceland's rapidly declining gross general government debt-to-GDP ratio, achieved through persistent budget surpluses and debt buybacks. The foreign currency portion of the government's debt is also shrinking quickly, having fallen to 17.3% in 2016 from 41.9% in 2011, exposing the sovereign balance sheet to less exchange rate risk. It has fallen still further in 2017 after the government bought back nearly all of a 2022 eurobond. Additionally, the government’s new budget laws require that it run consistent and substantial primary surpluses, which further supports the improvement in fiscal strength.

Peers with a similar assessment include higher rated Austria (Aa1 stable), France (Aa2 stable), the United Kingdom (Aa2 stable), Israel (A1 stable) and Poland (A2 stable), and similarly rated Malta (A3 stable).

Peer comparison table factor 3: Fiscal strength

	Iceland A3/STA	H Median	Austria Aa1/STA	France Aa2/STA	Israel A1/STA	Malta A3/STA	Poland A2/STA	United Kingdom Aa2/STA
Final score	H		H	H	H	H	H	H
Indicative score	H+		H	VH	H	VH-	H	H+
Gen. gov. debt/GDP	52.8	51.8	84.6	96.3	62.3	58.3	54.4	89.3
Gen. gov. debt/revenue	91.5	157.8	170.8	181.8	166.7	149.0	139.9	227.9
Gen. gov. interest payments/GDP	3.9	1.9	2.1	1.9	2.6	2.2	1.7	2.5
Gen. gov. int. payments/revenue	6.8	5.0	4.2	3.6	6.9	5.6	4.4	6.3

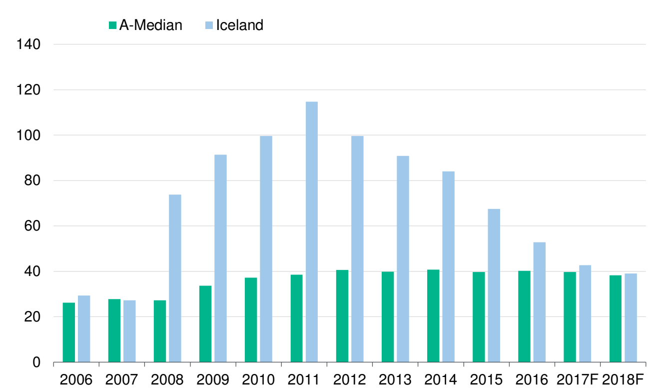
Government debt has dropped steeply in line with ambitious fiscal strategy

Iceland’s general government gross debt has fallen steeply from 115% of GDP at its peak in 2011 to 52.8% of GDP as of the end of 2016. The improvement is a consequence of virtuous debt dynamics (i.e. strong growth of nominal GDP and steadily declining interest payments) and one-offs such as buybacks of offshore krona, as well as the early payment of nearly all of the multilateral and bilateral financial support the country received in 2009. Moreover, Iceland's fiscal framework has been strengthened with the introduction of new restrictions placed on budget balances and debt.

The 5-year fiscal strategy was revised and made even more ambitious when the new (now outgoing) government took office in January, which projects larger targeted budget surpluses and faster debt reduction than its predecessor, but even this strategy is being overtaken by actual developments. The updated fiscal strategy also aims to close the small remaining hole in the public employees' pension system's funding, setting aside ISK 5 billion each year from the stability contributions of the failed banks as well as notionally earmarking ISK 1.7 billion extra per year from the interest savings on the bond buybacks for the municipal pension fund, where a funding gap exists that the government has long wanted to fill. These injections are being made in the context of a structural reform of the pension system that will equalize the benefits of public and private workers.

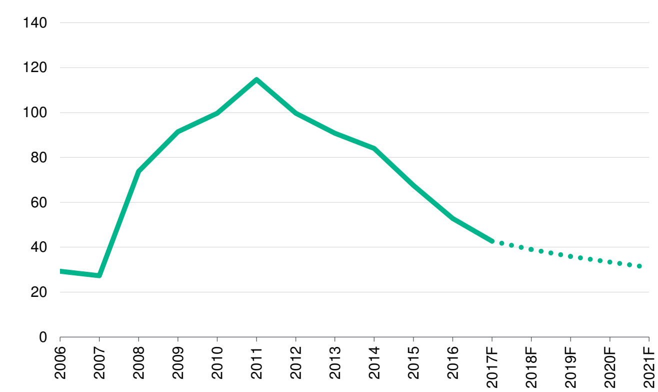
In 2017, debt is actually falling much faster than anticipated a year ago. The buyback of a majority of the offshore kroner in a settlement with three of the four holders, as well as 90% of the government's 2022 USD bond, earlier this year means that the central government has already outperformed its gross debt target of 37% of GDP (general government debt is about 7 percentage points higher) for year end 2017. We expect the general government gross debt-to-GDP ratio to drop further to 39% by 2018, bringing it in line with the A-rated countries' median, as Exhibit 8 shows. In our baseline scenario, we expect the ratio to drop further to roughly 30% by 2021 (Exhibit 9). On top of this, the government still holds substantial financial assets left over from the resolution of the old banks, which by law must be used to pay down government debt. Meanwhile, the Central Bank also holds foreign currency reserves equivalent to about 30% of GDP.

Exhibit 8
General government debt has dropped significantly since 2011, moving closer to A-rated median..
% of GDP



Sources: Iceland Ministry of Finance, National Sources, Moody's Investors Service

Exhibit 9
...and by 2021 it will narrow to pre-crisis levels
General government debt-to-GDP, %

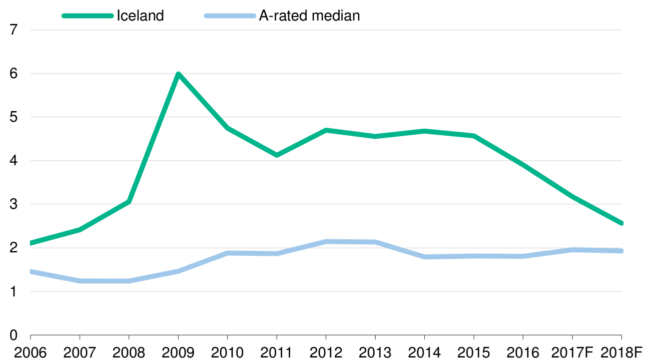


Source: Iceland Ministry of Finance, National Sources, Moody's Investors Service

Accordingly, we do expect the government to use the assets it obtained during the winding down of the failed bank estates to further reduce its outstanding debt, but we did not include such calculations in our baseline forecasts because of the uncertainty regarding the timing. Also, to the extent that government uses its cash deposits to buy back debt, we expect the government's net debt position to improve more gradually than its gross debt position.

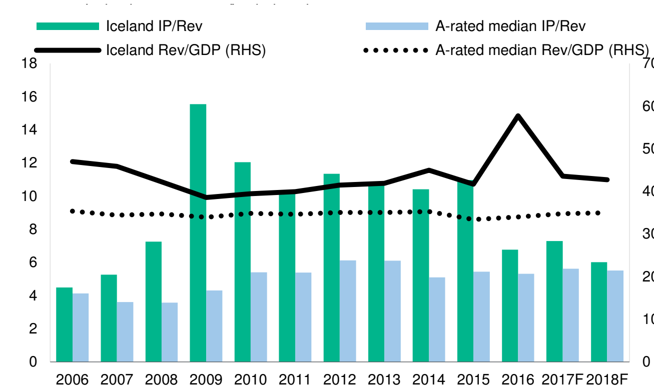
The cut in debt will also result in lower interest costs, which we expect to fall to 2.6% of GDP by 2018 from 3.9% in 2016, but rise as a share of revenues relative to 2016, given that in 2016 the government received exceptionally high one-off revenues at the time of the failed banks' resolution. In comparison with the A-rated median, Iceland has higher interest payments ratios (see Exhibits 10 and 11).

Exhibit 10
Interest payments as a share of GDP are declining steadily...
as % of GDP



Sources: Ministry of Finance, Moody's Investors Service

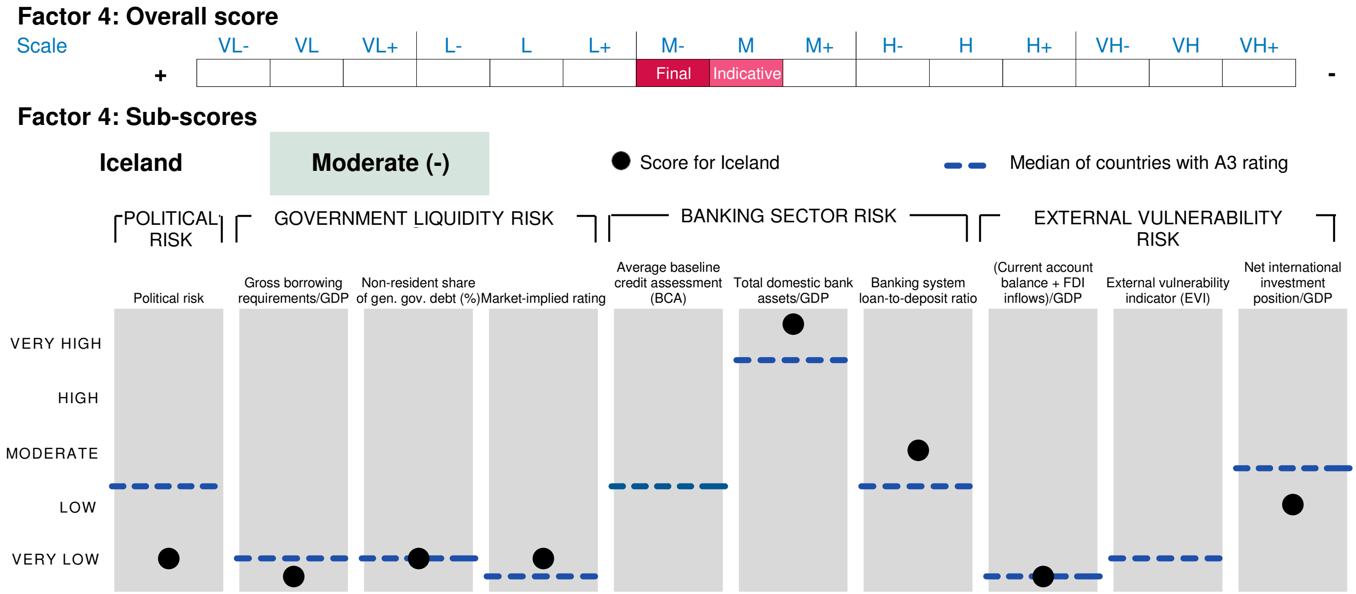
Exhibit 11
...but the interest/revenue ratio will be higher in 2017 and 2018 relative to 2016
%



IP=Interest Payments, Rev=Revenue
Sources: Ministry of Finance, Moody's Investors Service

As mentioned previously, however, the government's contingent liabilities are very large, although they have been declining in both nominal and relative terms. They mainly derive from guarantees for the Housing Financing Fund (HFF, Baa1 stable) and Landsvirkjun (LV, Baa3 stable). As of June 2017, outstanding guarantees to HFF and LV were ISK 809 billion (31% of GDP) and ISK160 billion (6% of GDP), respectively, constituting 97.6% of all state guarantees. A mitigating factor, as mentioned several times already, is the significant financial assets that the government has acquired as part of the winding down of the old banks, which will be used to further lower government debt in the coming years.

Susceptibility to event risk: Moderate (-)



Susceptibility to event risk evaluates a country's vulnerability to the risk that sudden events may severely strain public finances, thus increasing the country's probability of default. Such risks include political, government liquidity, banking sector and external vulnerability risks. Susceptibility of event risk is a constraint which can only lower the preliminary rating range as given by combining the first three factors.

Note: In case the Indicative and Final scores are the same, only the Final score will appear in the table above.

Financial sector risks have moderated, but the banking sector still exhibits risks

We assess Iceland's **susceptibility to event risk** as "moderate (-)". The "moderate (-)" score is driven by our banking system risk assessment, which is below the indicative score of "Moderate" because risks to financial stability from the banking sector have diminished significantly since the 2008 banking sector crisis. External vulnerability risk, political risk and government liquidity risk, at "Low" or "Very Low", pose minimal risks to the sovereign.

Peer comparison table factor 4c: Banking sector risk

	Iceland	M- Median	Italy	Spain	Russia	Turkey	Montenegro	Bulgaria
	A3/STA		Baa2/NEG	Baa2/STA	Ba1/STA	Ba1/NEG	B1/NEG	Baa2/STA
Final score	M-		M+	M+	M+	M	M+	M
Indicative score	M		M	L+	M+	M	L	M+
Baseline credit assessment	--	ba3	ba2	baa3	ba3	ba2	--	b1
Total dom. bank assets/GDP	201.3	87.1	234.7	244.9	93.0	105.4	100.5	99.4
Loan-to-deposit ratio	135.6	94.8	108.5	107.2	105.6	119.3	84.1	98.6

The banking system appears to be weathering well the relaxation of capital controls, as the central bank and the banking regulator require the banks to maintain very high levels of liquidity and capital, and their lending activities are restricted to the domestic economy. That said, wholesale funding remains very high with a loan-to-deposit ratio of 136% and we do not rate any of the commercial banks, so we have no baseline credit assessment (bca) to go by. Also, according to the IMF, non-insignificant risks are still present as more work needs to be done on strengthening the power of the supervisors and regulators and reducing the gaps in financial safety nets and the deposit insurance and bank resolution frameworks.

External vulnerability risk is low following recovery from banking crisis

External vulnerability risk is set at "low", which is above the indicative score of "very low" to reflect potential volatility resulting from Iceland's very small currency area. Peers sharing the "Low" assessment include Ireland (A2 stable), Lithuania (A3 stable), Poland (A2 stable), and Portugal (Ba1 positive).

Peer comparison table factor 4d: External vulnerability risk

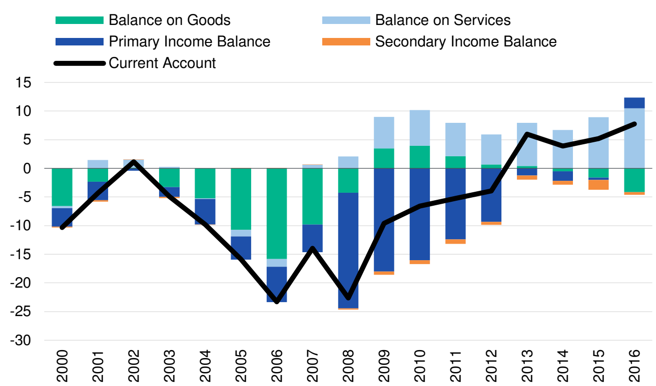
	Iceland A3/STA	L Median	Ireland A2/STA	Lithuania A3/STA	Poland A2/STA	Portugal Ba1/POS	Indonesia Baa3/POS	Australia Aaa/STA
Final score	L		L	L	L	L	L	L
Indicative score	VL		L	L	L	L	L-	L-
(Curr. acc. bal. + FDI inflows)/GDP	2.1	-0.1	8.1	0.0	2.9	5.0	-1.4	0.7
Net international inv. position/GDP	2.8	-40.2	-178.7	-43.2	-58.2	-105.1	-34.1	-60.3

Iceland's return to normalcy in the past several years has been bolstered by a turnaround in its external position, even after the economy returned to strong growth and capital controls were eased. Last year, the current account surplus rose to a record ISK190 billion (7.8% of GDP) (see Exhibit 12). The current account surplus is likely to narrow in the coming years as aggregate demand strengthens, pulling in imports, and as the benefits of lower oil prices tail off. Positive balance of payments dynamics have allowed the CBI to purchase substantial foreign exchange in the foreign exchange market, bolstering its free foreign exchange reserves to ISK652 billion, or US$6.5 billion, as of August 2017 (see Exhibit 13). Reserves would be higher still but the central bank used some of its excess to buy back most of the government's 2022 Eurobond as well as most of the offshore kroner earlier in the year.

Exhibit 12

Current account has moved to sizeable surpluses, from large deficits...

% of GDP

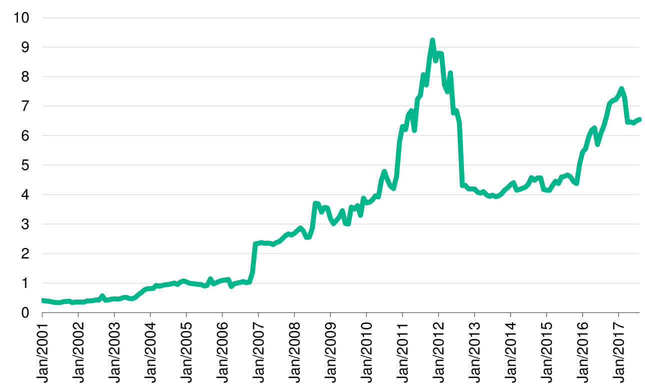


Sources: Haver Analytics, Central Bank of Iceland, Moody's Investors Service

Exhibit 13

...leading to a strong rise in foreign currency reserves

US$ billion



Sources: Haver Analytics, Central Bank of Iceland, Moody's Investors Service

We expect the current account to remain in surplus for the next several years thanks to a number of factors, including favorable terms of trade and the booming tourism sector. The 2016 resolution of the failed banks' estates now means that the underlying current account position has become the actual current account position.

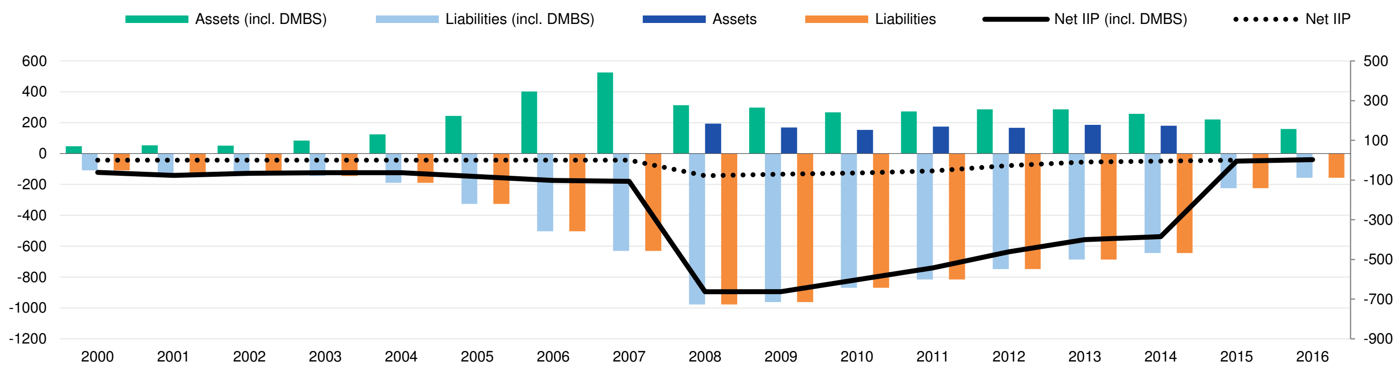
Weak competitiveness represents the most significant obstacle to the sustainability of Iceland's external position, which would be endangered if wage increases granted in the next couple of years are outsized relative to inflation and productivity. That said, the composition of Iceland's specialised and niche exports should assure continued surpluses, although we expect them to shrink gradually as domestic demand strengthens following the complete dismantling of capital controls.

Iceland's net international investment position has moved into balance

Iceland's net IIP has improved significantly in the years since the crisis due to significant current account surpluses facilitating the paying down of external debt, rising prices in foreign asset markets increasing the value of Iceland's foreign assets, and the write-downs of debt owned by the failed banks in winding-up proceedings. Given the resolution of the failed bank estates in 2016, Iceland's net

IIP improved sharply, moving into a positive territory of 2.6% of GDP at the end of 2016 from -4.8% of GDP at the end of 2015 (see Exhibit 14).

Exhibit 14
Net IIP has improved following the resolution of the failed bank estates
(% of GDP)



Sources: Haver Analytics, Central Bank of Iceland, Moody's Investors Service

The authorities' "capital flow mechanism" is meant to protect economic and financial stability by deterring speculative capital inflows. Introduced in June 2016, the mechanism has been highly successful. Iceland has a very small economy with its own currency and a monetary policy that is tighter than in the rest of the advanced world.

Frequent elections have had limited effect on policy continuity

Political risk is "very low" for both domestic and geopolitical risk, because there has been relatively consistent policy in key areas important to safeguarding the government's credit profile despite several government changes since 2008. Peers sharing this assessment include Malta (A3 stable), Ireland (A2 stable), Germany (Aaa stable), France (Aa2 stable), Finland (Aa1 stable) and Chile (Aa3 negative).

Peer comparison table factor 4a: Political risk

	Iceland A3/STA		Malta A3/STA	Ireland A2/STA	Germany Aaa/STA	France Aa2/STA	Finland Aa1/STA	Chile Aa3/NEG
Final score	VL		VL	VL	VL	VL	VL	VL
Geopolitical risk	VL	--	VL	VL	VL	VL	VL	VL
Domestic political risk	VL	--	VL	VL	VL	VL	VL	VL

Iceland faces early elections at the end of October, the second early election in as many years, after the junior coalition party withdrew from the nine-month-old center-right government. The latest government collapse was not over differences in policy, but probably had more to do with the nature of the fragile coalition – which commanded only a one-vote majority in parliament. It is unclear at this stage what the next government will look like, or how long it will take a new coalition to be formed, but we believe that continuity of macroeconomic policy is nearly assured.

Government liquidity risks are minor thanks to low borrowing requirements

Government liquidity risk is set at "very low", which is above the indicative score of "very low (-)" to reflect the need to maintain relatively high interest rates to restrain inflation. Peers with the same assessment include France (Aa2 stable) and Romania (Baa3 stable), and those with a lower assessment include Ireland (A2 stable), Malta (A3 stable), Latvia (A3 stable) and Slovakia (A2 positive).

Peer comparison table factor 4b: Government liquidity risk

	Iceland A3/STA	VL Median	France Aa2/STA	Romania Baa3/STA	Ireland A2/STA	Malta A3/STA	Latvia A3/STA	Slovakia A2/POS
Final score	VL		VL	VL	VL-	VL-	VL-	VL-
Indicative score	VL-		VL	VL+	VL-	L-	VL-	VL-
Gross borrowing req./GDP	1.7	7.4	13.2	9.0	1.8	5.8	5.3	9.0
Gen. gov. ext. debt/gen. gov. debt	30.3	61.3	61.3	48.4	66.9	15.4	77.5	52.8
Market funding stress indicator	A2	Baa1	Aaa	Baa1	Aaa	Ba2	Aa1	Aaa

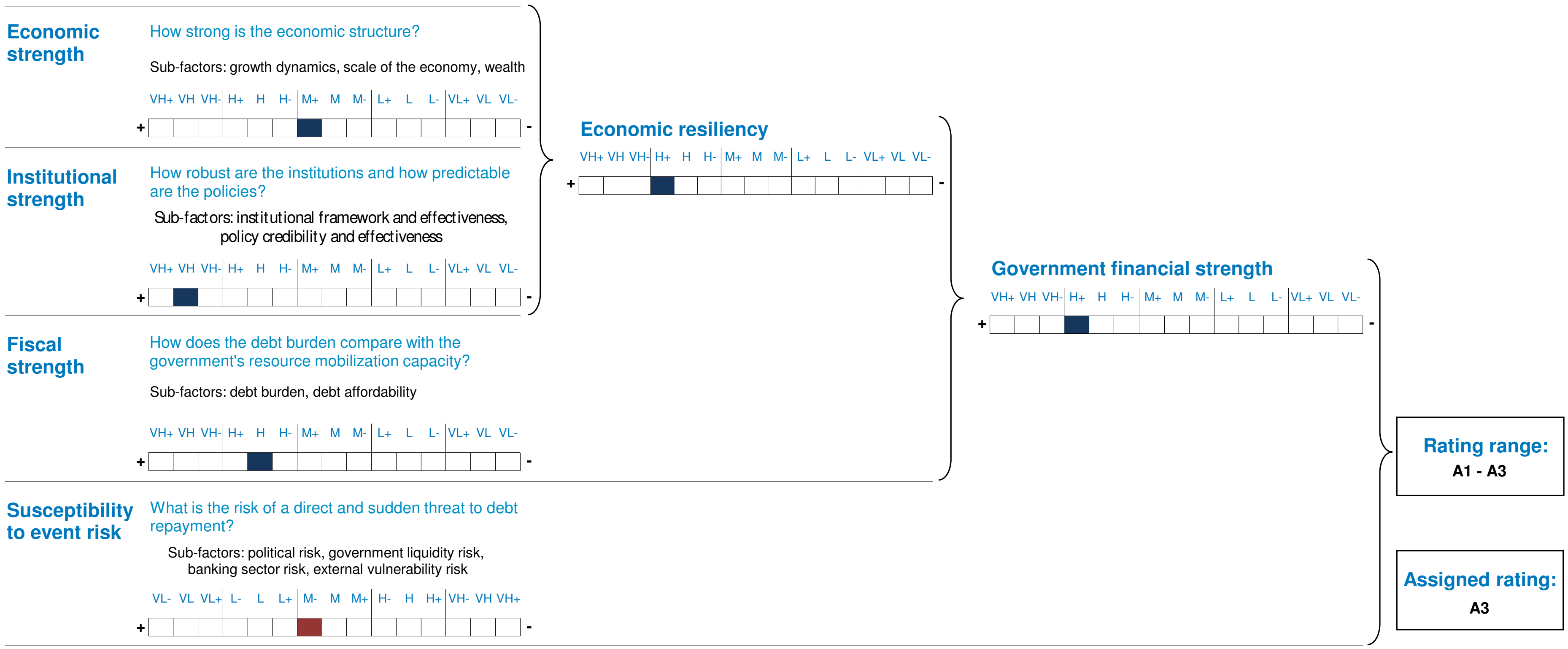
The sovereign's funding situation remains very comfortable with low borrowing requirements on the back of fiscal surpluses and declining debt. The year's gross borrowing requirements stand at 1.7% of GDP. The government's average debt maturity at 13.6 years is among the longest across advanced economies, after the United Kingdom (14.9) according to the April 2017 IMF Fiscal Monitor. Finally, non-resident holdings of government debt and the foreign currency share of government debt are now quite low, which reduce its exposure to a sudden change in foreign investor sentiment towards the country.

Rating range

Combining the scores for individual factors provides an indicative rating range. While the information used to determine the grid mapping is mainly historical, our ratings incorporate expectations around future metrics and risk developments that may differ from the ones implied by the rating range. Thus, the rating process is deliberative and not mechanical, meaning that it depends on peer comparisons and should leave room for exceptional risk factors to be taken into account that may result in an assigned rating outside the indicative rating range. For more information please see our Sovereign Bond Rating Methodology.

Exhibit 15

Sovereign rating metrics: Iceland



Comparatives

This section compares credit relevant information regarding Iceland with other sovereigns rated by Moody's Investors Service. It focuses on a comparison with sovereigns within the same rating range and shows the relevant credit metrics and factor scores.

Despite being a relatively small economy, Iceland's economic strength score of "Moderate (+)" is broadly on par with the A3 and European medians, driven by high wealth and relatively strong growth. Institutional strength remains the strongest aspect of Iceland's credit profile, where its score of "Very High" is on par with credits in the Aaa-Aa range, driven by extremely robust institutional framework and effectiveness. Policy credibility and effectiveness, however, somewhat underperforms, owing to high inflation volatility. Fiscal strength remains is broadly on par with peers. The debt burden and debt affordability remain moderate; however, they have demonstrated a considerable decline in recent years. Susceptibility to event risk is driven by the banking sector and with a score of "Moderate (-)" is on par with A3 peers.

Exhibit 16

Iceland key peers

	Year	Iceland	Mauritius	Slovakia	Malta	Latvia	Ireland	A3 Median	Western Europe Median
Rating/Outlook		A3/STA	Baa1/STA	A2/POS	A3/STA	A3/STA	A2/STA	A3	Aa2
Rating Range		A1 - A3	A2 - Baa1	Aa3 - A2	A1 - A3	A1 - A3	A1 - A3	A1 - A3	Aa2 - A1
Factor 1		**M+**	**H-**	**M+**	**H-**	**M+**	**H**	**M+**	**H+**
Nominal GDP (US$ bn)	2016	20.3	12.2	89.6	10.9	27.7	304.8	35.2	378.8
GDP per capita (PPP, US$)	2016	49135.6	20421.6	31338.8	39833.8	25709.8	69230.8	28444.3	47443.6
Avg. real GDP (% change)	2012-2021	3.6	3.7	3.2	4.5	3.1	5.7	3.4	1.5
Volatility in real GDP growth (ppts)	2007-2016	4.7	0.8	4.1	3.0	6.7	8.5	3.7	2.2
Global Competitiveness index	2015	5.0	4.5	4.3	4.5	4.4	5.2	4.6	5.2
Factor 2		**VH**	**H+**	**H+**	**H+**	**VH-**	**VH**	**H+**	**VH**
Government Effectiveness, percentile [1]	2016	85.0	70.1	68.6	69.4	71.6	82.0	70.5	88.8
Rule of Law, percentile [1]	2016	87.3	70.8	67.9	79.1	76.1	88.0	75.0	88.8
Control of Corruption, percentile [1]	2016	94.0	61.1	59.7	70.8	64.1	89.5	65.6	91.0
Average inflation (% change)	2012-2021	2.6	3.0	1.3	1.6	1.3	0.9	2.5	1.3
Volatility in inflation (ppts)	2007-2016	3.9	3.0	1.8	1.2	5.3	2.7	2.4	1.3
Factor 3		**H**	**M**	**VH**	**H**	**VH-**	**M+**	**H**	**H**
Gen. gov. debt/GDP	2016	52.8	59.7	51.9	58.3	40.1	72.8	40.2	65.6
Gen. gov. debt/revenue	2016	91.5	284.9	130.0	149.0	110.3	274.6	138.2	150.2
Gen. gov. interest payments/revenue	2016	6.8	11.4	4.1	5.6	3.1	8.5	5.7	3.9
Gen. gov. interest payments/GDP	2016	3.9	2.3	1.7	2.2	1.1	2.2	1.6	2.0
Gen. gov. financial balance/GDP	2016	12.6	-3.5	-1.7	1.0	0.0	-0.6	-1.2	-0.6
Factor 4		**M-**	**L+**	**L+**	**L+**	**M-**	**M-**	**M-**	**L+**
Current account balance/GDP	2016	7.8	-4.4	-0.7	7.9	1.5	3.3	1.5	3.3
Gen. gov. external debt/gen. gov. debt	2016	30.3	20.5	52.8	15.4	77.5	66.9	30.1	47.4
Net international investment position/GDP	2016	2.8	--	-57.5	47.4	-58.1	-178.7	-39.0	16.7

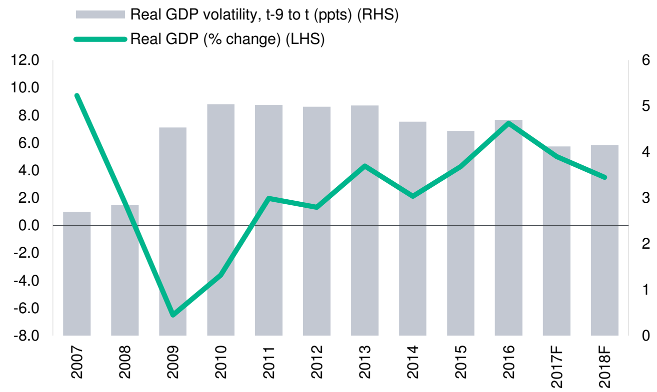
Notes:
[1] Moody's calculations. Percentiles based on our rated universe.
Source: Moody's Investors Service

Chart pack

Iceland

Exhibit 17

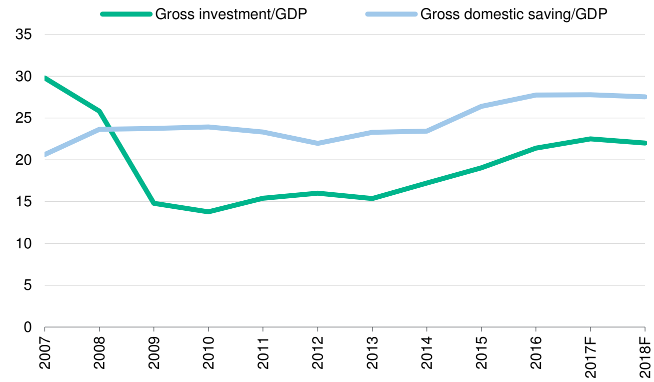
Economic growth



Source: Moody's Investors Service

Exhibit 18

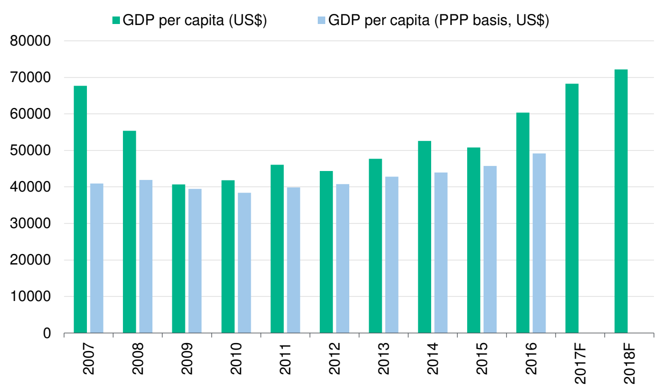
Investment and saving



Source: Moody's Investors Service

Exhibit 19

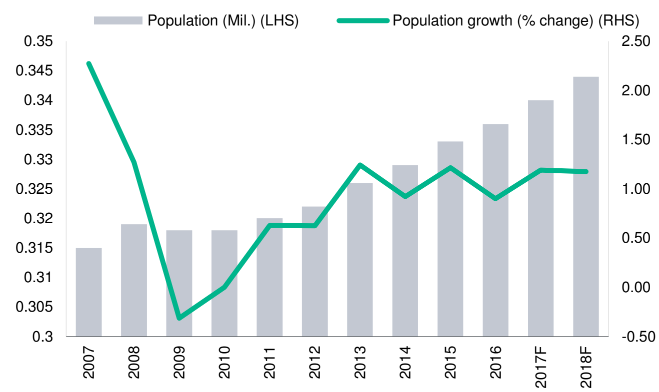
National income



Source: Moody's Investors Service

Exhibit 20

Population

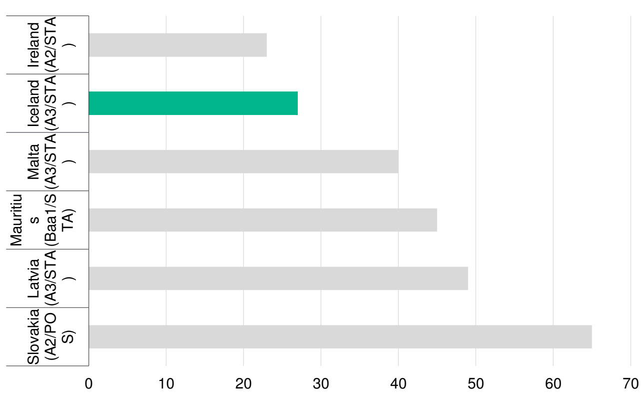


Source: Moody's Investors Service

Exhibit 21

Global Competitiveness Index

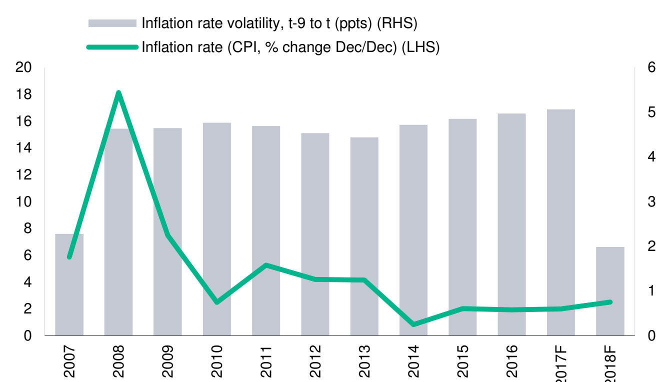
Rank 24 out of 140 countries



Source: World Economic Forum

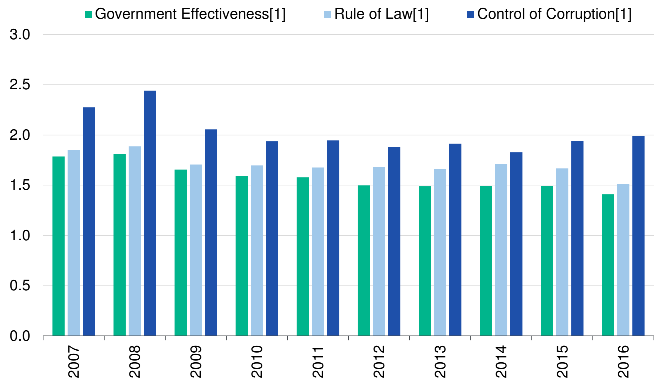
Exhibit 22

Inflation and inflation volatility



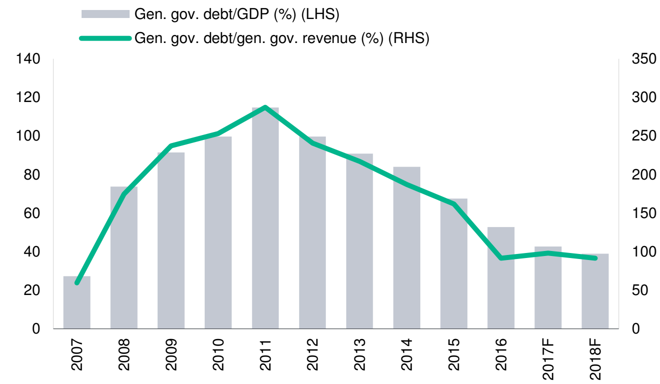
Source: Moody's Investors Service

Exhibit 23
Institutional framework and effectiveness



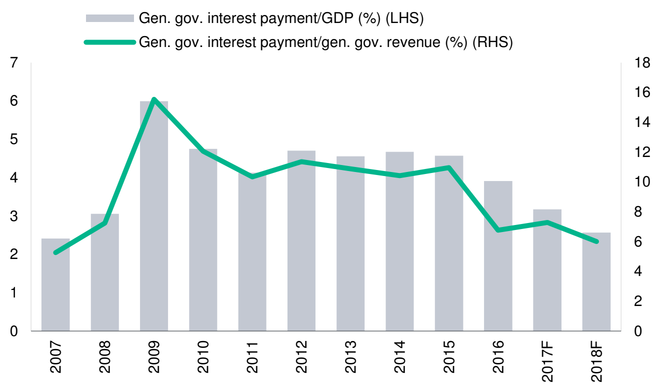
Note:
[1] Composite index with values from about -2.50 to 2.50: higher values correspond to better governance.
Source: Worldwide Governance Indicators

Exhibit 24
Debt burden



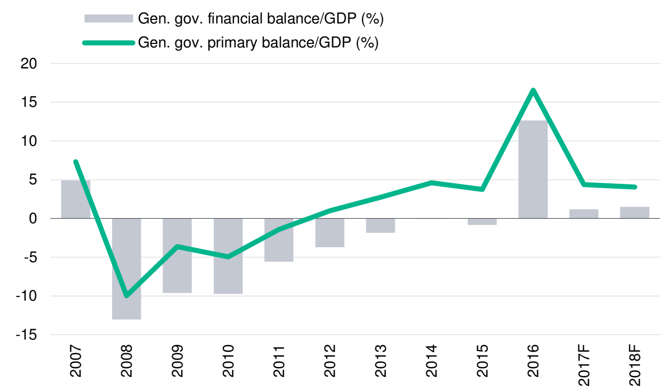
Source: Moody's Investors Service

Exhibit 25
Debt affordability



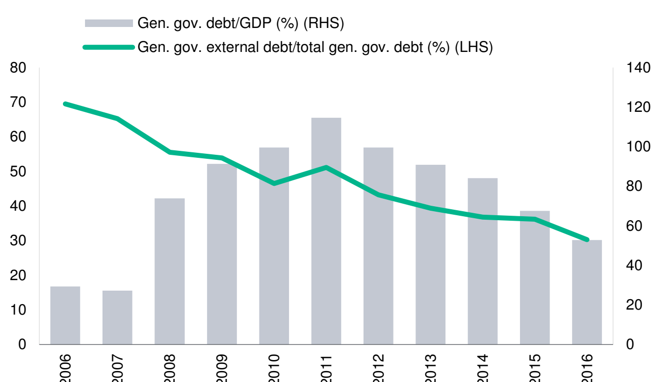
Source: Moody's Investors Service

Exhibit 26
Financial balance



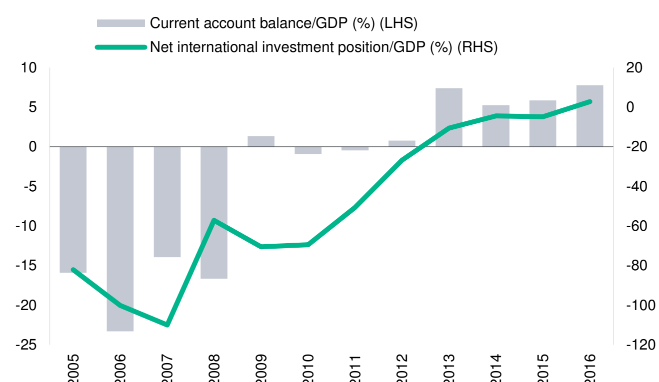
Source: Moody's Investors Service

Exhibit 27
Government liquidity risk



Source: Moody's Investors Service

Exhibit 28
External vulnerability risk



Source: Moody's Investors Service

Rating history

Exhibit 29
Iceland

	Government Bonds			Foreign-Currency Ceilings				
	Foreign Currency	Local Currency	Outlook	Bonds & Notes		Bank Deposit		Date
				Long-term	Short-term	Long-term	Short-term	
Rating Raised	A3	A3	Stable	A3	--	A3	--	September-16
Outlook changed	Baa2	Baa2	RUR-	Baa2	P-2	Baa2	P-2	June-16
Rating Raised	Baa2	Baa2	--	Baa2	--	Baa2	--	June-15
Outlook changed	Baa3	Baa3	Stable	--	--	--	--	February-13
Rating Lowered	--	--	--	Baa3	--	--	--	November-12
Outlook changed	Baa3	Baa3	Negative	--	--	--	--	July-10
Outlook changed	Baa3	Baa3	Stable	--	--	--	--	April-10
Outlook changed	Baa3	Baa3	Negative	--	--	--	--	April-10
Outlook changed	Baa3	Baa3	Stable	--	--	--	--	November-09
Rating Lowered	Baa3	Baa3	--	Baa2	P-3	Baa3	P-3	November-09
Rating Lowered	Baa1	Baa1	Negative	A2	P-2	Baa1	P-2	December-08
Rating Lowered & Review for Downgrade	A1	A1	RUR-	Aa1	--	A1	--	October-08
Review for Downgrade	Aa1	Aa1	RUR-	--	--	--	--	September-08
Rating Lowered	Aa1	Aa1	Stable	--	--	Aa1	--	May-08
Outlook Changed	Aaa	Aaa	Negative	--	--	--	--	March-08
Rating Raised	Aaa	--	Stable	Aaa	--	Aaa	--	October-02
Rating Assigned	--	Aaa	--	--	--	--	--	July-97
Rating Raised	Aa3	--	Stable	Aa3	--	Aa3	--	July-97
Review for Upgrade	A1	--	RUR+	--	--	--	--	June-97
Outlook Assigned	--	--	Positive	--	--	--	--	March-97
Rating Raised	A1	--	--	A1	--	A1	--	June-96
Review for Upgrade	A2	--	RUR+	--	--	--	--	April-96
Rating Assigned	--	--	--	--	--	A2	P-1	October-95
Rating Assigned	--	--	--	--	P-1	--	--	October-90
Rating Assigned	A2	--	--	A2	--	--	--	May-89

Annual statistics

Exhibit 30

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016E	2017F	2018F
Economic structure and performance												
Nominal GDP (US$ bil.)	21.3	17.7	12.9	13.3	14.7	14.3	15.5	17.3	16.9	20.3	23.2	24.8
Population (Mil.)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
GDP per capita (US$)	67,682	55,356	40,705	41,857	46,040	44,385	47,694	52,557	50,818	60,326	68,219	72,165
GDP per capita (PPP basis, US$)	40,950	41,869	39,473	38,433	39,865	40,803	42,784	43,926	45,740	49,136	--	--
Nominal GDP (% change, local currency)	14.1	13.7	3.1	1.7	5.0	4.6	6.3	6.3	10.6	9.7	5.5	5.7
Real GDP (% change)	9.4	1.7	-6.5	-3.6	2.0	1.3	4.3	2.1	4.3	7.4	5.0	3.5
Inflation (CPI, % change Dec/Dec)	5.9	18.1	7.5	2.5	5.3	4.2	4.1	0.8	2.0	1.9	2.0	2.5
Unemployment rate (%)	2.3	3.0	7.2	7.6	7.1	6.0	5.4	5.0	4.0	3.0	2.7	2.5
Gross investment/GDP	29.8	25.8	14.8	13.8	15.4	16.0	15.4	17.2	19.0	21.4	22.5	22.0
Gross domestic saving/GDP	20.6	23.6	23.8	23.9	23.3	22.0	23.3	23.4	26.4	27.8	27.8	27.5
Nominal exports of G & S (% change, US$ basis)	33.9	2.4	-12.0	11.1	16.7	-2.4	5.9	6.7	-1.5	9.0	18.5	7.9
Nominal imports of G & S (% change, US$ basis)	10.0	-15.4	-31.6	9.9	23.8	1.7	1.3	9.9	-3.8	9.9	21.9	7.3
Real exports of G & S (% change)	23.3	3.3	8.3	1.0	3.4	3.6	6.7	3.2	9.2	10.9	8.7	4.3
Real imports of G & S (% change)	-2.3	-20.3	-22.4	4.4	6.8	4.6	0.1	9.8	13.8	14.5	11.9	3.8
Net exports of goods & services/GDP	-9.2	-2.2	9.0	10.2	7.9	5.9	7.9	6.2	7.3	6.3	5.3	5.5
Openness of the economy[1]	75.8	84.6	90.0	96.7	104.8	107.4	102.4	99.6	99.2	90.6	95.0	95.6
Government Effectiveness[2]	1.8	1.8	1.7	1.6	1.6	1.5	1.5	1.5	1.5	1.4	--	--
Government finance												
Gen. gov. revenue/GDP	45.9	42.2	38.6	39.4	39.9	41.4	41.9	44.9	41.7	57.7	43.6	42.7
Gen. gov. expenditures/GDP	41.0	55.3	48.2	49.1	45.5	45.2	43.7	45.0	42.5	45.1	42.4	41.2
Gen. gov. financial balance/GDP	4.9	-13.0	-9.6	-9.7	-5.6	-3.7	-1.8	-0.1	-0.8	12.6	1.2	1.5
Gen. gov. primary balance/GDP	7.3	-10.0	-3.6	-5.0	-1.4	1.0	2.7	4.6	3.7	16.5	4.4	4.1
Gen. gov. debt (US$ bil.)	6.0	9.5	11.7	14.1	16.0	13.8	14.9	13.4	11.6	11.5	10.0	9.7
Gen. gov. debt/GDP	27.3	73.8	91.4	99.7	114.7	99.7	90.8	84.0	67.5	52.8	42.7	39.0
Gen. gov. debt/gen. gov. revenue	59.5	174.8	237.0	252.9	287.1	240.5	216.8	187.1	162.0	91.5	98.0	91.4
Gen. gov. interest payments/gen. gov. revenue	5.3	7.2	15.5	12.0	10.3	11.3	10.9	10.4	11.0	6.8	7.3	6.0
External payments and debt												
Nominal exchange rate (local currency per US$, Dec)	61.9	120.6	124.9	115.1	122.7	129.0	115.6	126.9	129.6	112.8	110.0	110.0
Real eff. exchange rate (% change)	5.5	-21.4	-19.2	5.1	1.4	-0.3	4.6	6.6	2.2	11.9	--	--
Relative unit labor cost	182.9	130.4	90.3	100.0	105.5	105.7	110.2	120.8	131.1	150.9	170.9	--
Current account balance (US$ bil.)[3]	-3.0	-2.9	0.2	-0.1	-0.1	0.1	1.1	0.9	1.0	1.6	1.3	1.2
Current account balance/GDP[3]	-14.0	-16.6	1.3	-0.9	-0.5	0.8	7.4	5.2	5.9	7.8	5.4	4.8
Net foreign direct investment/GDP	-15.8	29.0	-17.0	19.6	7.4	29.6	-0.3	4.2	4.1	3.5	6.0	5.0
Net international investment position/GDP[3]	-110.0	-57.1	-70.5	-69.5	-50.8	-26.8	-10.5	-4.4	-4.9	2.8	--	--
Official forex reserves (US$ bil.)	2.5	3.5	3.6	5.6	7.7	4.0	4.1	4.1	4.8	6.9	6.2	6.6

[1] Sum of Exports and Imports of Goods and Services/GDP
[2] Composite index with values from about -2.50 to 2.50: higher values suggest greater maturity and responsiveness of government institutions
[3] Excludes DMBs undergoing winding up in 2008-2015
Source: Moody's Investors Service

Moody's related research

- **Rating Action:** Moody's upgrades Iceland's government ratings to A3; outlook stable, 1 September 2016
- **Issuer Comment:** Government of Iceland : Elimination of Capital Controls is Credit Positive for the Sovereign and the Financial Sector, 17 March 2017
- **Issuer Comment:** Iceland's Improving External Position Is Credit Positive, 13 March 2017
- **Country Statistics**: Iceland, Government of, 13 June 2017
- **Rating Methodology**: Sovereign Bond Ratings, 22 December 2016

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

Related websites and information sources

- Statistics Iceland
- Central Bank of Iceland
- Ministry of Finance and Economic Affairs
- Government Debt Management

MOODY'S has provided links or references to third party World Wide Websites or URLs ("Links or References") solely for your convenience in locating related information and services. The websites reached through these Links or References have not necessarily been reviewed by MOODY'S, and are maintained by a third party over which MOODY'S exercises no control. Accordingly, MOODY'S expressly disclaims any responsibility or liability for the content, the accuracy of the information, and/or quality of products or services provided by or advertised on any third party web site accessed via a Link or Reference. Moreover, a Link or Reference does not imply an endorsement of any third party, any website, or the products or services provided by any third party.

© 2017 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS AND PUBLISHES MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS AND MOODY'S PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS OR MOODY'S PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER. ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing the Moody's publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for appraisal and rating services rendered by it fees ranging from $1,500 to approximately $2,500,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors. It would be reckless and inappropriate for retail investors to use MOODY'S credit ratings or publications when making an investment decision. If in doubt you should contact your financial or other professional adviser.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for appraisal and rating services rendered by it fees ranging from JPY200,000 to approximately JPY350,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the ratings tab on the issuer/entity page on www.moodys.com for the most updated credit rating action information and rating history.

REPORT NUMBER 1089939

Contacts

Polina Gotmann
Associate Analyst
polina.gotmann@moodys.com

Kristin Lindow
Senior Vice President
kristin.lindow@moodys.com

MOODY'S
INVESTORS SERVICE