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Capital account regulation in Iceland. Does anybody know what is going to happen?

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Abstract

This paper sets out to analyse the capital account regulation (CAR) applied in Iceland after the banking crash of October 2008, focusing on the determinants behind the implementation of this policy tool, its effects on economic performance and the costs it may entail for the Icelandic economy. The previous literature on the topic is useful for these purposes but it does not provide an adequate framework for analysing the Icelandic experience, due to the fact that Iceland is a very particular case within the group of countries that have historically resorted to CAR. Our main conclusions are that capital account regulation has been essential in stabilizing the currency after the banking crash, providing space for expansionary monetary policy and keeping public debt yields low. Even though great uncertainty still surrounds the long term prospects of the Icelandic economy, CAR implementation has been a step forward towards a promising future economic scenario.

JEL classification numbers: F32, G18

Key words: Capital account regulation, capital controls, capital flight, financial liberalization, regulation

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1. Introduction

In October 2008 the Icelandic Government enforced strict capital account regulation following the outbreak of a severe banking crisis that led to the collapse of the country's three largest private banks. Iceland is one of the richest economies in the world in terms of GDP per capita and it had fully liberalized its capital account and financial services sector long before the 2008 banking crisis. It is not at all common for a country of its characteristics to enforce restrictions on capital mobility, let alone with the explicit authorization of the IMF that has also agreed to the implementation of a very slow liberalization process, currently underway.

After being the rule more than the exception in the decades following the Second World War, regulations restricting capital movements almost disappeared from the toolkit of economic policy during the 1980s and 1990, as it was considered that by controlling capital mobility Governments could dodge market discipline while pursuing insensible policies. Countries like Malaysia and Russia broke this trend in the late nineties, and during the last decade Brazil, Thailand, Indonesia, South Korea or Taiwan introduced different "capital management techniques" as part of a macro prudential strategy for managing abundant capital inflows (Gallagher, 2011:16). In Iceland CAR was implemented as a reaction to an unprecedented systemic banking collapse and while other countries are currently applying preventive regulation on inflows, Iceland has established reactive regulation on outflows. The intensity of the regulation and the long period of time it has been in force hardly have any recent precedent except Malaysia after the 1998 crisis.

Economic theory has paid considerable attention to this issue from a variety of diverging perspectives, each focusing on different topics such as: the advantages and disadvantages of financial openness (Obstfeld and Taylor, 2004:5), the effects of free capital mobility on growth in a neoclassical framework (Henry, 2007), reasons to restrict cross-border financial

transactions (Bhagwati, 1998; Rodrik, 1998; Aizenman and Pinto, 2011:21) or microeconomic modelling related to the optimality of CAR (Alesina *et al.*, 1993; Dooley, 1995).

Empirical analysis is abundant and controversial as well. There is a minimum consensus around some effects of CAR on the economy, such as keeping interest rates low or favouring corruption (Dooley, 1995), but opposed conclusions are reached regarding the impact of CAR on growth (Henry, 2007; Prasad *et al.*, 2003; Rodrik, 1998; Rodrik *et al.*, 2008), with methodological problems being one important source of disagreement (Kose *et al.*, 2006:14; Magud and Reinhart, 2006:2). From most case studies only rather obvious conclusions can be drawn such as the fact that the economic, political and institutional context in each country are key factors in understanding the outcomes of this policy.

This paper will focus on the characteristics of Icelandic CAR applied since October 2008 and its impacts on the economy, and will assess to what extent the main findings are coherent with the existent literature on this topic. Because the CAR in Iceland is still fully operational, only the short and medium term effects can be examined. The existing literature on the topic of capital account regulation is useful in pointing out certain economic outcomes associated with capital controls, but it does not constitute a solid framework for guiding the analysis due to the fact that Iceland has many particular features in comparison with most of the previously analysed experiences.

The document is structured as follows: the second section sets out the main features of the capital account regulatory framework, and the third section will focus on why this regulation was implemented. The fourth section focuses on the overall economic effects that can be associated with this policy and the fifth section addresses the issue of the costs CAR implementation. The last section offers a general assessment of the previously analysed issues and some final remarks on the future perspectives of the Icelandic economy.

2. Capital account regulation in Iceland: context and description

Iceland first established capital flow management measures on 10 October 2008 “due to the unusual circumstances currently reigning” (Central Bank of Iceland (CBI), 2008).² Though not explicitly stated, it was an emergency response to stop the massive capital flight and currency depreciation triggered by the banking collapse that had taken place just a few days before.³ When in November 2008 Iceland formally applied for a *Stand-By Agreement* (SBA) with the IMF, it justified capital restrictions on outflows as being temporary, non-discriminatory and necessary to avoid bigger balance of payments problems (Viterbo, 2011). The SBA identified the restrictions on outflows as an acceptable policy tool for achieving three main goals: stabilizing the exchange rate, restoring fiscal sustainability and restructuring the financial sector (IMF, 2008:10).⁴

The first goal was initially identified as the basis for any future economic recovery prospects. With high amounts of private debt denominated in foreign currency, exchange rate stability was considered essential in order to avoid general bankruptcy and allow the Government to redesign fiscal policy and rebuild the financial sector. Apart from depreciation, other threats contributed to conform what the IMF called “the perfect storm” including rising inflation and unemployment, the collapse of house prices, a credit crunch and a sharp fall in household income (IMF, 2008:9). Against this backdrop, it was understood that in a context of very high interest rates (that had hiked up to 18%), foreign exchange market interventions –made possible by foreign reserves lending within the framework of the SBA agreement- would have a rather limited impact and would not be enough to effectively back the ISK price. Thus, CAR

² See Viterbo (2011) for a comprehensive description of the CAR legal framework.

³ See Danielsson and Zoega (2009) and IMF (2012b:3) for information about the financial bubble which ended in October 2008 with a massive banking collapse. The financial weaknesses of Icelandic banks before the crisis are analyzed in Buiters and Sibert (2008). See Jännäri (2009) for a description of the Icelandic banks risky practices and regulation and supervision failures that contributed to the growth of the financial bubble. For an interesting reflection about ethical aspects regarding agents’ behaviour during the financial bubble see Árnason (2010)

⁴ The SBA agreement included, apart from technical assistance, around 5.000 million USD of financial assistance, approximately 43% of Iceland’s GDP in 2010, at mid-2010 exchange rates. The IMF contribution was 2.100 USD million and 2.600 USD million came from Denmark, the Faroe Islands, Finland, Norway, Sweden, Poland and the Central Bank of Luxembourg (CBI, 2010:11).

was understood as unavoidable and became “legitimate” under the institutional umbrella of the IMF.

On 28 November 2008 CAR was established as part of a broader legal framework that gave the Central Bank power to restrict financial transactions. Since then, regulation on outflows has been progressively strengthened in order to avoid circumvention. At the moment, neither residents nor non-residents can buy foreign currency or perform any international financial transaction (CBI, 2011b); capital inflows, though legally unrestricted, are in practice strongly discouraged due to the restrictions on outflows. Current account transactions are not affected by the regulation, so it is possible to buy foreign currency for import-export operations and repatriate interests and dividends.⁵

The legal framework imposes restrictions on capital flows until the end of 2013 (CBI, 2011b), but it will probably be necessary to keep them in force for a longer period of time, (IMF, 2012:17). A slow process of liberalization was initiated in 2011 but no specific deadline was set. The IMF has also backed this strategy which is an attempt to minimize the risk of financial turmoil when CAR will eventually be completely lifted (CBI, 2011). Risk is mainly associated with the potentially abrupt exit of currently “captive” non-resident investors who own local currency denominated assets equivalent to 25% of GDP and 40% of the country’s foreign reserves (IMF, 2012:17).⁶ If these assets were to be sold rapidly, depreciation pressures on ISK and excessive demand of Central Bank reserves could threaten financial stability. This is likely to occur, since most of these assets are deposits or short term public debt, which seems to indicate these investors are willing to exit as soon as they can. Part of the liberalization

⁵ One controversial exception to this is interest payments of *Glacier Bonds*. These financial products were issued in Icelandic currency by non-resident institutions before 2008. Iceland interest gap in comparison with other rich countries turned these products into an opportunity to obtain high returns for non-resident investors, as well as a means of obtaining cheap ISK financing for Icelandic banks (Ólafsson, 2005). Under the current CAR regime, *Glacier Bonds* owners have been not allowed to buy foreign currency with the ISK they received as interest payments.

⁶ The local currency is the Icelandic Krona (ISK). ISK denominated assets in hand of non-resident investors are called “off-shore ISK”.

strategy is to find long term investors willing to replace most of the “impatient” ones, but little new investment has been attracted so far and the substitution process is unfolding very slowly.

Since CAR has been established, the situation of the Icelandic economy has changed quite remarkably.⁷ After three years of recession, Iceland grew around 3% in real terms in 2011, and 1.5% in 2012.⁸ The exchange rate has stabilized at around 160 ISK/EUR and inflation, although high according to euro zone standards has decreased to 5%; the unemployment rate is below 6% after having peaked at 8% in 2011.

The financial sector has been completely restructured with an overall cost of 43% of GDP (IMF, 2012b: 14) and the three failed banks were split into “new” and “old” banks (Herbertsson, 2008: 4; IMF, 2012:50). The domestic part of the balance sheet was assigned to the new banks that were recapitalized and their deposits were fully guaranteed. Old banks kept the non-domestic part of the original balance sheets, received no public funds and since then have been undergoing the bankruptcy process. The private creditors of the original banks were engaged by the Government in the new banks’ ownership (IMF, 2012b: 13) and gave up their claims regarding the old banks’ debts. Currently, the public sector owns 81% of the biggest bank, Landsbankinn, and a small percentage of the second and third banks.

A new fiscal policy has been designed to guarantee fiscal sustainability on the medium term. Public expenditure and income have been progressively restructured (IMF, 2012:6) and the Gini index decreased to 0.273 in 2009 from 0.295 in 2007 (Ólaffsson, 2011:25). This is what makes the Icelandic response to the crisis particular, comparing it to other European countries: Iceland has become less unequal once the whole economy became poorer (Aguirre and Alonso, 2012). Public debt rapidly grew from 28% of GDP in 2007 to 99% of GDP in 2011, due to financial sector restructuring costs and expensive social policies, but it stabilized recently,

⁷ See IMF (2012:5) for an economic performance analysis on Iceland. The main data and a brief description on the same issue can be found in IMF (2012c).

⁸ Data from *Statistics Iceland*, the official centre for official statistics in Iceland, available on <http://www.statice.is/pages/916>.

and if the country maintains its pace of growth fiscal sustainability is guaranteed on the medium term.⁹

3. Why capital flows regulation has been imposed

A first useful classification distinguishes between CAR as a “curative” policy responding to a financial shock and CAR as a “preventive” policy aiming at protecting the economy from various potential risks (Edwards, 1999:68). Different contributions based on both interpretations of CAR are presented below in three broad approaches that will be confronted with the Icelandic experience: the “fear” approach, the “policy space” approach and the “buying time” approach.

According to the first approach, Government “fears” explain why CAR is applied. Magud and Reinhart (2006) carry out a meta-analysis of several empirical studies on CAR experiences, identifying four Governments fears: fear of appreciation, fear of great volatility, fear of high volumes of capital inflows and fear of losing monetary independence. Grabel (2003) adds two more items on that list: fear regarding the formation of financial bubbles and fear of capital flight. This approach highlights the defensive role of CAR against different risks that capital flows can potentially be connected with.

A second group of contributions refer to the need of creating “policy space” for a Government facing a financial shock (Grabel, 2003; Krugman, 1998), space that can only be provided by CAR. These contributions draw upon the Asian crisis of the late nineties, specifically the Malaysian experience, which according to these authors is a positive experience of CAR implementation. For example, policy space can be understood as a country’s ability to implement expansionary monetary policies that would be impossible to carry out under a free

⁹ It appears that public debt will not increase due to the Icesave dispute. The *European Free Trade Association* Court ruled in January 2013 that Iceland did not break the law by not giving sovereign guarantee to UK and The Netherlands residents’ deposits in Icelandic banks. These claims have been almost completely repaid, but the money has come not from the Government but from the corresponding winding up processes of the failed banks. More detailed information on the Icesave dispute previous to the EFTA resolution can be found in IMF (2012b:7).

capital movement regime, given that the Government would need to look for foreign investors' "approval" of its policies and probably pay high interest rates in order to attract capitals. Thus a natural conclusion of this approach is that Governments implement CAR because it enables unrestricted use of whatever policy tools are available in order to promote recovery. The need for policy space is also the main determinant behind CAR for Ocampo (2012), as he defends that Governments should be able to pursue countercyclical policies according to the domestic economic situation, whether by providing fiscal or monetary stimulus or restricting capital mobility. The policy space approach considers Governments to be active players in the economy that should make the most of CAR when such a measure is needed; CAR is therefore much more than a defensive strategy as the "fear" approach would suggest.

The third set of contributions consist of the "buying time" approach, a term used by Battilossi in his work on European countries' liberalization in the post-Bretton Woods era (Battilossi, 2003). This perspective is similar in its main conclusions to Edward's analysis and is based on several capital regulation experiences, most of them in Latin-America during the eighties (Edwards, 1999). Both authors approach CAR in the general context of financial liberalization which is considered to be inherently positive. The justification for CAR implementation is that it allows proper adjustment of the speed of the reforms, avoiding financial instability or high adjustment costs when performing the transition. The experiences they look at, however, suggest that in that specific context CAR served to maintain ineffective policies that were supposed to be gradually substituted, but in the end became permanent. Therefore the underlying idea of the "buying time" approach is conceptually similar to one of the conclusions of the "policy space" approach – in that CAR provides more opportunities for Government intervention in the economy- but in this case the conclusion is that the "broader" policy space was used for applying the "wrong" policies. In this context, CAR is therefore understood as more of an obstacle for the economy.

Different ideas among those examined above are useful for understanding the Icelandic regulation on capital flows, which clearly fits into the category of curative CAR, as it was designed and implemented to defend the economy from the devastating financial shock that the banking crisis could have triggered. We lack an official justification for the provisional CAR implemented on 10 October 2008, but it seems clear that the fear of capital flight and depreciation was behind the decision. Fear of depreciation does appear explicitly as the main reason for transforming CAR into a medium term policy in November 2008, as stressed in the agreement with the IMF (IMF, 2008).

There is no proof to suggest that the Government wanted to take advantage of capital controls in order to gain space for a more independent monetary policy and obviously, the Government was not trying to delay a liberalization process, either. Therefore strictly speaking the “policy space” and “buying time” approaches do not apply to Iceland. Nevertheless some arguments put forward by these two theories can be considered valid in our case study. The Government did fear capital flight and depreciation due to their consequences in terms of inflation and problems arising from agents’ high foreign currency indebtedness. A freefalling exchange rate would have made it impossible to rebuild the financial sector or to achieve fiscal sustainability so it could be said that in some way Iceland did seek to gain “policy space” or to “buy time” to recover from the disaster.

Finally, the critical scenario in October 2008 explains why the regulation relied on forbidding capital outflows instead of taxing them. Restrictions are expected to be more effective than taxes in avoiding capital flight in critical situations (Ocampo, 2003:14-15), a key advantage that was undoubtedly considered by the Government.

4. Effects of capital account regulation

The reviewed literature suggests three main macroeconomic effects under a CAR regime: the exchange rate tends to stabilize after a period of depreciation, there may be more space for conducting an independent monetary policy and there is usually a drop in public debt yields.

Concerns about currency depreciation and escalating domestic interest rates are often invoked as the reasons behind CAR implementation. Historically Governments seem to have succeeded in conducting a more independent monetary policy under CAR (Alesina *et al.*, 1993:15; Dooley, 1995:2), but according to Magud *et al* (2006) only Malaysia in late nineties clearly achieved its goals regarding both monetary policy and the exchange rate.

Iceland experienced both depreciation and increases in interest rates. The krona fell from 90 ISK/EUR in January to 187 ISK/EUR in December, due initially to the lack of confidence over the health of the Icelandic banks and subsequently to the banking crash. CAR is the main reason why the krona stabilized, around 160 ISK/EUR since May 2010, as the krona price is now basically driven by current account transactions, which are far more stable than those related to the financial account. The exchange rate had been clearly overvalued from 2001 to 2008, due to massive capital inflows attracted by the financial bubble, and the current price of the krona seems to better represent Iceland's economic features. The restrictions imposed on capital outflows have supported this balanced transition as they helped to avoid a high volatility period that otherwise could have caused additional damage to the economy.

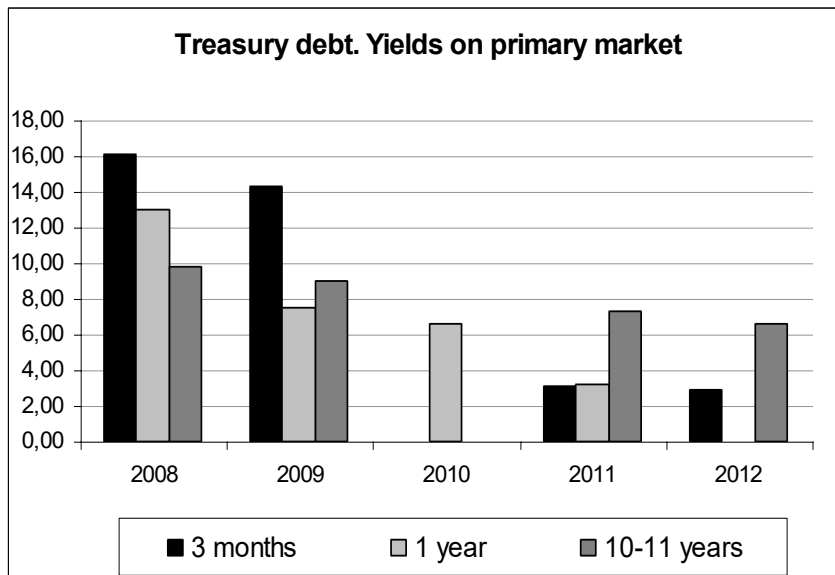
The upward pressure on interest rates was another clear effect of the banking crash, however, after enforcing CAR, they experienced a clear decline (the overnight Central Bank Rate went from 22% in January 2009 to 7% in January 2013, for example). Given that the Government did not have to back the exchange rate by maintaining high interest rates, monetary policy could be adapted to fit the needs of the real economy, by lowering interest rates in order to prompt economic recovery.

Regarding the public debt, Alesina et al. found that CAR put downward pressure on public debt yields in the 20 OECD countries they analysed using data between 1950 and 1989. This would be an example of what some authors have called *financial repression*, referring to a set of policies that result in the financial sector not being allowed to operate at full capacity (Roubini and Sala-i-Martin, 1995: 277), or artificially low interest rates that create distortions in savings and investment (Giovannini and De Melo, 1993: 954). Reinhart and Rogoff (2009:66) find that financial repression has been commonly used during the decades after World War II for issuing public debt at low interest rates in both developed and developing countries. Financial repression grants Governments different benefits such as increased seigniorage revenue, easier capital taxation and, finally, artificially low interest rates (Dooley, 1995; Battilossi, 2003). CAR are a key factor in every financial repression policy kit, as a Government needs to ensure that savings do not exit the country and that they are effectively constrained by the financial regulation (Battilossi, 2003:10).

The link between CAR and public debt yields has been explored theoretically as well. The implementation of this type of regulation in order to obtain cheaper public financing could be rational from an economic point of view in case of severe distortions in taxation, redistribution policies and institutions, or political conflict. According to different models, even though CAR behaves as an indirect, opaque and even discretionary taxation policy, it could be considered as a second best option in order to achieve some policy goals that are otherwise unattainable (Aizenman and Guidotti, 1990; Roubini and Sala-i-Martin, 1995; Giovannini and De Melo, 1993).

As we mentioned above, Iceland has experienced a sharp decrease in public debt yields since 2008. Data from the primary and secondary public debt markets show how the yields of Treasury bonds and bills declined from 2008 to 2010 and began to stabilize starting 2011 (figure 1 and 2).

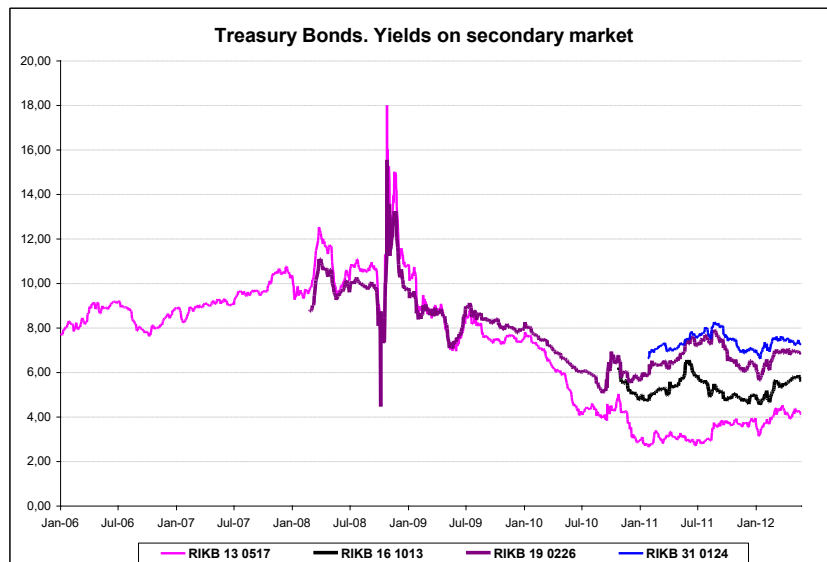
Figure 1. Public debt yields on the primary market* (2008-2012)



Source: Government Debt Management data

(* Data includes public debt auctions from December 2008 to April 2012. Each value is a weighted average of yields corresponding to instruments of similar maturity issued each year)

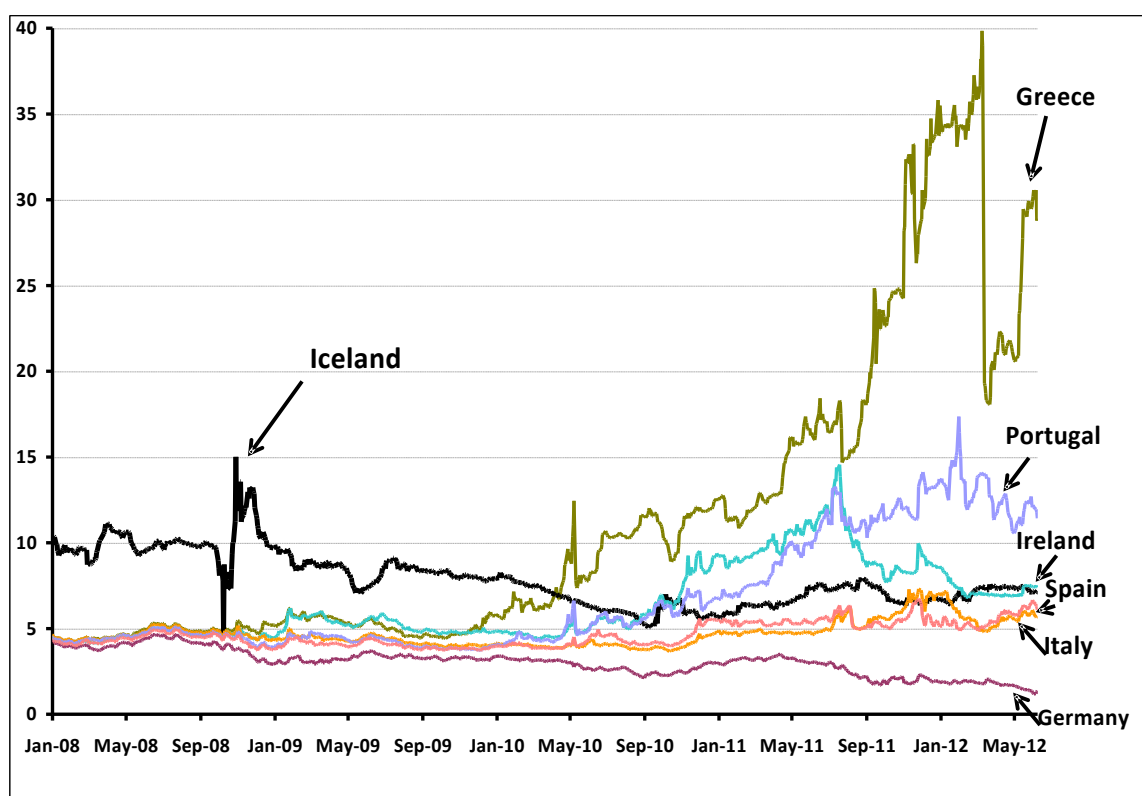
Figure 2. Public debt yields on the secondary market for bonds maturing in 2013, 2016, 2019 and 2031 (market values between 2006 and 2012)



Source: Government Debt Management

Iceland's 10 year bond yields on the secondary market registered similar values to those of Ireland in May 2012, a bit above Spain and Italy and well below Portugal and Greece. Iceland's bond yields show a more stable trend than those of other European countries.

Figure 3. 10-year bond yields in Europe (2008-2012): secondary public debt market.



Source: Ecowin Reuters

According to the results of the research carried out by Aguirre and Alonso (forthcoming) focused on the public debt market in Iceland, this effect on public debt yields can be attributed to a great extent to CAR. Investors are not allowed to exchange kronas for foreign currency to invest abroad, which clearly fuels internal demand for ISK denominated assets. There are other factors involved in this dynamic, such as the scarcity of investment alternatives or the fact that market makers for public debt are closely linked to the Government, which makes it easier for the Treasury to issue debt at lower yields.¹⁰ It is obvious, however, that at the root of the drop in public debt yields lies the strong regulation of capital outflows.

Apart from the elements mentioned above, there is an additional overall effect that can undoubtedly be attributed to CAR: this policy tool has been a crucial factor –probably the most important one- underpinning economic recovery in Iceland. It enabled the Government to

¹⁰ Market makers are institutions with exclusive access to public debt auctions that help the Government place new debt on the market. In Iceland, market makers are public or have been recapitalized and reorganized by the public sector before being re-privatized.

preserve a delicate equilibrium regarding Iceland's "trilemma": recapitalizing the domestic financial sector while maintaining the main pillars of the welfare state and achieving fiscal sustainability. So far the Government has been successful in achieving the three goals thanks to the low interest rates on public debt and the stabilization of the exchange rate. The current equilibrium would not have been feasible without CAR, whose positive influence on economic performance can only be fully understood by looking at the joint achievement of these three goals, instead of analysing different macroeconomic variables independently.

5. Costs arising from capital account regulation

As many benefits as CAR might entail, the costs related to its implementation have not been overlooked by neither the theoretical nor the empirical literature. Economic theory states that under a CAR regime the economy does not have access to the benefits associated with free capital movements: access to external savings, which could enhance growth, better risk management, optimal allocation of resources and more disciplined public policies (Obstfeld and Taylor, 2004:5). Even though these potential benefits are supposed to be obtained in the long term, and this analysis only refers to the short and medium term, it is interesting to think about a possible future scenario regarding these aspects.

The first topic we will address is the access to external savings, which could potentially enhance growth without sacrificing current consumption. External saving is difficult to attract under the Icelandic CAR regime, because restrictions on outflows strongly discourage inflows. Regarding its effect on the public accounts, there are no foreign investors currently buying public debt denominated in local currency, apart from those who had already invested and cannot exit Iceland because of CAR (Aguirre and Alonso). However, attracting more or less external savings is secondary to receiving financing at low interest rates, which is what has been achieved due to CAR implementation (by paying the price of having only internal savings

to rely on). Therefore, at this point it is not possible to assess the overall long term effect that the lack of access to external savings might have on the economy.

The second issue we will address is that investment diversification is impossible for residents, as they can only invest in Iceland. This could theoretically increase the country's vulnerability to economic shocks that would hit consumption harder than they would in a free capital movement regime. With respect to this issue, it would not be rational to worry about Iceland's vulnerability coming from CAR. The problems Iceland is facing have their roots in the pre-2008 liberalization of capital flows and the vulnerability it implied, which eventually led to the banking collapse. Moreover, one of the major risks on the medium term could be the inability to finance public expenditure and CAR seems to have been the key factor in enabling this so far.

The third theoretical concern is that restrictions on capital flows would imply suboptimal allocation for savings, as agents are not allowed to choose where they want to invest. This topic is obviously more complex, but it is interesting to point out that there is no consensus over the extent to which the overall effect on the economy does in fact come from the aggregation of individual behaviours. If it were so, Iceland as a whole would suffer very high optimality costs due to the restrictions faced by private investors. However, the cost for the economy would have been even higher if every Icelander, according to their individually rationality, had taken their savings out of Iceland in a matter of weeks from the banking crash. It is rather obvious that what is called "microeconomic optimality" - would have implied devastating effects from the macroeconomic point of view.

The fourth benefit that openness theoretically provides is that Governments applying insensible policies are severely punished as a result of investors' diagnosis and decision to exit the country. Therefore it is said that Governments have strong incentives to act in a sensible way, because otherwise they will not be able to obtain financing. According to this perspective,

CAR would have a negative impact as it blocks this “disciplining” effect. This point of view is entangled with a conception of liberalization as something inherently positive that is usually delayed in order to avoid political costs arising from desirable changes. It is difficult to agree with this reasoning as Iceland seems to have implemented considerably reasonable policies by keeping the public accounts on a sustainable path while protecting the welfare state. Therefore this is a case when CAR has actually been used for implementing sensible policies and not for maintaining insensible ones.

We will now turn our attention to the empirical literature that suggests CAR could be on the whole detrimental for the economy, for example with regard to the policy’s opportunity cost. According to this view, even though the intentions of Governments applying CAR were as sensible as possible, this policy would be condemned to failure and would thus imply a high opportunity cost for the administration engaged in its implementation. The reasons why this policy would fail are connected to the bureaucratic costs of enforcing the regulation, and the associated technical difficulties (Dooley, 1995:3; Edwards, 1999:69). Although this could be the case in some countries, Iceland is a developed economy and it has strong institutional capacities; in this context CAR has been quite effective so far, and we believe that any costs related to the technical or administrative efforts of implementation are negligible in comparison with the benefits of having adopted CAR.

Another cost almost unanimously identified by the literature is corruption, given that it is thought that the bureaucracy surrounding this policy would be inherently vulnerable to bribery. For some authors this is a drawback that should not discourage the use of CAR (Krugman, 1998; Grabel, 2003), whereas for others it contributes to making CAR implementation positive in theory but definitely useless –or even harmful- in practice (Edwards, 1999:69). With respect to this consideration, Iceland is no different than any other

country; corruption is a complex phenomenon that undoubtedly exists everywhere.¹¹ We agree with the authors whose recommendation is not to discard CAR. The reasonable thing to do is to fight against corruption, but not to discard a useful policy because it can potentially foster corrupt behaviour.

A rather similar discussion is centred on the costs derived from agents' efforts of evading regulation. These efforts could be detrimental to the economy (Forbes, 2006) to the extent that they are not oriented towards more productive activities and this is in some way just another opportunity cost. In Iceland, the *off-shore* ISK market shows how much some investors are willing to pay in order to exit Iceland: they will accept whatever price they get for their ISK assets on the off-shore market so that they can evade CAR. Since January 2009, the *off-shore* exchange rate has been around 220-280 ISK/EUR, while the *on-shore* exchange rate moves around 150-170 ISK/EUR. This is a considerable gap, but the lack of information regarding the volume of operations and price formation on this market does not allow for too many conclusions to be drawn. But again, even if the cost associated to this gap could be measured and turned out to be significant, what should be done is to try to alleviate its effects, not discard CAR. It would be highly unreasonable, for example, to eliminate tax policies because they "generate" a problem in terms of fiscal evasion.

The last of the costs of CAR implementation that we will discuss is related with the fact that CAR needs to become stricter as agents discover how to evade the established restrictions (Kose *et al.*, 2006:29). In this sense, strengthening CAR is an endless process because once it is implemented, it needs to be constantly monitored and modified if it is to be effective; subsequently all of the others costs associated with CAR implementation could only increase in time. Regulation has in fact been strengthened in Iceland and this was explicitly stated by the

¹¹ Iceland was ranked by Transparency International as the country with the lowest perceived corruption index in 2005 and 2006; however, important problems in this regard have been documented, connected for example, with the opaque conditions under which banks' privatization took place from 1998 to 2003 (Wade and Sigurgeirsdottir, 2012:135), or with institutional problems identified during the investigation carried out by Iceland's Parliament regarding the banking crash (Gylfason, 2010).

Governor of the Central Bank (Guðmundsson, 2012b:6) and authorized by the IMF, who stressed the need to effectively enforce this policy during its application (IMF, 2012: 17). However, provided that we find all of the individual costs described by the existing literature highly uncertain, when not irrelevant, we do not consider this last cost derived from the need of increasing CAR's intensity to be very significant.

6. Overall assessment and concluding remarks

A series of final remarks will summarize the main results of the analysis and some relevant comments about Iceland's future prospects. First of all, considering the overall effects of the CAR applied in Iceland, can it be said that this policy has been effective? Agreeing with Gabel and Krugman, if there is any intrinsic value of CAR, it would be positive in the sense that it would provide Governments with broader policy space. Whether this is good or bad will depend on how this policy space will be used. Remarkable benefits can be attributed to CAR in Iceland: stabilization of the exchange rate –the main explicit objective when CAR was established- a broadened space for relaxing monetary policy and, finally, its contribution in lowering public debt interest rates. Thus, the overall effect has been favourable for economic recovery and created the space that has allowed the Government to rebuild the domestic financial sector while maintaining intact the main pillars of the welfare state through the implementation a progressive fiscal reform.

Some potential drawbacks have been discussed as well, and they are mainly related to certain inefficiencies and distortions that stem for CAR, although their importance is actually very difficult to assess. However, even if these drawbacks could be measured, the benefits of CAR should be balanced not against its costs, but against the costs associated with any possible alternative policies (Gabel 2003). What would have been the cost of not introducing CAR? They would have probably been very high, and indeed they had started to increase by the time CAR was introduced by means of both capital flight that threatened to deplete the reserves of

the Central Bank and ISK depreciation. One could talk about the potential inefficiencies that this regulatory framework could foster, but if CAR had not been applied we might be talking about a complete financial and economic collapse, so the costs CAR helped avoid seem to have been real and also very high. Thus our diagnosis of the Icelandic CAR's performance is essentially positive. There was no other option when it was implemented and the overall effect for the economy has been positive.

Secondly, it could be said that Iceland is not a particular case as far as the effects of CAR on individual variables are concerned, but the overall diagnosis of the impact of CAR on the economy is quite singular. There is hardly any precedent of such an intense CAR so clearly entangled with economic recovery after a financial collapse. The explanation could be that Iceland is notably different from both the countries analysed by the empirical literature and those modelled by the theoretical literature. Iceland is neither a developing country with important fiscal and institutional distortions nor a post Second World War developed country cautiously opening its capital account. Iceland is one of the richest economies in terms of GDP per capita, with one of the highest living standards in the world. Its institutional framework and welfare system are comparable with those of the Nordic states, some of the most developed regions in the world from an economic, social and institutional point of view. Malaysia could be considered a similar experience in terms of the importance of CAR in explaining economic performance after a financial shock, but there are great differences between both countries and the respective historical contexts that motivated CAR implementation. We therefore do not consider Malaysia to be a meaningful precedent for studying the Icelandic experience.

Our third concluding remark refers to the future prospects of Iceland's economy, considering CAR removal. Such an intense regulation on capital flows is bound to disappear in the following years due to Iceland's commitments with normative frameworks like EEA, OECD and also the

EU if the process of joining the Union is not interrupted. The roadmap for CAR removal is not clear at this stage. The liberalization strategy currently going on is proceeding very slowly and the IMF seems to have no clear stance regarding how to link the short term– the intense Icelandic CAR that the IMF specifically backed- with the long term where financial liberalization is understood as essentially positive and inevitable.

The main risks in case of capital flight are depreciation, inflation, balance sheet mismatches, private bankruptcies and depletion of the Central Bank reserves. Regarding the public debt, removing the CAR could erode the Government's ability to finance the public deficit at low yields, at least on the short and medium term. Another important issue to take into account is the current household deleveraging process. Court resolutions declaring foreign currency indexed mortgages illegal have been the most important factor explaining why household debt has decreased from 127% of GDP in 2008 to 110% in 2011 (Ólaffsson, 2011: 11; IMF, 2012:18).¹² This deleveraging process has had no impact on the *new* banks' profits because it was anticipated and taken into account when the banking system was restructured (Mósesdóttir, 2011. Although the deleveraging process still has a long way to go and there is important social pressure in this sense, further reductions in private debt would compromise banks' future profits. The Government would most likely have to provide financial support to the banking system in a situation where there is practically no fiscal space for addressing this issue (IMF, 2012:19). Fiscal sustainability would therefore depend more than ever on low debt servicing costs and on the regulatory measures concerning capital flows.

It is uncertain when the Government will estimate that CAR removal does not imply great risks. The answer lies in gradually regaining investors' confidence as recovery picks up. But there is still uncertainty with respect to the potential risks commented above and they will not

¹² From 2003 to 2008, the strong Icelandic currency –which appreciated due to intense capital inflows- and higher domestic interest rates in comparison with those prevailing in the US and the Euro area made foreign currency mortgages very attractive for Icelandic households. That is the main reason behind the increase in households' foreign currency debt.

disappear overnight. If capital flight finally occurs when CAR disappears, the consequences of the 2008 banking collapse will have not been avoided, but only delayed. So, even though the positive effects are quite remarkable, at this point it is not possible to make a final assessment of the CAR experience in Iceland.

A fourth remark concerns the Government's attitude towards CAR. The Governor of the Central Bank has explicitly stated his intention of removing this policy as soon as possible (Guðmundsson, 2012b: 7). However, there would be obvious incentives to delay the process. As long as CAR ensures a safe environment for the economy, its removal could be postponed in order to avoid political costs associated with the short-term impacts of liberalization. The steps taken so far could indicate that the Government is acting in a reasonable way –removing CAR too early would be in fact irresponsible- but only time will allow a definitive assessment of this issue.

On the other hand, the Government may be under pressure to remove CAR, as it commonly happens with regulation aimed at preventing or avoiding potential financial damages (Aizenman and Pinto, 2011: 22). Even though the damages avoided thanks to CAR seem quite tangible and visible, there may be agents feeling that they are especially harmed by CAR, as they leave out that had this policy not been applied, the collective damage for the economy – and thus the individual damage as well- would have been catastrophic. These agents– for example investors that can only invest in low-yielding public debt- will try to win public opinion and convince society that eventually CAR is unnecessary. And as time goes by, it will be increasingly easier for people to forget how critical the situation was when the CAR came into force and the many benefits this policy provided on the medium term. The Government should thus properly balance any pressures in favour of CAR removal. The Independence Party, the winner of the Parliamentary elections that took place in April 2013, seems to be decided to

remove CAR within 12 to 18 months, earlier than could have been expected under the previous Government.¹³

The final observation regards economic uncertainty. Is the Icelandic economic recovery “real” or just a mirage that will disappear as soon as CAR will be lifted? As it has been stated by the Governor of the Icelandic Central Bank (Guðmundsson, 2012; 2012b: 5), CAR removal is one of the trickiest issues currently faced by the Government. It could be said that the future evaluation of the “Icelandic model” of coping with the financial crisis will depend to a great extent on the diagnosis of CAR and the corresponding liberalization process that is bound to take place on the short to medium term. Uncertainty is unavoidable in economic activity and even though Iceland’s recovery is uncertain, CAR seems to have created a positive economic climate than may not have existed otherwise. And this is a good starting point for dealing with an uncertain future.

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¹³ See *The Guardian* (<http://www.guardian.co.uk/world/2013/apr/28/iceland-centre-right-financial-crash?INTCMP=SRCH>) and *News of Iceland* (<http://www.newsoficeiland.com/home/blog-opinion/item/771-when-will-the-capital-controls-in-iceland-be-lifted>)

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