

Working Paper Series 3/09

**THE IMF, THE CREDIT CRUNCH
AND ICELAND:
A NEW FISCAL SAGA?**

Sheetal K. Chand
Independent consultant

May 2009



Centre for Monetary Economics
BI Norwegian School of Management

THE IMF, THE CREDIT CRUNCH AND ICELAND: A NEW FISCAL SAGA?

Sheetal K. Chand¹

Paphos, Cyprus

E-mail: skchand@cytanet.com.cy, s.k.chand@econ.uio.no

Iceland was badly hit by a fundamental mismatch between the assets and international liabilities of her banking system, with severe consequences for the welfare of the population. The country now has an IMF program. The paper asks three questions of the program: is it too tight? Is the balance of payment's target appropriate? How will the country cope with the potentially huge transfer problem associated with the now frozen external liabilities of the failed Icelandic banks? The paper notes several problems and argues that an appropriately structured and expanded fiscal policy is needed, together with burden sharing between Iceland and the international community.

Key words: IMF programs, Iceland, fiscal policy, burden sharing

JEL-codes: E62, E63, E65

¹ I am indebted to Arne Jon Isachsen for helpful comments, but he is not responsible for any errors.

THE IMF, THE CREDIT CRUNCH AND ICELAND: A NEW FISCAL SAGA?

Then the lady Spes said: "It may be that foolish men will follow the example of our former lives. Let us now end in such way that we may be an example to the good."

The Saga of Grettir the Strong

In October 2008, Iceland experienced a devastating series of problems that culminated in the collapse of its currency – the króna. The IMF responded with a program that took effect in November, 2008. The primary objective of the program was to put a floor under the króna, while laying the groundwork for adjustments that would enable Iceland to regain access to the international financial markets. This program is of interest for several reasons: it involves the first advanced economy to have sought IMF assistance after several decades; it is a program with an economy fully integrated into the world of globalized finance; it is a precursor for programs with similarly placed countries that were advantaged by financial globalization but are now experiencing the effects of the global credit crunch; and, not least, it portrays sharply a fundamental fault line of the present international financial setup.

Countries need a certain amount of adjustment to correct for past imbalances that become unsustainable and to address new contingencies. Adjustment is usually burdensome, especially if compressed over a short interval, but with access to adequate reserves and international credits can be made more tolerable. However, in the case of Iceland, the population is not only experiencing severe erosion in real incomes from the outset, but they will have to cope with a potentially huge transfer problem arising from the country's assumption of some of the liabilities of its failed banks. This paper asks: can the program's objectives, assuming they are appropriate, be achieved without burdening the population excessively? Developing an answer requires addressing at least two aspects. First, some details of the program need to be examined, especially with regard to its financial content. In particular, is the program too tight? A fundamental problem is that several of the measures taken address a stock problem – the shutout from international financial markets, the flight of capital and the maturity mismatch of balance sheets and loss of net worths, but bear severe consequences for flow activities such as earning and spending income. Can some

safeguards be provided to stem the erosion in real incomes, while working out the needed balance sheet adjustments? The contention here is that some protection that does not unduly compromise reasonable balance of payments targets might be feasible through an expanded role for fiscal policy that goes beyond simply letting automatic stabilizers operate. However, this is unlikely to be adequate, which brings us to the second aspect: given the potential enormity of the transfer problem, some relief may also be needed from the debt overhang, once it has been properly assessed and allowance made for asset recoveries. Against the backdrop of financial globalization and its much touted benefits, what should be the dividing line between the burdens to be borne by a participant country and by the international community when a global credit crunch strikes?

The next section reviews the dimensions of Iceland's potential payment problems, and the factors that made her so vulnerable to the global credit crunch. Section 3 examines Iceland's program with the IMF, and its implications for income preservation and balance sheet recovery. Some of these are found to be problematic, and Section 4 discusses policy adjustments that may be needed to address them. The concluding section takes up the issue of burden sharing in a globalized context.

2. Iceland's crisis: how big and why?

The crisis was triggered when the three major banks were unable to refinance their credits in the international money markets, especially following the failure of Lehman Brothers. This was a culmination in the growing loss of faith by foreign investors in the country's international banks, and in the value of her currency - the króna.² Their perceptions were fed by the increasingly poor looking fundamentals of Iceland such as a large current account deficit (Table 1) in a context of deteriorating international money market conditions. Taking fright, investors initiated a massive withdrawal of funds from Icelandic institutions. The Icelandic stock exchange collapsed, and the international reserves of the Central Bank were rapidly depleted in a vain attempt to restrain the precipitous decline of the exchange rate.³ The exchange rate underwent a sustained depreciation from around ISK 62 to the US dollar at the beginning of 2008, a level around it which it had fluctuated for several years, to ISK

² See IMF (2008) for a concise synopsis.

³ These defensive maneuvers were not helped by a confused interest policy, which at the height of the crisis involved reducing central rates by 3 percentage points.

91 by September, reaching ISK 150 in November. In the end the authorities had no other recourse but to introduce foreign exchange controls and seek the protective umbrella of the IMF.

The scale of the problem encountered by the authorities following the shutout from external financing is brought out by Table 2, reproduced from the IMF Staff Report. A contentious issue that had to be faced was how much of the external liabilities of the failed Icelandic banks should be assumed by the Government of Iceland. The authorities were in no position to assume their full liabilities, which amounted to some ten times of GDP. Nor could they avoid any responsibility, a position which might have appeared appealing given the lack of liquid resources. If they did nothing, Iceland faced the prospect of disruptive shutouts from international markets, including the prospect of asset seizures.

With the assistance of the IMF, a strategy for quickly coping with the crisis was worked out whereby Iceland assumed those liabilities that appeared inescapable such as covering deposit insurance payouts, while postponing a resolution of the remaining liabilities. The assumed liabilities were substantial, with projected amortization requirements for 2008 of US\$18.3 billion, or nearly twice GDP (Table 2). Having depleted its international reserves, the program provided for Iceland to set aside US\$ 3 billion for replenishing reserves. Taking account of the projected current account deficit of US\$ 1.8 billion, the total gross funding requirements for 2008 thus amounted to US\$ 23.1 billions.

These are huge bills to have been presented all at once, and far outstripped available financing resources of only US\$ 1.2 billions. The resulting financing gap of US\$ 21.9 billion for 2008 amounted to some four times exports. The strategy that was worked out for meeting this gap involved the authorized accumulation of arrears of US\$ 10.3 billion, so-called extraordinary financing of US\$ 11.2 billion, of which the IMF would provide US\$ 0.8 billion with earmarked bilateral funding for settling some of the liabilities in specific countries accounting for much of the remainder, and a residual financing gap of US\$ 2.2 billion.

Underlying the proximate causes of the crisis were major structural flaws and macro policy errors, to which could be added regulatory inexperience and the blind pursuit of profit in a crony environment (on the latter see especially Gylfason, 2008, and Danielsson and Zoega, 2009). Iceland adopted the wrong banking model, which undermined the structural foundations (Buiter and Siebert, 2008). Following the

privatization of Iceland's banking system in 2002/3, the major domestic banks had undergone a transformation from simple depository institutions to fully fledged international banks engaged in cross-border intermediation on a massive scale.⁴ The banks aggressively attracted deposits and funding from foreign sources and paid attractive interest rates. These funds were on lent to Icelandic entrepreneurs, both those who operated abroad and in the domestic market, and to households. By contemporary standards the banks appeared reasonably well capitalized and risk perceptions were low. Nonetheless, as Buitert and Siebert (*op. cit.*) point out the central bank of a small open economy with its own currency cannot be an effective lender of last resort for its banks should they operate on a scale internationally that far exceeds its reserve holdings. There was an accident waiting to happen.

On the macro policy side, a major flaw was the adoption of an inflation targeting regime in a liberalized small open economy setting, where transactors had unfettered access to international finance. The targeted inflation rate was 2.5 percent annually, but the boom triggered by the inflow of foreign funds led to the inflation rate deviating further and further away from it, reaching 12.7 percent in 2008 (Table 1). Operating in accordance with the procedures of inflation targeting, interest rates were raised on several occasions to dampen inflation. However, their effect, together with the added incentives of an appreciating exchange rate, was to attract even more foreign funds, which further fueled the boom. At the same time, with high domestic interest rates but very low international ones, it became increasingly attractive for Icelandic residents to seek low interest foreign currency loans. It is estimated that when the crisis hit, four-fifths of corporate debt, and one fifth of household debts were foreign currency denominated (IMF, 2008). One should also add to this source of vulnerability widespread inflation indexing.

The IMF in its surveillance of the Icelandic economy repeatedly expressed concern about growing imbalances, and urged the authorities to cool the economy down. The authorities did make several attempts to cope with the growing financial and macroeconomic imbalances, relying on conventional means such as raising interest rates in a liberalized financial context. These were consistent with prevailing beliefs in the effectiveness of inflation targeting and the conventional stress testing of banks. However, with residents' growing access to globalized finance, domestic

⁴ See also Herbertsson (2009).

monetary policy began to lose traction. Increasingly, the authorities looked to a restrictive fiscal policy, and the budget deficit swung into substantial surplus (Table 1). The general government's public debt was sharply reduced, amounting in net terms to less than 6 percent of GDP at the beginning of 2008. Sizable international reserves were also accumulated, but at one-half of GDP they amounted to only a fraction of the external indebtedness of the banks estimated at some ten times of GDP.

These fiscal and international reserve bulwarks proved totally inadequate when the financial crisis struck in October, 2008. For many Icelandic residents the balance sheet implications, especially with regard to their unhedged foreign currency liabilities, were devastating. The collapse of the exchange rate added greatly to the cost of servicing foreign currency denominated debt. At the same time, deterioration in partner country economic conditions, the capital flight and associated economic shocks eroded the value of the assets backing these liabilities. The situation became one where banks owed vast sums to their foreign creditors; firms owed huge amounts to the banks and foreign creditors; and households owed substantial sums to domestic and foreign financial institutions, while the asset backing was greatly diminished. With imploding finances and eroding net worths, the crisis spread quickly to the real economy raising the prospect of widespread defaults.⁵

3. The IMF program

Coping with the crisis and selecting the appropriate recovery path requires attending to several issues in the general context of a lack of external financing. The way in which the IMF program deals with these issues is examined next.

The program's content

The focus of the program was on addressing immediate contingencies rather than attending to underlying causes such as the two main structural and policy ones mentioned above. In any case attending to the latter would now be redundant given

⁵ It is tempting to describe the events leading to Iceland's collapse as a "Black Swan Phenomenon". However, several economists had earlier commented on the problems that Iceland was potentially developing with its bold plunge into international finance, but were not heeded. Perhaps if economists had developed more of a consensus on issues such as the appropriateness of the banking model that Iceland adopted and the viability of an inflation targeting macro policy for a small open economy with its own currency (in a globalized financial setting), greater attention might have been paid. This raises an issue of contemporary modes of economic analysis. Could they be too limiting insofar as they preclude alternative analyses based on different premises?

the collapse of the banks and suspension of inflation targeting. The overriding priority of the IMF program was to put a floor under the free falling króna, since this threatened a runaway inflation and dislocation. Stabilizing the króna was also urgently needed to stop a further deterioration in balance sheets and widespread defaults. A very tight monetary policy was introduced to promote these objectives, with interest rates raised by 6 percentage points in one go to 18 percent. The program also specified restraint on credit flows through the domestic banking system. However, it was recognized that these steps might not be enough to stem the outflow of capital and reduce the foreign exchange gap, and the IMF endorsed the suspension of foreign exchange transactions via a temporary imposition of foreign exchange controls.

A key priority was addressing the issue of Iceland's external debt. Iceland lacked the means to help her banks overcome their shortage of foreign exchange to settle their outstanding foreign liabilities. The solution adopted was for the authorities to directly assume some of these liabilities, and to split up the banks into two groups. One group would maintain essential domestic banking functions, while the other group would take over the remaining external liabilities. A reason given for this split was to limit the "socialization" of losses of the collapsed banks. While accepting certain contractual obligations such as honoring insured foreign deposits, the authorities left to one side the issue of foreign loans contracted by the banks, pending the determination of their true levels together with a proper valuation of the offsetting assets held by the banks.

Nonetheless, the external debt problem is ticking and will need to be satisfactorily resolved if Iceland is to regain full access to the international financial markets. The extent to which the authorities will accept additional liabilities arising from the debt settlement process is uncertain at this stage. It will probably depend on the international assistance they receive, especially through the agency of the IMF, the strength of creditor resistance and the sanctions they could apply, and not least domestic taxpayer acceptance of additional burdens. The last in particular is critical for the sustainability of any recovery path, but is also likely to prove most contentious given the extent to which private incomes and balance sheets have been adversely impacted by the shocks.

A third program objective is to initiate banking reforms, especially of a regulatory nature, that would facilitate a banking system that is more securely integrated with international markets. However, for the time being, the authorities

have effectively abandoned their globalized banking model, reverting instead to the older depository institution style of banking that had served them well in the past.

The bank related actions taken so far have imposed a big fiscal cost on the government. On the one hand, additional debt was incurred from honoring the insured foreign deposit liabilities (47 percent of GDP), from the recapitalization of the central bank as a consequence of the exchange rate losses encountered (10 percent of GDP), and from the capitalization of the new banks (26 percent of GDP). Together these will increase the public debt by about 83 percent of GDP. This is in gross terms and the IMF staff estimates that there is some scope for eventually recovering part of the cost through asset recoveries. On the other hand, the budget will have to pick up the recurrent costs of servicing the additional debt acquired. These are estimated to amount to some 5 percent of GDP in 2009, adding to the fiscal deterioration from the economic decline. Unlike the programs that the IMF negotiated with the Asian crisis countries a decade ago, and which were heavily criticized for suppressing automatic fiscal stabilizers, the Icelandic program allows full rein to the automatic stabilizers. Together with the new debt service charges, the overall fiscal deficit for 2009 is projected at 13.5 percent of GDP.

Deficits of this magnitude are not sustainable over the longer term, and an objective of the program is to initiate reforms of the public finances that are to be implemented starting in 2010. A problem is that of how costs associated with the vastly increased public debt, which will increase further depending on the resolution of the remaining external liabilities, are to be handled. In addition to the fiscal issue of providing the debt servicing resources, Keynes's transfer problem of converting them into foreign exchange is raised. In Keynes (1929) view a budget surplus would not automatically convert into an export surplus unless the conditions were right such as having a wide range of attractively priced export goods, which Iceland lacks.

If Iceland's unrequited external liabilities could have been refinanced, the adjustment burden for residents would have been greatly reduced, and more time would have been obtained for working down the external liabilities to prudent levels. However, refinancing in the current global credit crunch is difficult, including from the IMF, which only has limited resources to provide. Hence, the more burdensome solution of generating a current account surplus of the balance of payments will have to be relied upon to work down the external liabilities. The IMF's financial program promotes this through regulation of domestic credit flows.

How tight is the IMF's financial program?

The issue here is whether the program itself is too tight and contractionary, which could impose an excessive burden on the Icelandic population. Much of the problem being experienced in Iceland has to do with asset side phenomena triggered by capital flight, to which the response has been massive exchange rate depreciation and interest rate jumps. The latter two are inherently deflationary since they raise price levels, erode cash flows through higher debt service charges, wreak damage on balance sheets and, absent default, require further diversion from cash flow to repair them. The balance sheet shocks and the associated price adjustments go well beyond requirements for restoring balance in income and expenditure flows. For example, IMF staff had earlier estimated that the exchange rate, measured on a trade-weighted basis, was some 15-20 percent overvalued. An exchange rate correction of this magnitude, to some ISK 75 to the dollar from ISK 62, would result in some real income erosion and import reduction. However, the actual overshooting of the exchange rate is much greater. This is not likely to boost export production, which is concentrated in relatively unresponsive aluminum and fish products.⁶ Despite a highly depreciated reference exchange rate, the program projections indicate a decline of 15 percent in the dollar value of 2009 exports over 2008 as a result of adverse global conditions.

On the export side, the main outcome of the exchange rate overshooting is to generate substantial exchange rate related windfalls. In local currency terms, projected merchandise exports for 2009 would amount to ISK 735 billion if the exchange rate of ISK 150 to the US dollar is used as against some ISK 367, or one-half, using the trade corrected overvaluation of the exchange rate. This gives an idea of the scale of the windfalls on export earnings. On the import side, given the smallness of the economy and the limited scope for domestic substitution, the overshooting would induce a jump in local currency import prices, which will function as a big tax on consumption. The resulting real income erosion, which would also be affected by unemployment, will compress imports by a greater amount than from removing the trade related overvaluation of the currency. Extreme import compression together with exchange rate overshooting is likely in a deflationary context to induce expectations of a

⁶ Keynes, *ibid*, illustrates the difficulty of addressing the transfer problem using the then contemporary example of Russia and its dependence on “caviare and platinum”, analogous to that of Iceland today with its dependence on fish and aluminum exports.

subsequent appreciation of the exchange rate. Combining such expectations with sharply higher interest rates should overcome heightened risk perceptions, which would help stem capital outflows and might even attract funds, which is a strategy that the IMF program is relying upon.

Increases in private saving of a precautionary nature associated with the greater uncertainties regarding the immediate period ahead would reinforce the contractionary effects of the shocks to private sector balance sheets. On the other hand, the public finances are expected to deteriorate substantially owing to the operation of automatic stabilizers and the cost of servicing the newly acquired debt. The program projections imply that this would be offset by the private sector's improvement in net savings, since the current account of the balance of payments is expected to swing from a large deficit to a small surplus. However, the improvement in the latter could be larger, both from underestimating the decline in investment and the increase in savings. For example, domestic savings could be further boosted if export related windfalls are invested in domestic financial instruments on which they could earn annual returns of 18 percent.

Insofar as the increased savings demand from various sources takes the form of deposits, the likelihood for which increases in a period of volatility and greater uncertainty, the money supply increases and velocity declines. However, the program projects an increase in the velocity of circulation of broad money, reversing a declining trend for several years (Table 3). This is contrary to widespread experience with Fund programs, which tend to show a decline in velocity (Baqir et. al, 2005). With nominal GDP projected to remain unchanged, the program's assumption for velocity reduces the incremental demand for money by 4.4 percent. Hence, even though the net foreign asset position of the monetary sector is targeted to fall by ISK 222 billions, the permissible amount of domestic credit creation for 2009 is limited to an increase of ISK127 billion (Table 4). Of this amount ISK 100 billion is assigned to government. On taking account of the allocation to the category "other items net", the private sector ends up with having to retire credit of about ISK 105 billion instead of receiving additional credit to help them cope with their cash flow constraints.⁷ If

⁷ Such calculations in the IMF are based on a fundamental monetary equation that involves equating the demand for money to its supply. The latter is determined by domestic credit operations and net international reserve movements. Imposing a target on the last determines the amount of domestic credit creation for a given projection of the demand for money projection. Thus the balance of payments targets and the assumptions underlying the demand for money projections are critical.

instead, velocity were to be assumed unchanged at its previous year's level, which is still a conservative assumption in light of experience elsewhere, credit could be expanded by a further ISK 85 billion.

The credit availability implications for the private sector are stringent. Leaving aside the use of credit to smooth the adjustment to a much worse balance sheet, the sharp exchange rate related increases in cost of inputs and the cost of servicing debt will have increased credit requirements for many firms. Many firms and households are also likely to have experienced erosion in their cash flows and would have difficulty in paying back the credit they have utilized. This causes a credit freeze, which is aggravated by the projected absolute reduction in the stock of credit to the private sector under the program ceilings.

A critical element in projecting the demand for money, in addition to velocity, is nominal GDP. This is assumed to be virtually unchanged in 2009. Although the IMF staff report does not explain why, some inferences can be drawn on considering the projected behaviour of the inflation and real growth components. According to Table 1 the annual inflation rate jumps from 5 percent in 2007 to a projected 12.7 percent in 2008, while the annual average exchange rate with respect to the US dollar depreciates by some 38 percent. For 2009, the program assumes an exchange rate of 113.9 for projection purposes. Assuming that this is realized, the period depreciation would amount to nearly 30 percent over 2008. The period inflation rate is projected to be about 14.3 percent, declining to 4.5 percent at year end. This would suggest that all other sources of inflation would be fully restrained, and that the exchange rate would reverse some of its overshooting in the course of the year. However, the risks are on the downside and it is quite likely that both the period and end-year inflation rates for 2009 could be higher. Nonetheless, the projected inflation rates appear acceptable as a working hypothesis.

Real GDP growth is projected to fall by 9.6 percent in 2009, which corresponds to experiences of several countries experiencing capital stops such as the Asian crisis countries. While experience with the so-called capital crisis countries of the mid- late 1990s pointed to declines of the order of 10 percent of GDP, these were not anticipated; otherwise actions would surely have been taken to forestall them. For example, more strenuous efforts could have been made to mobilize additional funds, failing which capital controls could have been introduced early and less contractionary demand management policies pursued. In the absence of information

in the Staff report, one would have to speculate as to the factors underlying the projected fall in GDP. Exports, which account for about one-half of GDP, are expected to show a small increase in volume terms. The government sector appears to be relatively unscathed. Value-added in the construction and import processing and retailing sectors would be adversely impacted. The share of gross domestic investment in GDP is projected to fall by 5.7 percentage points between 2008 and 2009. One could add a couple of percentage points to account for the shrinking of the import sector, with some offset provided by a limited amount of potential domestic import substitution. However, despite these contractionary factors it should be possible through appropriate demand management policies to contain the GDP fall to say, 5 percent, which would be more bearable.

The above considerations suggest that growth in nominal 2009 GDP of around 10 percent (15 percent inflation less 5 percent real contraction) might be a more reasonable projection/target to aim at than the program assumption of only 0.3 percent growth in nominal GDP. Using the higher figure in the incremental demand for money calculation implies a further increase in the permissible amount of credit of about ISK 200 billion. Taken together with the revised velocity assumption, a total of ISK 285 billion of additional domestic credit could be provided. Instead of a reduction of credit of ISK 105 billion to the private sector, an increase of ISK 180 billion would thus be possible, consistent with the program's net foreign asset target as specified in Table 4.

How appropriate are the balance of payments targets?

The overall balance of payments is projected to decline by US\$ 2 billions in 2009. This is entirely due to capital account developments involving some further amortization of previously contracted debt. It is difficult to assess the capital account projections except to note that they are not fully spelt out so as not to compromise ongoing discussions with creditors. With respect to the current account, a turnaround is projected from a deficit of US\$ 1.8 billion in 2008 to a small surplus of US\$ 0.1 billion. Given a 12 percent projected deterioration in exports of goods and services, the improvement is attributable to a reduction in imports of goods and services of some 27 percent.

Although considerable uncertainty surrounds these projections/targets, the current account target appears relatively unambitious, taking account of likely

developments in saving and investment, and the large luxury good element of imports in recent years. The projections appear to be even more modest insofar as debt service payments on so-called extraordinary financing of the balance of payments (excluding the Fund but inclusive of arrears and bilateral financing) are excluded, even though they are included in the budget. However, these debt service payments are included in the capital account, which raises the presumption that they may end up being capitalized and added to debt. In principle, the amount of improvement to be sought in the current account should depend on the net size of the external obligations that will need to be amortized and the scope for parallel funding operations. The bigger the current account surplus the more serious the commitment to amortization will appear, which should facilitate refunding.

Nonetheless, given the contractionary balance sheet effects and the stringent allocation of credit to the private sector, it is likely that import compression will be greater than projected, resulting in a bigger current account surplus and more scope for amortization. The experience of the Asian crisis countries suggests that current account surpluses amounting to some 10 percent of GDP may not be unrealistic, owing to balance sheet shocks and program tightness. But this does not necessarily imply that such large current account adjustments are desirable. The best outcome would have been for a reversal of the balance sheet shocks, for example through a recovery of asset values, or access to substantial refunding. Taxpayers, after meeting their burdens, would not then have to confront major additional burdens for bailing out banks because their assets no longer suffice to service their liabilities.

4. An expanded role for fiscal policy

Although the monetary program appears too tight, this is apparently not the case with fiscal policy. However, simply relaxing monetary stringency by allowing more credit to the private sector may not be adequate if it does not result in their being utilized. Banks, taking note of the erosion in private sector balance sheets and reduced earnings prospects, at any rate outside the export sector, will be reluctant to lend and risk further losses. They would rather purchase government paper, but if this is not available at attractive prices they would simply retain non-income earning liquidity.

On the other hand, even if banks were willing to increase loans, the private sector may be reluctant to take on much additional debt, so long as they face the prospect of diminished earnings and severely eroded asset values. They would, of

course, wish to have their existing credits renewed and increased to reflect their higher costs of business, but not for the purpose of undertaking major new investments. Instead they would tend to emphasize debt consolidation and the reduction of amortization requirements to improve their balance sheets, while lowering other debt related costs to ease their cash flows.

There is thus scope for increased dysfunctionality of the credit markets both from the side of banks and borrowers. Banks may wish to lend towards new, low risk, profitable projects, while the private sector would like to borrow just to survive until business picks up. Increasing the scope for lending to the private sector may not lead to its being utilized, which provides a role for fiscal interventions.

But to what extent can the fiscal deficit be further increased from its present high projected level? The debt restructuring charges on the budget and the operation of the automatic stabilizers, while increasing the budget deficit sharply, are not viewed as inflationary, given the projected increase in net private savings. In a longer-run horizon such deficits would not be sustainable, even taking note of a probable future decline in interest rates to more normal levels. However, to the extent that private savings are higher than projected for the reasons noted earlier, there would be room in the short-run for further non-inflationary increases in the fiscal deficit. This would enable fiscal policy to play a more active role, which is important as it could help limit the contraction in the economy to a more bearable level of, say, 5 percent. A more modest contraction would reduce the effect of automatic stabilizers thereby restraining the increase in the overall fiscal deficit. However, rather than simply expand the fiscal deficit by the amount of additional, non-inflationary credit that could be created, it might be prudent to meet part of the direct costs of the fiscal interventions through higher taxes on windfalls. Such taxes might forestall possible capital outflow from this source that would otherwise reduce available domestic savings for financing the deficit.

There are several things that the government could do with increased access to credit and/or higher tax revenues. For example, it could undertake infrastructural investments that would help the construction sector. It could provide assistance to home-owners and businesses to help them meet their debt related payments, either directly, or in the form of tax reliefs. It could help with the renewal of private sector credit lines by providing guarantees thereby restraining foreclosures and forced asset sales that would further damage balance sheets.

In addition to helping stave off a collapse in demand, and providing a helping hand to troubled sectors, fiscal policy could play an important role in addressing some of the adverse distributional consequences of the shocks and of the IMF program. The most obvious candidate would be the sharp rise in import costs of necessities such as food, fuel and medicine that would hit the poorer income groups. This is a specific example of the more general maldistribution of income between export earners and the rest of the economy. Once again, exchange rate related subsidies paid out could be financed through a special tax on export related windfalls.

5. Conclusion: spreading the burden equitably

The paper has argued that there is scope through a more active fiscal policy for reducing the burden of adjustment on the Icelandic population for the given set of program objectives. However, more is needed, for even with optimal fine tuning under the program, an enormous burden of adjustment will fall on the shoulders of the population. It has been estimated that external debt liabilities, much of which have now been frozen, amount to some US\$ 250,000 per inhabitant. Given a per capita income of around US\$ 30,000, if the full liability is placed on their shoulders, the debt-service burden, even with stretched out payment terms, could consume more than one-third of per capita income. This is a huge transfer problem by any standard. It would also come on top of declining net worths, increased debt service obligations and eroded cash flows that many residents are encountering. If effected, it will lead to a dramatic decline in the standard of living, plunging most of the population into poverty. To the extent possible such an outcome should be avoided.

Addressing the transfer burden raises an issue of broader significance. How much of an adjustment burden should the local population endure when they are victims of shocks over which they have little control, owing to their acceptance and participation in the globalized financial commons? No doubt a handful of Icelandic entrepreneurs took advantage of the opportunities provided by a sustained period of extraordinarily low interest rates in the liberal globalized financial environment. They were not as well regulated as they should have been, and there are allegations of collusion with some politicians. Nonetheless, they fell afoul of a situation created by factors beyond their control such as excessively low interest rates in the US followed by the inevitable credit crunch, which was made worse by a mountain of toxic debt that compromised the global credit markets. These entrepreneurs played the game that

financial globalization encourages, but then crashed when they ran out of refinancing options. Insofar as they engaged in excesses, they should pay the price. But to what extent should their internationally related problems, and individual greed, which ultimately reflect the impotence of national regulation in a globalized environment in the face of inadequate global regulation, be visited on the entire Icelandic population?

At heart is an issue of fairness. Should the entire population be subject to a form of collective punishment for the deeds of a few? Most civilized societies limit punishment to the perpetrator of the deed, even when the stakes involved are very high, and even though others may have benefited indirectly. In the recent Madoff scandal, for example, it is alleged that more than US\$ 50,000 billion was improperly disposed off, but only Mr. Madoff is liable to be punished, not his extended family despite benefitting from his deeds unless they were consenting accomplices. It could be argued that limiting liability in this manner is appropriate within nation states, but not across borders, where liabilities are often incurred by and between sovereigns. However, underlying this argument is the assumption that the sovereign is in control. But the public good nature of the current international financial setup requires that the sovereign cede control, in this instance to global financial markets. Domestic and foreign residents are strongly encouraged to participate in such markets; indeed a country would be stigmatized if it imposed capital controls or took other steps to disengage in an attempt to better control its destiny. But who regulates the global financial commons? Iceland could argue that its banks and entrepreneurs were simply following the global rules of the game, and became unstuck just as did many other transactors around the world.

The general consensus among the prime movers of the international financial setup as to the desirability of unfettered globalization raises issues of political economy. Little attention, for example, was paid to the broader risks associated with the country operating the wrong banking model. As late as August 2007, the IMF's Board of Directors indicated during their surveillance of the Iceland economy that they were "encouraged by the outcome of stress tests suggesting that banks had adequate capital to withstand extreme credit and market shocks" (IMF, 2007). Overriding importance was attached to maintaining and promoting open financial markets internationally, relying on various financial hedging instruments and the self-regulation of markets, and only to a lesser extent on international surveillance through agencies such as the IMF. But should the interests of a few dominant players, who

benefit most from unfettered globalization – Simon Johnson (2009), a prominent ex chief economist of the IMF has referred to them as “financial oligarchs” akin to the notorious Russian ones - be placed above those of the many? Countries are advised and indeed cajoled to open their financial markets on the grounds that they would benefit greatly from the free flow of finance, especially of the portfolio variety. However, when a “sudden stop” occurs and capital flows out, it is the small player that confronts most of the burden of adjustment as was witnessed with the Asian crisis countries. When should a failure of the global financial system lead to a collective adjustment burden for the population of an affected country, and when for the wider international community? Can and should not an international burden sharing agreement be introduced that spreads the adjustment costs more widely? Answers to the questions raised here are urgently needed as many more countries could end up with fates similar to Iceland’s.

The underlying issue of who bears responsibility for what exposes a fundamental fault line in the present international financial setup. Aside from better international regulation that complements and strengthens domestic regulatory capacities, an adequate international insurance scheme, if not lender of last resort, is needed. The latter should go beyond simply loaning limited and conditional funds in support of adjustment strategies, but with the entire burden of adjustment placed on the recipient. This might have been appropriate in a traditional setting where a country experiences a payments problem because it willfully spent beyond its means. In the contemporary world of globalized finance and multiple currencies, more centralized coordination and restraining influences will have to be exercised. Fortunately, this appears now to be increasingly accepted.

References

- Baqir, R., Ramcharan, and R. Sahay (2005) 'IMF Programs and Growth: Is Optimism Defensible?' *IMF Staff Papers*, Vol. 52, no.2.
- Buiter, W. and A. Siebert (2008) 'The Icelandic banking crisis and what to do about it: the lender of last resort theory of optimal currency areas' *CEPR Policy Insight No. 26*
- Chand, S. K (2009) 'Optimistic IMF Programs, Contractionary Biases, and Some Fiscal Antidotes' *manuscript*.
- Danielsson J. and G. Zoega (2009) 'Entranced by banking' *vox*
- Gylfason, T (2008) 'Events in Iceland: Skating on thin ice?' *vox*
- Herbertsson, T. T. (2009) 'What the Icelandic collapse taught us?' *Central Banking*, vol. 19, no. 3.
- IMF, (2008) '[Iceland: Request for Stand-By Arrangement - Staff Report](#) Series: Country Report No. 08/362.
- Johnson, S (2009) 'The Quiet Coup' *Atlantic Online*, May, 2009
- Keynes, J. M (1929) 'The German Transfer Problem' *Economic Journal* vol. 39.

Table 1 Iceland: Selected Macroeconomic Indicators 2003-2009

	2003	2004	2005	2006	2007 est.	2008 Sp	2009 Sp
<i>percent change unless otherwise noted</i>							
Real GDP growth	2.4	7.7	7.4	4.4	4.9	1.6	-9.6
Unemployment rate (percent rate)	3.4	3.1	2.1	1.3	1.0	1.4	5.7
Nominal GDP growth		10.4	10.5	13.8	10.7	15.2	0.3
CPI inflation	2.1	3.2	4.0	6.8	5.0	12.7	14.3
Nominal wage growth	5.6	4.6	6.5	9.1	9.3	6.7	2.3
Real disposable income per capita	-1.7	3.8	6.6	-2.0	5.4
Real effective exchange rate (+ appreciation)	6.3	2.8	12.7	-6.8	5.7
Nominal effective exchange rate (+appreciation)	6.2	1.8	10.4	-10.7	2.8
US\$ rate (<i>period average</i>)	76.8	70.1	62.9	69.8	64	88.1	113.9
<i>in percent of GDP</i>							
Current account of the balance of payments	-4.8	-9.8	-16.1	-25.4	-14.6	-10.7	1.0
Fiscal Balance	-2.8	-1.5	-0.5	6.3	5.5	-0.2	-13.5
<i>revenue</i>	44.6	45.9	48.8	49.7	50.0	45.3	41.7
<i>expenditure</i>	47.5	45.9	44.0	43.4	44.5	45.5	55.2

Sources: Sedlabanki Islands, IMF (2008); Sp=IMF staff projection

Table 2 Iceland: External Financing Requirement and Sources, 2008–13
(In billions of US dollars)

	2008	2009	2010	2011	2012	2013
	Proj	Proj	Proj	Proj	Proj	Proj
A. Gross Requirements	23.1	3.1	4.8	2.3	1.2	0.6
Current account deficit	1.8	-0.1	-0.4	-0.4	-0.4	-0.4
Amortization	18.3	3.8	4.5	2.7	1.5	0.9
Official	0.8	0.5	0.3	2.3	1.1	0.6
Private other financial and other	17.3	1.0	1.9	0.2	0.3	0.2
Loans to cover deposit insurance		2.1	2.1			
Short-term debt (end of previous year)	0.2	0.2	0.2	0.2	0.2	0.2
Reserves accumulation (+: increase)	3.0	-0.6	0.7	0.1	0.1	0.0
B. Sources of Financing	1.2	1.7	4.2	2.4	1.7	1.4
Foreign Direct Investment (net)	-0.7	0.3	1.4	0.9	1.0	0.7
FDI outflows Abroad	0.5	0.0	-0.1	-0.1	0.0	0.0
FDI inflows to Iceland	-1.3	0.3	1.5	1.0	1.0	0.8
Net inflows of equity and other capital	0.4	-1.3	-0.5	-0.1	0.0	0.1
Asset recovery		2.1	2.1			
New borrowing	4.5	1.7	1.9	1.9	0.7	0.5
Other net assets	-3.0	-1.0	-0.7	-0.3	0.0	0.1
C. Financing Gap (A-B)	21.9	1.4	0.6	0.0	-0.5	-0.8
Errors and omissions	0.4	0.0	0.0	0.0	0.0	0.0
Accumulation of arrears	10.3	0.0	0.0	0.0	0.0	0.0
Extraordinary Financing Fund	11.2	1.4	0.6	0.0	-0.5	-0.8
Fund	0.8	0.6	0.6	0	-0.5	-0.8
Bilateral (earmarked/ non-cash)	8.2	0.0	0.0	0.0	0.0	0.0
Residual Financing gap	2.2	0.8	0.0	0.0	0.0	0.0

Sources: CBI; and IMF (2008) staff estimates.

Table 3 Iceland: Money and Velocity, 2003-2009
(In billions of Króna)

	2003	2004	2005	2006	2007	2008 Sp	2009 Sp
Broad Money	484	546	656	785	1231	1649	1576
Nominal GDP	841	929	1026	1168	1293	1490	1495
Velocity	1.74	1.70	1.56	1.48	1.05	0.90	0.95

Sources: IMF (2008) and author's calculations; Sp=IMF staff projection

Table 4 Iceland: IMF Financial Program, 2009
(In billions of Króna)

<i>Consolidated Financial System</i>	<i>Dec-08</i>	<i>Mar-09</i>	<i>Jun-09</i>	<i>Sep-09</i>	<i>Dec-09</i>
Net foreign assets	-189	-245	-301	-356	-411
Net domestic assets	2,146	2,188	2,215	2,239	2,273
Net claims on the public sector	-175	-150	-125	-100	-75
Net credit to private sector	2,544	2,517	2,491	2,465	2,439
Other, net	-223	-179	-151	-126	-91
Broad Money (M3)	1,649	1,641	1,618	1,592	1,576
Money and sight deposits(M2)	732	729	718	707	700
Time deposits	917	912	899	885	876

Sources: IMF (2008)

Working Paper Series

- 1/05 **Steigum, Erling**
Finn Kydland – Norges tredje Nobelprisvinner i økonomi
- 2/05 **Isachsen, Arne Jon**
Kina
- 3/05 **Isachsen, Arne Jon**
Internasjonal økonomi på randen?
- 4/05 **Steigum, Erling**
Aktivabobler: Kan og bør myndighetene gjøre noe?
- 5/05 **Isachsen, Arne Jon**
Bank og finans i Kina
- 1/06 **Isachsen, Arne Jon**
Greenspan går fra borde, og Erna vil ha Euro
- 2/06 **Beine, Michel, Paul De Grauwe and Marianna Grimaldi**
The impact of FX Central Bank Intervention in a Noise Trading Framework
- 3/06 **Isachsen, Arne Jon**
Canada Goose
- 4/06 **Isachsen, Arne Jon**
Like før det smeller? Om globale ubalanser
- 5/06 **Qvigstad, Jan Fredrik**
When does an interest rate path "look good"?
Criteria for an appropriate future interest rate path
- 6/06 **Isachsen, Arne Jon**
Verdens rikeste land
- 7/06 **Steigum, Erling**
Den Keynesianske revolusjonen 70 år etter: Et tilbakeblikk
- 8/06 **Isachsen, Arne Jon**
Elleve i Kina – Ved én av dem
- 1/07 **Isachsen, Arne Jon**
Globalisering
- 2/07 **Houg, Kjetil, Steinar Juel og Frank Jullum**
Økonomiske paradokser
- 3/07 **Isachsen, Arne Jon**
Folk på vandring
- 4/07 **Isachsen, Arne Jon**
Hvor går verden? Noen utvalgte krefter og trender

Working Paper Series

- 5/07** **Isachsen, Arne Jon**
Utenrikspolitiske refleksjoner
- 6/07** **Bottelier, Pieter and Gail Fosler**
Can China's growth trajectory be sustained?
- 7/07** **Isachsen, Arne Jon**
Uro
- 1/08** **Houg, Kjetil**
A note on the concept of risk
- 2/08** **Isachsen, Arne Jon**
Bolig- og finanskrisen i Amerika
- 3/08** **Isachsen, Arne Jon**
Kjøp og salg av risiko
- 4/08** **Husum, Hans Olav**
Hvor kommer pengene fra?
Kilder til meravkastning i Statens Pensjonsfond Utland
- 5/08** **Steigum, Erling**
Befolkningsaldring, pensjonsreformer og realøkonomi
- 6/08** **Isachsen, Arne Jon**
Om finanskrisen i USA
- 7/08** **Isachsen, Arne Jon**
Kommer Amerika tilbake?
- 1/09** **Isachsen, Arne Jon and Ole C. Sand**
China's revival
- 2/09** **Isachsen, Arne Jon**
Finanskrisen – Den menneskelige factor
- 3/09** **Chand, Sheetal K.**
The IMF, the credit crunch and Iceland: A new fiscal saga?

Norges Bank Watch Report Series

- No 1/2000** **Hamilton, Carl , Øystein Thøgersen, Marianne Andreassen og Harald Magnus Andreassen**
Norsk pengepolitikk, Norges Banks rolle og bankens gjennomføring av pengepolitikken i 1999 og første del av 2000
- No 2/2001** **Andreassen, Harald Magnus, Paul De Grauwe, Haakon Solheim and Øystein Thøgersen**
A review of inflation targeting, the Norwegian monetary regime and its institutional arrangements and Norges Bank's actual monetary policy and communication
- No 3/2002** **Svensson, Lars E. O., Kjetil Houg, Haakon O. Aa. Solheim and Erling Steigum**
An Independent Review of Monetary Policy and Institutions in Norway
- No 4/2003** **Ekeli, Thomas, Anne Kari Haug, Kjetil Houg and Erling Steigum**
An Independent Review of Monetary Policy in Norway.
- No 5/2004** **Bjørnland, Hilde C., Thomas Ekeli, Petra M. Geraats and Kai Leitemo**
An Independent Review of Monetary Policymaking in Norway.
- No 6/2005** **Dørum, Øystein, Steinar Holden and Arne Jon Isachsen**
An Independent Review of Monetary Policymaking in Norway.
- No 7/2006** **Dørum, Øystein and Steinar Holden**
An Independent Review of Monetary Policymaking in Norway.
- No 8/2007** **Goodfriend Marvin, Mork Knut Anton and Söderström Ulf**
An Independent Review of Monetary Policymaking in Norway.
- No 9/2008** **Juel Steinar, Molnar Krisztina and Røed Knut**
An Independent Review of Monetary Policymaking in Norway.
- No 10/2009** **Bergman Michael, Juel Steinar and Steigum Erling**
Monetary Policy and the Financial Turmoil.

CME

Centre for Monetary Economics, Norwegian School of Management BI

Office Manager: Siv Bjercke

Address: Nydalsveien 37, N-0484 Oslo, Norway

Phone +47 46 41 07 91. Fax +47 46 41 08 01.

E-mail: cme@bi.no <http://www.cme.no>