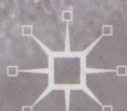
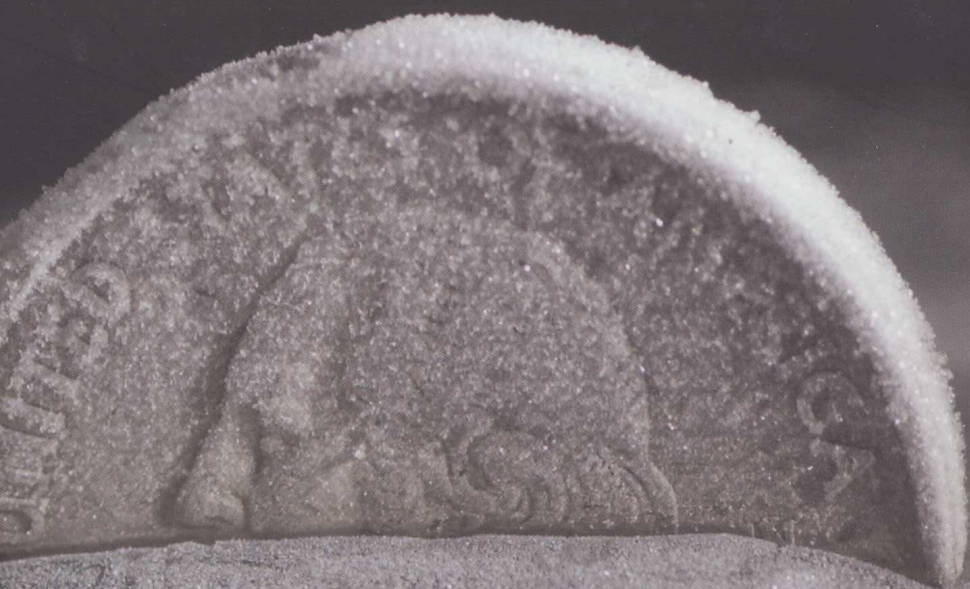


Preludes to the Icelandic Financial Crisis

Edited by
Robert Z. Aliber and
Gylfi Zoega



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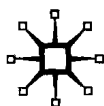
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Contents

<i>List of Figures</i>	vii
<i>List of Tables</i>	xi
<i>Notes on the Contributors</i>	xiii
1 Introduction <i>Robert Z. Aliber</i>	1
2 The Chapters in this Volume <i>Gylfi Zoega</i>	13
3 Privatization and Deregulation: a Chronology of Events <i>Throstur Olaf Sigurjonsson</i>	26
Part I International Organizations and the Central Bank of Iceland	41
4 International Monetary Fund, Article IV Consultations 2006 and 2008	43
5 OECD <i>Economic Survey of Iceland</i> , 2006 and 2008	50
6 Central Bank of Iceland <i>Financial Stability</i> Reports 2006–8	54
Part II Other Reports	75
7 Iceland – Macro Imbalances Trigger Negative Outlook <i>Fitch Ratings</i>	77
8 Iceland: Geyser Crisis <i>Lars Christiansen</i>	89
9 Financial Stability in Iceland <i>Frederic S. Mishkin and Tryggvi T. Herbertsson</i>	107
10 The Internationalization of Iceland's Financial Sector <i>Richard Portes and Friðrik Már Baldursson with Frosti Ólafsson</i>	160
11 The Icelandic Banking Crisis and What to Do about it: the Lender of Last Resort Theory of Optimal Currency Areas <i>Willem H. Buiter and Anne C. Sibert</i>	241
12 Iceland on the Brink? Options for a Small, Financially Active Economy in the Current Financial Crisis Environment <i>Daniel Gros</i>	276

13	Events in Iceland: Skating on Thin Ice? <i>Thorvaldur Gylfason</i>	290
14	A Spending Spree <i>Gylfi Zoega</i>	296
15	Monetary Turbulence and the Icelandic Economy <i>Robert Z. Aliber</i>	302
	Part III Lessons for Other Countries	327
16	Overbanked and Undersized: Lessons from Iceland <i>Anne C. Sibert</i>	329
	Appendix: Statistical Tables	341
	<i>Index</i>	343

List of Figures

3.1	Evolution of the banks' share prices	33
7.1	Major banks' refinancing risk	81
7.2	General government debt	84
7.3	Iceland: net external debt	85
7.4	Net external debt	85
8.1	Upswing driven by strong domestic demand	91
8.2	Energy and metal sectors are driving investments	92
8.3	Net exports have deteriorated and external imbalances are widening	92
8.4	Large imbalances even disregarding aluminium	93
8.5	Tight labour market is driving up wages	93
8.6	Even through the ISK is extremely strong ... inflation is rising above target ... which has forced Sedlabanki to hit the brakes	94
8.7	Public finances have not been tightened enough	95
8.8	Credit and money growth is spiking	96
8.9	Easy liquidity is inflating asset markets	96
8.10	Corporate and household debt is surging	97
8.11	External borrowing has exploded	97
8.12	International investment position has deteriorated	98
8.13	Crisis indicators – worse than Thailand, 1997	99
8.14	Fitch sparks market correction	101
8.15	Heading for a funding crisis?	102
8.16	Big gap between debt costs and equity income	103
8.17	Household debt: inflation linked	104
8.18	Very little impact through trade patterns	106
9.1	Current account GDP ratio	111
9.2	Current account breakdown (bISK)	111

9.3	The partial relationship between volatility of the current account GDP ratio and size of countries	112
9.4	The ISK index	113
9.5	Annual growth of GDP (%)	114
9.6	The policy rate of the Central Bank of Iceland	114
9.7	Inflation, with housing and without housing (%)	114
9.8	General government surplus GDP ratio (%)	117
9.9	Net government debt GDP ratio (%)	118
9.10	Pension fund assets GDP ratio (%)	119
9.11	External debt GDP ratio (%)	121
9.12	Net international investment position GDP ratio (%)	121
9.13	External debt of the banking system GDP ratio	126
9.14	Foreign assets of the banking system (bISK)	126
9.15	Foreign lending (bISK)	127
9.16	Lending of the Housing Finance Fund (bISK)	139
9.17	Household borrowing from the credit system (bISK)	140
9.18	Share of foreign currency denominated corporate debt (%)	141
9.19	Development of CDS spreads of the Icelandic banks, 5 year senior, basis points	146
9.20	Probability of a financial crisis based on CDS spreads	147
10.1	Credit system (% of GDP)	177
10.2	Glitnir Bank debt distribution	181
10.3	Kaupthing Bank debt distribution	181
10.4	Landsbanki debt distribution	181
10.5	Household debt service	184
10.6	Glitnir (borrowings/loans = 0.77)	193
10.7	Kaupthing (borrowings/loans = 0.81)	193
10.8	Landsbanki (borrowings/loans = 0.41)	194
10.9	DnB NOR (borrowings/loans = 0.35)	194
10.10	SHB (borrowings/loans = 0.53)	194
10.11	Swedbank (borrowings/loans = 0.6)	195
10.12	Return on equity, 2005–7	195

10.13	Tier 1 ratios	197
10.14	CDSs for Icelandic banks, Nordic banks, Commerzbank, Jan. 2006–Oct. 2007	199
10.15	Bank consolidation	202
10.16	External debt position, 1990–2006 (at end of year and latest quarter)	210
10.17	External debt and assets, Q1/1998, Q2/2007 (at current prices)	211
10.18	Carry-to-risk ratio vs EUR/ISK exchange rate	212
10.19	Glacier bonds	213
10.20	Current account balance, 1945–2007	213
10.21	Components of current account, quarterly data in ISK (net current transfer is included in factor income)	214
10.22	ISK/EUR, ISK/USD, TWI	218
10.23	Correlation of various currencies with the ISK, daily changes (3m moving correlation)	218
10.24	Exchange rate volatilities	219
10.25	Real effective exchange rate (2000 = 100)	220
10.26	OMX15 index volatility in ISK vs EUR	221
10.27	Interest rate differential with weekly data	226
10.28	Net position of banks in currency forward and options contracts	226
10.29	12-Month change in Consumer Price Index	228
10.30	CBI policy rate	228
11.1	Assets and liabilities of the three main banks compared to GDP (m.kr.)	246
11.2	Geographical breakdown of Icelandic bank assets, 2008Q1	247
11.3	Assets and liabilities of the three main banks (b.kr.)	247
11.4	CDS spreads for three Icelandic banks and iTraxx Financial Europe, 10/07/2006–10/07/2008	248
11.5	Official foreign reserves of the Central Bank as a percentage of GDP	253
11.6	Icelandic national accounts at constant prices (percentage change)	262

11.7	Export composition (excluding income), 2007	263
11.8	Measures of capacity utilization (%)	264
11.9	Asset prices (annual percentage change)	264
11.10	Indexed loans of DMBs to residents, % of total loans to residents	264
11.11	The CPI and the nominal effective exchange rate	265
11.12	Short-term interest rates, January 1997–February 2008	266
11.13	Real effective exchange rate of the Icelandic krona, 1960–2007	266
11.14	Currency composition of household foreign currency borrowing from banks	268
12.1	GDP as % of US GDP (PPP per capita)	284
12.2	GDP (PPS per capita)	285
12.3	Investment in construction (% of GDP)	286
12.4	Investment in dwellings (% of GDP)	286
12.5	Investment in dwellings	287
12.6	Investment in constructions and dwellings, 2006	287
13.1	Iceland vs the United States: GDP per capita, 1975–2006	293
13.2	Ratio of foreign short-term bank liabilities to Central Bank foreign reserves, 1989–2006	294
16.1	Size of the banking sector	331
16.2	Concentration in the banking sector	332
16.3	Country size	334
16.4	Percentage change in GDP at constant prices	336
16.5	Consumption volatility and country size (in millions)	337

List of Tables

3.1	A chronology of events	34
6.1	Main vulnerabilities	64
6.2	Resilience	65
6.3	Main vulnerabilities	72
6.4	Resilience	73
7.1	Iceland: forecasts and outcomes	79
7.2	Iceland: macro-prudential indicators	80
7.3	Balance of payments	86
7.4	External debt and liquidity	87
8.1	Table of imbalances	99
9.1	Overview statistics for the Icelandic economy	115
9.2	Generational accounts (% of GDP)	120
9.3	Generational accounts in selected countries (% of GDP in 1995)	120
9.4	Total bank assets GDP ratio	124
9.5	Financing of the banking system	125
10.1	An overview of the Icelandic economy	166
10.2	Recent developments in financial markets	170
10.3	Main players in Iceland's banking sector	171
10.4	Foreign workforce of Icelandic companies	177
10.5	Deposit ratios (%)	180
10.6	FSA stress test	186
10.7	Effects of the ISK on regulatory capital	187
10.8	Return on equity, excluding financial income	188
10.9	Deposits/loans of major Nordic banks	193
10.10	Core returns	196
10.11	Ratings	198
10.12	Macroeconomic indicators	227

11.1	IMF lending, 2008	258
12.1(a)	Iceland's import boom (% of GDP)	278
12.1(b)	Germany and Iceland: comparing degrees of openness (% of GDP)	279
12.1(c)	How important are exports? (% of GDP)	279
12.1(d)	The importance of manufacturing exports (% of GDP)	280
12.2	Net foreign investment positions (\$ billion)	281
12.3	Rates of return on foreign assets and liabilities of Iceland (%)	281
12.4(a)	Evolution in the structure of foreign exchange sources in Iceland	282
12.4(b)	Distribution of foreign exchange earnings, 2006: a comparison	282
12.4(c)	Percentage distribution of foreign exchange outlays, 2006	282
12.5	Loan–deposit ratios	283
15.1	Icelandic macro parameters	309
15.2	Sectoral absorption parameters	309
15.3	Real estate prices, stock prices, and household wealth	310
15.4	Financial parameters for Icelandic banks	311
15.5	Return on bank capital	312
15.6	Increases in stock prices and bank capital	313
15.7	Stock market valuations	313
15.8	Private sector wealth	318
15.9	The assets of the Icelandic banks and Iceland's GDP	321

1

Introduction

Robert Z. Aliber

Introduction

Iceland was one of the first countries to experience the collapse of its banks in the fourth wave of financial crises since the early 1980s. Each of these waves has involved the failure of a large number of banks in a country at about the same time. Each of these waves has followed a wave of credit bubbles, when the indebtedness of a group of borrowers, usually the buyers of real estate, increased at an annual rate of 20–30 per cent a year for two, three, or more years. Most of these credit bubbles have followed an increase in the flow of money to a country that led to an increase in the value of its currency, to an increase in its current account deficit and to increases in asset prices. (The principal exception is that the credit bubble in Japan in the second half of the 1980s occurred when its current account surplus was declining, however at the same time that the Japanese yen appreciated. The other exceptions are that the credit bubbles in Ireland and Spain occurred when they were members of the European Monetary Union.)

Iceland is the smallest country with its own currency. Between 2002 and 2007 real estate prices increased sharply while prices of stocks of Icelandic firms increased by a factor of seven, one of the most rapid increases ever in any country. During this period real estate prices in the United States, Britain, Ireland, Spain, South Africa, Australia, and New Zealand increased rapidly.

Iceland gained its independence from Denmark in 1944, and its financial history is relatively short. While the quality of the human capital is extremely high, the managerial structure in the public and private sectors is thin because of the small population.

In the late 1990s Iceland participated in the global moves toward the privatization of government-owned firms. The privatization of the three Icelandic banks began in 1998, and was completed in 2002. The banks were acquired by industrial conglomerates – family firms that owned several different businesses.

My initial encounter with Iceland – and the event that led to this book – was in April 2006; a friend invited me to participate in the first class of the term at London Business School. One of the other participants was a young banker from Iceland who had recently graduated from LBS; he described the increases in stock prices in his country. Listening to his presentation was eerie because it seemed as if I could complete – figuratively – most of his sentences; his description of changes in stock prices complemented a model that I had been developing of the impact of an increase in money flows to a country on the value of its currency and on the prices of its assets. At the time I made a mental note, ‘Visit Iceland on the first possible occasion.’ The intuition was that the processes that lead to asset price bubbles would be more readily apparent in a small open economy than in a Mexico or a Britain or a Japan.

In the previous years I had been chasing bubbles in several different countries. There were numerous visits to Mexico in the early 1990s in the effort to understand the impact of privatization, liberalization, and macrostabilization on the nominal and real values of the peso. A newspaper headline about property prices in Hong Kong in February 1997 prompted a visit to several of the countries in South East Asia, where there had been dramatic increases in the prices of stocks and of real estate. A visit to South Korea in December 1997 occurred during a presidential election and a sharp depreciation of the won that was associated with the failure of many banks. The surge in nominal and real interest rates in Moscow in the spring of 1998 prompted a visit in the early summer in the effort to learn the source of the returns that enabled the lenders to pay such high rates. While there had been several visits to Japan in the late 1980s, it was only after the property prices had begun to decline that I began to use the term ‘bubble’ to describe the surge in property prices and stock prices. A few years later a taxonomy of bubbles was developed – ‘credit bubbles’ were distinguished from ‘asset bubbles’ – most but not all asset price bubbles follow from credit bubbles, and most but not all credit bubbles lead to asset price bubbles. The increase in the bank loans to the governments and government-owned firms in Mexico and ten other developing countries in the 1970s was a credit bubble; the indebtedness was increasing at a rate that was

too high to be sustainable. The increase in US stock prices in the late 1990s was an asset price bubble but not a credit bubble.

In 2002 I 'inherited' *Manias, Panics, and Crashes* from Charles Kindleberger, who had brought out the first four editions. Kindleberger had developed a stylized view of the five stages of a bubble and examined these stages across many bubbles across several centuries. I prepared the fifth edition in 2003 and 2004; one of the innovations was a new chapter that focused on the three 'waves' of credit bubbles since the mid-1970s. The first centred on Mexico and about ten other developing countries in the 1970s.

One of the chapters in *Manias* centred on the supply of fraud and corruption, which seem to increase exponentially when a country experienced a bubble. Several chapters highlighted the range of responses of governments when a bubble was under way and after it imploded – should the government intervene to stabilize asset prices or should the government instead allow asset prices to decline?

My first visit to Iceland was in June 2007, in response to an invitation for a presentation at one of the workshops of the Ronald Coase Institute. Iceland seemed 'very expensive'; the prices of non-tradable goods – restaurant meals, hotel rooms, and taxis – seemed high. Ballpark estimates of purchasing power suggested that the Icelandic krona was overvalued by 30–40 per cent. There were 10 or 12 visits with economists in the Central Bank of Iceland, in the commercial banks, and at the University of Iceland. These conversations reinforced the impression that Iceland was sitting on top of a massive asset price bubble. My presentation at the Coase Institute was on the three earlier waves of global credit bubbles since the 1970s and only tangentially on the asset bubble that was then under way in the country – although several students asked about my impressions of the recent economic developments in Iceland.

One of the surprises during the visit was several sets of comments that Iceland was becoming an 'international financial centre'. These comments reflected the surge in the foreign assets and the foreign liabilities of the Icelandic banks relative to the country's GDP. The hallmark of a financial centre is that investors accept lower rates of interest because of some other pecuniary or non-pecuniary advantages, including a low inflation rate, relatively low tax rates, financial stability, and secrecy. The uniqueness of Iceland's role as an international financial intermediary is that the counterpart of the increase in its indebtedness was an increase in equity investments in other countries by Icelandic firms and banks.

In December 2007 I was invited to present a public lecture at the University of Iceland, which occurred in May 2008. The preparation involved a review of the Icelandic economic and financial data available in *International Financial Statistics* and of several of the IMF country consultation reports. The lecture was based on an essay titled 'Monetary Turbulence and the Icelandic Economy' that is Chapter 15 in this book.

The imbalances in the Icelandic economy were staggering. The current account deficit was more than 20 per cent of the country's GDP, much higher than that of any other country. While foreign firms had financed a massive enclave investment in a hydroelectric generating plant and an aluminium smelter, the inflow of real resources associated with this joint project accounted for 3–4 per cent of the country's GDP – about 20 per cent of its current account deficit. Most of the Iceland's current account deficit reflected a household consumption boom, including imports of automobiles and other durables.

A second imbalance was that the market value of the stocks of the 15 or so Icelandic firms was exceedingly high relative to Iceland's GDP. Between 2002 and 2007 the US dollar value of Iceland's GDP had increased by 80 per cent, during the same period the market value of Icelandic stocks had increased by 700 per cent. One of the idiosyncratic features of the Iceland experience is that the increase in stock prices was much larger in percentage terms than the increase in real estate prices, at least after 2003; in most other countries the percentage increases in the prices of real estate and stocks have been in the same ballpark.

A third imbalance was that in 2007 the total assets of the three Icelandic banks were seven or eight times Iceland's GDP, whereas in 2002 these assets had approximated the country's GDP. Hence bank assets had increased by more than 50 per cent a year during this period. By the end of 2007 the foreign assets of the banks were three times larger than their domestic assets.

The logic was that the rapid increase in the assets of the banks could have occurred only if there had been a comparable increase in the capital of the banks. The intuition was that the likelihood that the increase in capital of the banks could have been obtained from interest rate spreads or fees was trivially small; instead the increase in bank capital must have occurred as a result of capital gains on stocks and real estate owned by the banks, much as in Japan in the 1980s.

Another intuition was that the massive imbalances in Iceland must be systematically related; the question is whether the sharp increase in stock prices induced the money inflow or whether instead the money

inflow led to the increase in stock prices. Again the intuition was the increase in stock prices could not have been spontaneous. Instead the inflow of money had led to both a sharp increase in the value of the Icelandic krona and a large increase in imports relative to exports. The balance of payments accounting identity is that if Iceland experienced an increase in its capital account surplus, adjustments must have occurred to ensure there was a corresponding increase in its current account deficit.

The increase in the flow of foreign money to Iceland led to the appreciation of the Icelandic krona and contributed to the increase in imports relative to exports. Moreover the increase in net imports resulted from the surge in household wealth. The foreign money that went to Iceland 'had to go someplace'; the only possible place that it might have gone was to one of the asset markets – the stock market, the real estate market, and the market for government debt. The debt of the Icelandic government was small, and hence the foreign money did not go to this market. The money went into the markets for stocks and real estate and the dramatic increase in household wealth led to a consumption boom and a sharp increase in the demand for foreign goods.

The extraordinary increase in the price of stocks would have led to a sharp increase in the capital of the banks if the ratio of the market value of bank-owned stocks to their total assets was in the same ballpark as the capital requirement of the banks as a share of their total assets. Because the rate of return to owners of stocks was so high, it was plausible that many of the loans made by banks were to those who bought stocks. During the Japanese bubble of the late 1980s, many industrial corporations used the money obtained from bank loans to buy stocks and real estate because the anticipated rates of return on these assets were so much higher than on the investments in plants to produce steel and autos and electronic products. Moreover it was also plausible that the surge in the value of Icelandic stocks owned by investors would lead some of them to increase their purchases of foreign assets to maintain diversified portfolios.

It was also obvious that Iceland would experience a crash like the ones observed in Mexico and Thailand, since a 'limit theorem' applies to the external indebtedness of a country, which cannot increase relative to its GDP for an extended period. Inevitably the increase in the external indebtedness of Iceland would slow and its current account deficit would decline and the krona would depreciate, perhaps suddenly and sharply because the prospect of this change would immediately deter further money inflows.