

Statistics Faroe Islands

The Making of Economic policy – Does the Faroese Current Account matter?

Abstract

This paper looks at the Faroese Current Account and its inter-temporal effects. We find strong correlation between CA behaviour and budget balances and suggest a creation of the Future Fund as possible solution to pro-cyclical government behaviour.

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- **Introduction**

During the 1990s, many countries around the globe had experienced an unpleasant macro-economic crisis mainly in the form of balance of payment crisis, banking sector failures and severe financial difficulties. Adding to the list of such countries is the Faroe Islands and our macroeconomic turmoil throughout this period was mixture of all three factors. It is very difficult to account for all culprits of the Faroese Great Economic crisis from this period at least, as far as the empirical analysis are concerned, due to missing data sets, but we nevertheless will be using the Faroese Current Account (CA) behaviour as the main starting point.

However, the principal purpose of this paper is not to explain the 1990's crisis but to present the dynamics of our CA. We start with simple illustrative mechanics followed by international comparisons of our CA with Irish and Icelandic statistics. We examine our historical data for various segments of international trade before connecting it to the budget balances behaviour. We find possible explanations from such past behaviour and link them further in our forecasting model. Additionally, we discuss the global economy movements and refer to anticipated US\$ depreciation in order to present more a complex picture that helps us explain our CA. Given such analysis, we boldly move forward by suggesting an alternative to a recent government pro-cyclical behaviour in the form of economic model. Our simple, but nevertheless informative, model is able to present a core macroeconomic revenue management disposition based on our previously defined windfalls. It has to be said that we reject rational approach towards the budget deficit and we suggest a conservative approach in the form of a special Future Fund creation.

At the end, we are of the opinion that the CA statistics are a very important tool as far as the Faroese economic policy making is concerned, given the fact of almost non-existent monetary policy instruments and volatile fiscal discipline.

- **Current Account – simple mechanics**

Following the basic definition of the trade balance that measures the difference between the money value of goods and services sold to foreigners and the money value of goods and services bought abroad, we can talk about the balance on merchandise trade and service trade. The comprehensive current account balance is obtained once we add a net income on country's residents foreign investment to a such trade balance along with the transfer payments. More concretely, and using some of basic accounting identities, it is possible to show the causes of the current account deficit or surplus. A current account balance exists when a country has a balanced budget and private savings equal private savings. Departure from this equilibrium condition will lead to the current account deficit or surplus. That is to say, if national investment exceeds national savings along the balanced budget we would have current account deficit that must be financed from abroad and will exact to the net capital inflow required to fulfil the gap between domestic savings and domestic investment.

In a number of cases a current account deficit is simply an indication that the investment being undertaken reflects excess of investment over savings, and the same is based on the decisions of many individuals in the private sector to borrow (or raise equity capital) to finance their investment. In the longer-term, as many eminent economists have told us, this process will be self-correcting. Mainly, individuals will decide not to take on

additional debt, or external financing by foreigners will come to a stop. Overall, this view excludes the involvement of governments or central banks as the balance of payments is expected to adjust by itself. Especially, the current account deficits are less worrisome today with a floating exchange if followed by the government's accounts being in surplus. In deed, any current account deficit can be the result of the optimism which foreigners have seen the host economy potentials.

- **The Faroese trade imbalances – analytical perspective**

With regards to the Faroese current account balance, our attention here will try to focus on a specific issue; how did the current account deficit influence the economic well-being in the longer term? In order to answer this question, we will first try to identify the main causes of the deficit as well as have a look on the implications of adjustment for the Faroese economy. It is fair to point out that the Faroese trade imbalances are the product of a specific geo-political environment along with the historical circumstances. Being situated in the middle of the Atlantic Ocean contributed to the economic dependency on fishery exports as the main industry along with the limited home based production. For this a reason, it should not come as a surprise that more than 95% of goods exports in the current account are fish related products while more than 70% of the same current account statistics encompass imports of goods.

[Figure 1 here] Credits - Averages 1998-2003

Additionally, on the export side, the income from abroad, which includes the greater part of the Faroese earnings from sailors on the foreign owned vessels, plus services, counts for around 20% of our current account. However, it is important to notice the transfer payments from Denmark in the form of Danish Grant, which along with other transfers counted for 19-20% on average for period 1998-2003. In relation to the credit side, the debit side of the Faroese current account shows different patterns mainly regarding the imports of goods, followed by income and services that present 12% and 14% respectively.

[Figure 2 here] Debits – Averages 1998-2003

International comparisons

Given the fact that the Faroese current account statistics (1998-2003) are produced following the BPM5 manual by IMF it is possible to make meaningful international comparisons. Indeed as our Figure 3 and 4 indicate, the Faroese current account comparisons with Iceland and the Republic of Ireland exhibit some interesting findings. Average values for 1998-02 for all three countries are compared using percentage divisions on both credit and debit sides.

On the credit side, the exports of goods are almost equal amongst the three nations (59%-62,7%) which are at the same time the only similar point amongst the countries. It is very evident that the composition of the Faroese current account on the credit side does not mirror the other two nations as far as income, services and transfer parts of the current account are concerned. Whilst we leave the illustrative points for reader to discover, we would like to focus more on the policymaking side. Since the Faroese media have more than once reported Iceland's economic development as a benchmark it

is useful to put such developments in perspective as far as the current account is concerned. To come to a simple but self-evident point, the Iceland's economy does not depend on any international transfer, neither do they earn their income from abroad in same proportion as the Faroese residents do.

[Figure 3 here] Current Account % share – Credits 1998-2002

According to Figure 4 that involves the debit side, a fine line of separation is drawn between the Faroese imports of goods (78%) and other two nation statistics (60% and 38%). It is perhaps a comfort to the Faroese current account statistics to look at Iceland's one bearing on mind the geo-political and climate similarities. However, we are of opinion that very high dependency on imports of goods may be difficult to overcome, and is perhaps the outcome of a strong comparative advantage situation. Nevertheless, it would be desirable from a simple practical policy making point of view (putting aside economic development issue at the moment) to investigate such a heavy dependence and see into ways to reduce it.

[Figure 4 here] Current Account % share – Debits 1998-2002

The Faroese social planner – taking on new challenges

Following our crude but nevertheless illustrative comparisons we develop a few thoughts regarding the policy recommendations that reflect the current account behaviour. The experience of several, developed and at the time LDC (East Asian) economies in last fifty years or so, show that well defined and executed economic development policies can bring a very fruitful results.

Firstly, in several countries the Research & Development of new ideas and products contributed considerably to the configuration change of their economies. Similarly, we believe that given the strong comparative advantage fused with historical “know-how” the additional R&D allocated resources within the Faroese fishing sector would be worth doing. However, we are of opinion that given the scale of small and medium enterprises presently involved in the Faroese fishing industry we may not see enough of R&D at this level. For this a reason the industry relies on more external players (Iceland, Norway & Denmark) usually in form of FDI. To fix the idea, we believe that the public sector initiative in the form of financial & non-financial long-term commitment would pay off.

Secondly, and as far as the import of goods & services is concerned, we are not convinced that “first in the house” approach is fully utilised for various reasons. To mention only a few, the historical attitude towards fishery as our main industry contributed to dependency on imports as justified on comparative advantage grounds. However, the compilation process of the Faroese current account indicates that some segments of our economy find themselves at the crossroads due to the unexplainable loss of revenues to foreign providers of services. In some cases, the quality of foreign goods or services is outperforming local ones, and if the Faroese residents want to pay for such high quality than so be it. But, in relation to a service that can be provided at the satisfactory level at home we can still observe that such an exchange does not take place. Summing up, in most of the cases, the price and quality attributes of goods or services is the most determining factor over whether deciding to use domestic over foreign origin. Nevertheless, we still believe that the Government department of Trade

would be able to differentiate between “loss and gains” of international trade and at least make some kind of recommendations for the future activities.

Thirdly, and more in keeping with the second point, we believe that the Government can go even further than simple recommendations. What we have in mind is perhaps drawing a parallel with “The East Asian Miracle”. The well-documented rapid growth of some of East Asia’s economies was based on improvements of physical and human capital followed by selective interventions within the export-push strategy. Indeed, we argue that selective interventions can be implemented on the Faroe Islands if, and only if, based on good fundamental macroeconomics supported by a strong monitoring process. The latest point, of course would relate to the gradual implementation of intervention based on well-defined economic-performance indicators that would separate failures from successes and would enable the government to adjust their policies in good time.

Fourthly, and perhaps the most general point can be made regarding the current transfers. It is obvious that on the credit side the greatest part of transfer is Danish Grant and as such is exogenous. However, we believe that the issue is very complex for various reasons, not the least the political economy, and since proper empirical analysis cannot be made we can only state our “second best” point of view. We believe that the current transfer complexity is best presented within different dimensions starting with the time dimensions, political & economical and not least, the geo-political one. However, we believe that “intergenerational dimension” would perhaps be the best approach if one is about to examine such an exogenous process. That is to say, the Danish Grant, is in our view, mainly a generational issue for both Denmark as a donor nation, and the Faroe Islands as a recipient.

In the end, we believe that the Faroese current account and its historical regularities are of great importance for our small economy, and should not be ignored. As it will be obvious from our next chapter the correlation between the current account behaviour and the Faroese economic performance is very consistent. Ultimately, such a set-up points the social planner towards a valuable opportunity regarding optimising policymaking process on the macroeconomic level.

- **The Faroese trade record and its impact on welfare**

Faroese citizens benefit from the freedom to import and export, and trade has allowed us to specialise our production accordingly. Over the past few decades international trade has increased in volumes and there is no doubt that our economy has participated in those changes which inevitably leads us to conclude that the focus of our study is macroeconomic variables in a small open-economy. Figure 6 shows imports and exports as a percentage of GDP and it is obvious that Faroese participation in international trade is a central issue when analysing it's economic development as well as establishing economic policies. A further look at descriptive statistics confirms the notion that there is a substantial variation in export and import rates over time. The average export rate in the sample is about 39% of GDP and the standard deviation is 4.2 % while the average import rate as percentage of GDP is about 43% and the standard deviation is 6,9 %. Comparisons with Iceland values reveals relatively smaller values of 35% and 36% for export and import respectively with lower deviations for both export and imports (3,5).

[Insert Figure 5] The Faroe Islands' Exports & Imports as % of GDP

[Insert Figure 6] The Iceland's Exports & Imports as % of GDP

The greatest “culprit” for the Faroese trade variations is perhaps the export and import of vessels. Being situated in the middle of Atlantic Ocean and having fishing as the main industry it should not come as a surprise that at some points (1975 & 1985) imports of vessels counted up to 25% of total imports. Furthermore, given the fact that fishing vessels are irreversible fix investment of considerable amount, the more than average cohort of such imported vessels can put considerable strain on future earnings of the country given the above, the average level of uncertainty that characterises the fishing activity.

[Insert Figure 7] The Faroese vessels' exports & imports as % of total Export and Import

[Insert Figure 7a] Faroese vessels – Net trade & % of GDP

It is difficult to discuss the current account behaviour in purely economic terms because the current account is very much affected by political issues. Many things within political life have influenced the Faroese current account over time. Indeed, there are many debates on the issue and it is not all obvious that the matter is settled. Perhaps the single most important direct economic effect of the current account is the level of the present income of the country as measured by GDP. As Figure 6 indicates a nominal GDP level shows of considerable improvements of the GDP level over the time with the exception during the great economic crisis. However, without the ability to account for our statistics in real terms one would not be able to argue differently. In the absence of a proper GDP deflator the CPI based deflator ultimately point to a very different trend. The outcome is not catastrophic but it is certain that it was extremely painful.

[Insert Figure 8] The Faroese Nominal & Real (CPI) GDP

Furthermore, as can be seen from the Figure 9, one can break down our GDP growth in three distinct periods 1980-1988 and 1995-2003 where positive growth of around 5% on average took place and the period of economic crisis 1989-1994 showing a sharp drop of GDP (9% on average). It is evident from this data set-up that as far as crude real

terms (CPI based) are concerned, it has taken around six years to reach the almost the same level of income achieved prior to the great economic crisis that lasted for five full years.

[Insert Figure 9] Real LnGDP (CPI)

Among the major forces that will help us understand the shape of real GDP line in Figure 5 we focus on only one, mainly the Faroese trade balances over the last 30 years or so. We leave out all other interplay of current account and focus only on two other major statistics, i) External Debt and ii) Budget. However before reaching such crude relations we give a flavour of more indicative macro-variables directly in conjunction with the current account. Although certain conclusions are impossible, we are confident that by studying the Faroese past trade imbalances and comparing it with other macroeconomic key variables we will be able to present the results which should at least be suggestive regarding the Faroese economic trends.

The current account adjustment process

In light of the re-emergence of the possible current account deficits on the Faroe Islands, at least in the very short term, it would be very useful to look at the typical adjustment process that might take place. That is to say, we would like to have a look at the current account position starting from 1967 up to the present day including a possible two year forecast.

Prior to looking at very specific Faroese experience let us state some conventional wisdom on the current account behaviour. It is obvious that only an open economy such as ours would be able to regard current account statistics as meaningful. In the context of an open economy, the adjustment process may rely on one of these forms;

1. The real exchange rate adjustment
2. Decline in capital inflows
3. Rational approach – expectation based inter-temporal consumption

The study by Milesi-Ferreti and Razin (1998) that examined 105 low and middle income countries based reversal process of the current account adjustment on; i) reversal is more probable in countries with persistent deficits, ii) countries that receive high current transfers and iii) whose external debt is on concessional terms¹. One of the most common parts of the adjustment process amongst industrialised countries is the decline of real income growth. The similar study by Freund (2000) finds “that a typical current account reversal begins when the current account deficit is about 5 percent of GDP that is associated with slowing income growth and a significant real depreciation over a period of about three years.”²

The current account reversal, however, is strongly associated with the past behaviour of the economy in question. As mentioned previously, a current account deficit reflects the relative strength of the economy to attract foreign sources that finance domestic

¹ Milesi-Feretti, G.M. and Razin A. “Current Account Reversals and Currency Crises: Empirical Regularities” NBER working paper series, USA, Working Paper 6620, June 1998

² Freund Caroline L. “Current Account Adjustment in Industrialized Countries”, International Finance Discussion Papers, Board of Governors of the Federal Reserve System, Washington D.C., USA, Number 692, December 2000

investments above the national savings. Consequently, and if persistent, the same deficit can lead to unsustainable levels backed up by large external debts, provided that the deficit was financed mainly by foreign borrowing. If this is so, reversals as mentioned above might put the country off its projected path and might lead to major structural changes. Unfortunately, we cannot comfort ourselves with pre-determined sustainable levels in the shape of CA/GDP or Debt/GDP based on economic theory, as crude assumptions of no-Ponzi game and default constraints along the risk premium are most often cited in the literature regarding the sustainable behaviour of the current account. We argue that in practical terms what matters is the willingness of the country to pay its own debt, willingness to pay for excessive borrowing by reducing its welfare in times to come. It is also self evident that the higher the accumulated external debt is, the longer it will take for the country's export to provide enough of revenue to repay such external debt, *ceteris paribus*. It boils down then to a political generation that will be negotiating the debt repayment terms with international creditors to decide which conditions will be the least painful for the generations to come.

- **The Faroese current account & government budget adjustments – historical imbalances and reversals**

So far we have more or less discussed current account behaviour in more general static terms avoiding dynamic perspective. Since the current account has a very important inter-temporal or inter-generational dimension we will focus ourselves on the last 40 years of the Faroese current account imbalances and its effect on the national welfare.

To start with, it would be useful for a reader to observe well-defined Figure 10 that relates to trade imbalances with the budget statement over the time. It is useful from the start to mention that period 1998-2003 presents “proper” current account statistics as produced by BPM5 manual. It is also important to point out that the Danish Grant is inter-linked in both time series – trade balances (export side) and budget (income). For this reason, it might be difficult to argue of separated movements in variables in the question over time, but we argue that by considering the Danish Grant exogenously it is still possible to attain most of quality information from our two time series and furthermore make some illustrative reasoning.

[Insert Figure 10] External Trade & Budget Balances 1967-2003

Prudence

Looking at the data starting from 1967 up to 1975 we may say that the public sector behaviour was at the most prudent³ while trade balance was at the best in surplus. It is however in 1975 that the trade deficit will take place, which will last for the next 14 years. It is evident from our previous graph that in 1975 vessel imports peaked to around 25% as proportion to the total import only to be higher in 1985. In both cases, net trade as part of GDP reached negative 11% and 13% respectively.

From the development side of the argument, it would be expected that the country that had invested in infrastructure (roads, ports) as well as human capital (schools, hospitals) in post WWII period was ready to take off. The question, which might be posed from the 1975 point of view, is not if, but when the landing takes place, which kind of landing we should prepare for.

Great economic crisis

Nevertheless, up to the year 1985, the Faroe Islands had a deficit on the current account followed with a very stable budget surplus. However, in 1985 and for the next six consecutive years an extra value of deficit was created mainly by extraordinary import of fishing vessels that in nominal terms reached the value of DKr 3 billion which added to a cumulative trade deficit for the same period of DKr 4,76 billion. To the best of our knowledge, it seems that such sudden and short lived increase of imports of vessels was triggered by public sector initiative in form of “vessels package” announced in 1984. All micro details are unfortunately not available to us but it seems that public sector loan guarantees caused an increase of activity which as far as financial institutions behaviour was concerned, mirrored what economists usually call “moral hazard”.

³ On this point we thank to Jákup Augustinussen from the Treasury. Due to existence of different monetary funds under public sector throughout this period we may not be able to regard budget surplus as a clear cut.

It is more than obvious from our previous line of argument that the financing of such a large deficit should have come to a stop at some point or another and reversal (payback time) should take place. It is also self evident that this phase of high growth of imports increased the net external debt position of the Faroe Islands. Indeed, as our Figure 11 shows the Faroese net external debt position peaked at around 150% of GDP throughout 1990-1992. However, international comparisons of the same values that triggered the reversal in some countries indicate that the Faroese level was considerably higher (120%) than compared to some other countries.

[Insert Figure 11] Faroese Net Foreign Debt to GDP – (1980-1998)

Moral Hazard

Consequently, while the Faroe Islands economy take-off was relatively straight forward, the landing was very hard and painful. The period of 1989-94 has seen a decline in real income, rise in unemployment and emigration as well as massive bankruptcies including the financial sector restructuring. Along with these developments, the Faroese financial sector crisis came to a bitter end and has cost the society dearly. It is perhaps interesting to point out that the Faroese banking sector failure was in line with many countries financial difficulties during the 1990's and very much associated with the balance of payments and financial crisis.

In light of such events economic literature has, in general, developed three different empirical approaches in order to classify currency crisis. The first approach, usually termed "signalling method" relies on various individual variables like Debt/GDP, Debt/Export, and movements in RER – evaluating them at the pre-determined threshold values. The second method based on discrete-choice literature predicts the likelihood of currency crisis taking place by mapping indicators into some known probability distribution function, and lastly, descriptive methodology based on identifying structural relationship between particular variables and currency crisis. All these methods lack strong predicting power, but interestingly they were able to provide us with the list of interesting indicators that emerge as strong contributing candidates towards predicting an impending crisis.

The lack of financial data prior to great economic crisis leads our analysis towards less certain conclusions, at least as far as possible empirical findings are concerned. However, we are of the opinion that the fundamentals up to a certain degree of accuracy can be presented in a very simple fashion. We simply suggest that the international over-borrowing based on implicit government guarantees created a serious problem of moral hazard in financial sector, which at the time lacked transparent reporting.

Pro-cyclical government spending

In relation to the period of great economic crisis it is worth mentioning the lower levels of investment in all sort of activities. Some infrastructure projects initiated in the 1980's (under-sea tunnels) had to wait for more than 15 years for their realisation. Other less ambitious projects including repairing and maintenance of public sector owned buildings and ports & roads were postponed till the up-swing phase of economic cycle arrived.

Furthermore, and following our Figure 10, the reversal post-1989 phase clearly indicates a surplus on trade balance, as our theory would predict. It is, however, interesting to look at the budget balances that took an extremely deep deficit (DKr 2,5 bn) in the form of restructuring external debt where the public sector at the same time has become the major owner of various enterprises both on the sea, air and land. As far as the present economic situation of the Faroe Islands is concerned there is a question of efficiency of such public ownership especially as far as competition issues are concerned. Consequently, we are of opinion that privatisation of such publicly owned assets during the higher upswing phase (1998-2002) would have been advisable on the grounds of proceeds from such sales being allocated to R&D, public investment or external debt repayments. To make financial resources available in such a manner, the additional dynamics within the Faroese economy would have been created which would also cushion downswing phase at the greater degree.

As mentioned above, due to the budget deficit throughout the period of crisis, the land had seen less investment and many projects were eliminated or at the best postponed. Indeed, post-1998 the period of current account surplus caused mainly by high fish prices, above average catches and not the least sharply increased fish-farming exports has also seen the budget surplus increased in line with the current account behaviour. However, even if extra public spending can be justified on the grounds of foregone investments during the crisis periods and rise of the population, there is no doubt in our mind that post-1998 the government spending can be characterised as pro-cyclical. Consequently, any government that is pro-cyclical in the upswing will be forced to be pro-cyclical in the downswing, the situation strongly evident from our latest data periods.

- **Forecasting the Faroese current account – short-term outlook**

As far as the future outlook for the Faroese current account is concerned we need a word of warning. We believe that our forecast based on econometric technique as well as auxiliary statistics based model is not superior to tossing a coin. Indeed, we believe that on average if we add infinitive time dimension, our model would be quite successful, but so would be coin-tossing contests. The exception to this conclusion is, however, that we are able to learn more from the forecasting model than from the coin. Since nowadays-international markets have become so efficient in a way that all relevant information is usually instantaneously reflected in price movements we argue that anticipating movements in the current account is possible under some plausible assumptions. That does not mean that we are able to improve our accuracy of prediction, but only enhance our understanding of the expected current account behaviour.

Global order and the its effects on the Faroese Current Account

In relation to the econometric technique⁴, we have decided to use a forecasting model based on auxiliary statistics. The basic line of argument of the model follows a very simple and crude scenario – mainly the effect of expected depreciation of US\$ at the various levels. At present the USA current account deficit is at the around 5,5% GDP level and as previous mentioned study by Freund (2000) takes this level as a benchmark regarding the start of reversal.

To describe possible developments in the global economy it is worth separating the world into three geographical areas. Starting with the United States as one of geographical areas that propel the global economy and one that seeks its growth through the trade account relying on foreign savings and not worrying too much about their IIP position. Asia's main concern as being the second geographical area is to have enough exports to USA in order to fuel its growth. These countries manage their exchange rates by allowing their central banks to constantly intervene in the currency market and offset the unwanted appreciation of their currencies. For them export simply means growth.

The third geographical area includes Europe along with Latin America, Canada and Australia. Given the fact that those countries predominately have floating exchange rates along with very high private investments in the USA it is not a surprise that these investors are starting to be increasingly worried about the substantial rise in US international debt caused by persistent CA deficit (at the moment at 5,5 % of GDP). Until 2002 the trade-weighted Euro exchange rate consistently depreciated reflecting the region's transfer of private financial funds to the US. However, and as our economic theory would predict, a too big US trade gap must be closed at one point causing a US\$ depreciation.

As far as the US economy is concerned the re-balancing the current account will not only come through the depreciation but also by adjusting savings and productivity at the appropriate levels. In their recent paper, two prominent economists Obstfeld and Rogoff predicted “a large potential move in the dollar- at least 20% ... the move could top

⁴ The exercise results not reported here. The project had insignificant coefficients, very low R-squared values as well as DW statistics. Nevertheless, the 90% confidence level band obtained values do match auxiliary statistics based model predictions. We believe that the later model is superior to a former and for such reason we present its finding in full.

40%”⁵ If such scenario takes place the real question is than how the rest of the world economy would cope. According to Greenspan’s (2004) argument US economy posses impressive degree of flexibility where Europe does not⁶.

- **The Faroese performance in the Global Economy**

Given these market forces it is unclear whether the Faroese economy is flexible enough to absorb certain movements in US\$. It is at least worrisome to see our economy relying on the monotone export of nonetheless heterogeneous commodity as our main growth engine, and, as such, it is difficult to see any mechanism that can cushion our economy in the short to medium term. Since the world demand for fish is regarded to be price inelastic due to rising world population and real per capita income increase it is obvious that overall fishing fleets would be better off financially by decreasing their effort (at least in theory). Meanwhile, following depreciation of US\$ in relation to the Euro, the process of substitution of Alaska Pollock fillet to German and French market effect, the Faroese ground water fishing catches values. Indeed, and as our next figure suggests, the increase of 6% of imports in volume has caused a 17% decrease in average price of frozen Alaska Pollock fillet in period of Jan-July 2003-2004.

[Insert Figure 12 here] German & French imports of frozen Alaska Pollock fillets (Jan-July 2003-04)

Although economic activity within the fishery sector is impossible to predict with the high level of certainty we have performed forecasting of the Faroese CA for up to and including the year 2006. Our base line scenario includes 2003 price levels with an expected further depreciation of US\$ at 10% and 20%. Our export levels are based on information available from various government departments, and it was decided for complexity reasons to perform sensitivity analysis on demersal fish only (cod, haddock and saith) keeping the rest of exports at 2003 price & volume levels. As our Figure 13 suggests we are looking at some very interesting findings at least for illustrative purposes. The model is suggesting 2004 surplus on CA followed by considerable deficit. What is more, the model is suggesting 647,3 tonnes of demersal fish extra export volumes are needed to compensate for US\$ 1% depreciation, *ceteris paribus*.

[Insert Figure 13 here] The Faroese CA & Budget Balance forecast 2004-2006

The forecasting model from above with its simple and crude assumption is, of course, far from an accurate prediction but what is important is its contribution to our understanding of movements of the Faroese CA over the short-terms, where no structural changes took place. In principle, the Faroese CA is very simple as the deficit of the trade balance up to value of transfer is needed to balance it while any deficit beyond such an amount will lead to a deficit to overall CA, if we the take average net position of income and services as given. If our prediction are true (we believe odds are 9/10) we may see deficit on CA for perhaps “wrong reasons”. That is to say, the principal reason behind the forthcoming deficit will not be the increase of imports over export, but the decrease of exports on a higher rate than the decrease of imports given the correlation factor of 0,98. Hopefully, the private sector will be able to adjust itself to

⁵ Obstfeld Maurice, Rogoff Kenneth, “The unsustainable US current account position revisited”, NBER working papers series, Working Paper 10869, USA, October 2004, p.4.

⁶ Greenspan Alan, “The Evolving U.S. payments imbalance and its impact on Europe and the Rest of the World”, Cato Journal, Vol. 24, Nos. 1-2 (Spring/Summer 2004), US

these lower revenues by bringing their financial reserves up front. However, it goes without saying, that such an outcome might see lower business confidence leading to lower or postponed investments that leaves our main industry without possible productivity improvements in the long run, not to mention availability of funds for R&D. On the last point it is obvious, that the uncertainty issue fused with the existing size of small and medium enterprises do not create certain threshold of funds necessary to perform kick off R&D activity. For this reason, we are of the opinion that only the public sector of an R&D initiative based on well defined and monitored indicators is the “second best” solution for the Faroese economy as far as the medium term is concerned.

Overall, we may say that private sector is literally speaking “on the mercy of the winds” as far as catches and its prices are concerned. In such an environment the degree of flexibility is more than paradigm - it is a lifeline for various segments of the fishing industry. However, but perhaps not to the same degree, the processing industry on the land might experience an equally troublesome time to come, and at best we may see some temporary factory closures or a reduction of labour force as some of them may find employment abroad (Scandinavian countries flexible labour movement arrangements may damp down usually strong lay off effect). In contrast to the private sector which learned to expect such gloomy outcomes and adjust their behaviour accordingly, the public sector will suffer more due to an inherently inflexible approach embodied mainly in *pro-cyclical stop and go behaviour*.

- **De-linking volatile income from expenditure – Conservative vs. Rational approach**

“Neither a borrower nor a lender be” - William Shakespeare (“Hamlet”)

It is obvious from the preceding discussion that public sector expenditure is closely related to CA behaviour. Especially, it is self evident that since 1998 we have pro-cyclical government spending which can be regarded under some plausible assumptions as the by-product of a great economic crisis. Assuming that more or less the same behaviour of the CA and budget financing can be expected in at least the medium term (15-20 years) we ask if there is anything that can be done to de-link such volatile income from expenditure. We further assume that the government of the day is capable and is willing to smooth their expenditure, and eventually becoming a “good housekeeper” to quote former British Prime Minister Baroness Margaret Thatcher.

In brief, we find at least three main current account determinants i) investment, ii) consumption smoothing and iii) different stages of development. Disregarding the mechanism behind each of determinants it is clear that reversals in current account imbalances must take place usually in the form of ER adjustments and/or lower GDP growth. The study by Freund found that “a typical current account reversal begins when the current account deficit is about 5% of GDP, and that it is associated with slowing income growth and a 10-20% percent depreciation”⁷ As far as smoothing consumption or the investment side of argument is concerned, the economic textbooks assume that the host economy will be able to answer their international obligation in form of external debt. Ignoring the default option at the moment, the current account adjustment process can considerably affect the public sector behaviour under the condition of publicly guaranteed debt. In the case of the Faroese economy such publicly guaranteed debt will be present until year 2018⁸ as agreed by two parties, the Danish state and the Faroe Islands.

Going a step further and dismissing a rational approach towards the CA deficit as the best option due to the monotone characteristic of the Faroese export base that is at the same time characterised with enormous uncertainty, we propose a more conservative approach as a practical solution towards de-linking volatile income from expenditures. The very well known story of Joseph from Genesis 41:33-36 saved Egypt from starvation by storing a fifth of the grain during the prosperous years and using it during the seven years of famine. Following historical consumption smoothing story from the second millennium B.C. we propose the similar fund accumulation for the Faroe Islands.

The challenges of fishery revenue management are great, especially in the time following a crisis where it seems that available windfalls should be selectively divided back in society usually at some pre-agreed quotas. In order to define windfalls we use Eurozone trend growth as benchmark and simply compare growth differences over time. It turns out that in the period of the last 35 years, the Faroese economy had growth below 2,2 % Eurozone growth trend on 9 occasions only.

⁷ Freund Caroline L., “Current Account Adjustment in Industrialised Countries”, International Finance Discussion Papers, Number 692, Board of Governors of the Federal Reserve System, USA, December 2000

⁸ Fíggjarmálaráðið, “Uppskot til Løgtingsfíggjarlóg”, Tórshavn, Faroe Islands, September 2004, p.353

[Insert figure 14] The Faroese business cycle as % from Eurozone growth trend

In order to address the issue further we construct hypothetical GDP growth over next 35 years keeping the same movements around the constant Eurozone trend but limiting both the upward and downward swing to half of the historical one. More specifically, we put the Faroese economy upward growth threshold at 7,64% and correspondingly downward swing to 4,82%. We also keep same share of Tax Revenue/GDP as realised for period 1998-2003 (32%). Additionally we redistribute windfalls at these accounts:

1. **15% to Government Expenses**
2. **10% to Municipalities**
4. **25% to Investments (public services & R&D at 50/50)**
5. **50% to Future fund**

Table 1. The Faroese Windfalls Disposition

Dkr Mill	35 yrs. sum	NPV@5%	NPV@10%	NPV@15%
Total Windfalls	25,183.1	9,837.7	4,735.9	2,601.9
Government Expenses 15%	3,777.5	1,475.7	710.4	390.3
Municipalities 10%	2,518.3	983.8	473.6	260.2
Investments 25%	6,295.8	2,459.4	1,184.0	650.5
Future Fund 50%	12,591.5	4,918.8	2,367.9	1,301.0

The creation of the special Future Fund account over 35 years would accumulate around Dkr 12,5 bn⁹ which is considerable amount even if discounted at various rates. The NPV@5% of Dkr 5bn matches the 50% of 2004 GDP, the amount if available at present would most definitely be welcome by policy maker insofar to cushion our economy at stronger degree.

A series of scenarios can be performed and different results can be obtained depending on expectations and discount rates, but the model in its simple form is able to link overall budget and public expenditure management as well as priority areas for expenditure. Sizeable in absolute terms, the implications of these revenue dispositions is perhaps even more important in relative terms given the process of usage of resources whether directly from funds or the budget.

⁹ This amount would have been higher if invested in a Debt securities over the same period of time, an option not consider in our model. Investment option in R&D might contribute to higher growth and exogenous shocks can deepen our downswing – both options ignored here. For model to work in practice – the issue of political economy – mainly windfall division discipline over long-run is the most crucial element.

- **Summary and Conclusions**

Looking at our analysis from above it should be obvious that as far as the Faroese economic policy making is concerned, its Current Account matters. If for nothing else, the CA statistics can help us explain inter-temporal effects on welfare as well possible predict future movements within our economy. Indeed, as our historical analysis of CA and budget balances showed, these two series are very much connected and one is able to explain their co-movements to a certain degree.

What is more, given some crude but nevertheless plausible assumptions we were able to forecast future CA in the short term. Given the dynamic basis of our economy, it is very questionable if our forecast will reflect the real world occurrence even in two years time, but on another hand we are certain that the mechanism of our model adds to the policy making network. Additionally, we went as far as to suggest an alternative way of de-linking volatile income from expenditure at the budget level, by using the Eurozone growth trend as our benchmark in our windfall disposition schedule.

The scale and impact of the Faroese CA behaviour is perhaps most evident in the recent pro-cyclical government behaviour which partly can be explained by a large deficit during the 1980's. However, it is our opinion that such behaviour might be the norm and not the exception and if so, we would not recommend it. For this reason, the most effective way of macroeconomic revenue management coming from the fishery related activity would need to be stable over the long-term, given the well documented volatile nature of the same. In order to perhaps define such desirable government behaviour the CA statistics might come in very handy if not being the sole provider of basic information. At the end, it would be presumptuous to state that our current account is the only macro-instrument that our country has at its disposal, but it would be certainly very wrong to ignore such statistics.

Bibliography

Beddoes Minton Zanny, "Flying on one engine", *The Economist*, September 18th 2003, London, UK

Bussiere Matthieu, Chortareas Georgios, Driver L. Rebecca, "Current Accounts, net foreign assets and implications of cyclical factors", Bank of England Working Paper No. 173, London, 2002, UK

Cohen H. Benjamin, Wooldridge D. Philip, "BIS Quarterly Review", December 2004

Danmarks NationalBank, "Denmark's International Investment Position 2000", Special Reports-Financial Statistics, No 9-31 October 2001

Dornbush Rudiger, Helmers C.H. F. Leslie, "The Open Economy – Tools for Policymakers in Developing Countries", Oxford University Press, Oxford, 1988, USA

Edwards Sebastian, "Does the Current Account Matter", NBER Working Paper Series, Working Paper 8275, Cambridge, USA, May 2001

Edwards Sebastian, "Thirty years of Current Account Imbalances, Current Account reversals and Sudden Stops", NBER Working Paper Series, Working Paper 10276, Cambridge, USA, January 2004

Edwards Sebastian, "Financial Openness, Sudden Stops and Current Account Reversals", NBER Working Paper Series, Working Paper 10277, Cambridge, USA, January 2004

Favero A. Carlo, "Applied Macroeconometrics", Oxford University Press, Oxford, 2001, UK

Freund Caroline L., "Current Account Adjustment in Industrialised Countries", International Finance Discussion Papers, Number 692, Board of Governors of the Federal Reserve System, USA, December 2000

Globefish report, "Alaska Pollack Market Report-November 2004"

Granger C.W.J., "Forecasting in Business and Economics", Academic Press, London, UK, 1998

Granger C.W.J., Newbold Paul, "Forecasting Economic Time Series", Academic Press, London, UK, 1986

Greene H. William, "Econometric Analysis", Prentice Hall, New Jersey, 2000, USA

Greenspan Alan, "The Evolving U.S. payments imbalance and its impact on Europe and the Rest of the World", *Cato Journal*, Vol. 24, Nos. 1-2 (Spring/Summer 2004), 2004, USA

Heijdra J. Ben, Frederick van der Ploeg, "The foundations of Modern Macroeconomics", Oxford University Press, Oxford, 2002, UK

IMF , “Summary Statement of the IMF Mission to the Faroe Islands”, Tórshavn, March 1993, Faroe Islands

An International Working Group on External Debt Statistics, “External Debt; Definition, Statistical Coverage and Methodology”, Paris, France, 1988

Johnston Jack, DiNardo John, “Econometric Methods”, McGraw-Hill International Editions, 1997, Singapore

Kennedy Peter, “A guide to Econometrics”, Blackwell Publishers, Oxford, 1998, UK

Knight Malcolm, “Current Accounts: What is their Relevance for Economic Policymaking?”, IMF Working Paper, WP/98/71, Washington D.C., USA, May 1998

Kotlikoff J. Laurence, “Fiscal Policy and the Future of the Euro”, Cato Journal, Vol. 24, Nos. 1-2 (Spring/Summer 2004), USA

Kraay Aart, Ventura Jaume, “Current Accounts in the Long and Short Run”, 2002 NBER Macroeconomics Annual, June 2002, USA

Landsbanki Føroya, “Information Memorandum – The Faroe Islands” , Tórshavn, Faroe Islands, November 2004

Milesi-Ferretti Gian Maria, Razin Assaf, “Current Account Reversals and Currency Crises: Empirical Regularities”, NBER Working Paper Series, Working Paper 6620, Cambridge, June 1998, USA

Milesi-Ferretti Gian Maria, Razin Assaf, “Sharp Reductions in Current Account Deficits: An Empirical Analysis”, IMF Working Paper, WP/97/168, IMF, Washington D.C., 1997, USA

Myrland Øystein, “A note on Measuring the Effects of Exchange Rate Changes on Norwegian Exports of Seafood”, Working Paper Series in Economics and Management No. ½, University of Tromsø, Norway, September 2002

Obstfeld Maurice, Rogoff Kenneth, “The unsustainable US current account position revisited”, NBER working papers series, Working Paper 10869, USA, October 2004

Obstfeld Maurice, Rogoff Kenneth, “Foundations of International Macroeconomics”, The MIT Press, London, 1996, UK

Obstfeld Maurice, “External Adjustment”, NBER Working Paper Series, Working Paper 10843, Cambridge, USA, October 2004

Rogoff Kenneth, “U.S. Imbalances and the Euro’s Outlook”, Cato Journal, Vol. 24, No 1-2, (Spring/Summer 2004), 2004, USA

Sighvatsson Arnór, “The current account deficit in an international and historical context”, Monetary Bulletin 2001/1, The Central Bank of Iceland, Iceland, 2001

Schwartz Anna J., “Global order and the future of the Euro”, Cato Journal, Vol. 24, No 1-2, (Spring/Summer 2004), 2004, USA

Ventura Jaume, “Towards a theory of Current Account”, NBER Working Paper Series, Working Paper 9163, Cambridge, USA, September 2002

Taylor M. Alan, “A Century of Current Account Dynamics”, NBER Working Paper Series, Working Paper 8927, Cambridge, USA, May 2002

Wade Robert, “Governing the Market- Economic Theory and the Role of Government in East Asian Industrialisation”, Princenton University Press, New Jersey, USA, 1990

The World Bank, “The East Asian Miracle-Economic Growth and Public Policy”, Oxford University Press, New York, USA, 1993

Figure 1. Averages 1998-2003

■ Exports of goods ■ Exports of services ■ Total income ■ Total Current transfers

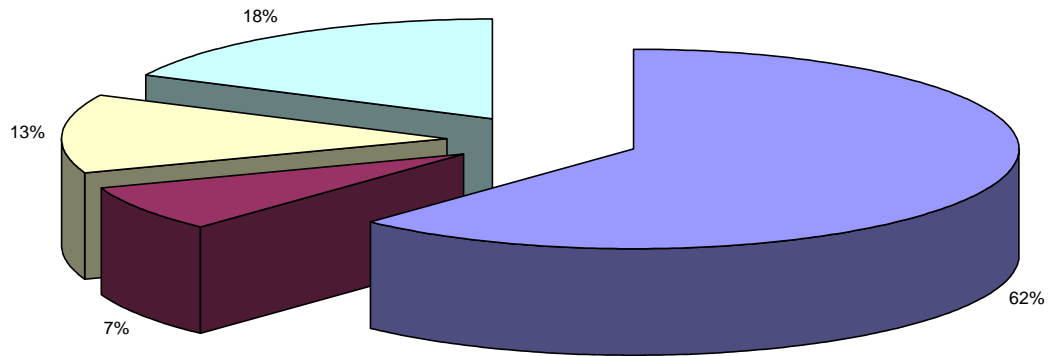


Figure 2. Averages 1998-2003

■ Imports of goods ■ Imports of services ■ Total income ■ Total Current transfers

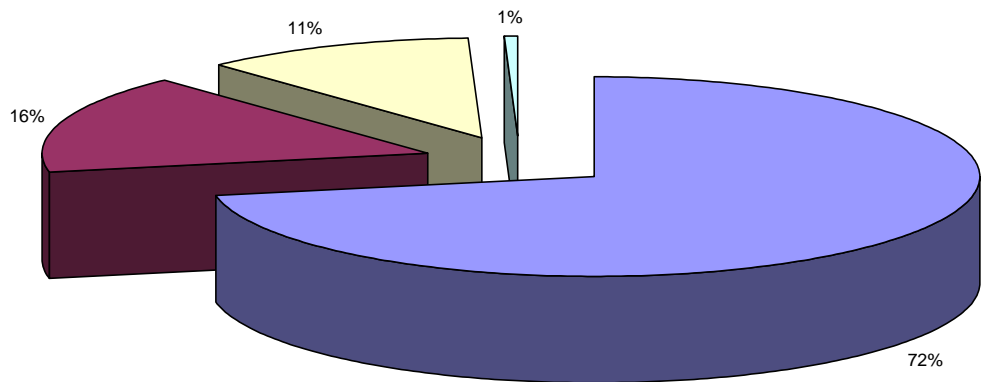


Figure 3. Current Account % share - Credits 1998-2002

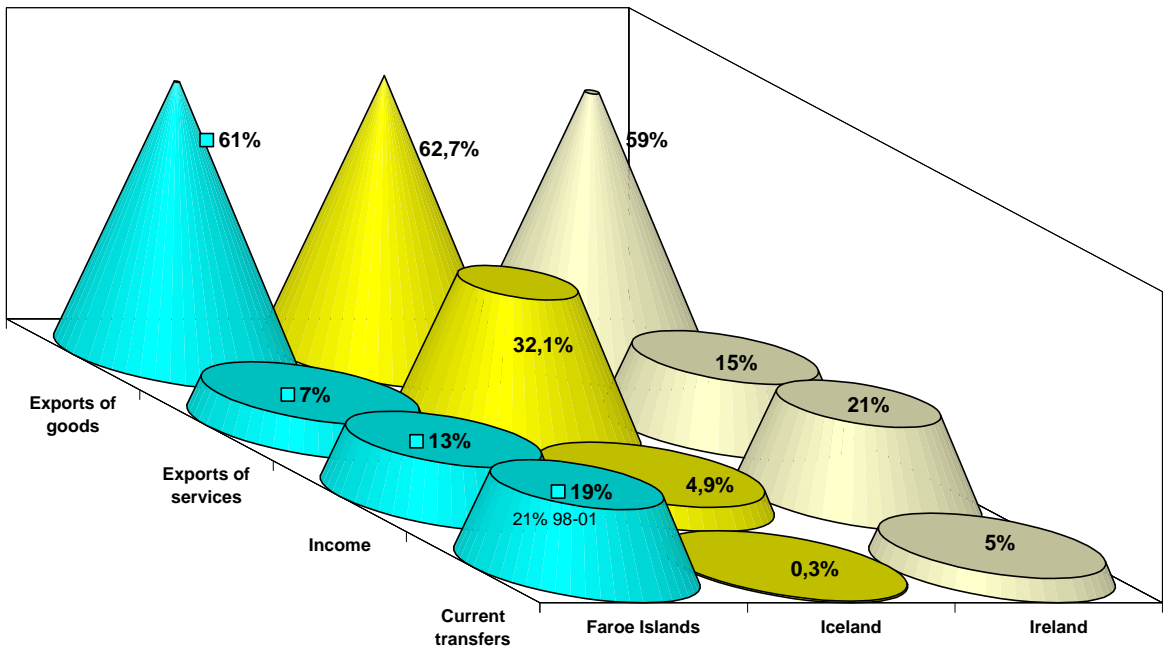


Figure 4. Current Account % share - Debits 1998-2002

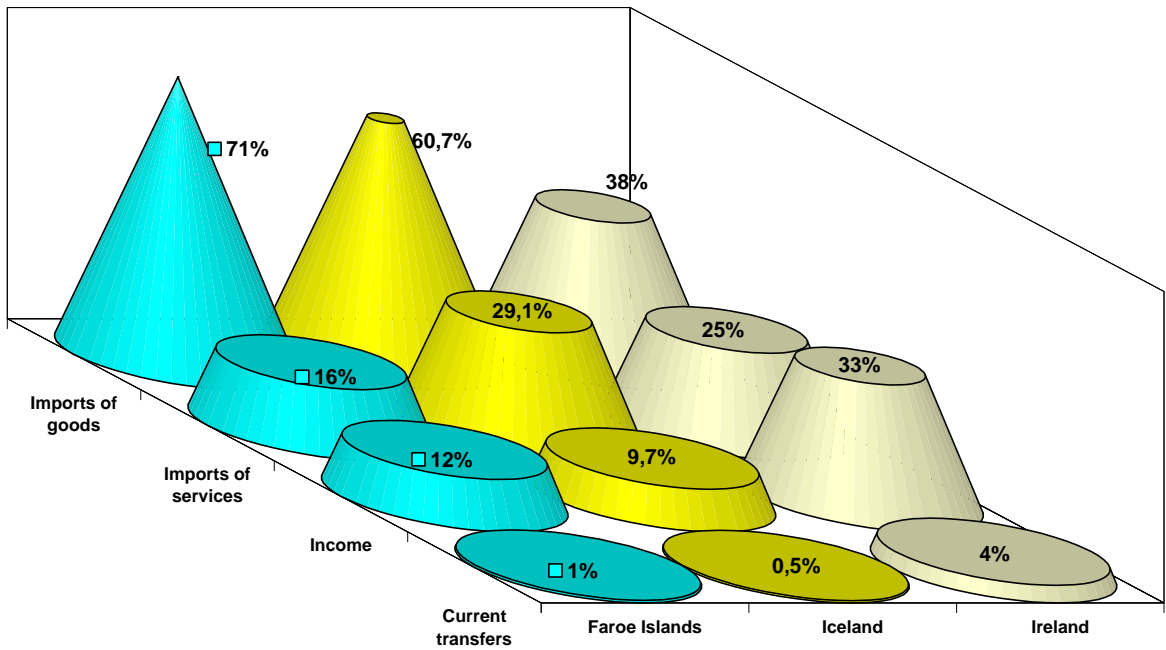


Figure 5. The Faroe Islands' Exports & Imports as % of GDP

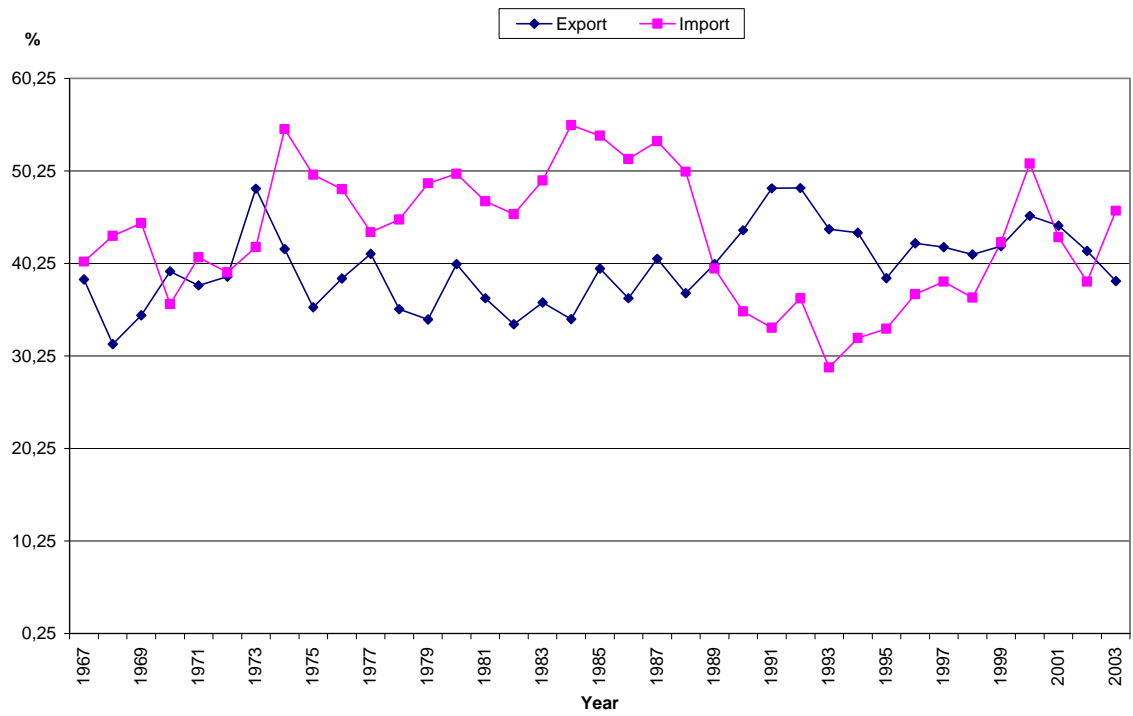


Figure 6. The Iceland's Exports & Imports as % of GDP

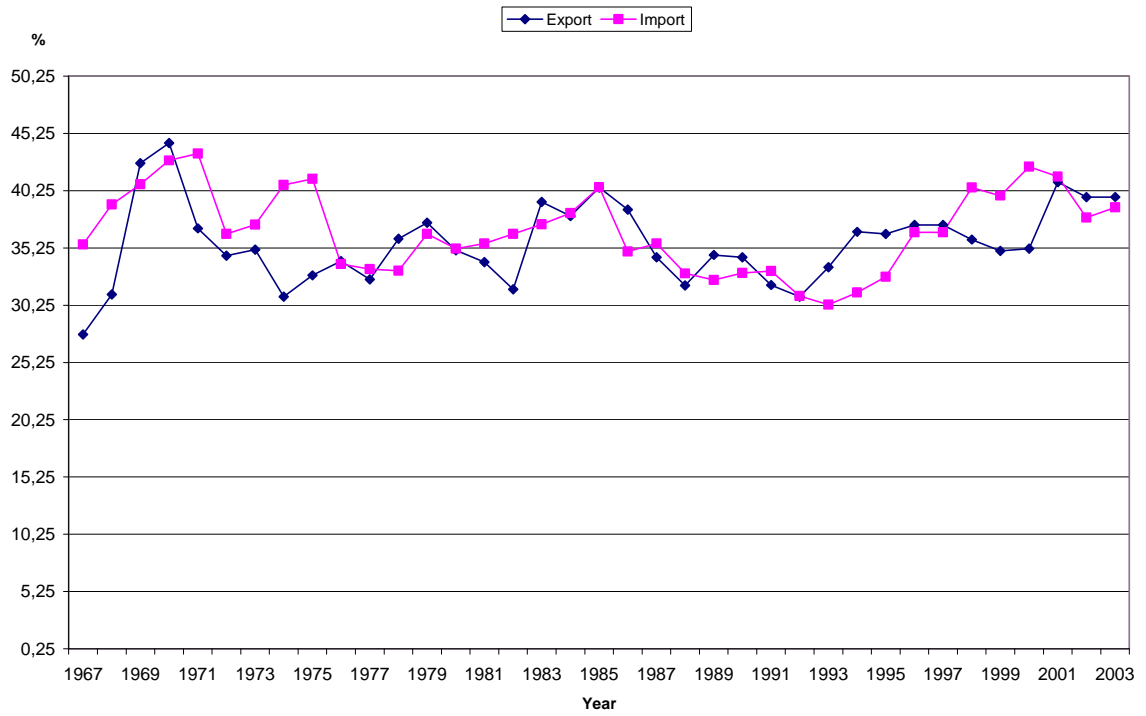


Figure 7. The Faroese vessels' export & import as % total Export and Import

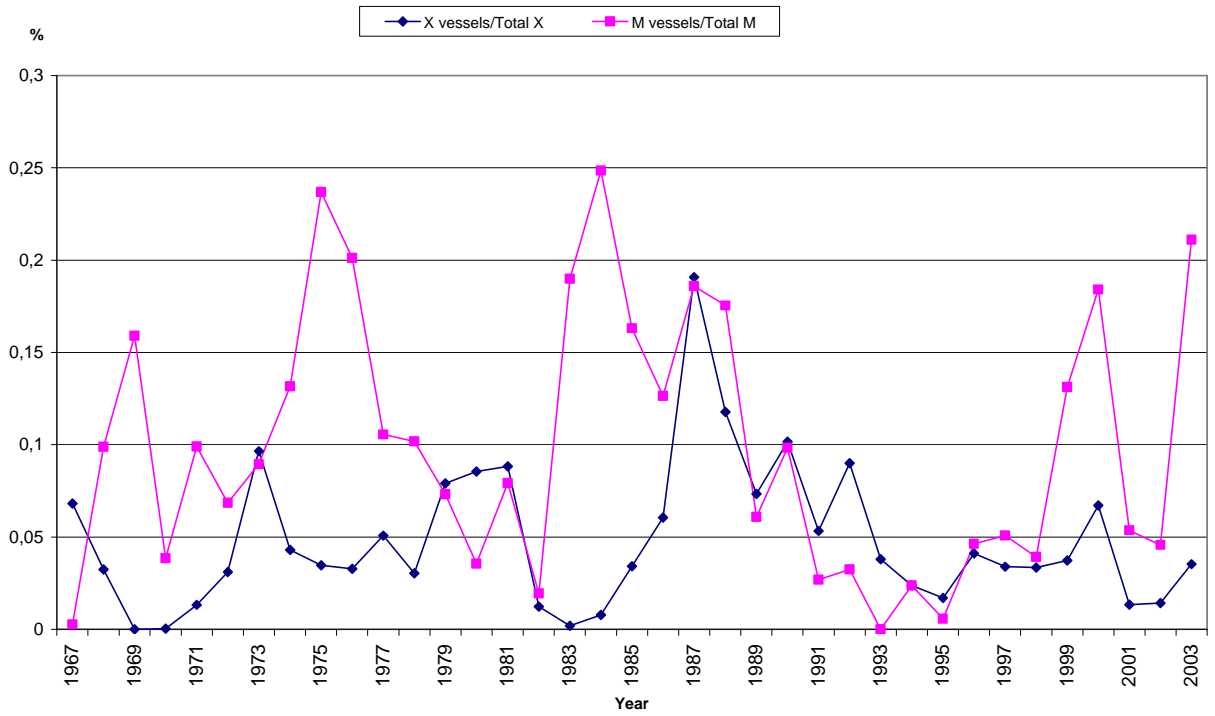


Figure 7a. Faroese Vessels - Net trade & % of GDP

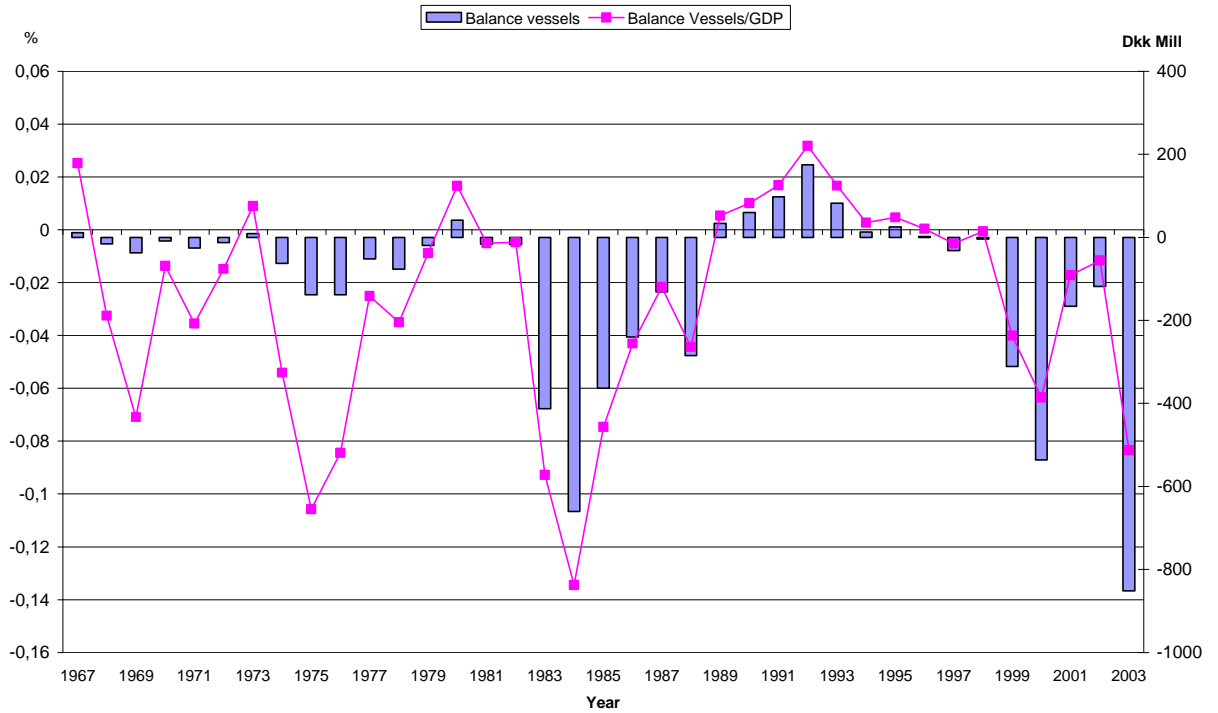


Figure 8. The Faroese Nominal & Real (CPI) GDP

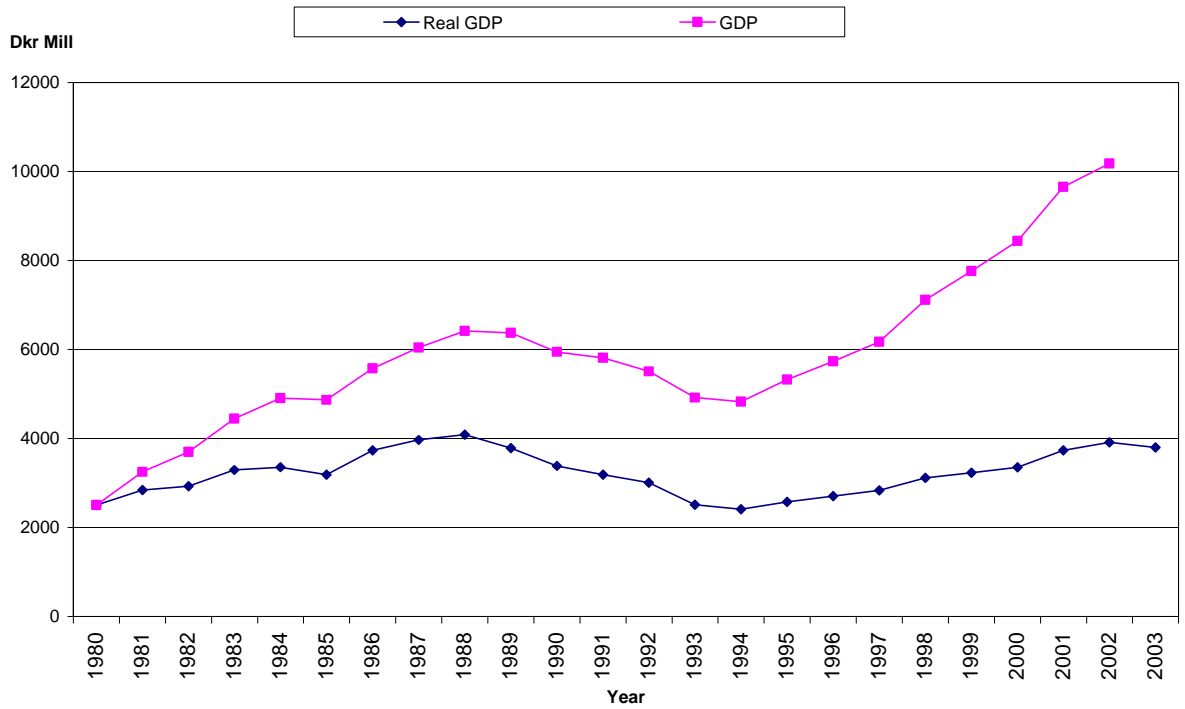


Figure 9. Real LnGDP (CPI)

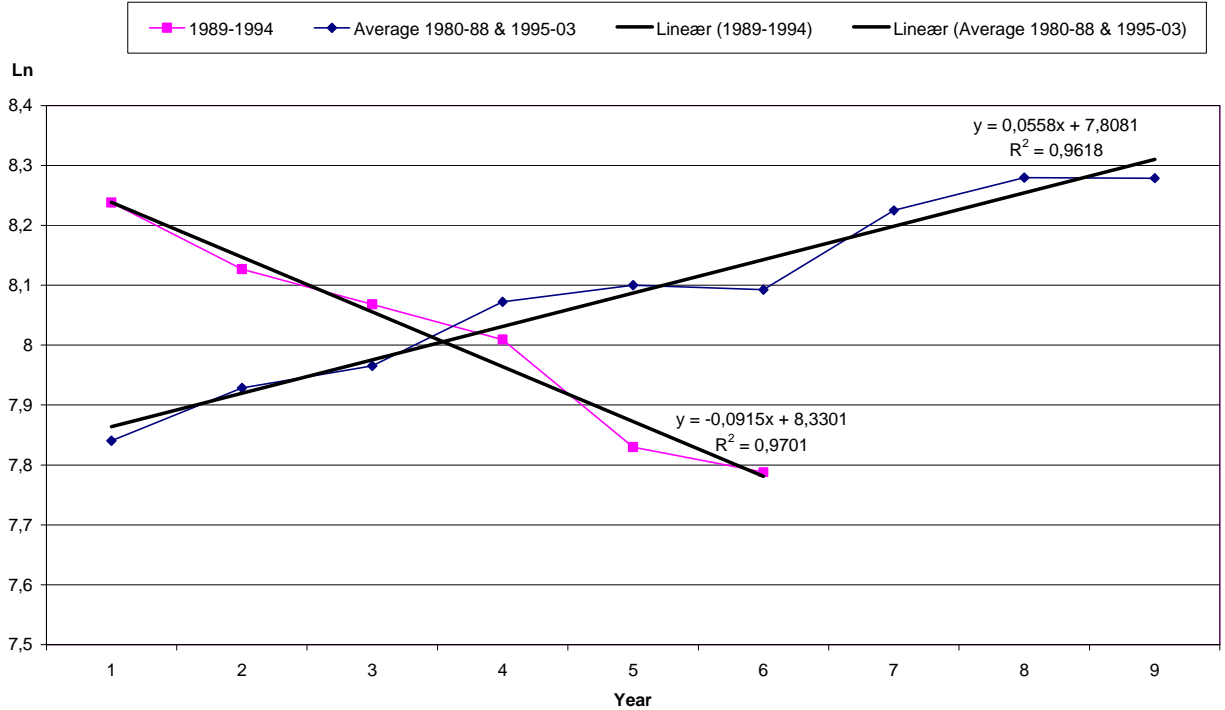


Figure 10. External Trade & Budget Balances 1967-2003

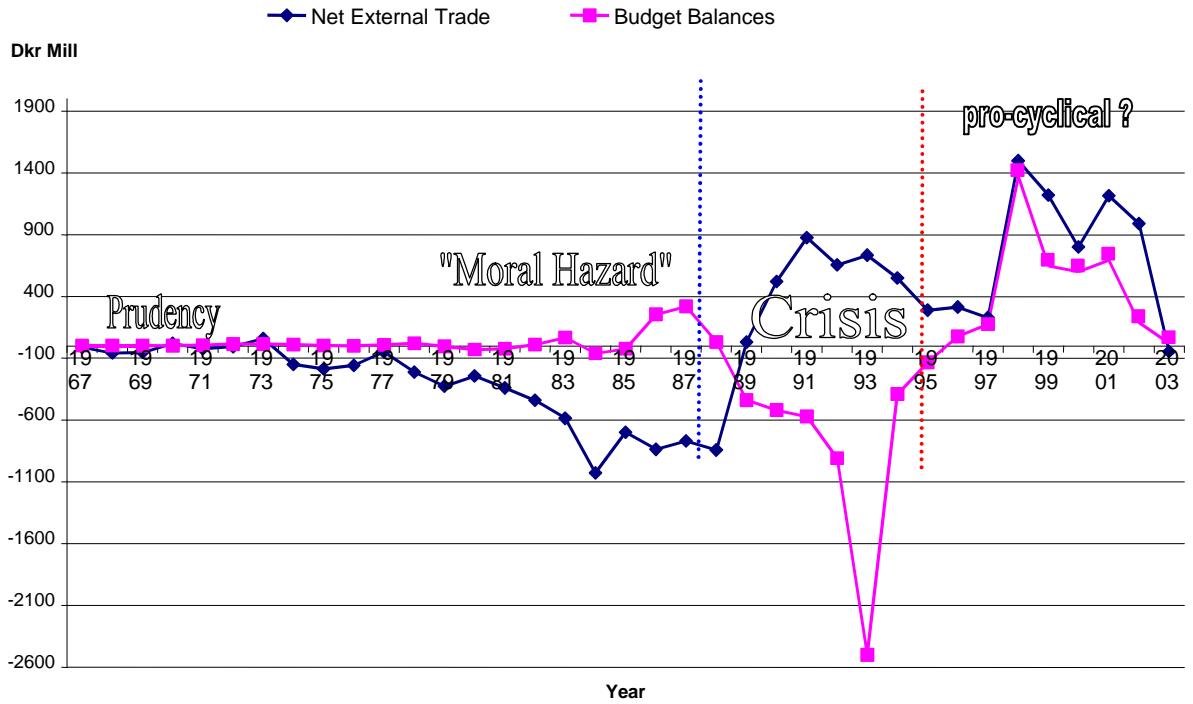


Figure 11. Faroese Net Foreign Debt to GDP - 1980-1998

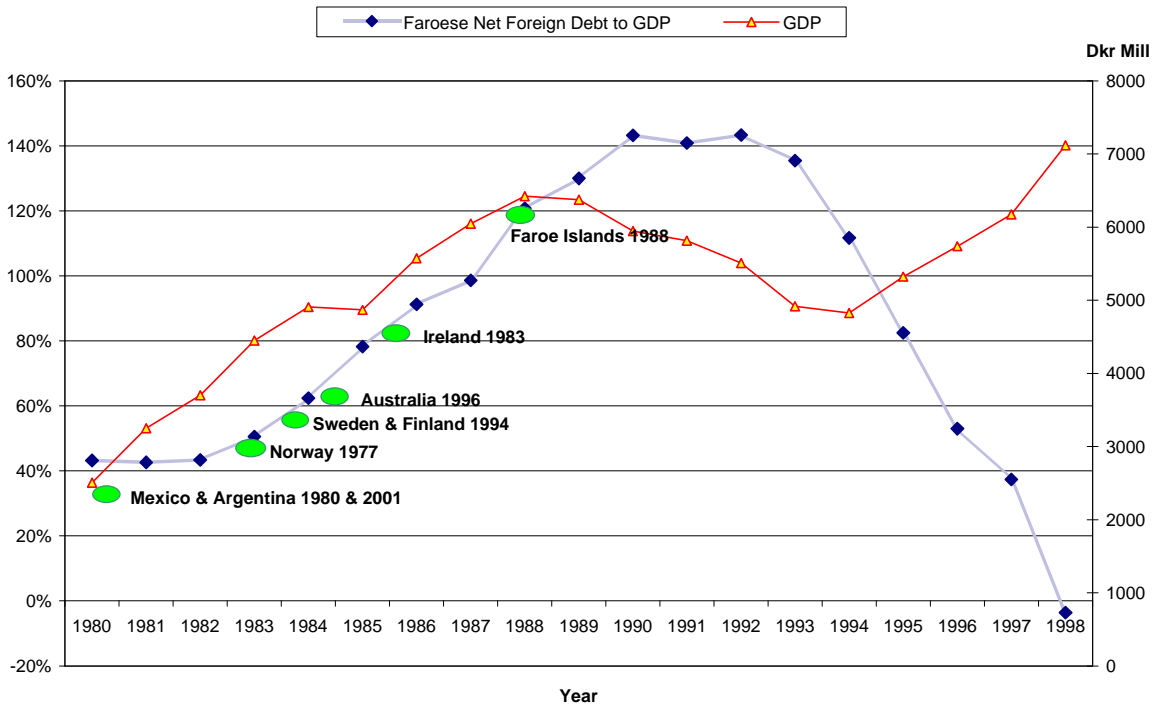


Figure 12. German & French imports of frozen Alaska Pollock fillets (Jan- July 2003-04)

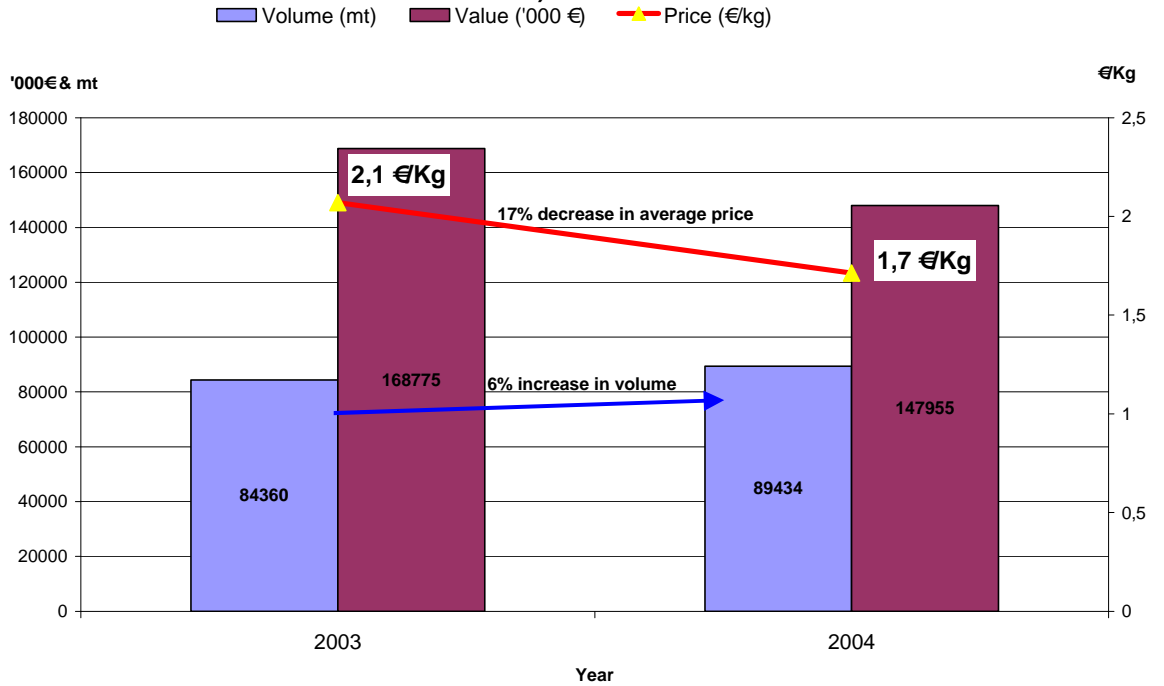
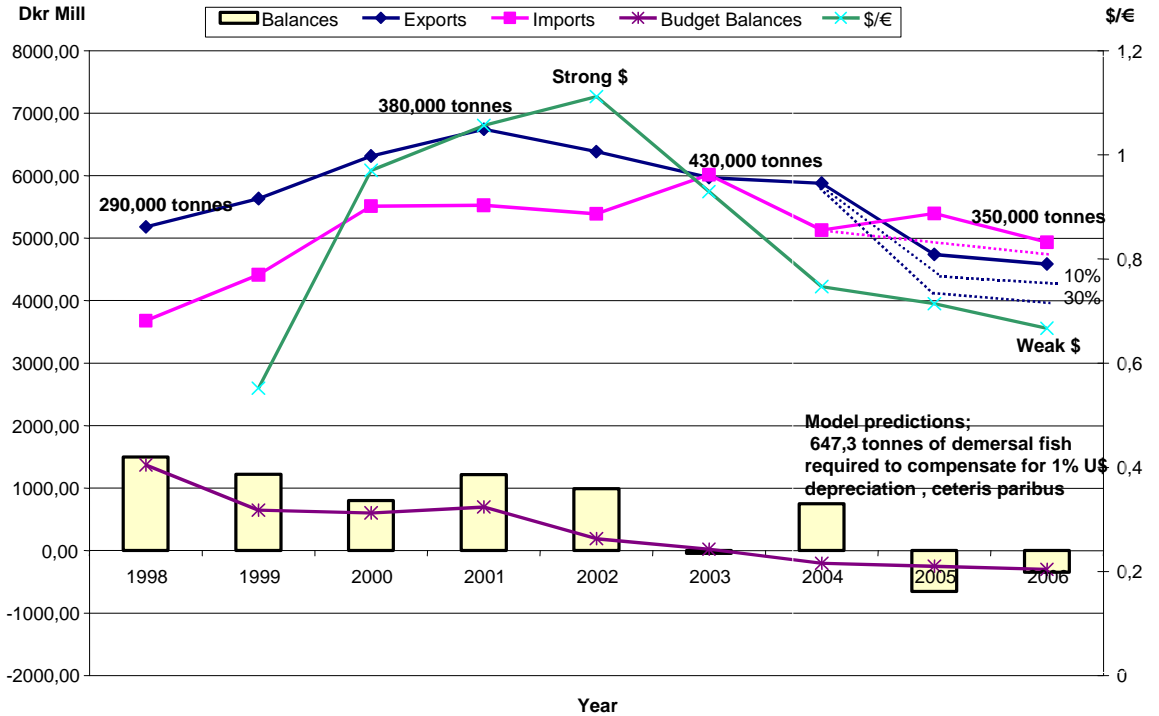


Figure 13. The Faroese Current Account & Budget Balance forecast 2004-2006



The Faroese business cycle as % from Eurozone growth trend

