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Individual Behavior and Collective Action: The Path to Iceland's Financial Collapse

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Individual Behavior and Collective Action: The Path to Iceland's Financial Collapse

Abstract

Unsustainable accumulation of debt precedes financial crises. The recent Western financial crisis was no exception in this regard. The external debt of Greece, Iceland, Ireland, and Spain increased exponentially, in Iceland at a rate higher than the rate of interest on foreign debt. The Ponzi scheme that played out in Iceland begs the question why a country would set out on a path that could lead to a financial crisis. We address this question and describe the private incentives faced by bankers, financiers, politicians and others. In particular, we show how private incentives and a culture that valued financial gains above all else collided with socially desirable outcomes. The root of the problem in Iceland as well as in other crisis countries was a failure at the state level to align private incentives with what was socially prudent, a failure due, at least in Iceland, to a combination of mistakes, incompetence and what can only be called corruption. Furthermore, misplaced belief in a market economy where morals and ethics play no role paved the way to serious lapses in accounting and in the operation of the banks.

JEL-Codes: E440, G010, G410.

Keywords: financial crises, corruption, culture, Iceland, quality of governance, rent seeking.

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I. Introduction

The international monetary regime that emerged from the collapsed Bretton Woods system in the early 1970s has proved unstable. Several waves of financial crises have occurred in the past four decades. There was the crisis in Mexico and South American countries in the early 1980s; then Japan, the Nordic countries (except Denmark) and Mexico in the early 1990s; the crisis in South East Asia in 1997; Russia in 1998; and the Western financial crisis in 2008.³ Each of these episodes followed a similar pattern. Large current account surpluses in other countries released capital inflows into recipient countries where credit expanded, currencies appreciated (in countries with floating rates) and asset prices increased. Higher real estate and equity prices and elevated exchange rates then increased consumption and investment causing current account deficits. A sudden stop of the capital inflows then made asset prices and the exchange rate collapse, triggering a banking crisis, a currency crisis and in some cases a sovereign debt crisis.

While the mechanisms of the boom and bust seem clear, what remains to explore is why some countries and not others welcomed the destabilizing capital inflows. This is our aim here. We use Iceland, our native country, to decipher the domestic causes of the inflows. We ask why an affluent country like Iceland, or rather its bankers, egged on by business leaders and politicians, chose to borrow abroad at an unsustainable rate.

History shows that unsustainable accumulation of debt, private or public, precedes financial crises (Reinhart and Rogoff 2009). We use the experience of Iceland's financial collapse in 2008 to explore why borrowers and lenders engaged in such a scheme that was bound to collapse as, among others, senior Central Bank officials had realized already in 2006 and they admitted under oath before a specially convened Court of Impeachment in 2012. The starting point of our story is the potential conflict between private incentives and socially desirable behavior – what Olson (1971, 2000) called private and social rationality – as well as between productive and unproductive (i.e., rent seeking) activities (Krueger 1974). Further, we will explore how a political culture that encouraged a selfish quest for wealth – or greed, if you prefer – regardless of the external effects on others facilitated the boom and bust. Finally, we will argue that the government, the central bank and the financial supervisory authority failed to align private incentives with financial stability. Thus, the Iceland experience teaches us that in an unstable international financial system where destabilizing capital flows have caused one crisis after

³ See Aliber (2016) and introduction in Aliber and Zoega (2011).

another, the countries that suffer the crises are the ones where the collective action needed to ensure financial stability fails.

We begin by briefly reviewing Iceland's economic history from 1900 to date. In 1904, when Iceland attained home rule from Denmark, Iceland's per capita national income was about half that of the mother country. Thereafter, Iceland caught up, gradually attaining living standards broadly comparable with the rest of the Nordic region. It was a bumpy ride. We aim to illuminate, *inter alia*, Iceland's domination first by farming interests and later by its fishing industry until an attempt was made to diversify the economy by quickly turning Iceland into a global financial center in the late 1990s, resulting in the dramatic financial collapse of 2008.

Against this background, we tell the story of the events leading to the collapse of 2008, including the privatization of the banks and the institutional setup that allowed bank owners and their favorite customers to profit by putting others at risk. We then briefly recount the story of the crash and its immediate aftermath. Iceland's collapse was among the greatest financial crashes on record (Laeven and Valencia 2013), calling for the first IMF developed-country rescue operation in a generation. The bankruptcy of the three Icelandic banks combined was, in dollar terms, the third largest corporate bankruptcy on record after Lehman Brothers and Washington Mutual. The financial losses inflicted on foreign and domestic residents amounted to six times Iceland's annual GDP (International Monetary Fund 2009).⁴ The malfeasance was considerable. By the end of 2017, the Supreme Court of Iceland had sentenced 36 bankers and others to a total of 88 years in prison for crash-related offenses, which is also unique (Jensdóttir 2017). Thus, although the economy has recovered there is a lingering mistrust toward public institutions and politicians.

We will discuss the social psychology of the aftermath of the crash, including the refusal of those identified by the parliament's Special Investigation Commission in 2010 as being primarily responsible for the crash to admit to mistakes. While the SIC described wrongdoing and mistakes by bankers, the central bank and the financial supervisory authority it did not scratch below the

⁴ The IMF's initial estimate of seven times GDP can be reduced to six times GDP in view of better-than-expected asset recovery. See Gylfason (2015, 2019) and Benediktsdóttir *et al.* (2017). These estimates are incomplete, however, as they include, e.g., the decline in the value of stock-market and pension-fund assets from an artificially inflated value before the crash. On the other hand, they do not include the loss of net worth of the 10,000 households, one household in twelve, that lost their homes. Homes lost to banks should count as losses rather than as cost-neutral transfers of wealth from households to banks. Several such complications arise in a comprehensive accounting of the total cost of financial crashes, which is beyond the scope of this study.

surface to explore the root causes of the behavior exposed by the crash.

The mentality and institutions involved in the Iceland case are deep-rooted in the country's political and cultural environment that is marred by structural flaws identified by the Constituent Assembly elected by the nation to draw up a new post-crash constitution for Iceland in 2011 (Gylfason 2013). These include the clan-based stratification of society and oligarchic nature of Iceland's natural resource management system as well as unequal suffrage – i.e., unequal apportionment of seats in parliament – that seem to foster pockets of social inefficiency and to allow the few to profit at the expense of the many.

II. From history to theory

Among the poorest countries of Europe in 1904 when Iceland was granted home rule after more than 600 stagnant years of belonging first to the Norwegian and then Danish crown, Iceland took off with fanfare as the 20th century began. From 1900 to 2018, real per capita GDP increased by a factor of twenty. This is not a misprint. Real per capita GDP grew by 2.6% per year on average during this long period compared with 1.6% per year in the United States 1776-2016 and 1.4% per year in Italy 1861-2016 (Maddison 2019). Remarkably, growth in Iceland was virtually the same during the first half of the period 1900-1959 as during the second half 1960-2018. Even so, output was volatile. The economy took several deep dives, for example when fish catches failed in the 1960s and when inflation was brought down in the 1980s. None of those dives was deeper than the one triggered by the collapse of the financial system in 2008. By 2010, per capita output was 10% less than in 2007, and was not restored to its 2007 level until 2015 or 2016. Hence, the IMF-assisted economic recovery from the crash took eight to nine years, the average length of recoveries from financial crises reported by Reinhart and Rogoff (2014).

It took many right decisions to catapult Iceland from misery to modernity in such a short time. The population as well as income per capita remained stagnant for centuries until the 1890s when the imports of sailing boats and later motorboats boosted fishing. The main drivers of growth were imported technology and capital that allowed the nation to use natural resources more extensively. Thus, growth was largely driven by improved inputs into production rather than by innovation. The education of the labor force improved greatly, aided by general adult literacy since the mid-1700s as well as by the influx of equipment, skills, knowledge, ideas, and attitudes that followed from hosting first British and then American troops during and after

World War II. An increasingly mechanized fishing industry became Iceland's chief earner of foreign exchange and was able to exploit the fishing grounds within Iceland's economic jurisdiction that was gradually extended from three nautical miles from shore to 200, equal to 230 miles or 370 kilometers. Hydropower and geothermal energy sources were harnessed from the 1960s onward for local use as well as for export through aluminum and ferrosilicon, lightweight energy-intensive products that are relatively easy to transport. Iceland liberalized its external trade regime by joining the European Free Trade Association (EFTA) in 1970 and the European Economic Area (EEA) in 1994, making Iceland a *de facto* 70% member of the EU. After 2008, tourism suddenly became Iceland's chief foreign exchange earner, larger than either the fisheries sector or the energy sector. If well managed, a great earning potential shared by a small population is conducive to high incomes per person, at least for a time, but tourism may prove to be a mixed blessing as argued by Ghalia and Fidrmuc (2015).

Before turning to the privatization of the banking system and the failed attempt to develop an international banking sector we first discuss the prevalence of rent, lack of competition, and the associated corruption in the recent economic history of Iceland, factors that have impeded growth as we will explain.

Economic rent

Natural resources in the form of fish stocks and geothermal and hydro energy are a source of significant economic rent. The strategic location of Iceland has also generated rent in the form of transfers from the United States intended to ensure the goodwill of the population and acceptance of American forces on the island.⁵ This rent accrued to private companies that were connected to the governing political parties.

The privatization of the banking system 1998-2003 generated economic rent through a high credit rating of the newly privatized banks due to their systemic importance. Thus, three large commercial banks benefited from being domiciled in a country where the sovereign had not defaulted in the past. This allowed the banks to borrow from foreign banks, which thought they knew that in case of default, there was a government with low levels of debt standing behind the borrowers and behind it all stood the International Monetary Fund. The consequences soon

⁵ The U.S. government unilaterally withdrew its forces from Iceland in 2006 against the protests of the Icelandic government, protests best understood in the light of the reduction in rent accruing to the local economy.

materialized in impressive acquisitions by the banks and their owners of foreign as well as Icelandic businesses. One more national resource, the sovereign's credit rating, had thus been privatized.

The history of rent seeking is a long one in Iceland and has absorbed the time and talent of many promising young people over the years. Shortly after the economy took off around 1900, the First World War and then the Second World War generated significant economic rent. Import restrictions were introduced to protect farmers during World War I. Having increased steadily from 25% in 1870 to 60% in 1915, the ratio of exports to GDP then decreased to 20% in 1945 (Fig. 1).⁶ The period 1930-1960 saw pervasive trade restrictions extended across the board, leading to rampant rent seeking with economic distortions to match as described by Krueger (1974). During World War II, the arrival of U.S. forces in Iceland in 1941 followed by membership in NATO in 1949 also became a source of corrosive rent-seeking behavior as individuals with political party connections profited from the NATO base that remained open until 2006, adding about 2% to Iceland's GDP per year on average.⁷ No estimates of the size of the rents involved are available. An Icelandic shipping company was given a monopoly on shipping goods from the United States to the military base in Iceland; a local construction firm was given a monopoly on all construction at the base; and a precursor to the current airline Icelandair was given the right to offer cheap flights across the Atlantic in the 1950s and 1960s, long before President Carter deregulated the airline industry in 1978, plus a slot at Kennedy airport. In the 1950s, despite not having suffered any war damages apart from merchant ships that were sunk by German submarines, Iceland received Marshall Aid that exceeded on a per capita basis what all other European countries received. Further, the bulk of fish exports went to the U.S. destined for public institutions such as prisons and schools. This was economic rent created by the strategic location of the island, the "unsinkable aircraft carrier" as described Joseph Luns, Secretary General of NATO 1971-1984.

Estimates are available for more recent natural resource rents. The rent arising from Iceland's fisheries is currently estimated at 2% to 3% of GDP (Thorláksson 2015). This estimate has been roughly unchanged since the introduction of the catch quota system in the fisheries in the mid-

⁶ More than a hundred years later, import restrictions against farm products remain largely intact as high tariffs replaced an outright ban against importation of dairy products and meat.

⁷ The contribution of the NATO base to the Icelandic economy was particularly large in the early years, amounting to 15%-20% of total foreign exchange earnings during 1953-1955, for example (Ingimundarson 1996, 282).

1980s. Of this yearly amount, at present, about 10% accrues to the public, by law the rightful owner of the marine resources in Icelandic waters, through nominal fishing fees that were introduced in 2002. The rest accrues to vessel owners who, despite their small number, have emerged as an influential – and, unsurprisingly, reform-resistant – player in business and politics. It is plausible that a part of the rent accumulates in foreign banks since the larger vessel owners sell the catch to their own fish processing plants, which then sell the final product to foreign subsidiaries that sell it to the consumer. This invites double pricing, which in principle gives the businesses a possibility to let the rent appear abroad, perhaps in a low-tax entity.

The rent arising from Iceland's energy sector is also substantial, equivalent to around 1.5% to 2% of GDP (Jóhannesson 2015). Unlike in the fishing industry, the energy rent has not given rise to a class of local oligarchs. Instead, politicians sometimes promise aluminum smelters to their voters before elections, thereby weakening their negotiating position vis-à-vis the buyers of the energy for the partly foreign-owned smelters. This pattern of behavior apparently led for a long time to such low prices for the energy sold that the prices had to be kept secret from the owner of the energy, the general public. Further, the international aluminum companies have managed to avoid taxes by transferring their profits to low-tax countries, again through companies based in low-tax countries, which then lend money to the operator of the smelters in Iceland, the interest on the loans surprisingly close to the profits from the smelters.

The combined stock value of Iceland's fish and energy resources is considered to amount to somewhere between 67% and 90% of GDP which, based on the middle value, is equivalent to roughly USD 170,000 for each family of four in Iceland (Jóhannesson 2015).⁸ As public awareness of these issues and magnitudes increases (official statistical reports do not include this information),⁹ public support for a more equitable disposal of the resource rents may increase. In a national referendum held by parliament in 2012 on a new post-crash constitution for Iceland, 83% of the voters declared their support for a constitutional provision stipulating national ownership of natural resources not in private possession (Gylfason 2013). Attempts remain to be made to assess the implicit monetary value of Iceland's natural environment, a major magnet for tourists.

⁸ For comparison, the Norwegian Pension Fund, earlier Oil Fund, the world's largest sovereign wealth fund, amounts to about USD 800,000 for each family of four in Norway.

⁹ Iceland's fisheries rent is not included in the World Bank's recent tabulation of natural resource rents around the world from 1970 onward in the *World Development Indicators*.

The orientation of Icelandic exports toward natural resources and the associated systemic overvaluation of the ISK, a common manifestation of the Dutch disease, helps to explain why Icelandic manufactures account for only 13% of merchandise exports in Iceland compared with 69% in Denmark (Fig. 2). Iceland still produces few goods that other countries want to buy. Even so, significant diversification of total exports has taken place in that the fisheries are no longer the dominant export industry because tourism has become more important for foreign exchange earnings. This seems likely to reduce the political influence of the fishing lobby. A risk stems, however, from the fact that tourists can be fickle.

Of the more than 200 countries for which the World Bank presents estimates of total natural resource rents, 95 countries have a higher share of rents in GDP than Iceland's 4% to 5%. The world average is 2%. Fig. 3 shows the cross-country relationship between the average share of natural resource rents in GDP 1970-2017 as reported by the World Bank and the 2012-2018 average of Transparency International's Corruption Perceptions Index that extends from 100 (clean) to zero (corrupt). The figure covers 177 countries. The correlation between the two variables is -0.38 and statistically significant ($t = -5.5$). Taken at face value, the slope of the regression line, -0.7, in Fig. 3 suggests that a drop in the natural resource rent share in GDP by 20 points, corresponding to the difference between, say, Angola at 29 and Ghana at 9, would in the average country go along with a 14-point reduction of the corruption index, spanning one sixth of the scale that reaches from ten in Somalia to 91 in Denmark.¹⁰

The orientation of the Icelandic economy toward natural resources spread learned rent-seeking behavior to other areas, including banking. After the privatization of the banks in 1998-2003, their new owners engaged in reputation mining that has many things in common with other forms of resource depletion. Sudden inflows of foreign credit exerted a similar manna-from-heaven effect on its recipients as resource windfalls (Gylfason and Zoega, 2018). The source was the same in both cases. By allocating valuable common-property fishing licenses to select vessel owners first for free from 1985 onward and then for a nominal fee after 2002, parliament created a class of wealthy oligarchs. By delivering two of the three state banks to political friends during 1998-2003, parliament added to the earlier class of oligarchs (Exhibit A).

¹⁰ Statistical endogeneity bias is hardly an issue here because corruption 2012-2018 cannot have exerted but a minor effect on resource rents 1970-2017.

Exhibit A: Privatization among friends

The privatization of Iceland's commercial banks 1998-2003 did not begin in earnest until after the bulk of the banking system in East and Central Europe had been privatized. Mid-stream, the government abandoned its original plan for dispersed ownership, including foreign owners, and decided rather to sell the banks at modest prices to local political allies. The buyers of two of the three banks lent each other a substantial part of the down-payment on their purchases. Further, the buyers of Kaupthing falsely claimed to have a foreign partner, a small German bank, to sweeten their tender (Júlíusson 2018). The collapse of all three banks a few years later resulted in total collateral damage – which includes both defaults on external debt as well as the collapse of equity value – equivalent to six times Iceland's GDP (see fn. 4), two thirds of which were inflicted on foreign creditors, depositors and shareholders and the rest on domestic residents as the local stock market was virtually wiped out overnight, pension funds whose managers had purchased bank stock as if there was no tomorrow took a big hit, and more. The defaults on private external debt amounted to 400% of GDP. The sometimes-huge write-offs of nonperforming loans following the crash are not public information case by case, raising concerns about possible discrimination among borrowers.

Limited competition

The tardy trade growth described in Figs. 1 and 2 contributed to an associated weakness in the shape of excessive concentration of economic activity, including insufficient export diversification. True, specialization in production for export in keeping with comparative advantage generates gains from trade. Even so, excessive specialization can increase macroeconomic risk and volatility and thus destabilize or undermine economic growth, especially if the specialized sector becomes so dominant as to be able to damage other industries through rent seeking, repeated bouts of the Dutch disease, or distortions of the political system (Gylfason and Wijkman 2016).

The share of fish products in Iceland's total exports, at over 90% in the 1950s, declined below 50% in the 1970s and 1980s after the government, facing the need to regulate the fisheries to conserve marine stocks, decided to launch energy-intensive aluminum and ferrosilicon exports to supplement one natural-resource-based industry by another, a heterodox diversification strategy that, in effect, persists to this day. The sole significant deviation from this natural-resource-based strategy was the government-sponsored attempt to turn Iceland into an international banking center following the privatization of the banks 1998-2003, an attempt that daring bankers apparently sold to – unless bought from is a better way to describe what

happened¹¹ – receptive politicians and that ended in disaster with the collapse of the entire banking system in 2008. By contrast, the sudden rise of the tourism industry after 2008 was market-induced, helped by the depreciation of the króna that for a long time had been overvalued for reasons having to do especially with fisheries policy and high inflation (15% per year on average during 1960-2017), rendering Iceland too expensive in the eyes of foreign tourists and Icelandic tourism thus uncompetitive. During 2016-2018, tourism generated more foreign exchange than the fisheries and energy sectors combined.¹²

The concentration of Icelandic exports is borne out by UNCTAD statistics. The Herfindahl-Hirschman index (HHI) of market concentration, which ranges from zero (no concentration) to one (extreme concentration), is high in Iceland (Fig. 4). This is a country-specific index that is unrelated to market concentration in other countries and is defined as the sum of the squares of the shares of each sector of production in total output (or sometimes as the square root of the sum of squares). It covers only merchandise exports, i.e., exports of goods, not services. As a country's markets become more concentrated – i.e., less dispersed or, if you prefer, less diversified – the normalized value of the HHI rises toward one.¹³

The high concentration of Icelandic exports shown goes along with a lack of competition in local markets where oligopoly reigns supreme. The banking sector, which has always been and remains mired in controversy or worse, is still dominated by three banks with a combined market share of 97%. They operate in a seller's market, which enables them to discriminate among their customers, squeezing some while letting others off the hook. It was this power to discriminate

¹¹ The Special Investigation Commission (2010, vol. 8, 164-169) reports that during 2004-2008 the banks granted financial support to political parties and politicians in the amount, in today's money, of almost 20 euro per vote cast in the 2007 parliamentary election.

¹² The tourism boom in Iceland may not last, however. Ghalia and Fidrmuc (2015) study the relationship between tourism and growth in 133 countries during 1995-2007 and find that a dependence on both trade and tourism tends to reduce economic growth, an effect they attribute to the Dutch disease.

¹³ The Finger-Krein index (FKI) of export diversification, a relative index that compares the structure of exports across countries by showing the extent to which the structure of exports by product of a given country differs from the world average, tells the same story (not shown here). Both indices, the HHI and the FKI, vary inversely with country size as measured by output or population, because small size encourages specialization. When the HHI is adjusted for country size by taking as a measure of concentration the difference between the actual average HHI during 1994-2014 and the HHI predicted by a linear cross-country regression of HHI on the log of the average population during the same period, similar results obtain. But size does matter: Iceland moves from 76th place down to 98th place in a sample of 202 countries ranked by export concentration, where Iraq, Nigeria, and Chad head both lists. With the adjustment for population, Italy moves up the list from 202nd place to 187th. The adjustment method is taken from Gylfason (1999), where it was used to extract an index of openness to trade from exports-to-GDP ratios that, like the HHI and the FKI, vary inversely with country size as measured by population.

that induced the government to privatize the banks 1998-2003 by delivering them to their cronies. Within Europe, Iceland is unique in that its banks face no foreign competition at home.

Likewise, a couple of large firms dominate the retail sale of petroleum with close albeit shifting connections to the two largest political parties, both now split and in deep decline since the financial crash. Thinking that business as usual was still permissible after Iceland joined the EEA, the two main oil companies that resell imported oil to local customers were found guilty of illegal collusion 1993-2001 that had inflicted significant costs on the public. The firms were fined and their CEOs were indicted but the case against them was ultimately dismissed. The combined market share of the three largest oil companies still exceeds 90%. For the first time, however, they will soon be exposed to foreign competition, an inconvenience that the banking system has not yet had to face.

The combined market share of the three largest insurance companies is also about 90%. They were all found guilty of illegal collusion 2002-2005. For a long time, two firms shared about 90% of the market for building materials. They were also found guilty of illegal collusion, and now face a foreign competitor at home. The pattern is clear.

Oligopoly is not an inevitable consequence of Iceland's small size. Just as small countries use foreign trade to compensate for their inability to produce many goods and services that only larger countries can produce, commodities that small countries need to import and pay for by their export earnings, they can also use foreign competition to protect domestic consumers against oligopolistic tendencies among local producers (Alesina and Spolaore 2003, Gylfason 2009).

Corruption

The aim of the foregoing list of topics – trade restrictions, rent seeking and lack of competition – is to suggest why Iceland has been prone to corruption in the form of rent seeking as has recently begun to show up in international data (Gallup 2013, Transparency International 2018). The corruption takes the form of the political allocation of rent to private parties and the reciprocal relationship among political parties and large firms that receive the rent, including protection from competition. In effect, these companies are more powerful than others that only engage in productive activities and they have an incentive to protect their position by influencing politics and owning newspapers and other media outlets.

Krueger (1974) laid out the relationship between trade restrictions and corruption while Ades and di Tella (1999) estimated the relationship between competition, rents and corruption, showing how sheltering firms from foreign competition is conducive to corruption, especially in economies with a small number of firms. Their descriptions fit Iceland well as does the analysis of Pendergast *et al.* (2011) linking natural resource rent to corruption. Some other explanations of corruption on offer seem less relevant to Iceland such as Shleifer and Vishny's (1993) hypothesis that weak governments are conducive to corruption because they fail to keep corruption under control. The commonly held view that weak laws are to blame for corruption does not seem to apply to Iceland mainly because Icelandic law is quite like Danish law and European law through membership in the European Economic Area. Even so, a weak regulatory framework contributed to the recent financial boom and bust, as we will discuss below. Weak law enforcement may play a role. Another commonly held view is that low pay of politicians and public officials is a source of corruption (Rijckeghem and Weder 2001). This description does not seem to fit Iceland either because, at present at least, many Icelandic politicians and bureaucrats are better paid than in neighboring countries but then their high pay despite poor performance may itself signal corruption.¹⁴ Gallup (2018) reports that only 18% of the Icelandic electorate trust parliament (Exhibit B).

Banking has long been a special source of corruption in Iceland because politicians could use the banks to further their economic and political interests. Already in their infancy in the first years of home rule in the early 1900s, the banks were mired in controversy and sometimes scandal. Politicians used them both as places of employment for themselves and their attendants and as sources of favorable loans to friends and allies, a practice that persisted throughout the 20th century. Negative real interest rates for decades on end made the banks especially attractive as political instruments. Privatization of the banks during 1998-2003, even later than in most of East and Central Europe, was originally meant to sever the links between politics and banking but, in mid-stream, it was considered safer to preserve the umbilical cord connecting the banks to politicians. This proved to be a fatal error to which we now turn.

¹⁴ For surveys of corruption and the corruption literature, see Ades and di Tella (1997), Tanzi (1998), Treisman (2000), Jain (2001), Aidt (2003), Rose-Ackerman (2006), and Rose-Ackerman and Søreide (2011).

Exhibit B: From Panama with love

In 2012, humbled by the crisis, Parliament resolved unanimously that “criticism of its political culture must be taken seriously.” [Our translation.] Then, in 2016, it came to light that the names of about 600 Icelanders, including three cabinet ministers, who were also Members of Parliament, were among those exposed in the Panama Papers (2016). Of the 332 cabinet ministers in Western Europe, five showed up in the Panama Papers and three of those five were Icelanders, two of which, the Finance Minister and the Minister of Justice, remained in office as if nothing happened and ran successfully for reelection a few months later. So did the former Prime Minister, who had resigned under public pressure after the scandal broke. Three and a half years later, nothing has been divulged about the movements in those Icelandic Panama accounts of the ministers or their tax treatment. The former Prime Minister now leads a growing party of the nationalist variety seen in many other European countries.

III. Crash followed by recovery

The rapid expansion of the banking system launched the economic boom in the early 2000s. In 2003, at the time of privatization, the banks had assets equivalent to less than twice the country’s GDP. By the end of 2007 their assets had increased to eight times GDP. As described by Benediktsdóttir *et al.* (2011), the average annual asset growth from 2004 to 2008 was between 50% and 60% in the three main banks. The money was lent to limited liability companies, mostly in the form of foreign currency loans that were then invested in the domestic stock market, used to take over domestic firms or used to buy foreign firms, mostly in the U.K. and Denmark. About 80% of the borrowing never entered the country but was used to buy foreign assets. The holding companies earned high profits because of the stock market bubble that the credit expansion created and because of the appreciation of the Icelandic króna that lowered the domestic currency value of their debt. Hence, the foreign borrowing itself created profits by elevating the stock market as well as the currency. As described above, the good sovereign credit rating made the borrowing possible. At least with the benefit of hindsight, we can say that the combination of laws that allowed individuals to set up limited liability holding companies and borrow to finance investment in shares, the free flow of capital in the EU internal market that allowed foreign currency borrowing within Iceland and, last but not least, the willingness of banks to lend in foreign currencies to unhedged parties while discounting the credit risk created private incentives for credit expansion that then generated private profits while creating enormous financial risk for

the banks and the sovereign. Perhaps the reason why the banks were willing to lend in foreign currencies at low interest rates had something to do with their owners being among the largest borrowers. Higher domestic interest rates did not curb the economic expansion because borrowing was mainly in foreign currencies. Rather, the high interest rates generated profit opportunities and attracted capital inflows that increased domestic demand, thus reducing the effectiveness of the inflation-targeting regime launched in 2001.

Monetary policy relied exclusively on high interest rates to curb the economic expansion and achieve an inflation target. However, the main effect of the high interest rates was to attract speculative capital, the carry trade, and to induce local borrowers to borrow in foreign currencies. Thus, domestic firms and foreign investors were long in the króna, the only difference being that the foreign investors could exit the carry trade more quickly. The resulting appreciation of the currency made the import sector and construction expand while exports suffered lower profits. The effect on relative prices, that is, the real exchange rate, and credit supply was on net expansionary. What was missing was a second instrument to stem the hot money inflows. This instrument could have taken the form of an increased general reserve requirement that would have curbed credit expansion in foreign currencies, an option vehemently opposed by the banks before the crash,¹⁵ or a special reserve requirement on the investment of foreign investors in listed bonds, a measure adopted in 2016 when the carry trade started again. With two instruments, the central bank could have raised interest rates without triggering the capital inflows, the exchange rate channel of monetary policy would have been muted and the interest rate channel strengthened. However, the central bank did not attempt to reduce the capital inflows; on the contrary, the inflows were welcomed because they caused an appreciation, which made measured inflation fall, which supposedly helped the central bank attain its inflation target.¹⁶

Rising domestic interest rates did not reduce the rate of credit creation, which was mostly in foreign currencies. The credit-generated stock market bubble had both elements of Keynes (1936) and Minsky (1986).¹⁷ It was not clear to most investors that a crash was bound to happen until it was too late to avert. Instead, investors and businesses developed a herd mentality,

¹⁵ In fact, to accommodate the banks' wishes, the Central Bank reduced the reserve requirement before the crash.

¹⁶ See Dooley (2019) and Ghosh *et al.* (2017), among others, on the use of selective capital flows.

¹⁷ See Chapter 12 of Keynes's *General Theory*.

incapable of calculating any “true” probabilities of events to come. They each trusted each other’s instincts. From what started out as profitable investments (mostly in other countries) that paid for the cost of financing, the borrowing gradually developed into a Ponzi scheme where banks and investors had to borrow from foreign banks to be able to roll over and pay interest on existing debt. The goings on were justified by storytelling of the kind exemplified by Exhibit C. However, as the realization dawned that the chicken would come home to roost, the owners of many an enterprise started to remove assets from the doomed, not yet bankrupt businesses. Even in the best of times, the banks’ owners had borrowed from their own banks, often with bullet loans that only had to be repaid at the end of their maturity.

Exhibit C: Delirium Praesidis

Recently, I have often found myself cornered at various functions, especially here in London, and pressured to explain how and why daring Icelandic entrepreneurs are succeeding where others hesitate or fail, to reveal the secret behind the success they have achieved.

It is indeed an interesting question how our small nation has in recent years been able to win so many victories on the competitive British, European and global markets, especially because for centuries we were literally the poorest nation in Europe, a community of farmers and fishermen who saw Hull and Grimsby as the main focus of their attention, a nation that only a few decades ago desperately needed to extend its fishing limit in order to survive, first to 12 miles, then to 50 and finally to 200 miles. Each time Britain sent the Navy to stop us but each time we won – the only nation on earth to defeat the British Navy, not once but three times. With this unique track record, it is no wonder that young entrepreneurial Vikings have arrived in London full of confidence and ready to take on the world!

The track record that Icelandic business leaders have established is also an interesting standpoint from which to examine the validity of traditional business teaching, of the theories and practice fostered and followed by big corporations and business schools on both sides of the Atlantic. It enables us to discuss the emphasis on entrepreneurial versus structural training, on process versus results, on trust versus career competition, on creativity versus financial strength.

I have mentioned this morning only some of the lessons which the Icelandic voyage offers, but I hope that my analysis has helped to clarify what has been a big mystery to many. Let me leave you with a promise that I gave at the recent opening of the Avion Group headquarters in Crawley. I formulated it with a little help from Hollywood movies: "You ain't seen nothing yet".

Excerpts from HOW TO SUCCEED IN MODERN BUSINESS: LESSONS FROM THE ICELANDIC VOYAGE, A speech by the President of Iceland Ólafur Ragnar Grímsson at the Walbrook Club London 3rd May 2005.
https://agbjarn.blog.is/users/fa/agbjarn/files/05_05_03_walbrook_club.pdf

Black (2005) describes how banks can be looted from within when they grow fast, make bad loans at high interest rates, are highly leveraged and have low bad-debt reserves. Akerlof and Romer (2003) describe how implicit state backing can help bankers to profit from bankruptcies by borrowing and taking in deposits, paying themselves dividends that are greater than the net worth of the business and then leaving it to the taxpayer or to creditors to pay off the debt. This did happen in Icelandic banks. Apart from paying out dividends, there are several other ways of exploiting deposit insurance and implicit state backing such as by making high-risk loans, buying highly leveraged firms and creating value through an accounting goodwill and paying high salaries both in the banks and in businesses so acquired from an overstated accounting income.

Akerlof and Romer's (1993) description of the financial crisis that hit Chile in 1982 resembles what happened in Iceland in 2008. The banks and their owners exploited the interest differential between domestic and foreign (dollars) currency bonds to create accounting profits that were used to justify the paying of dividends to the banks' owners. The banks did not increase the allowance for bad debt despite having generated foreign-currency denominated loans to unhedged households and businesses. Both in Chile and in Iceland the owners of the banks often happened to be the owners of the companies that received the biggest loans, which ensured that all the gains from such transactions went to these owners. In effect, the profits were generated by the underreporting of risk, something that was legal at the time and benefitted the owners but endangered financial stability.

While the bankers had created serious risks to domestic financial stability by borrowing from foreign banks backed by the sovereign's credit ratings, the government itself decided to deflect the risk to the foreign creditors by allowing the debt of the banking system to outgrow the ability of the state to support the solvency of the banks in a crisis and the ability of the central bank to provide liquidity support. In the end, foreign creditors would carry the losses incurred in case of collapse while the bankers would reap the benefits from the survival of the banks. The net investment position of Iceland belied its gross indebtedness. At the time of the collapse, the foreign assets exceeded 500% of GDP while the foreign debt was close to 600% of GDP rendering the net position negative by roughly 100% of GDP. It was claimed that the assets were undervalued so that there actually was no problem. However, when the crisis hit, it was gross debt, not net debt, that was important and its size made it impossible for the central bank or the sovereign to come to the rescue.

Pursuing the earlier comparison with Denmark a little further, Iceland caught up as the 20th century wore on, briefly reaching economic parity with Denmark in per capita terms just before Iceland's financial crash of 2008 temporarily separated the two again (Fig. 5). The effect of the bubble economy from 2003-2008 is visible in Fig. 5 but note that after the bursting of the bubble the economy continued to grow along its previous path. A more revealing comparison, however, is per capita income per hour worked, a measure that takes into consideration the work effort behind the national output. Icelanders worked 1,500 hours per worker during 2017 compared with 1,400 hours in Denmark and 1,700 hours in Italy (Conference Board 2019). In Iceland, long-standing economic inefficiency caused by, *inter alia*, insufficient competition in agriculture, banking, fisheries, and so on, has long kept real wages lower than in Denmark, inducing employees to work longer hours and stay longer in the labor force than they might otherwise do (Gylfason 2015). This helps to explain why output per hour worked in 2017 was USD 63 in Iceland compared with USD 72 in Denmark and USD 54 in Italy (same source).

IV. Incentives and morals gone wrong

We have described how individuals and firms had private incentives to profit that created the conditions for a financial crisis. What were these conditions and institutions that made it profitable to do things that were ultimately harmful for the economy? By answering this question, we can better understand the more profound question posed at the beginning of this study: Why do destabilizing capital flows affect some countries while others manage to escape?

We identify five main factors.

The first part of the answer comes from the decision by the authorities to make Iceland an international financial center. These changes amounted to relaxing requirements already in place in Iceland without violating the minimum requirements of the EU Directives. These changes included increased authorization for banks to invest in non-financial businesses, to extend credit to directors, to invest in real estate and real estate companies, to lend money to buy own shares and to own other credit institutions in addition to less stringent requirements concerning the permission of securities companies to operate insurance companies (Benediktsdóttir *et al.* 2011).

In effect, the changes allowed the banks to increase their capital through accounting gimmicks, something that was needed for their rapid growth. The banks bought their own shares in order to manipulate the share price. Since they could only own 10% of the value of

outstanding shares, the banks gradually sold the shares they had previously bought to selected customers and employees. These purchases were financed by the banks by granting the buyers of the shares bullet loans where a payment of the entire principal of the loan and the interest was due at the end of the loan term. The loans were defined as ordinary bank loans instead of unclaimed share capital. The capital generated in this way was around 40% of market capitalization at the end of 2007 and even more at the time of the collapse. When a financial institution increases equity, it is essential that the funding come from outside the financial institution lest equity become illusory (Hilmarsson and Svavarsson 2018). Outside Iceland, shares cannot be counted as bank capital unless they are paid for with money. For this reason, it is unacceptable for a financial institution to count unclaimed share capital as core capital because it does not create a buffer against losses. To add insult to injury, the banks counted the interest on the bullet loans as revenues, hence overstating profits since the interest payments were never collected.

A second important institutional factor was the permission banks were given to lend in foreign currencies to unhedged businesses operating in domestic currency as well as to households with incomes only in domestic currency. This was in accordance with EEA directives. This allowed the banks to borrow from foreign banks and lend to domestic parties in foreign currencies thus maintaining a foreign exchange balance on their books while creating a currency mismatch for their customers. This in effect made businesses take a long position in the domestic currency and a short position in foreign currencies. The bet paid off while the currency appreciated during the period of the capital inflow until spring 2008. But when a sudden stop of the capital flows made the currency tank almost all businesses, financial as well as non-financial, became insolvent and hence also the banks. Of course, prudent banks in other EEA countries would have added a risk premium to the foreign rate of interest when lending to unhedged parties, a premium that reflected the risk of default. But prudence is put aside when dealing with friends or oneself.

Because of the prevalence of loans denominated in foreign currencies businesses that would have preferred to avoid the foreign currency risk were forced to borrow in foreign currency because they would otherwise have had significantly lower profitability. The privately desirable financing was in foreign currencies although this was clearly not socially desirable, as experience would show.

A third factor conducive to the risk-seeking behavior was the supervisor's failure to prevent banks from lending to related parties. The owners created a complicated ownership structure so that it was often difficult to trace the ownership of banks to the ownership of different non-financial companies. By not seeing through this cobweb, the supervisor allowed the banks to lend to the owners, which in effect amounted to the owners borrowing from foreign banks at lower rates due to the implicit government backup and making profits from speculation and misleading accounting. To quote the Special Investigation Commission's (2010) discussion of the father and son that were the main owners of Landsbanki: "When Landsbanki collapsed, Björgólfur Thor Björgólfsson and companies affiliated to him were the bank's largest debtors. Björgólfur Guðmundsson [his father] was the bank's third largest debtor. In total, their obligations to the bank ... [were] higher than Landsbanki Group's equity."

Fourth, the authorities allowed the banks to become too big to save, hence making them inherently unstable as shown by Diamond and Dybvig (1983). In addition, when collecting foreign deposits in the U.K. and the Netherlands, one of the three large commercial banks (Landsbanki) could collect deposits that exceeded the foreign currency reserves of the central bank by a factor of five. Last but not least, the rapid growth of the banks was powered in part by mania of the kind described by Kindleberger and Aliber (2005) as well as by Keynes (1936) and Minsky (1986). Ambition exceeded ability and hope exceeded reality. Extremely rapid credit growth for years on end is always and everywhere a harbinger of declining creditworthiness. Paid by the banks, the rating agencies failed. The voices of those few outsiders¹⁸ who warned against excessive expansion and advocated for higher reserve ratios to rein in the banks were drowned by those who, like the finance minister, asked dismissively: "Don't you see the party, guys?" Without exception, insiders kept their silence (Exhibit D).

As in other bubble economies in the past, a story emerged that justified the booming economy. The story in Iceland was of financial liberalization unleashing entrepreneurship and business acumen inherent in local culture. Before the crash, the president of the country claimed that the Icelandic success story would change the way business schools on both sides of the Atlantic would design their curricula (recall Exhibit C). These stories served to justify the good

¹⁸ The outsiders include Icelandic and foreign university professors, some of whose pre-crash writings appear in Aliber and Zoega (2011). Many other academics and journalists stayed silent, however, or cluelessly towed the line of the banks, the business community, and the government. Some still do. For more, see Gylfason (2015, 2019).

times, to help underpin confidence in continued prosperity and to sideline those who had doubts. The owners of the banks also owned most of the media, which extolled the wonders of the bank expansion.

Exhibit D: From procrastination to obedience

Akerlof (1991) shows how procrastination leads to undue obedience due to myopic and time-inconsistent optimization, using his analysis to derive suboptimal outcomes from individually rational behavior. This, says Akerlof, is why smokers find it more convenient to stop smoking tomorrow rather than today. And this is why the Russian *nomenklatura* found it opportune not to stand up to Stalin until after his death, and also why opponents of the Vietnam War within the Johnson Administration, Bill Moyers and others, did not protest against the war in public but chose instead one after another to leave the administration relatively quietly.

What does this have to do with Iceland's financial collapse? In sworn testimony before the Court of Impeachment in 2012, senior officials at the Central Bank of Iceland stated that it had become clear in 2006 that the commercial banks were operated like a Ponzi scheme and could not be saved. Even so, the Central Bank continued to lend them money for two more years, culminating in a EUR 500 million loan to Kaupthing on 8 October 2008 that virtually emptied the Central Bank's foreign exchange reserve. In a telephone conversation that was not leaked until 2017, the governor told the prime minister: "We will not get the money back." [Our translation.] The prime minister who now represents the Nordic and Baltic constituency on the World Bank's Executive Board recently expressed regret that he did not know where the money went. In April 2011, however, it was reported by *Viðskiptablaðið*, an Icelandic newspaper, that a third of the EUR 500 million was deposited the same day in an account in Tortola, a Caribbean tax haven.¹⁹ The statute of limitations ran out in October 2018.

No Central Bank official spoke up or resigned in protest to warn the public of the goings on. Bill Moyers knew that he could find employment elsewhere. Perhaps the Icelandic Central Bank officials who saw through the Ponzi game could not be so sure. Further, as John Kenneth Galbraith wrote in his book *The Great Crash 1929* (1988, 160): "... the action will always look, as it did to the frightened men in the Federal Reserve Board in February 1929, like a decision in favor of immediate as against ultimate death. As we have seen, the immediate death not only has the disadvantage of being immediate but of identifying the executioner."

Overall, the institutional setup we have described and the mindset that propelled it created incentives for private gain at the expense of financial stability. The owners of the banks could borrow from foreign banks at lower interest rates because the banks were systemically important, lend to themselves in foreign currencies at low interest and invest in the domestic high-interest-

¹⁹ See <https://www.vb.is/frettir/lindsor-var-stjornad-af-stjornendum-kaupthings/62474/>.

rate currency, buy foreign businesses or take over a variety of firms that enjoyed market power in the local market. The bankers profited while imposing the risk on the taxpayer, the sovereign's credit rating and foreign creditors.

In addition, business ethics did not involve concern about responsible behavior. They were formed by a blind belief in the invisible hand of the market without regard to the need for prudent oversight and they owed more to Adam Smith's *Wealth of Nations* than to his *Moral Sentiments*, which explains why people may often behave in a way that takes the interest of others into account as in modern behavioral economics. In effect, the business community had convinced itself that a market economy would make their reckless behavior serve the national interest without realizing all the assumptions about the number of participants in the market, perfect information and market completeness necessary for this outcome (Bowles 2016).

V. Conclusion

We see Iceland's financial collapse of 2008 as a clear case of the failure of collective action, that is, poor governance. Each agent could contribute to financial stability, knowing that no one gains from a financial crisis except those who get away with the loot. However, the behavior of one agent is in most cases not important for financial stability so one person or one firm could always start borrowing in foreign currencies, borrowing to buy shares or lend to related parties.

Problems arise when almost all do this. The solution proposed by Olson (1971, 2000) was for a government to use its persuasive or coercive power to make individuals and firms behave in a more responsible manner, to follow the rules. However, for this to be possible the rules must be seen to be just and fair and be seen to ensure the stability of the system in our context. But when the government sets rules that facilitate private gain at public expense, it invites looting and kleptocracy. There is no evidence that the financial authorities in Iceland tried to ensure stability rather than to facilitate the financiers' profiteering. Using Olsons' terminology, the government represented special interests, which prevented it from pursuing the encompassing interests that took the welfare of the whole of society into account. A government with fully encompassing interests would have aligned private interests with social interests and stepped in to stop the bankers before it was too late. A government too close to the bankers did not.

The core of the problem, in addition to the unstable international monetary system and the dangers of free capital flows, was a failure of the state. This failure can be traced partly to

incompetence, including a lack of basic understanding of banking in the shape it took, but partly also to a culture of rent seeking, economic concentration and corruption, including criminal behavior, as we have described. It seems that the pervasiveness of rent seeking, in particular, has been such that the authorities almost take it for granted that economic rent be allocated to cronies even if their reckless behavior remains a threat to financial stability. A powerful state would have passed regulations and laws that induced private agents to do what was best for the country – maximizing the total value added – but the state was weak. The necessary rules were not put in place and laws passed that would have prevented some financiers from benefitting at the expense of others. The weakness of the state and its organs and the massive wealth of the financiers led society astray as agents who were often rational about their own self-interest although sometimes blinded by optimism and euphoria made decisions that led to the abyss.

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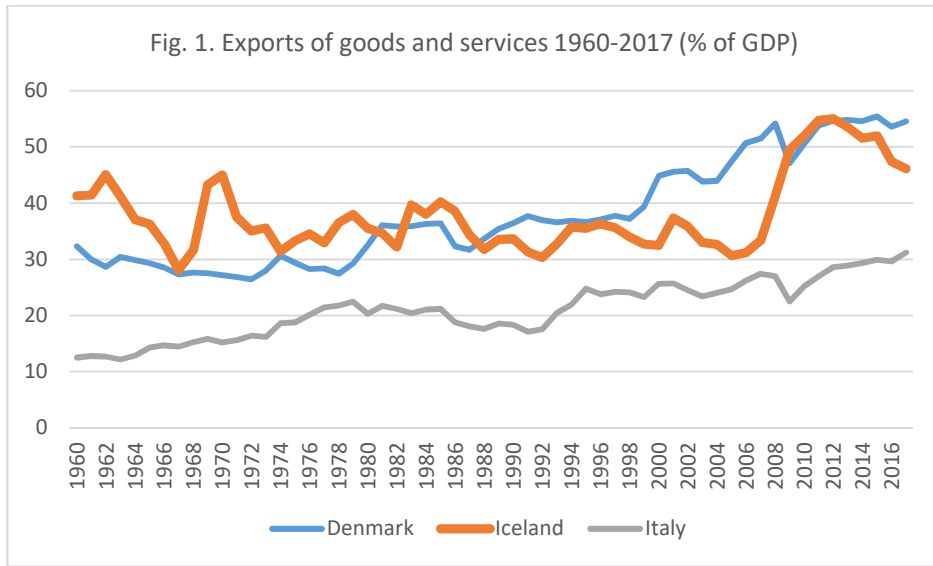
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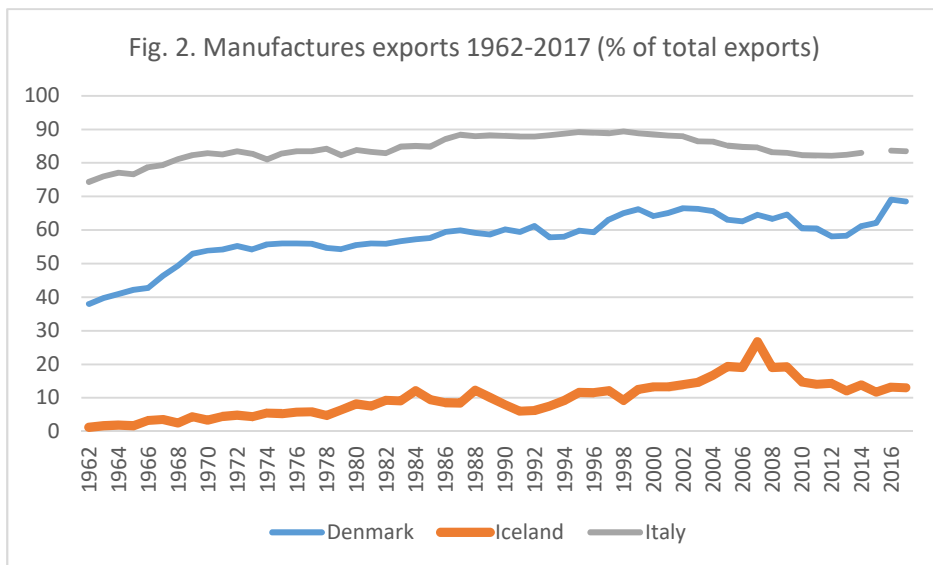
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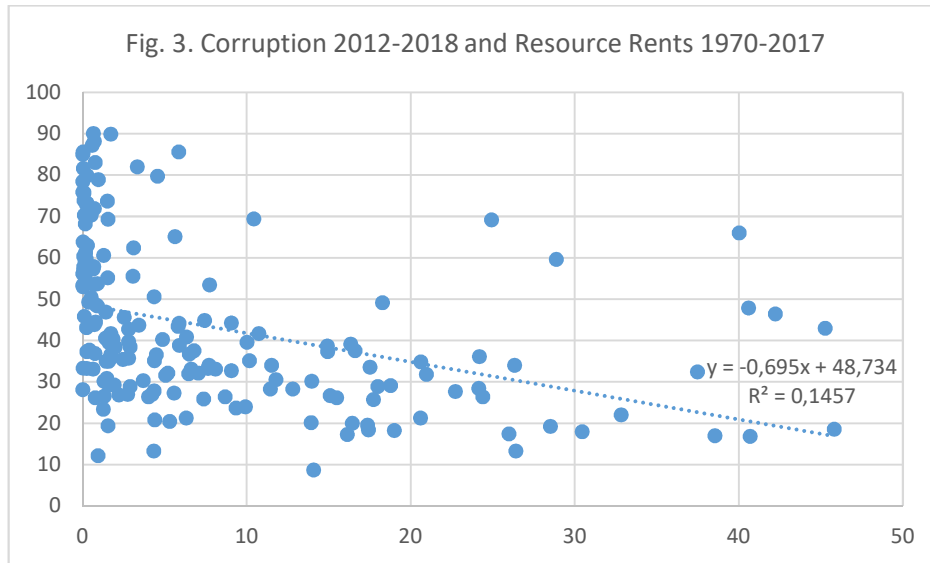
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Source: World Bank, *World Development Indicators*.

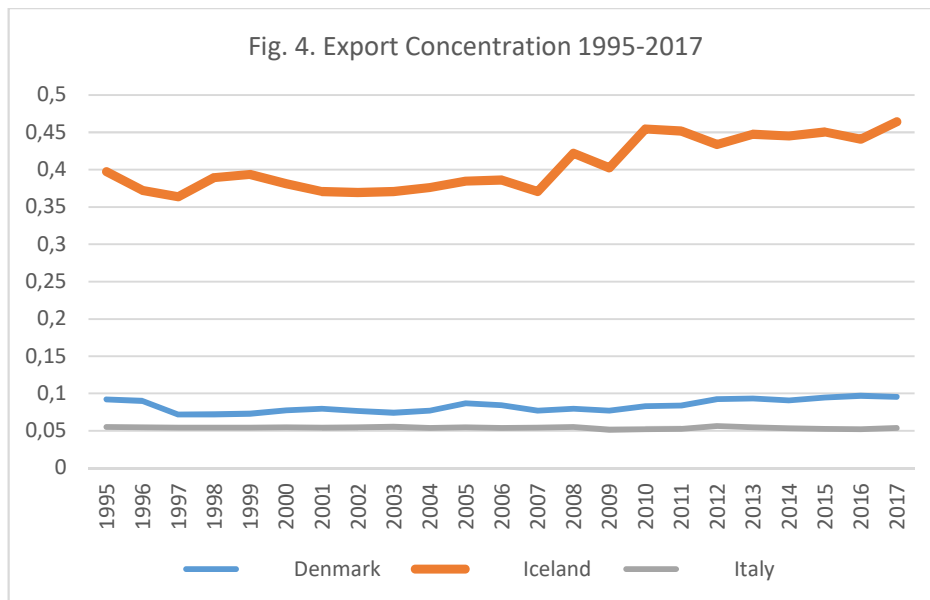


Source: World Bank, *World Development Indicators*.



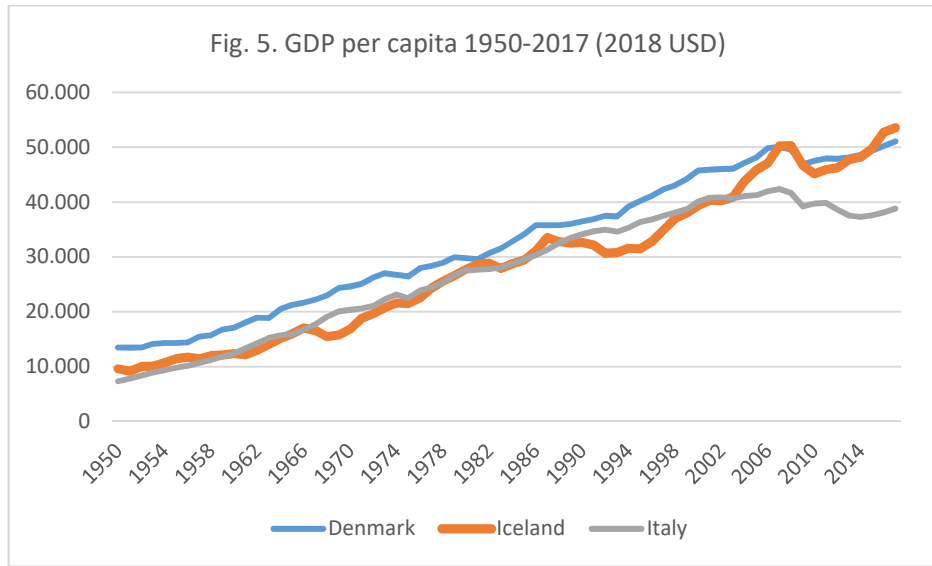
Source: Authors' computations based on data from World Bank, *World Development Indicators*, and Transparency International.

Note: Vertical axis shows corruption perceptions index. Horizontal axis shows total natural resource rents in % of GDP.



Source: [UNCTAD](#).

Note: Vertical axis shows Herfindahl-Hirschman index. Rising curves mean more concentration.



Source: The Conference Board Total Economy Database.