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- an essay on controversy

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The Economic Freedom of Asian Tigers

an essay on controversy

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Abstract: The “Tigers” are a group of 4-5 East Asian countries, which have joined the rich western countries after a period of 30-40 years of “miraculous” growth. Large controversies surround the attempt to explain how they did it. The paper briefly surveys the discussion. The economic freedom index allows an analysis of the main controversy: The role of the state in their rapid growth. After a discussion of the likely biases the data are considered. Three of the 5 countries have a level of regulation much like the West European countries while 2 are as close to laissez-faire as any country in the world. All are much more “market friendly” than the LDC’s they left behind only 40 years ago. It is also concluded that the extent of laissez-faire can be only one aspect of the miracle.

Keywords: East Asian Miracle, economic freedom, regulation, NIC

Jel.: H5, O1, P57

* E-mail: <mpaldam@econ.au.dk> net address <<http://www.martin.paldam.dk>>. Phone: +45-8942-1607. I am grateful to Jakob de Haan and the participants at the conference: Economic Freedom: measurement, impact and explaining differences. 16-17th November, Groningen, The Netherlands. As the subject is controversial, I have made an effort to make everything as transparent and easy to check for the reader as possible.

Failure has no parents, but a queue of hopefuls claim “parentage” to the greatest success in economic development: the *four/five Tigers* of the *Asian Miracle*. This has generated a major controversy between the claimants.

Japan was the first non-Western country that managed to become rich and then four countries – Hong Kong, Singapore, South Korea and Taiwan – joined after three to four decades of very rapid economic growth.¹⁾ Poverty can be eliminated in the world, if the Tiger story can be compressed into a clear *recipe* giving an *economic strategy* for all poor countries to follow. Nobody believes that it can, but many think that a good deal of guidance can be distilled from the Tiger story. However, the range of guidance offered by different distillers is amazing, as already suggested. We concentrate on the more moderate *liberal* versus *revisionist* stands in the dispute.²⁾

The paper shows that the *economic freedom index*, Ω , from the *Fraser Institute* casts considerable light on the issues disputed. If the reader agrees that these data (within limits) are what they claim to be, one of the biggest disputes in economic development is substantially reduced.

The paper first looks at the undisputed facts in Section 1, and then turns to the big controversy between liberals and revisionists in Section 2. The economic freedom index is introduced in Section 3. Section 4 demonstrates that it gives rather clear answers to some of the questions discussed. Finally, Section 5 summarizes the findings.

1. Some undisputed facts

Today the world has three groups of rich countries: One is the old group of the West that consists of about 25 countries.³⁾ The second is the new group of 5 oriental countries: Japan, South Korea, Taiwan, Hong Kong and Singapore. The second group is rapidly increasing. The third is the group of thinly populated – mainly Arab – oil countries.

1.1 The growth numbers

The four Tigers became rich in just 3-4 decades by growing at no less than 8-10% per year, ie $1.1^{30} = 1.08^{37} = 17$. The West grew rich by about 100 years of moderate growth $1.03^{100} = 19$.

The Tigers are surrounded by *mini-Tigers* as Thailand, Malaysia, Indonesia, etc. They are also doing rather well, but still have some way to go. Also, the Orient has countries – as Myanmar and North Korea – which have done poorly. The contrast between North and South Korea and between Thailand and Myanmar is often used as strong evidence of the effects of different economic strategies and political regimes.

Finally, the cases of China and Vietnam are often included in the discussion. Both countries have

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1. The terms are: South Korea, Taiwan, Hong Kong and Singapore are *the 4 Tigers*. When Japan is included we speak of *5 Tigers*. *Orient* covers the Far East including Malaysia and Indonesia. The *Asian miracle* refers to the high growth experience of oriental countries. *Liberal* is used in the European sense.
 2. Ideologically loaded terms are defined relative to the *market/dirigisme-dimension*: Liberals are thus more pro market, while revisionists are more pro dirigiste. Extreme pro market stands are termed *laissez-faire*.
 3. As usual the *West* consists of Western Europe, USA, Canada, Australia and New Zealand.

pursued very different economic strategies: first a *Stalinist/Maoist* model and then a *liberal* model. It is undisputed that the liberal model, which was first introduced in China after 1978 and then by Vietnam, has been successful till now. The economic record under the old system is still controversial.⁴⁾ It is difficult to assess as it changed over time and developed during periods of monumental political events. Finally, it is obvious that the rapid economic growth of China and Vietnam took place on the foundations laid under the old system. Even then it has often been argued that the successful economic development of Hong Kong is now being replicated in a really grand way in Shanghai, Guangzhou (Canton), and other Chinese growth centers.

1.2 *Classifying the 5 countries*

The following will concentrate on the five Tigers (including Japan). Table 1 gives some information about these countries. Their total population is almost as large as the one of the 6 founding members of the EU. All 5 countries have a high population density, and it should be added that none of them are rich in mineral resources.

Table 1. Some data for the 5 Tigers

	Official data			NGO indices	
	Population mio 2000	Per sq km	gdp index (PPP)	Economic Freedom	Corruption (honesty)
Japan	126'400	335	115	7.91	6.4
South Korea	47'300	477	65	7.13	4.0
Taiwan	22'300	620	90	7.32	5.5
Hong Kong	7'000	6'383	102	9.38	7.7
Singapore	3'600	5'509	124	9.28	9.1

Note: GDP per capita is termed *gdp*. In the table gdp is in % of the EMU countries for 1998. Data from World Bank (2000) and IDB (home page). The two NGO indices are the economic freedom index discussed below, and the (anti) corruption index from Transparency International. Both indices go from 0 (the worst) to 10 (the best). The values are for 1999 and 2000 respectively. The correlations among the 3 rightmost columns are all high: The most economically free Tigers are also richest and most honest. The places of Singapore and Japan are the reverse in most PPP comparisons.

A few historical facts are listed in Table A1 (Appendix) to refresh the memory of the reader. The table already suggests that tigers are of two kinds:

The two *city states* of Hong Kong and Singapore both had a long history as British colonies. They reckoned that their only chance was to become trade centers, and they did obtain trade flows in excess of their GDP. For them it was (still is) of key importance that nothing could hamper trade. There are hence good reasons why they have followed very liberal policies as we shall see.

The *Japanese-style Tigers* are Japan and its two former colonies Taiwan and Korea, who have both

4. The official record of China and Vietnam before the reforms was not much inferior to the one after the system change, but GDP calculations in communist countries are often misleading, and it is hard to imagine that the regimes of either country would have changed to a (much more) liberal system without good reasons.

successfully adopted many Japanese institutions.⁵⁾ They were liberated from Japan by the USA and a major land reform was made after the flight of the Japanese landlords. Both got heavily involved in the *Cold War* on the US side. In the Korean case it became a large scale real war.⁶⁾ Taiwan escaped war, but barely so.

1.3 Three interesting facts: income distribution, public sector share and savings rates

The two largest of the four Tigers – South Korea and Taiwan – have had relatively equal income distributions from the start of their growth period. The Gini-coefficients reported were in the range of 0.30 - 0.34 (much like the USA), while many LDC's in Africa and Latin America had Gini-coefficients around 0.5. The Gini's deteriorated a little the first few years after the start of the high growth period in both countries, but it soon returned to its previous level, and till this day both countries have remained fairly equal, with almost unchanged Gini's.

The reason for the low Gini's at the outset of the super-growth is the large land reforms. However, during the growth the share of agriculture decreased the same as everywhere, and it is interesting that the Gini's could remain so low. Normally, economic development in densely populated (labor surplus) economies would be associated with rising unemployment in the towns as described by the Harris-Todaro mechanism.⁷⁾ This creates large earning gaps in the economy, and hence a deterioration in the income distribution. In the case at hand this did not happen due to the rapid growth of employment in the modern sector.

The Gini's of Hong Kong and Singapore were closer to the average, but as the countries grew rich their distribution has improved (as usual), and now they are close to the other Tigers.

The low Gini's and rapid growth of the Tigers proves that high growth is not prevented by a (fairly) equal income distribution. It is even used as the main observations in studies showing that an equal income distribution increases the growth rate.⁸⁾

Another important point is that all 5 rich oriental countries have relatively small public sectors compared to the West. While the shares are in the range of 40-50% in the West, they are below 30% in the Orient. In the case of Hong Kong the public sector is only around 9% of GDP.⁹⁾ The main difference is that transfer payments are small in the Orient.

Finally, it is uncontroversial that the five countries have unusually high savings rates. It is arguable

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5. Neither of the countries look back on their colonial days with much pleasure. So their use of Japanese institutions is not out of sympathy, but they have learned that here is a set of efficient institutions to adopt.
 6. South Korea followed a normal ISI-policy (see 2.1) before the military took over and made a dramatic policy change in 1961/62, precisely at the start of the high growth. Most observers therefore ascribe the start of the high growth to the policy change, though some argue that the foundation was laid by the previous policies, and by the US reconstruction aid after the war. It is more difficult to identify a clear upward kink in the other 3 cases.
 7. It describes a situation where an increase in the chance of obtaining a modern sector job in the towns make the hidden unemployment in the countryside turn up as open unemployment in the towns.
 8. The finding of a negative correlation – first by Persson & Tabellini (1992) and Alesina & Rodrik (1992) – between the Gini and the growth rate has been widely reported. And, it is surely a finding with nice policy implications. It is largely due to the Tigers.
 9. This share is similar to the share in most countries of the West in the century between the Napoleonic War and World War I, where they grew rich. Perhaps the share will rise in the Tiger countries as well.

both that the savings rates are high because of the high growth rates, and that the growth rates are high because of the high savings rates. The savings rates are almost twice as high as in other rich countries, and the savings rates were high even at the start of the growth period.

2. The discussion: from outcasts to stars and the controversy

The relative status of the Tigers changed dramatically upward from the 1960s till 1990, while the “recipe fight” started about 1990. Let us first look at the history.

2.1 *Before the controversy: from outcasts to Tigers*

In 1955 most development experts considered the 4 future Tigers as basket cases. They were as poor as the African countries and hopelessly overpopulated. South Korea was ravaged by a bloody and destructive war. Hong Kong was (is) an overcrowded rock, and Singapore was not much better. Taiwan had just had its population increased by a defeated army headed by a group of corrupt nationalist generals. In addition, South Korea and Taiwan were constantly threatened by invasion from communist neighbors. They included the world’s most populated country China, which was armed by the Soviet Union. Finally, the future Tigers suffered from having an *anti-developmental culture*, in the view of experts in culture and development (notably the Dutch school of J.H. Boeke).¹⁰⁾

The 4 basket cases were outcasts from the club of good LDC’s. In the 1960s and 1970s the leading group of LDC’s was the group of *non-aligned nations*. They were strongly anti-imperialist and leaning toward socialism. Clearly, three of the Tigers were not acceptable in the club: South Korea and Taiwan were aligned with the USA, against socialist enemies, and South Korea had US bases. Hong Kong was a British colony. Singapore was easy to describe as a western trading post that (successfully) tried to become the oriental home for as many multinational corporations as possible.

The non-aligned nations (as a group) pursued a family of policies known as *ISI-policies* or *Third World Socialism*. That is, *African and Arab Socialism* and *Latin American Structuralism*. The policies considered state control and economic planning, public investment and protection from the volatility of the world market as the key to economic development. Self-sufficiency was recognized as an important goal, and foreign trade was therefore an ideal tax object. A key idea was to find policies that *combined* the best from the Western (Capitalist) and the Eastern (Communist) economic systems. In practice that often led to policies that were a compromise between the two systems.

It is easy to explain how these policies emerged in the post colonial world during the *cold war*. The *ISI-socialist* policies dominated in the LDC’s, and they did appear successful in the 1960s. However, these policies had poor dynamic properties, and ran into trouble in the 1970s. The troubles were a main reason for the borrowing that caused the debt crisis of 1982, which generated a decade of low growth. The ISI-policies have been gradually reduced during the 1980s and 1990s as shown in Section 4.

10. Boeke wrote in the 1920s to 1940s on the relation between development and oriental (especially Indonesian) cultures. He claimed that labor supply functions were backward bending, and that the cultures were excessively authoritarian and hence technologically and organizationally conservative. It would all prevent an economic development of the Orient. The discussion is surveyed in Meier (1964; pp 48-68).

When the initial endowments are considered and the political isolation is added, it is understandable that the four Tigers should try something else than the ISI-strategy. Nearly all observers agree that the policy they chose was *different* from the ISI-policy, and that their policies were *export led*. The main exception to the agreement is Rodrik (1995, 1997), who argues that the policies of the Tigers are within the range of policies chosen by other LDC's. What is different, is *the skill* with which the policies were pursued. So essentially governments and bureaucrats of the Tigers were smarter.

2.2 *Success discovered*

When the growth data are considered in the clear light of hindsight, it should have been obvious that something noteworthy was happening in the Tiger-countries as early as 1970, but this was the heyday of the new left in the rich countries and the ISI-socialist policies in the poor countries.

The first western economists who discovered the miracle were trade oriented development researchers as Anne O. Krueger, Bela Balassa and Jagdish N. Bhagwati. They suggested that the export led growth strategy of the Tigers and a few other countries worked better than the ISI-strategy. This led to a major NBER research project "Foreign Trade Regimes and Economic Development", resulting in a dozen books, with detailed country comparisons. The study was directed by Krueger and Bhagwati and ran from the early till the late 1970s (the Korea volume is Frank, Kim & Westphal, 1975, see also Krueger, 1978). From there the knowledge gradually spread.

Seen from a small semi-neutral NW-European country the knowledge was slow in penetrating.¹¹⁾ As late as 1980 the general impression was that things were going better in North than in South Korea, even in politically moderate circles.¹²⁾ Also, politicians could morally defend to travel to North Korea and China, but not to South Korea and Taiwan – even then knowledge gradually spread.

In the mid 1980s the World Bank began to advocate more *market friendly* policies based on the experience of the Tigers, and other evidence in the NBER study. Also, Anne O. Krueger became Chief Economist of the Bank in the mid 1980s. The Bank and the Fund developed *Structural Adjustment Programs*, to move countries from the (failed) ISI-socialist over-regulated and over-protected situation and closer to the market. This policy was not successful in all cases, but future economic historians will probably agree that it was an improvement in most cases, and often a success.¹³⁾

It is important that the SA-policies and the recommendations of looking at the Tigers for role models did come both from mainstream development experts and from more radical liberals as well (see eg Lal, 1994). They agreed upon the following points:

- (L1) Many LDC's had moved too far away from the market.
- (L2) The Tigers were closer to the market than most LDC's. This was one reason for their success.

11. The small NW European countries have been strong advocates of free trade and property rights as their *own* policies. But somehow a strong support was built up for the view that everything was different in the LDC's. Here they supported policies, they never undertook themselves.

12. Perhaps the best example is to compare the articles on the two Korea's in the encyclopaedia "Gyldendals Leksikon" published just before 1980, from the largest Danish publishing house. It was clearly meant to convey politically neutral information. There are no signs that things are going better in the South.

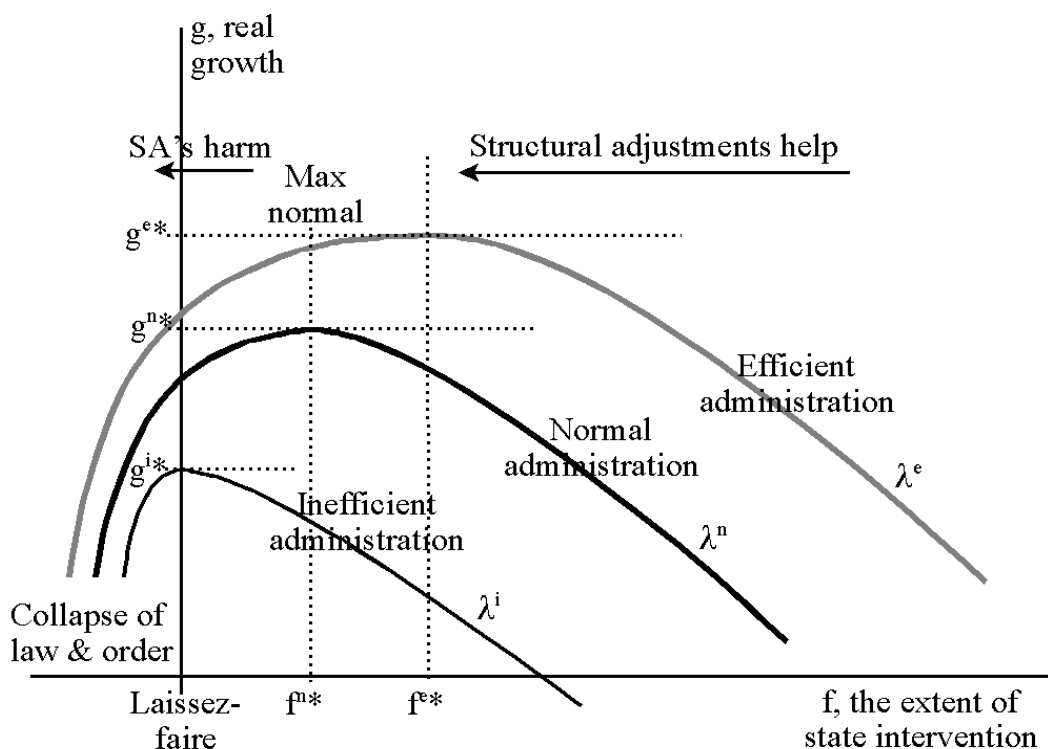
13. The author has surveyed the *structural adjustment* literature in Paldam (2000). Unfortunately, in Danish only.

The reader can easily see that these points can be developed into much more radical advice. Some did make such advice, but most only recommended a step toward more liberal policies.¹⁴⁾

2.3 Growth as a function of the amount of public intervention – some economic theory

Growth, g , is likely to be a function, \mathcal{G} , of the amount of economic intervention, f , and the efficiency of the administration (shown by superscripts) as shown on Figure 1. Laissez-faire, $f = 0$, is the situation where the state provides law and order and nothing else. For $f < 0$ there is not even law and order. For a given efficiency there is an optimal level of economic intervention counteracting market faults. However, there are government faults as well as market faults. Economic theory predicts that the curve connection economic growth and the amount of intervention is hump shaped as drawn in Figure 1. To the left of the hump there is too little intervention and to the right there is too much.

Figure 1. The relation, \mathcal{G} , between intervention and economic growth in economic theory



Note: The horizontal and vertical axes depict the extent of state interventions in the mixture chosen by the government, and the long run growth rate produced by these policies, respectively.

The more efficient the government, the more successful interventions can it make, so the larger is the f^* -point of optimal interventions. Also, the larger is the growth gain. The efficiency of governments also applies to their ability to provide law and order. We have included a government that is so inefficient that it is unable to improve upon laissez-faire. The figure illustrates the view of Rodrik, where the claim is that

14. The British historian, who most carefully chronicled the spectacular failure of the first big experiment in African Socialism (Nkrumah's Ghana), ended with a passionate plea for "business", see Jones (1976, p 145).

the f-value of, eg Turkey and South Korea is the same,¹⁵⁾ but with different efficiency another outcome occurs. It is hard to measure the efficiency of administrations, but as listed in Table 1 several of the Tigers (notably South Korea) have a level of corruption that place them in the middle of the distribution.

Everybody ought to agree that the curves are shaped roughly like drawn. However, it is also clear that they are difficult to estimate. Many have hunches about the way these curves look, and these feelings have a strong ideological factor. People at the *left* believe that the hump is high and that f^* is large even for fairly inefficient governments. People at the *right* have the reverse beliefs.

The f^* -point of optimal intervention is a maximum, so the δ -curve is flat around f^* . It does not matter if the government finds the exact location of f^* , as long as it is in the vicinity. Only if f is far from f^* – or if law and order collapses – the level of regulation becomes a serious issue.

The economic freedom index is a tool allowing estimates of the δ -relation, by providing a series, π . - f , for the amount of regulation. The claim of Lawson, Gwartney & Block (1996) is that the δ -curve has a negative slope for the observable range (see 3.5).¹⁶⁾ Other writers (eg Haan & Sturm, 1999) have shown that the relation lacks robustness.

2.4 *The revisionists and the controversy*

In the late 1980s a group of scholars known broadly as the revisionists started to tell Tiger stories that differ from the ones of the liberals: Chalmers Johnson (1982, 1995 on Japan), Alice Amsten (1989, on South Korea), Robert Wade (1990, on Taiwan) – see also Stephen Haggard (1990). Around 1992 the controversy was in full bloom.¹⁷⁾ The key points of the revisionists are:

- (R1) Three of the Tigers – Japan, Taiwan and (especially) South Korea – are far from laissez-faire.
- (R2) Even if they have relatively small states, they have intervened considerably in the economy.

This is sometimes expressed as the ideal of a *small but strong state*, as endorsed by World Bank (1997). The revisionist points (R1) and (R2) can be true at the same time as both liberal points (L1) and (L2). It is crucial what is used for the comparison, and there is a large gap between laissez-faire and the policy of, say, India or Tanzania. There is ample space for plenty of Tigers in the gap. It is hard to imagine that the best policies are outside that gap.

The controversy becomes more heated when the revisionists go further and claim that the success of the Tigers is due to the intervention policies of the governments, and then turn to the LDC's and say: You can learn to intervene more, and more selectively from the Tigers.¹⁸⁾ Also, the controversies have branched out. Table 2 lists some of the most debated items. They are issues, which are well suited for

- 15. In the data considered below the difference between the two countries is large especially before 1985.
- 16. However, Gwartney, Lawson & Holcombe (1998, 1999) show that f^* may be a public sector of about 15%. Other estimation attempts have been made, but my assessment is that no satisfactory estimate of the δ -curve exists.
- 17. The revisionists are a motley group, and so are the liberals. Singh (1997) gives a nice summary of the discussion seen from the revisionist point of view, while Krueger (1995) is one of the best surveys seen from the liberal side.
- 18. Also, of course it gives spice to the discussion when Wade (1994) claims that what the story of the Tigers really shows, is that the Mercantilists were right, and that Adam Smith gave economics a wrong turn. Another such controversial statement is Amsden's claim the Korean planners systematically got "prices wrong" to steer the economy – critics like Page (1995) terms this "mysticism".

prolonged controversy, as data are hard to find, so the debaters have to apply judgement.

The selectivity debate hinges on the definition of selectivity: A key example is the strong early push to generate export in Korea in the 1960s. A main instrument was a restriction where banks were forbidden to issue loans to firms that did not export. This caused some firms to get loans and others not to, so some call it selective. Others argue that this was a broad intervention, as the rule was general.

The fraction of public relative to private investments has been low in the Tiger economies compared with other LDC's, but there were (still is) state investment banks in two of the Tiger economies, and also other SOE's.¹⁹⁾ A proper test would be to study whether an unrepresentatively large fraction of the successful firms were started by the public sector in either of the three countries. It seems that they were not, but this is hard to establish.

Table 2. Controversial points in the Tiger debates

Name	Content	Liberals	Revisionists
Selectivity	Of what type was most state interventions in Tigers?	Broad	Selective
Role of public investment, industrial policy	Was state support essential for starting the more successful industries in the Tiger countries? (A) State investment banks, (B) the HCI-drive ^{a)} in Korea	Unimportant, less than other LDC's	Important, states picked winners
Role of trade restrictions	How regulated was import?	Less than in most LDC's	Much and important
Role of MITI	How important was the State Planning Boards: MITI, and similar organs in South Korea and Taiwan?	Only for sound macro policies	Crucial and strong steering

Note a. HCI means heavy and chemical industry. The HCI-drive was the policy pursued to acquire these industries.

The story of the HCI-drive is that Korea made a big effort to build a military-industrial complex after the defeat of its main ally USA in Vietnam. The costs were difficult to absorb and led to a debt crisis – when countries are threatened they do desperate things. The Korean debt crisis was solved after a few years, and most of the HCI-industries are still running.

The trade restriction story is once again complex, and measurement is hard to come by, even when the Japanese discussion has been going on for almost 50 years. However, it is clear that the countries have exported a lot and imported much as well. They do have higher trade shares than most LDC's have even early in their development.

The story of MITI²⁰⁾ and its sister planning institutions is the most difficult of all to resolve: The three countries have planning of the French *indicative* type, where business and government meet and

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19. See World Bank (1995). The tables cover 40 countries from 1978 to 1991, including South Korea and Hong Kong. The SOE's (State Owned Enterprises) have 7-10% of the production in the two countries. This is 50% less than in low income countries, but typical for middle income countries. However, the SOE's have only 2-3% of total employment. In the average LDC, the SOE's fraction of employment is larger than the fraction of production.
 20. MITI is a ministry of foreign trade and industry. The State Planning Board in Korea is similarly organized, while the Taiwanese organ is the Industrial Development Bureau under the prime minister. The organization of planning in all 3 countries is complex and has changed over the years. Johnson (1982) provides a detailed history of MITI. It employs some of the most brilliant young graduates from the best Japanese Universities, and they retire early to great jobs in the private sector. It is interesting to contemplate how this should be interpreted.

discuss – and no doubt some arms are twisted. After the meetings they report that big agreements have been reached. It has proved difficult to determine who controlled whom, and if it matters. For the reader it is hard to see how writers as Ho (1987) and Wade (1990) can describe planning in the same country (Taiwan) at the same time. One describes a few IMF economists, who return to help steer the macro economy given a strong belief in *laissez-faire*. The other describes a group of powerful engineers, who steers the industrial structure.

After the controversies got well under way, the Japanese government gave the World Bank a donation to make a special study. The result was the “Miracle Book” (World Bank, 1993). It is a typical compromise study, but it did conclude that a main reason why the Tigers and other growth economies in the Orient succeeded was that they followed market friendly policies. Later the revisionists have replied (see, eg Fishlow et al, 1994), and the leader of the Bank team answered (Page, 1994). The discussion continues till this day, see eg Part III in Emmerij (1997) and Adelman (2001).

Nobody has disputed that Hong Kong has followed policies that are as close to *laissez-faire* as any country in the world, and that Singapore is close, see eg Findlay & Wellisz (1993) and Lui (1997).

2.5 Turning the discussion into resolvable issues: The underlying Big Question

At the bottom of the Tiger controversies is the *Big Question*:²¹⁾ How big should the role of the state be in economic development? The corresponding Tiger-question is: How important has the state been in these countries for their monumental success?

It is a question with strong ideological overtones, and it is not an easy one to address.²²⁾ On the general level the liberals argue that the state has played a smaller role than in other LDC's, while the revisionists claim that the state has played a key role in the three Japanese-style Tigers. The two city states are unusually close to *laissez-faire*.

The Tiger discussions are mainly qualitative and historical. If the policies of any country are searched over half a century anyone can find policies to like, and then one can say that these policies are the key. Hence, one must apply *aggregate judgement* based on some *standard*, and a key question is: What is compared to what? It is crucial to find *quantitative macro measures that allow comparisons* with other countries. We would ideally want a measure of the extent of state intervention, f , to answer the three questions listed in Table 3.

Table 3. Three questions to pose to a measure, f , of the extent of state intervention

Q1	Were the f 's of the Tigers small relative to other LDC's, at the take off (around 1960) and later?
Q2	How do the f 's of the Tigers look relative to the Western countries?
Q2	Can the success of the Tigers be explained by unusual values of f 's?

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21. Whether it makes sense to imagine that a general answer can be given to such a question will not be discussed.
22. Another attempt to answer the “big question” is by considering the sign to the share of the public sector in cross-country growth regressions: Barro (1997) shows that the sign is negative, though it is positive to certain public expenditures – notably to education and health. This has caused a large discussion, where it has appeared that the negativity of the coefficient lacks robustness, even when it is negative in most specifications of the model.

Even if we had the true f and answers to the three questions this would not solve all Tiger controversies, but they would be greatly reduced. The rest of the paper argues that we actually have data, $n \cdot f$, for enough countries and for most of the period we want. These data provide answers to the questions.

3. The economic freedom index, n

The economic freedom index is a major data collection project housed by the *Fraser Institute*. The data are posted on the web site of the Institute <<http://www.fraserinstitute.ca>>. It is the brainchild of a *group of well-known academic economists*, and the data have been collected by an (increasing) net of about 50 *think tanks*. The first major publication of the project is Lawson, Gwartney & Block (1996). It lists the academic group, describes the compilation method and presents data and empirical results.

3.1 *The nature of the index: the distance from laissez-faire*

The concept of *economic freedom* used is the one the economic profession associates with the Chicago School. The index measures the extent to which *private business dominates production, is legally protected and allowed to pursue its own goals without public interference*.

Most members of the academic group behind the index would probably refer to themselves as belonging to the *Chicago School*. Several are among the leaders and founders of the school – notably Milton Friedman, who took a leading role in the development of the index and wrote the Foreword to Lawson, Gwartney & Block (1996). Others on the list are less easy to classify.²³⁾ In the same way the net of think tanks (all NGO's) has a declared free market orientation.²⁴⁾

The index attempts to measure a set of variables characterizing the extent of regulation systematically for many countries every 5th year since 1970.²⁵⁾ The data are aggregated to the economic freedom score of each country on a scale from 0 to 10, where 10 is the *laissez-faire* ideal. Low values occur in countries, who “sin” against the ideal, by disregard for property rights, heavy and arbitrary regulation, high taxes and regulations of foreign trade. Inflation is taken to be a particularly arbitrary tax.

The index is carefully thought out and well documented. All is done on a scale limited by available funds. It is easy to control the calculations made for any country the reader may happen to know, and as far as I can see most results seem reasonable.²⁶⁾ The important advantage of the method is that once the calculation process is set on trails it produces data that are worth considering. Even readers who belong to other schools of thought – and use other definitions of economic freedom – should agree that it is valuable that such an index has been constructed.

In a sense one could see the effort as one where a particular “church” sends out a group of its most

23. Two more Nobel Price winners were members of the group: Garry Becker and Douglas North. Many of the others are also well-known. It is surely an academically brilliant group.

24. Links to home pages of all organizations are given from <<http://www.fraserinstitute.ca>>.

25. The number of countries covered have increased from 57 in 1970 to 123 in 1999, see Table 5.

26. The most doubtful value, I have found, is the one for Uruguay, which is unreasonably high. I have participated in a project comparing Latin American and Scandinavian countries (see Blomström & Meller, 1991). There are also a few misprints such as the value for Bulgaria in 1985.

devoted members on a worldwide search for virtue and sin. It is preferable that the searchers for sin are zealots, as they are likely to search particularly hard. However, zealots may confuse ends and means as will be discussed in Section 3.4.

3.2 *Robustness of measurement*

Formally, we can write the index as:

$\mathfrak{n} = \mathfrak{n}(i, E)$, where i is the country and E is the effort made

We would like the index to be robust in the following sense: Imagine that N groups set out independently to measure economic freedom and reached the measures: $\mathfrak{n}_j(i, E_j)$, where $j = 1, \dots, N$. Economic freedom is a robust concept if the correlations between the indices $\mathfrak{n}_1, \dots, \mathfrak{n}_j, \dots, \mathfrak{n}_N$ are high.

The measurement error $\sigma(i, E)$ is the expected standard deviation of $\mathfrak{n}_j(i, E)$. It can be estimated if a sample of \mathfrak{n} 's are considered. And it can be assessed subjectively by those actually participating in the compilation process, ie who has tried to fill in the data forms used.

Only a couple of competing freedom indexes have been compiled. They are highly correlated. Also, most – but not all – of the components of the \mathfrak{n} -index are highly correlated. If a country is free market oriented in one field, it also tends to be in other fields. Thus, the measure has some robustness. I have talked to people, who have collected the data for a country, and it seems that the data, they were asked to collect could be assessed fairly objectively.

Logically $\partial \mathfrak{n} / \partial E < 0$, and $\partial \mathfrak{n} / \partial E \rightarrow 0$, if E increases. The larger the effort the smaller the measurement error, and the marginal improvement of the index decreases with effort. It is clear that the effort a group of NGOs can put into data collection on a world scale is small relative to the job at hand. So there is a considerable measurement error. If I was forced to guess, I would say that $0.25 < \sigma < 0.5$. Hence, if two countries differ by less than $\frac{1}{2}$ point, the difference should be disregarded, but differences of more than 1 point are probably significant.²⁷⁾

3.3 *Bias I: The missing micro problem*

The \mathfrak{n} -index is basically an aggregation of available macro evidence. The funds available to a group of NGO's forbid the collection of new micro evidence on a large scale. It is possible that the pattern found might be different if micro evidence could be added:

Imagine a measure $\mathfrak{N}(i, E)$ giving the number of *constraining regulations encountered per day by the average citizen of the country*. It would reflect the size of the body of laws, the enforcement effort made, and the quality of the bureaucracies. To collect a credible \mathfrak{N} -index for a country would be a major effort at the micro level, and it is surely out of the question to do so for 100 countries.

Free market advocates often claim that \mathfrak{N} is (far) too high and steadily growing in the West. And, it is surely much higher in most DC's than in most LDC's – especially in the African countries. I hence

27. Another type of NGO collected socio-institutional data are the *corruption perception* indices. Here a total of 17 attempts of independent measurement are made. The definition of corruption differs in the indices and so do the methods of measurement. Nevertheless, the average measures turn out to be remarkably robust. When they are scaled like \mathfrak{n} the standard error is less than 0.5. See <<http://www.transparency.de>>.

venture a guess: The \mathfrak{N} -index and the \mathbf{N} -index are likely to be negatively correlated. Also, if a measure of \mathbf{N} had been available, it should have had a considerable weight in the true \mathfrak{N} -index. This could be taken to argue that $\mathfrak{N}(i, E)$ is sensitive to E , even to the extent that the *main structure in the index may change if E could be greatly increased*.

Two *counter arguments* can be given: (i) the index does give a weight to the size of the public share. Hence, to the extent that \mathbf{N} is proportional to the share of the public sector the micro problem is accounted for. (ii) The \mathfrak{N} -index rewards *law and order* and punishes *arbitrary regulation*. Regulation that supports normal business activities and defines and protects property rights increases \mathfrak{N} .

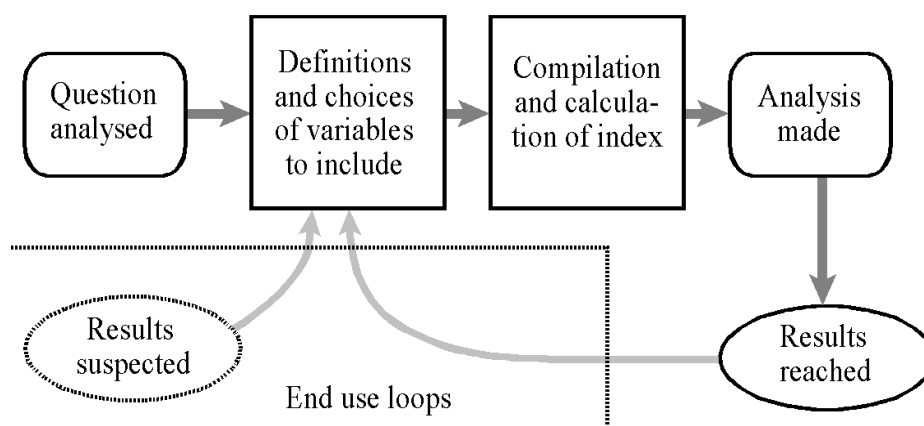
Compare Somalia and Denmark. In the \mathfrak{N} -index Denmark scores much higher than Somalia. A \mathbf{N} -index would show the reverse order, as the legal system Somalia had (still has) largely ceased.²⁸⁾ The country gets very low values in the \mathfrak{N} -index because normal lawful business is largely impossible. The welfare states of NW-Europe do get low scores for the component of the index measuring the size of the public share, but high scores on property rights and other aspects of law and order. They also have free trade and low inflation. So, on balance, they reach fairly high \mathfrak{N} -scores.

It is worth spending a moment considering the two cases: is the *non-government* country of Somalia or the *big-government* country of Denmark closest to the Chicago Ideal? In the data Denmark is 4 times closer. Is this reasonable or perhaps excessive?

3.4 Bias 2: End use loops

Any economic aggregate is constructed with a use in mind. Sometimes it is constructed for several purposes, and often additional uses come up once the aggregate has been compiled. When measures constructed for a purpose are used for that purpose they may have the *end use loop* problem illustrated by Figure 2.

Figure 2. Illustrating the end use loop



28. In the terms of Mancur Olson business in Somalia suffers from a surplus of rowing bandits who have depleted the common pool of business in the country. On Figure 1 Somalia is at the extreme left, where law and order has collapsed. Somalia was the country with least economic freedom in 1995. It is not included in the last posting.

We want the index constructed to be useful to analyze the question at hand, but we do not want it to be constructed to give the result desired by the constructors. The zealots, who have constructed the Ω -index, want their index to be a useful instrument for answering the question: Is laissez-faire a superior policy? However, they also want their index to answer this question in the affirmative.

This raises a moral hazard question: is it possible that one or both of the end use loops (shown on the figure) have been worked into the construction of the index? That is, did the very knowledgeable group of academics, who discussed the measure have the eventual result in mind? And, is it possible that the results reached have influenced the development of the methods over the years? ²⁹⁾

I have no inside knowledge of the way the index was reached, and we are dealing with a group of highly respected researchers, who know the problems described. They would not risk having their project accused of manipulation, but they are zealots and moral hazard is a problem even for the most honest. However, once the method has been released, it is out of control, and 100 data points times 7 spread over 30 years are hard to manipulate. My assessment is thus, that there may be small bias due to end use loops in the data, but they are likely to be well within the measurement error.

3.5 The structure of the economic freedom data

Two points should be made before we turn to empirics: (i) All Ω -data used from now are from the 2001 posting of the full data set available from <<http://www.fraserinstitute.ca>>. They are also published in Lawson et al (2001). (ii) Each country is taken as an independent data generator. Therefore, all averages are unweighted.

Table 4. The main structure in the economic freedom index in 1970 and 1999

	1970			1999			Trend
	Number	Average	St dev	Number	Average	St dev	
Western	22	7.21	1.01	22	8.13	0.42	Average
Communist/Post	0	1.5	-	14	5.77	1.17	Unclear
Arab	3	4.71	0.69	10	6.22	1.61	Unclear
Latin America	10	5.77	1.58	20	6.79	0.89	Clear
Oriental incl Tigers	9	6.78	1.39	11	6.92	2	Unclear
Indian Subcontinent	2	3.83	0.4	5	5.26	0.38	Clear
Sub-Sahara Africa	7	4.9	1.37	28	5.09	1.1	Clear
Residual	4	5.02	1.5	13	6.12	0.88	Problematic
All included				123	6.39	1.51	Unclear
For the 57	57	6.23	1.6	57	7.08	1.4	Average

Note: *St dev* is standard deviation. Communist/Post countries are the European ones. A few numbers given for 1975 show that a traditional communist country had $\Omega = 1.5$. The residual group are non-Arab countries in the Middle East, non-Latin countries in Latin America, South Africa etc. They are problematic to aggregate. Trends are termed *clear* if the average of countries covered for all years do not deviate more than 0.5 from the average of all countries included in the group. Unclear or problematic groups are shaded.

29. The 2001 edition of the index mention that it has been considerably improved over the years.

Table 4 gives a quick overlook over the structure of the economic freedom data. Later follow graphs of their distribution, trends over the sample period, etc. It is hopefully clear from the table that most country-groups have smaller standard deviations within the groups than between the groups, so the countries fall into reasonably well-defined groups – often with clear trends. The reader should note the definition of a *clear trend* given in the note to the table and the country groups that fulfill the condition.

The most regulated countries – the traditional communist ones – had a \mathfrak{N} -score of about 1.5. Western countries are in the range from 7-8. The poor countries of Africa and the Indian Subcontinent are in the range from 4-5. At the bottom line it appears that \mathfrak{N} has increased with 0.85 points for the 57 countries with data in both ends of the range.

An important feature of the index is that most countries have a reasonably stable relative position in the pattern. If a country had a relative low level at the start, it tends to be relatively low at the end too. Table 5 shows the strong autocorrelation in the \mathfrak{N} -scores. It will thus come as no surprise when it appears below that the groups with clear trends keep their relative positions in the pattern remarkably well.

Table 5. The correlations between the \mathfrak{N} -index for the years covered

	1970	1975	1980	1985	1990	1995	1999
1975	0.87	-					
1980	0.84	0.82	-				
1985	0.79	0.72	0.91	-			
1990	0.77	0.71	0.88	0.9	-		
1995	0.63	0.6	0.72	0.73	0.86	-	
1999	0.67	0.6	0.68	0.66	0.78	0.9	-
Number	57	83	108	112	116	122	123

Note: Each autocorrelation is calculated for the maximum number of countries possible. The line “number” is the number of countries covered by the index in the said year.

Lawson, Gwartney & Block (1996) and all later publications on the index demonstrate that the \mathfrak{N} -index proves three points:³⁰⁾

- (p1) Economic freedom gives higher growth.
- (p2) Economic freedom gives a higher GDP.
- (p3) Many other nice things happen once you have economic freedom.

With such strong autocorrelation as shown in Table 5 (p1) causes (p2), and then (p2) causes (p3). Rich countries have low infant mortality, low corruption,³¹⁾ a more equal income distribution, and more democracy. They have even more happiness.³²⁾

30. The proofs supplied are painted with a broad brush and have been disputed as mentioned at the end of 2.3 above.

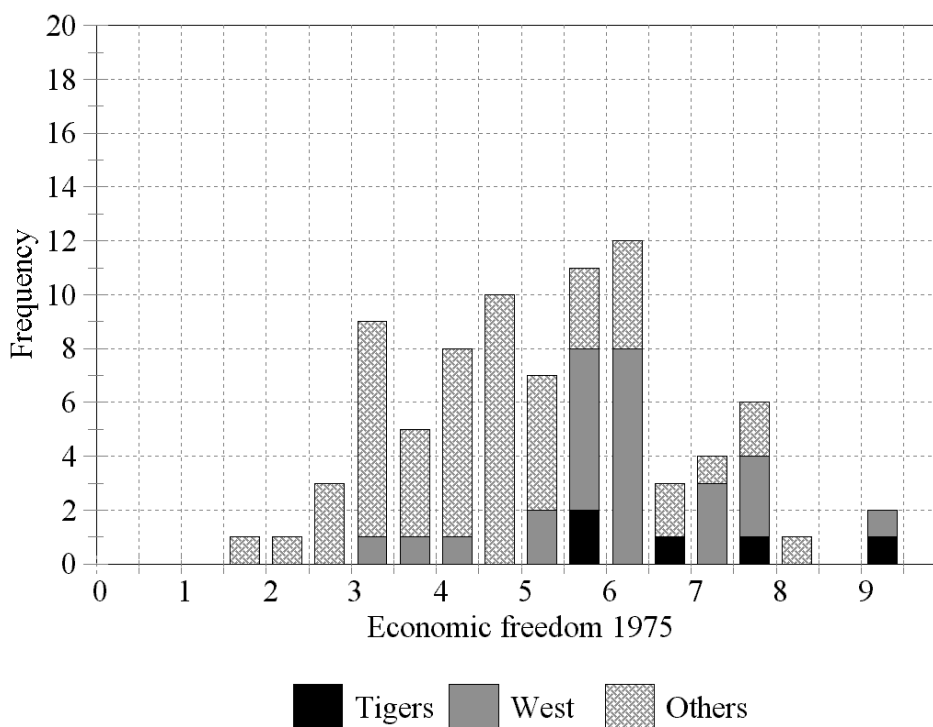
31. Paldam (2001) shows a strong connection between the \mathfrak{N} -index and the corruption index. The more economic freedom the less corruption, but the coefficient disappears when the relation is controlled for income.

32. See Kuznets (1966), Chenery & Syrquin (1975), Paldam (2001) and Frey & Stutzer (2001).

4. The positions of the Tigers in the pattern

Section 4.1 looks at the position of the Tigers in the Π -distributions for 1975 and 1999 and in a backward projection till 1970 of the LDC's. The Tigers are compared in 4.2 that also looks at the stability of the relations between the country groups. The Tigers are compared with Western countries in 4.3 and 4.4. Finally, 4.5 tries to answer the big question: does Π matter for the success of the Tigers?

Figure 3. The distribution of the 83 scores of the economic freedom index 1975



4.1 The distribution of the economic freedom scores

Figures 3 and 4 show the distribution of the Π -score in 1975 and 1999. The distributions look alike, but more countries have been added in 1999 – as seen in Table 5. The added countries are LDC's, while the rich western countries included are the same.

The Tigers are to the right on both figures, and 1-2 are extreme in the distributions. They are the city states. Korea, Taiwan and Japan are not extreme points, but if the rich countries of the West are disregarded, the difference becomes larger.

Figure 5 compares the 4 Tigers with three groups of LDC's in 1970. The groups are Sub-Sahara Africa, the Indian Subcontinent and Latin America, ie the LDC's where the *trends are clear* according to Table 4. These groups have app 93 countries, but only 19 observations are available for 1970, so I have projected the available observations backward from the first year where they are given to 1970. This is done by a 3-step procedure: (1) Within each group the subgroup with no missing observations is used to calculate a trend. (2) This trend is used to project the first observation back to 1970. (3) The histogram is then calculated and expanded proportionally to the number of countries in each group, as given in the legend to the figure.

Figure 4. The distribution of the 123 scores of the economic freedom index 1999

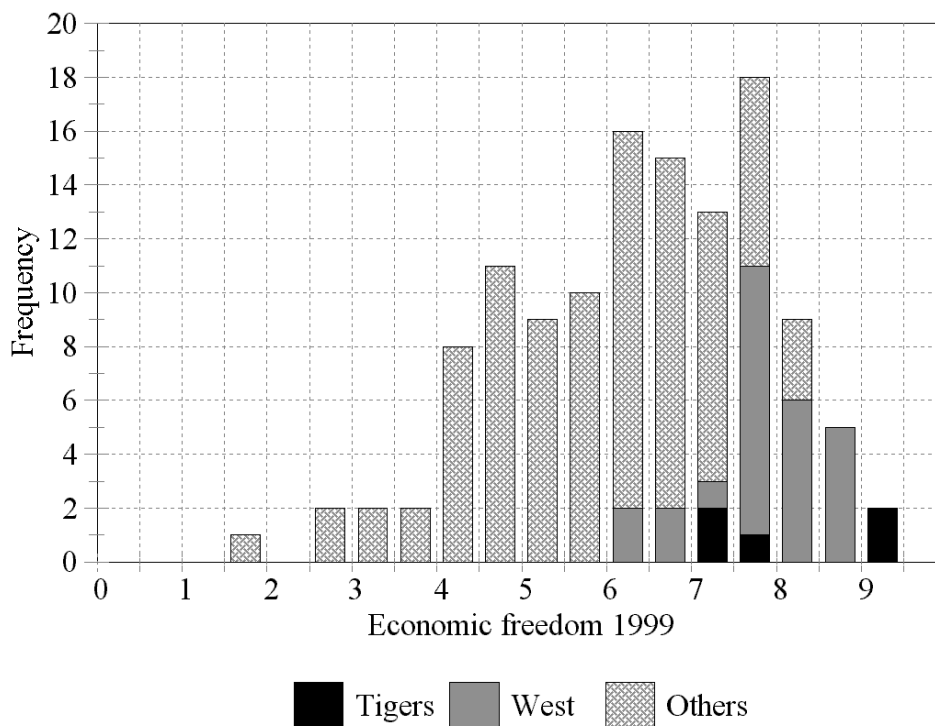
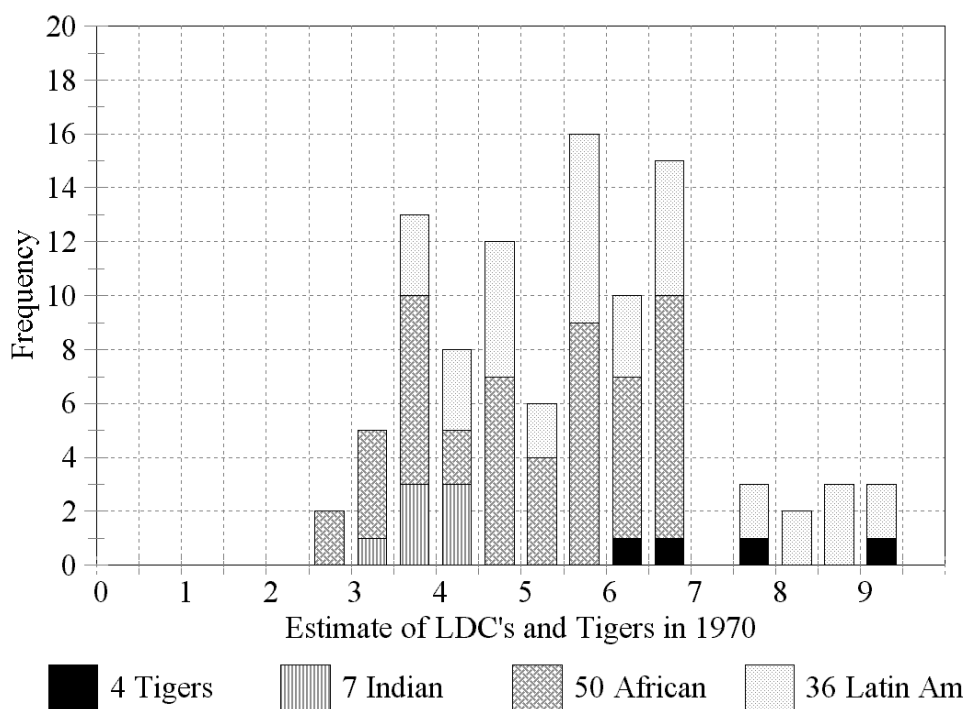


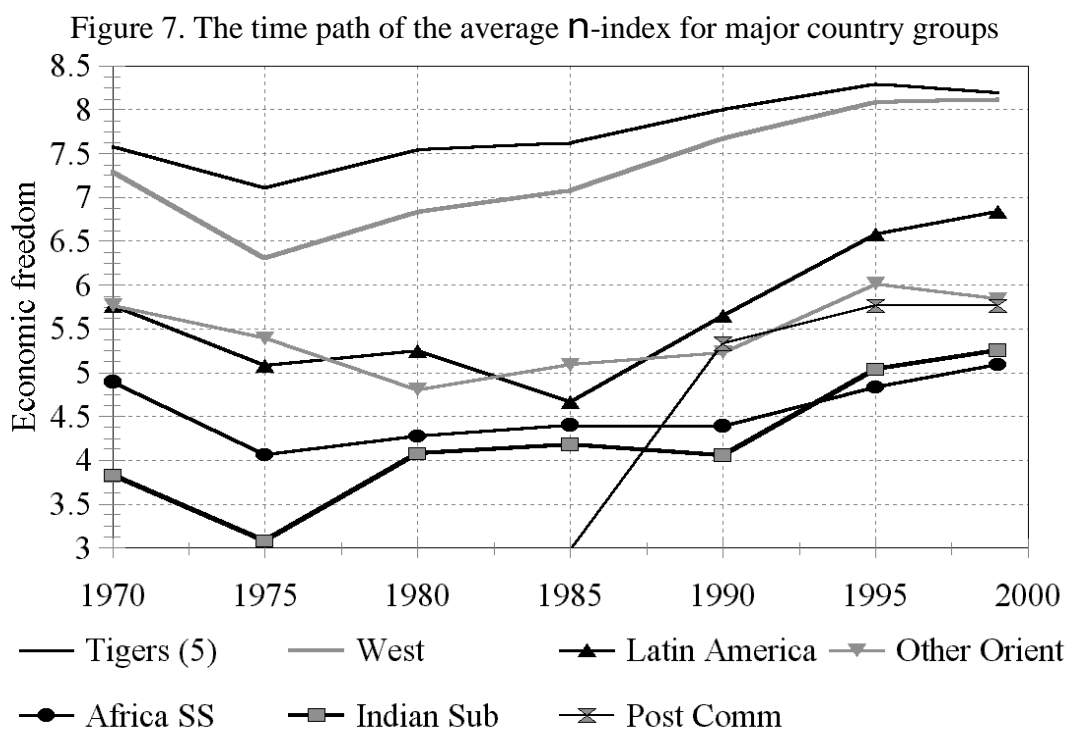
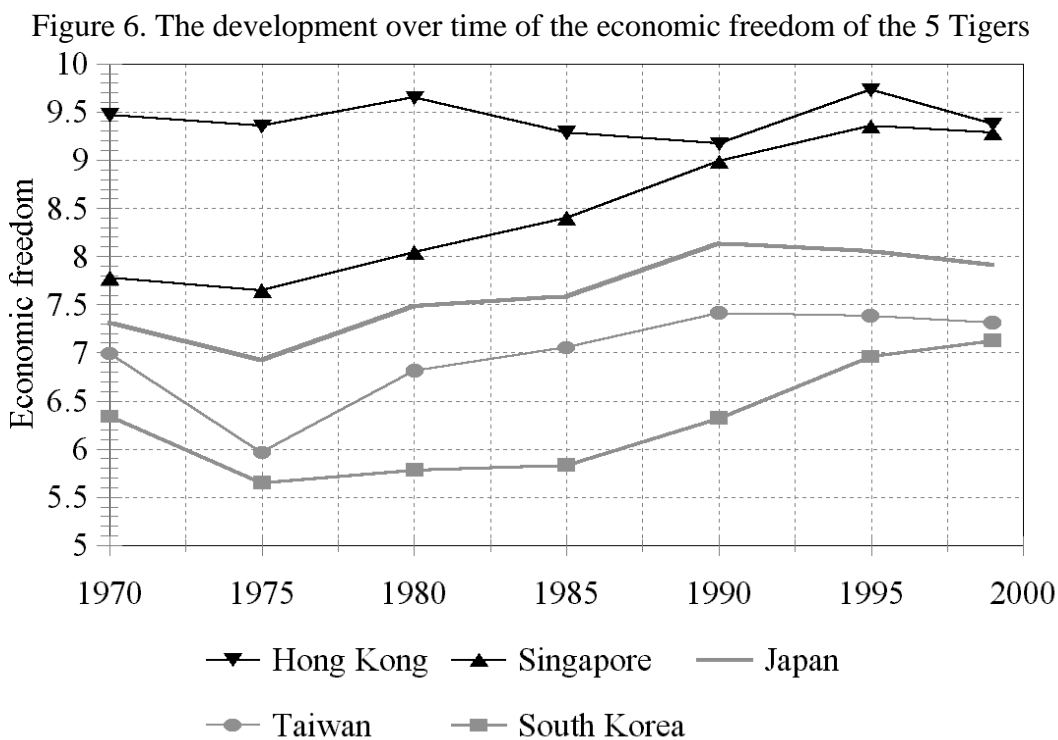
Figure 5. Comparison with estimated distribution of 93 LDC's and the 4 Tigers in 1970



There is only a small overlapping between the poor countries of Africa and the Indian Subcontinent and the Tigers, and their averages differ by 3 - 3.5 points on the Ω -scale. However, the Latin American middle income countries have some overlapping with the Tigers. In addition, there is a puzzling question: why have the 4 Tigers done (almost) equally well when they differ so much on the Ω -scale?

4.2 Comparing Tigers with the main groups of countries

Figure 6 shows the development over time of the Ω -score of the 5 Tigers. They are always in the same order with Hong Kong at the top and South Korea at the bottom. Between the two extreme Tigers is a *gap* of no less than 3.1 points in average. Section 4.5 considers the countries in the Tiger gap.



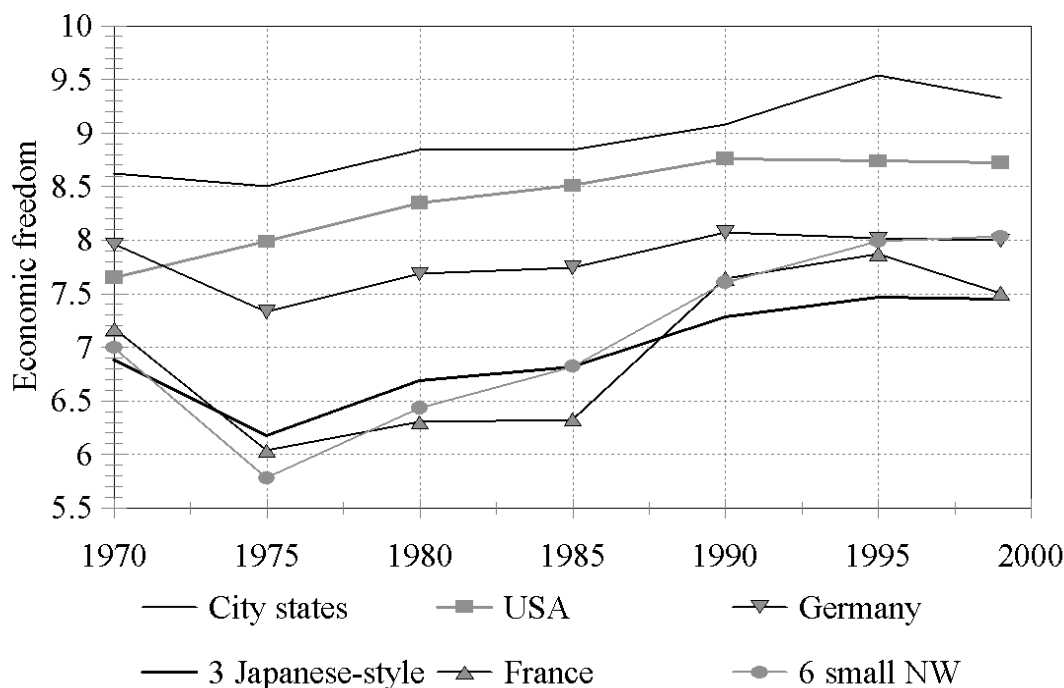
From Figure 6 we note that Hong Kong is so close to laissez-faire that the curve is flat, and that the other Tigers catch up. While Singapore is almost as liberal as Hong Kong at the end it starts in the middle of the gap. Figure 7 shows that the average of the 5 Tigers is at the top of the figure. As a whole the group of Tigers is the most liberal group of countries.

Figure 7 shows the development over time of the Ω -index from its start. An important point to note is that most of the curves are rather parallel as also shown in Table 5. Nothing on the figure warns us against taking the pattern found on Figure 5 back to 1960.

The Tigers are well above the LDC's – in fact the difference between the Tigers and Africa and the Indian Subcontinent is 4-3 points on the scale. Even if there is overlapping between Tigers and the Latin American countries, the averages of the groups still differ by 2-3 points. The West and the Tigers have strikingly similar curves, with the Tigers slightly above the West.

The Ω -index decreased from 1970 to 1975. It is probably the case all the way from 1960, when many of the new countries after the big wave of decolonization moved into ISI-socialism. In the West this was the period of large tax increases when welfare states were being rapidly built. Since 1975 economic freedom has turned upward. In the Tigers and the West the turn was already in 1975, but everywhere else it occurred later. By 1985 a wave of liberalization is strong in the data. In, eg Latin America the rise of the index in the average country is more than 2 points.

Figure 8. The time path of the Ω -index for the Tigers and selected Western countries compared



Note: The 6 *small NW* countries are: Denmark, Finland, Iceland, The Netherlands, Norway and Sweden.

Traditional Communist countries had a score of 1.5, but the Post Communist countries turn up in the picture in 1985 when they were still Communist.³³ It is also interesting that while Ω increases everywhere

33. This is caused by the coverage of the index, where a few reform communist regimes had a high weight in 1985.

else, it decreases in the Orient including the Tigers in the last 4 years. This is probably due to the sharp *Asian Crisis* that lasted 5-6 quarters from late 1997 to early 1999.

As mentioned in 2.1 it was – for long – the expressed goal of the dominating group of non-aligned nations to find policies between the West and the Communist countries. The pattern in Table 4 and Figure 6 shows that the main groups of LDC's succeeded in doing precisely that. The Tigers on the other hand did make another choice as claimed by the liberals.

4.3 Comparing Tigers and Western countries

Figure 3, 4 and 6 already show that the Tigers are more liberal than the West. Figure 8 (and Figures 3, 4 and 6) shows this is due to the two city states. They are closer to *laissez-faire* than everybody else. Then follow the USA and Germany. The three Japanese-style economies are more in the middle or low end of the distribution (of the Western countries).³⁴ They are much like France and the 6 small welfare states in NW Europe (5 Scandinavian countries and The Netherlands).

It is reassuring that the West European nations are a little – but not much – more regulated than the USA. Once again this is in accordance with expressed policies.

The fact that the Japanese-style Tigers have a level of the Ω -index much like the West European countries and not like the LDC's is a strong comment to the Tiger controversies. So is the finding that the two city states have more economic freedom than the USA.

4.4 Comparing the 3 Japanese-style Tigers with France and 6 small NW European countries

The three lines for the Japanese-style Tigers, France and the 6 small NW European welfare states at Figure 7 are all so close together and frequently intersecting that it is clear that they are within the measurement error from each other. However, we suspect that the pattern of regulation is different – especially between the oriental and western countries

Table 6. Detailed comparison of 5 countries

	Japanese-style Tigers						West			
	Japan		S Korea		Taiwan		France		6 small NW	
	1970	1999	1970	1999	1970	1999	1970	1999	1970	1999
Size of government	7.8	7.6	8.7	8.1	7.1	7.5	4.4	2.6	4.9	3.4
Structure and use of market	5.6	5.4	4.2	3.5	2.1	4.4	4.2	4.7	3.6	6
Money and price stability	8	9.2	5.9	8.9	7.2	9.6	8.2	9.4	8.7	9.4
Use of alternative currencies	7.5	10	4.8	7.5	9.9	10	5	10	6.1	10
Legal structure and property rights	7	9.4	5.2	6.8	9.3	7.2	5.2	8.6	8.8	9.7
International exchange	7.6	6.9	7.7	7.7	8	7.4	7.9	8.2	7.3	7.8
Exchange in Financial Markets	5.6	7.3	3.9	8	4.2	6.1	7.2	8.1	6	8.9
Summary ranking	6.9	7.9	5.7	7.1	6	7.3	6	7.5	7	8

Note: Cells more than 0.6, 1,3, 2.0 points from column average are lightly, middle and heavily shaded respectively.

34. If the 22 Western and the 5 Tigers are sorted by the sum of the Ω 's for all 7 observations, South Korea is no 4, Taiwan is no 10, Japan is no 17, Singapore no 25 and Hong Kong no 27 of the 27 countries. Countries no 23, 24 and 26 are Switzerland, USA and Luxembourg respectively.

Table 6 shows the detailed comparisons. It appears that the West has the biggest public sectors, while the Tigers score highly here. However, there are some restrictions on property rights and in financial markets in the Tiger countries. The table thus confirms the story already told: The Western countries get low scores for the size of the public sector, but slightly higher scores in most other fields, so that the countries end up with the same average score as the three Japanese-style Tigers.

If the rows are compared by calculating their correlation matrix a clear pattern appears: The Western countries have almost the same pattern of regulation (cor . 0.9), and the Japanese-style Tigers are reasonably alike too (cor . 0.7). The patterns of regulation were rather different between the two groups in 1970 (cor . 0.1), but it has converged in 1999 (cor . 0.5). Even if the Tigers probably had the same level of regulation as the West, when they took off, the regulations were applied with a different pattern. As they became rich also the pattern adjusted to the Western one.

It is debatable how to interpret the different pattern of regulation in 1970 (and no doubt before), as the pattern has to be different in a poor rural society and a rich industrial one. So the key observation is probably that the level was similar and that the pattern has converged.

4.5 Which countries are in the Tiger gap?

Finally, we turn to the discussion of question (3) from Table 3. Is it possible to explain the success of the Tigers by deviations of their Π 's from the general pattern?

A simple way to see how much the economic freedom of the Tigers can explain is to see how many poor countries we find in the gap between South Korea and Hong Kong. The other three Tigers should be excluded as they are in the gap per definition, so there are only 118 countries that can be inside or outside the gap – some of these are uninteresting as they are as rich as the Tigers.

Table 7. Countries in the Tiger gap: 1970-99 (see definition of gap in text)

Group	Covered	In gap	Countries (missing observations)
Western	26	18	Not listed
Arab oil country	5	3	United Arab Emirates (3), Oman (2), Bahrain (2)
Arab non oil	5	0	
Oriental	6	2	Thailand, Malaysia
Residual	9	0	
Post Communist	14	0	Note
Latin American	20	4	Paraguay (2), Uruguay (1), Costa Rica, Panama (1)
Indian Subcontinent	5	0	
African	28	0	
Sum from last line	87	6	

Note: One Post Communist country (Estonia) has crossed into the gap and another (Hungary) is close.

The counting follows a 3 step procedure: (S1) First the excess of freedom points over South Korea has been calculated.³⁵⁾ Countries are deleted if either (S2) the sum for all available observations is below -0.5.

35. Hong Kong has the highest score of the 123 countries covered, so the binding limit for being in the gap is to be above South Korea. Six of the Western countries included have an average score within 0.5 from South Korea.

(S3) the score is below -0.5 for any of the (at most 7) individual observations for each country. The results are given in Table 7.

Most other rich countries are in the gap. This applies to 18 of the 26 Western countries and to 3 of the 5 Arab oil countries included. The remaining 5 Arab countries are far below the gap. So $(118 - 26 - 5 =) 87$ LDC's are covered by the index. Of these 87 countries 6 are in the gap. Two are mini-Tigers, who started a little later than the Tigers, but are doing well. The Latin American countries in the gap have 4 missing observations. Had all observations been available 1 or 2 would probably not have passed the limit.³⁶⁾

About 75 countries are not covered, all of which are LDC's, mostly in the low income end, where no countries are in the gap anyhow. So, out of the 160 poor to middle income countries probably no more than half a dozen would have been in the Tiger gap if all data had been available. These 6 countries would have been in the higher end of the range. 6 out of 160 countries are below a 5% level of uncertainty, but it still shows that the recipe of *market friendliness* is not certain to work. In the latest posting no less than 12 Latin American countries and a couple of other middle income countries have moved into the gap. So, perhaps a better data set will be available in another decade to determine the power of economic freedom.

If we return to Figure 1 it is perhaps understandable that the Tigers can have as different as \mathbf{n} -scores as observed if (i) the $g = \mathbf{8}(\mathbf{n})$ relation is flat around the optimum (f^*), and if (ii) the optimum is somewhere in the Tiger-gap. But then we have to say that the curve falls rapidly, for \mathbf{n} -scores just a little higher than the one of South Korea. This seems unreasonable, but more variables are surely involved (such as the efficiency of governments). In short: The deviating \mathbf{n} -score of the Tigers can be only one explanation of the success of these countries.

5. Conclusion: a clear picture

The above analysis uses the Fraser Institute *economic freedom index* to consider one of the largest controversies in economic development: the importance of the state for the rapid economic growth of the Asian Tigers. The index starts in 1970, but it shows a clear picture, which is so stable over the next three decades that it must have been rather similar at least a decade before. The data are likely to have various biases, but they have to be unreasonably large before a substantially different picture emerges. The picture is as follows:

The two city states of Hong Kong and Singapore are, by necessity, trading nations. Consequently, they have demonstratively protected property rights and the freedom of trade. Therefore, they are unusually close to *laissez-faire*. The other two Tigers are South Korea and Taiwan. They have followed a less extreme Japanese-style model.

Compared with the countries of the West the two city states are extremely liberal (in the European sense), while the Japanese-style Tigers are rather similar to Western Europe as regards the *level* of economic freedom. However, Tigers have smaller public sectors, and slightly higher levels of public interventions in other fields. If the reader agrees that The Netherlands and France are relatively liberal on a

36. Also, I believe that the high score for Uruguay is a mistake as mentioned.

world scale so are Taiwan and South Korea. The poor LDC's are much less liberal. The 4 Tigers *did* deviate substantially when their phenomenal growth started. The data discussed therefore make it easy to argue that the *market friendliness* of the 5 Tigers has contributed to their unusually fine economic performance.

Consequently, the data provides little support for the claim that the Tiger countries can thank their industrial policy activism for their success. They have been less activist than many other countries. Also, two of the countries have not been activist at all and have done as well as the more active ones.

However, the market friendliness of the Tigers cannot be the only explanation of the success story. First, the economic freedom of the two groups of Tigers differ. Second, if data for all 200 countries of the world had been available, a handful of LDC's would probably have had economic freedom in the gap between Hong Kong and South Korea throughout the period covered, without the spectacular Tiger-growth.

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Appendix: Table A1. Some historical facts

Country	Japan	South Korea	Taiwan	Hong Kong	Singapore
Old history	Traditional kingdom. Gradually closed and ruled by Tokugawas (warlords)	Kingdoms in coalition and wars with China and Japan. Mostly independent.	Mixed settlement, Portugese, Spanish and Dutch colony. Chinese from 1683	Small trading and fishing town	Small fishing town.
19 th Century	1853 opened to trade by US navy. Restoration emperor (Meiji) 1868 starts modernization. Growth starts around 1890	Isolationist kingdom, forced into contact with Western powers, dominated by China and gradually by Japan	Japanese colony 1895-1945.	British in 1841. By 1900 about 100'000 inh. Treaty with China 1898. New territories but back to China 1997.	British trading post 1819, colony from 1826-1959. Mixed population, gradually more Chinese
1900-45	Militarization. War in China 1937-45. World War II on German side 1941	Japanese colony 1910-1945		Rapid growth of population. Occupied by Japan 1941-45. 600'000 inh in 1945	Occupied by Japanese 1941-45. British colony 1945-57
1945-50	US occupation 1945-1952. Reconstruction starts	Divided in North and South 1945. Big land reforms. Syngman Rhee president 1948-60	Chiang Kai-shek move government to Taiwan 1949. Protected by US Navy. Big land reforms.	Rapid growth of population after Communist victory in China. Many immigrants from Shanghai	High growth starts around 1950
1950s	High growth: 1955-73 Domination of Liberal-Democratic party	Korean War 1950-53	Chiang Kai-chek rules till 1975.	High growth from early 1950s. Remains as British colony.	1957-63 independent
1960s		Uprising against Rhee 60. Military coup 61. General Park Chung Hee 1961-1979. High growth from ap 1962. HCI-drive from 1972	High growth from early 1960s. Political isolation from 1970s. Chiang Ching-kuo (eldest son of Chiang Kai-chek) president 1975-1988. Then democratization		1963-65 joins Malaysia. 1965 again independent. Ruled by PAP party headed by Lee Kuan Yew till 1990. And later as "elder statesman"
1970s	After 1973 "normal" growth. Other parties gradually more important.				
1980s		General Chu Doo Hwan 1979-1987. Then democratization. Debt crisis 1982.		Handed back to China July 1 st 1997. Remains semi-independent	
1990s					

Sources: The Encarta Encyclopedia, Song (1994), Minami (1994), Yamada & Kuchiki (1997) and Kim (1995).

The South Korea column covers all of Korea before 1945.

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