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## English summaries

### Náttúruauðlindir, hagvöxtur og velferð

*Natural resources, economic growth and welfare*

Ragnar Árnason

Market guidance – the so-called invisible hand – applies only to goods that can be bought and sold in the market. A great number of natural resources that influence personal wellbeing and/or serve as inputs in the production process are not subject to property rights. Hence they cannot be traded and market forces do not steer their utilisation. These natural resources are generally overused, sometimes to the point of exhaustion. The resulting reduction in economic welfare has undoubtedly been very substantial and in certain regions of the world at certain times it has been nothing less than dramatic. It is hardly an exaggeration that the widespread misuse of natural resources is currently one of the world's serious economic problems.

Iceland has not escaped this problem. From the time the country was settled the economy has been based on comparatively direct extraction of natural resources. Many of these resources have either been no one's property (e.g. atmosphere, view, interior mountain ranges, the ocean, game) or been the common property of specified groups (e.g. woodlands, highland pastures, fishing grounds, rivers). The outcome has been serious overuse and a corresponding reduction in living standards as witnessed by the country's soil erosion, diminished fish stocks and polluted air, land and water.

Natural resource economics has developed a box of tools to deal with these problems. This toolbox includes methods to measure the economic value of natural resources which are not traded in the market, methods to find and describe their optimal use over time and, perhaps most crucially, management systems and techniques to implement these optimal paths. These methods are increasingly applied around the world. Given the importance of natural resource use in the Icelandic economy, it appears imperative that these methods be adopted as quickly as possible and assimilated in the running of a coherent, consistent environmental and natural resource policy.

*Keywords:* Natural resources, natural resource use, environmental management, green national accounts, base industries.

*JEL:* Q2, Q20, O4, D6.

## Hagkerfi og hugmyndir í óvissum heimi

### *Economic systems and social models in an uncertain world*

Þráinn Eggertsson

The new institutional economics has evolved rapidly in the last quarter century. Theories that define institutions as a set of rules and emphasise the cost of transacting have produced interesting results. These studies assume either that institutions create incentives for efficient behaviour or that they reflect narrow special interests or even chaotic conditions. In spite of some success, intensive examination has not provided satisfactory answers to many important questions. We know little, for instance, about the effectiveness of laws and regulations: when people obey them and when they do not. Similarly, we lack understanding of how internal dynamics (rather than external shocks) affect the evolution of social systems. The paper briefly summarises recent work in new institutional economics and then discusses the little-understood role of varying social models in an uncertain world.

*Keywords:* Biotechnology, Coase theorem, economic growth, economic reform, economic systems, electronic databases, fisheries management, genetics, individual transferable quotas, knowledge, market for models, new institutional economics, political economy, public ownership, social models, social systems, social technology, transaction costs, uncertainty.

*JEL:* B14, B25, B52, K23, L10, O13, P14, P16, Z13.

## Aldarspegill hagstjórnar

### *Economic policy as a mirror of its time*

Már Guðmundsson

Demand management implies the conscious manipulation of economy-wide demand by the state with macroeconomic goals in mind. In a system of fiat money, price stability is not guaranteed without automatic or discretionary macroeconomic policies that have it as a goal. Furthermore, price and wage stickiness can cause short- to medium-run deviations of actual output from potential. Demand management should therefore aim at securing price stability and at reducing such output deviations. Keynes laid the foundation of modern macroeconomics and thus the theoretical basis for demand management policies. However, he did so against the background of economic developments that had enhanced the role and effectiveness of demand management policies through a higher share of the public sector in GDP and the abolition of the gold standard. The lessons drawn from policy mistakes and the theoretical criticisms of the Keynesian doctrine have resulted in a regenerated theory of demand management that is more robust. The core of Keynes' theory has, however, been preserved. Understanding of the importance and potency of monetary policy has increased. Most economists now accept that inflation is in the final analysis a monetary phenomenon. Looking to the future, it is to be expected that macroeconomics will give more attention to the interaction of different aspects of demand management policies and that of financial regulation and supervision. Demand management might then be considered a part of more comprehensive economic risk management. Furthermore, globalisation will change the potency and the frame of reference of national economic policies.

*Keywords:* History of economic thought, Keynes, economic cycles, monetary policy, macroeconomic policy.

*JEL:* B22; E12; E32; E52; E60.

## Hagkvæmt gjaldmiðlasvæði

### Hversu smátt er of smátt?

*Optimum currency area*

*How small is too small?*

Arnór Sighvatsson

In the coming years Iceland may have to decide whether to adopt another currency as legal tender. The debate in Iceland has until this point mostly revolved around the question of whether to sacrifice the macroeconomic benefits of an independent monetary policy and flexible exchange rate for the microeconomic benefits of belonging to a large currency area. There has been a tendency to define the microeconomic benefits of monetary integration in fairly narrow terms, which has led some to regard them as rather small. At the same time there has been a tendency to take the macroeconomic benefits of an independent monetary policy for granted, disregarding the possibility of exchange rate fluctuations generating volatility of private consumption rather than stabilising it. In this article the author maintains that in this debate the arguments are often based on assumptions that do not fully hold. The conclusions may to a large extent depend on the priors, i.e. whether the burden of proof is laid on the macroeconomic benefits of an independent monetary policy and flexible exchange rate or the microeconomic benefits of a common currency. The conclusion is that the macroeconomic benefits of an independent monetary policy are so doubtful that, rather than focusing on the size of the microeconomic benefits, a more sensible approach would be to focus on the question whether the macroeconomic benefits (if any) are sufficiently great to justify sacrificing the microeconomic benefits of monetary integration.

*Keywords:* Optimum currency area, monetary integration, monetary policy.

*JEL:* E42, F15.

## Lífið utan EMU: Er krónan viðskiptahindrun?

*Out in the cold? Iceland's trade performance outside the EU*

Francis Breedon and Þórarinn G. Pétursson

Although entering a currency union entails both costs and benefits, an increasing body of research is finding that the benefits – in terms of international trade creation – are remarkably large. For example, Rose (2000) suggests that countries can up to triple their trade by joining a currency union. If true, the impact on trade, income and welfare should Iceland join EMU could be enormous. However, by focusing simply on EMU rather than the broad range of currency unions studied by Rose, we find that the trade impact of EMU is smaller – but still statistically significant and economically important. Our findings suggest that Iceland's trade with other EMU countries could increase by about 60% and that the trade-to-GDP ratio could rise by 12 percentage points should Iceland join the EU and EMU. This trade boost could consequently raise GDP per capita by roughly 4%. These effects would be even larger if the three current EMU outs (Denmark, Sweden and the UK) were also to enter EMU.

*Keywords:* Currency unions; international trade; Iceland.

*JEL:* F15, F33.

## Réttlæti og sérhagsmunir

### *Justice and pressure groups*

Friðrik Már Baldursson

This paper briefly summarizes recent research on justice, in particular Konow's (2003) positive theory of justice. This research is then applied to recent events in Iceland: the attempt by Iceland's largest bank to take over a savings bank. Shortly after the deal was announced the Icelandic Parliament quickly and unanimously passed a law which blocked it by creating a hold-up situation for the savings bank board: if it converts the bank to a corporation – as is necessary prior to takeover – an outside board will replace the present board. It is argued that the strong support for the law is puzzling when seen from the perspective of theories of pressure groups, regulatory threat and privatisation. However, the paper claims that this may be explained by positive analysis of justice: the board played an ultimatum game against the general public and made what was perceived as an unfair proposal. The proposal was soundly rejected by the public, as usually happens when unfair offers are made in ultimatum games.

*Keywords:* Positive justice, equity, pressure groups, regulatory threat, ultimatum games.

*JEL:* D78, D63, D72, K10.

## Viðmið vegna árásarverðlagningar

### *Economic criteria for predatory pricing*

Gylfi Magnússon

This article looks at the criteria that are most often used to determine whether a company has engaged in predatory pricing. These are based on static economic analysis. The article evaluates them in a dynamic model. A simple two-period model of duopoly is used. The conclusion is that the criteria that are derived from a static model can not be fruitfully applied in a dynamic setting unless further factors are also taken into account.

*Keywords:* Predatory pricing, anti-trust regulation.

*JEL:* D43, K21, L40, L93.

## Íslenskur sjávarútvegur – auðlindin, renta, hagvöxtur og arðsemi

*Icelandic fisheries – the resource, rent, profitability and economic growth*

Ásgeir Daniélsson

During the previous century the Icelanders used the natural resources in the ocean to develop their economy from a very low level of income per capita to a level which is among the highest in the world. The largest part of exports was fish and macroeconomic fluctuations depended on fluctuations in the fish catch and in the price of fish in international markets. The weight of the fisheries in the Icelandic economy is still quite large but it has diminished greatly in terms of employment, production and exports. The influence of fisheries on the wage rate and the exchange rate has also diminished. The Icelandic economy has benefitted from these changes and they have played an important role in creating the macroeconomic stability of the last 15 years. These changes will also be important for the development of the fisheries as a resource-based industry where proper management of the exploitation generates sustainable excess profit (rent).

The internal structure of Icelandic fisheries has also changed greatly after the introduction of the ITQ system twenty years ago. Even if this system is now well established there are still indications of important disequilibria. The lease price of quotas is high and determined by short-run marginal profit while there are no indications that fisheries management has created significant excess profits (rents) in fisheries. There are indications that markets for quotas do not use available biological and economic information about the future prospects of individual stocks of fish – at least not in the manner assumed in simple fisheries-economics models.

*Keywords:* Economic growth, Icelandic fisheries, profitability, quota prices, resource rent.

*JEL:* D21, D49, D59, O11, Q22.

## Að nota máttinn rétt í hropsins hæðum:

Rafmagn og hagvöxtur á 20. öld

*Energy and economic growth: Iceland in the 20th century*

Sveinn Agnarsson

This article deals briefly with the role played by electricity in economic growth in Iceland in the 20th century. Access to unlimited and stable electricity was an important prerequisite for the development of industry in Iceland and further growth of that sector would have been almost impossible without electricity. The article touches upon two points; the importance of heavy industry – production of aluminium and ferrosilicon – for economic development and the effects that electricity in the home had on labour participation and thus on economic growth. It is pointed out that although the products of heavy industry weigh heavily in Iceland's exports, the contribution of these sectors to gross domestic product is far smaller because of the limited value added and multiplier effects of these branches.

*Keywords:* Electricity, energy, homes, economic growth.

*JEL:* O13, O14, O40.

## Ábati öldrunar á íslenskum vinnumarkaði

*The benefits of ageing for the Icelandic labour market*

Ásgeir Jónsson and Steingrímur Arnar Finnsson

This article employs data on labour earnings from the Icelandic Tax Revenue Service from 1992 to 2003 to investigate the connection between age and wage in Iceland. The age-related wage structure is then used as a proxy of human capital, and the much-changing age structure of the population since 1970 has affected output per capita. The results show that the importance of age for labour earnings has been increasing for the past ten years and that males have a much faster age-related wage ascendancy than females although the difference has been decreasing since 1992. Moreover, the human capital measure shows that the ageing of the Icelandic population has increased the level of GDP per capita by about 16% since 1970. Thereof, about 11% can be attributed to a higher ratio of working-age people to total population and about 5% to factors relating to changes in the age structure within the labour force. These factors have added about 0.4-0.6% to the growth potential of the economy for the past two decades. These are the fruits of a falling birthrate and shrinking dependency ratio, which will turn sour after 2015 when a large generation will reach retirement age.

*Keywords:* Age-related wage differentials, demographic trends, economic growth, human capital formation, labour supply.

*JEL:* J11, J21, J24.

## Markaðsvæðing og markaðsbrestir

*Liberalisation and market failures:*

*A short account of the modernisation of the Icelandic economy*

Gylfi Zoega

Economic liberalisation in the 1960s, in particular the reliance on exchange rate changes in response to external shocks, caused problems in the labour market when unions were tempted to demand large wage increases knowing that full employment was guaranteed by the exchange rate policy. The resulting inflationary pressures persisted until the beginning of the 1990s when unemployment emerged following capital market liberalisation and a massive (20%) increase in real interest rates. The higher cost of capital eliminated many firms and industries that had survived in spite of having sustained continuous operating losses through the years. Wage moderation in the labour market in recent years is due to this development rather than signifying any change of mind on the part of union leaders.

*Keywords:* Exchange rate policies, inflation, unemployment.

*JEL:* E24, E31, E52.

## Valfrjáls lífeyrissparnaður

### *Private supplementary pensions*

Tryggvi Þór Herbertsson

Many countries have reformed their pension systems to be better prepared financially to meet upcoming demographic challenges. During these reforms many countries have moved further toward systems based on funding and private arrangements, such as individual retirement accounts, both mandatory and voluntary. It is a well known fact that people are retiring earlier than before, even before they are entitled to public pensions. The combination of earlier retirement and longer life expectancy results in a much longer span of inactivity than before, which has to be financed. This has prompted people to make private pension arrangements. This paper reviews personal pension products, especially insurance products, and their technical characteristics. Marketing and distribution of pension products is also discussed and regulatory issues addressed.

*Keywords:* Marketing, regulation, private pensions.

*JEL:* H55, J14, J21, J26.