

STAR PERFORMERS OF THE (20th) 21st CENTURY:

Asian Tigers, Dragons or Elephants?

by

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I. INTRODUCTION

The answer to the question, “Which are the best performing countries in the World,” varies with the year, the region and the expert to whom this question is addressed. Countries which either grow above 7% for a couple of years or achieve a rate of growth 1-2% above the regional or sub-regional average for half a decade, and those which are the special focus of interest of prominent experts often attain an exalted status. For instance, Brazil, Argentina, Chile, Peru, Poland, Hungary, Czechoslovakia, Turkey, South Africa, Ghana, Uganda, Egypt, UK, Ireland and the USA are among the non-Asian countries, which have been mentioned at different times and places. The primary objective of this paper is to identify the best performing economies of the late 20th century and thus clear the fog created by special interest groups, temporary euphoria and panic, Ideology and Geopolitics. Within the limits imposed by availability of internationally comparable data (for the set of 135 countries) the paper will explore to what extent these impressions are correct.

Till the first half of 1997, the consensus among the cognoscenti would have been that the East and South East Asian “Miracle economies” constitute (with perhaps minor exceptions) the star performers of the world. Over the past 2 years, the “Asian Crises” has swept away the paradigm of the “Asian Miracle,” shattering this consensus. A few have even questioned the existence of the “Asian miracle” while many have started having doubts about its validity as a model of economic growth and development. It is quite apparent that growth rates of the order of 7% to 9% seen in several East & S. E. Asian countries are unlikely in the post-crises period. The volatility created by the Asian Crises has also converted several (perceived) high performers across the world into (perceived) low performers. Unbiased experts are somewhat at a loss in trying to determine which countries will perform well in the future. There seems, however, to be an emerging consensus among the Asia experts that economic growth in these countries will recover to the 5%-6% range. In our view a thorough and unbiased knowledge of past growth performance is essential before one ventures into forecasting future growth performance. The second objective of this paper is therefore to provide a sounder basis for making growth projections into the 21st century.

China and India are among the five largest economies in the world (GDP at PPP), with a growth rate much higher than each of the other three economies in this group. Though their per capita income (PPP) is between 5.5% and 17% of that of the other three economies, or perhaps paradoxically because of it, their future growth is of special interest to the World. This interest arises from the possibility of catch-up and large contributions to world GDP growth in the first two decades of the 21st century. The general consensus appears to be that China’s performance in the late 20th century has been outstanding while that of

India has been quite poor (with some exception during a few years in the nineties) and far inferior, to the point of non-comparability, to the (former) “miracle growth economies.”¹ This paper looks more closely at the performance of these two countries, and makes explicit growth projections for them for the next decade.

Though no formal model is estimated, growth performance is analysed in the context of a framework or informal model of catch up growth. Economies that transit from low to high income are assumed to follow a stylised bell curve of catch up growth. The representative high growth economy is at the start of its journey a low-income country caught in what may be termed a “low level (growth) equilibrium trap.” Policy and institutional reforms lead to an acceleration of growth. Growth eventually reaches a plateau (top of the bell) and then starts decelerating till it reaches high income. There could in principle be a second spurt of growth after a setback. Actual growth performance will differ from this trend growth because of shocks, cycles and macro-economic policy responses to these.

The same framework is used to make tentative growth projections for the next decade for all the high growth countries identified earlier. The objective is to identify those countries, which will remain star performers in the first decade of the 21st century. This is used as a basis for forecasting their inter se per capita GDP growth ranking during the next decade.

II. COMPARISON PERIOD

Our focus in this note is on sustained and sustainable growth performance. The period of comparison must therefore be sufficiently long to eliminate the ‘shooting stars,’ which receive inordinate attention from those whose day to day job is to monitor, manage or profit from such short-term information. In several countries high growth spurts have followed periods of crises and economic reform. The timing of the crises and of significant reforms has varied from region to region and from country to country. More generally, most countries have experienced growth cycles (periods of high growth & low growth or crises), and the starting point and period of the cycle varies from country to country. The period chosen for comparison must therefore be sufficiently long to ensure that it is not biased towards or against any set of countries. At the same time the data must not be of such an old vintage that it has little potential relevance to the future. To put it colloquially we are looking for the ‘long distance runners’ of the late 20th century, which have the potential for sustaining this performance in the first decade of the 21st century.

Based on these criteria a period of one decade or less is too short to even capture the complete growth cycle of many countries, and would bias the results

¹ Virmani (1999) presented a contrary view.

towards those countries whose growth spurt happens to fall in this period. Similarly a period of three decades or more perhaps takes us too far back in time to have much relevance to the present or future performance. The most recent continuous time period of 15 to 25 years thus appears reasonable for comparing the average growth performance of a large set of countries.

The second important aspect is the data source. The most readily available, comprehensive and comparable data set for countries is that in the World Development Report(s). These reports give trend rates of growths for a set of about 132 countries for different decades, based on OLS regression in logs.² 22 countries have large data gaps and therefore drop out from the comparison, leaving 112 countries in the complete data set. Two more countries for which almost complete data are available are added to this to get a set of 124 countries for which comparable data are available. The decade of the nineties is of-course not yet complete, so the data is only available for about 8 years of the current decade. If we use this data set, then it becomes natural to choose a period of 18 to 20 years, or the last two decades of the 20th century for identifying the star performers of the late 20th century. As the data from the World Development Reports is only available till 1998 (18 years), data and forecasts from the latest available IMF WEO and the ADB AEO are also used to get a comparative picture for the complete 20 years.

Though we start with a comparative analysis of all countries in the WDR 1998-99, the question often arises whether the results for small countries are really comparable with or relevant to the large countries. One argument is that an individual region within a large country of the size of a small country could indeed be growing very fast, while the average growth for the entire country is moderate. In presenting the results we therefore separate the small countries from the medium and large countries. For this purpose we define small countries as those, which have a population less than 10 million and a GDP less than US\$40 million. The results for small countries are mentioned as appropriate.

A deeper analysis is also carried out for the set of high growth countries identified in the previous exercise, based on annual growth data from the World Development Indicators database.³ A simple stylised framework is outlined, in terms of which changes in the pattern of growth over forty years are examined.

The World Development Indicators database is also used to analyse available variables, which have been posited to be determinants or co-relates of (high) growth. These include domestic investment, foreign direct investment, Literacy & education and trade.

Though the World Bank data sets are the most conveniently available, comprehensive and comparable data sets, they are not free of the weakness of individual country statistical systems. In most cases this not very important for

² $\log(Y_t) = \log(Y_0) + t \log(1+g) = A + B t$, where Y_t is GDP at time t and g is the growth trend over the period 0 to t .

³ From the CD ROM dated 1999 (base 1993).

our current purpose. In the limited cases in which we use the data to make forecasts about the future, the known biases in some country data cannot be ignored. Thus for instance, it has now been widely accepted that China's growth data is over-estimated by 1% to 2% points [Collins and Bosworth (1996), World Bank (1997) and IMF (1998)]. This factor has to be taken account of in making projections.

III. GROWTH PERFORMANCE: End 20th Century

A. GDP Growth Trends

Table 1 shows the ten fastest growing medium-large countries in the world during the last two decades of the 20th century. Among the top 10 there are three broad growth clusters: There are six countries having a trend growth rate of between 5.8% and 6.7%, three between 6.5% and 8% and one having a growth rate above 8%. It is interesting that even if we make a downward adjustment of 2% points in the average growth rate of China it would still be the best performer over this period. Out of the 10 High Performing East Asian economies (HPEs), referred to in the World Bank's Asian Miracle study (1993) only one has clearly dropped out of the top 10.⁴ Given its poor performance in the nineties, Japan is no longer among the high performers. Many observers of 'emerging market' economies will, however, be surprised by the absence of their favoured countries from this list of high growth countries.

The greatest surprise is the appearance of India among the top ten performers. Most observers would have stated that India's performance ranks at the bottom third or at best the mid-range of the entire set of medium-large countries. A few may have been willing to concede that India may have performed a little better during part of the nineties to reach the top half or top third. It would be difficult to find more than a handful of people who could have imagined that for a continuous period of eighteen years India has been the ninth fastest growing economy in the World. One valid reaction of sceptics would be that this is all very well for the GDP growth rate, but India could not possibly have performed so well in terms of growth in per capita GDP. We return to this aspect below.

Chile is the only country in this group that is not located in Asia. Those dealing with Latin America may be surprised that no other country from their region is represented, while those outside the region may be surprised that it falls in the top ten. The numerous international fans of Chile's policies may be surprised that India's trend growth rate was higher than that of Chile. Those outside Asia may be equally surprised to find Vietnam among the top five

⁴ Taiwan does not appear here because the World Bank data set and publications do not contain information on this economy.

performers. Vietnam, India and Chile performed better than Hong Kong which just makes it into the list at the number 10 position.

Another noteworthy fact about these three countries is that each of them started economic reforms during the eighties and continued it in the nineties. Though the popular perception is that India started its reforms in the nineties, Virmani (1989) had shown that there was a significant improvement (break) in India's growth performance in the eighties, from its dismal performance from the mid-sixties to the end of the seventies. It had also argued that this was due to economic reforms undertaken during the eighties, which started (albeit slowly) reversing the policy distortions introduced in the seventies.

Two small economies, Botswana and Oman qualify to be classified among the top performers if we consider all countries, as they had a trend growth rate higher than that of Hong Kong (table A2).⁵ The addition of the former means that at least one country from Africa was among the top performers, even though it is not one of the medium or large countries of Africa.

As suggested in section II, a fair comparison requires that we take a long enough period to encompass the complete growth cycles of all countries. This point is very relevant today because the Asian crisis is best viewed as the end of a growth cycle of the "miracle economies." If the cut-off date is taken as 1998 only one year of downturn is captured. This would tend to bias the results in favour of these countries. We have therefore added the growth forecasts for 1999 and 2000 to capture a reasonable proportion of the downturn and obtain an estimate for two complete decades.

The aggregate growth trends arising from this exercise are presented in the sixth column of table 1. The top five countries will remain unchanged. The inter-se ranking of three countries will be changed. By the end of the decade India is estimated to jump from 8th to 6th overtaking Malaysia and Indonesia which will move down one position each to 7th and 8th place. Hong Kong will drop out of the ranks of the top performers because Ireland will marginally exceed its growth performance during the full decade. This confirms the outstanding growth performance of India during the last two decades.

⁵ Oman is included in table 1 of WDR 1998-99 but not WDR 1999-2000 while the opposite is true of Botswana. It is not clear whether this reflects unavailability of data or doubts about the quality of data.

Table 1: GDP Growth Trends for Medium-Large Countries						
Country	Size	1980-1998			1980-2000 (est)	
		Gr. trend	Rank		Gr. trend	Rank
China	l	10.6	1		10.1	1
Korea, Rep.	l	7.9	2		7.7	2
Thailand	l	7.5	3		7.1	3
Singapore	m	7.2	4		6.9	4
Vietnam	l	6.4	5		6.2	5
Malaysia	l	6.3	6		6.0	7
Indonesia	l	6.0	7		5.7	8
India	l	5.9	8		6.0	6
Chile	m	5.8	9		5.6	9
Hong Kong	l	5.8	10		5.3	11
Note: 1) Large(l)/Medium(m) economies are defined as those with population greater than or equal to 20/10 mi. or GDP greater than US \$ 100/40 billion. Rest are small(s).						
2) The growth trend for 1980-98 is a log average of the growth trends for 1980-90 & 1990-98, from WDR 1999-2000 (forthcoming)						
3) Forecasts of 1999 and 2000 are from ADB AEO 1999 (update) and IMF WEO 1999 (october) where available, and own estimates when not.						

Table 2: Per Capita GDP Growth Trends Medium-Large Countries						
Country	Size	1980-1998			1980-2000 (est)	
		Gr. trend	Rank		Gr. trend	Rank
China	l	9.2%	1		8.8%	1
Korea, Rep.	l	6.8%	2		6.6%	2
Thailand	l	6.0%	3		5.7%	3
Singapore	m	5.4%	4		5.1%	4
Ireland	m	4.7%	5		4.9%	5
Vietnam	l	4.3%	6		4.1%	7
Hong Kong	m	4.3%	7		3.7%	10
Chile	l	4.2%	8		4.0%	8
Indonesia	l	4.2%	9		3.9%	9
India	l	3.9%	10		4.1%	6
Malaysia	l	3.9%	11		3.5%	11
Note: 1) Large(l)/Medium(m) economies are defined as those with population greater than or equal to 20/10 mi. or GDP greater than US \$ 100/40 billion. Rest are small(s).						
2) The per capita growth trend is based on table 1 & supporting tables and Population growth trends from WDR 1998-1999 and projections.						

B. Per Capita GDP Growth

Per capita GDP growth is a better measure of economic performance, viewed from the perspective of the welfare of a country's people. If both economy and population grow rapidly, the former may be partly a consequence of the latter, while the welfare of the public may not have improved much because of poor growth of per capita income. Table 2 shows the ranking of medium-large countries in terms of the trend rate of growth of per capita income. For the period 1980-98, the ranking of the top four is the same as the one for GDP growth. China is the top performer with a trend growth rate of per capita GDP higher than 9%. If we adjust its growth rate by 2%, then it and Korea form one cluster with a growth rate in the range of 6.5% to 7.5%. Thailand is the only country with a per capita GDP growth between 5.5% and 6.5%. The third cluster with a per capita income growth of 4.5% to 5.5%, which includes Singapore, has an interesting addition. Ireland was the fifth fastest growing economy in the world in terms of per capita GDP (12th in GDP growth). There is a fourth cluster with a per capita growth around 4% containing all the other high growth economies. Hong Kong's performance appears much better while that of Malaysia appears much worse in terms of per capita income than it does in terms of GDP growth. Chile's performance now appears better than that of Indonesia and India, though the latter retains its position among the star performers.

If we bring the small countries into the picture and consider the entire set of countries, Botswana's performance remains outstanding, but Mauritius replaces Oman in this select group. Thus in terms of per capita income there are two countries, from Africa among the star performers.⁶

The sixth column of table 2 gives the estimated trend growth rates of per capita GDP for the entire two decades. The ranking of the top 5 performers as remains unchanged from that in the third column. The inter-se ranking, however, changes, with India moving up to 6th position and pushing Vietnam to 7th position. Chile and Indonesia retain their rank as Hong Kong drops to 10th position. Malaysia at 11th place would therefore clearly be the second country from among the HPEs to drop out of the set of star performers.

Thus the star performers of the last two decades of the 20th century (among the large-medium countries) are China, S. Korea, Thailand, Singapore Ireland, India, Vietnam, Chile, Indonesia, and Hong Kong. Of these only two are from outside Asia, while none are from East Europe. The representation from Latin America and E. Europe is unchanged even when we bring in the next tier of medium-large countries, which have a per capita growth trend of around 3% (2.7% to 3.3%). These are Sri Lanka, Norway, Turkey and Portugal (table A2).

⁶ Mauritius has the same data weakness as Oman as the data is available in WDR 1998-99 but not in WDR 1999-2000.

Expanding the set to include small countries brings in Lesotho and Oman as both have a growth trend greater than Portugal (table A2). Though comparable World Bank data does not exist for Taiwan, China, available data suggests that it would clearly be among the top ten performers. Thus for the entire set of countries/economies in the World, the top 20 performers during the last two decades of the 20th century are 13 Asian countries, 3 West European countries, 1 Latin American country, and 3 (small) African countries.

IV. GROWTH PATTERN: High Growth Economies

In this section we focus on the performance of the star performers with a view to identifying the pattern of change in trend growth rates over time.

A. Bell Curve of Catch Up

In depicting the growth pattern of high growth countries it is useful to have a stylised growth framework or template in mind. The intention is neither to present a growth model that proves how and why a country grows, nor to re-open the controversies on the lines of Rodriguez and Rodrick (1999). The focus of our interest is the late 20th century stretching at most back to 1960, because the international conditions (transport, communications, trade, travel, regulatory systems) prevailing in earlier eras may not have much relevance to the 21st century.

One can propose the hypothesis that, low or lower-middle income countries which have been able to achieve high market based growth and reach a high income level follow a (stylised) Bell shaped ‘catch up’ curve. At the left of the Bell curve are the low-income countries caught in what was once referred to as a ‘low level equilibrium trap,’ growing at 0% to 2.5% per annum in terms of per capita GDP. At the other end of the curve are the high-income (developed) countries also growing at around 1% to 2.5% per annum. Countries that are successful move up the left of the bell curve, remain for a time at high growth rates and then move down the right of the curve. These can be called the accelerating, plateau and decelerating sub-phases of the ‘catch-up’ represented by the ‘bell curve’.

The low-income country is hypothesised to be situated well inside the Global (per capita) Income Possibility Frontier (GIPF) and is caught in a slow growth framework.⁷ This could be due to a feudal socio-political structure, the absence of markets or market supporting institutions, inadequate public goods, growth-debilitating externalities, policy distortions or macroeconomic mismanagement. Once economic reforms removes the critical constraints the

⁷ Virmani A. (forthcoming). “Economic Development and Catch Up: The Global Income Possibility Frontier,”

country starts to move towards the GIPF and the trend growth rate increases along with investment and saving rates ('acceleration phase'). The speed of acceleration and the level to which growth rises would depend on the effectiveness with which such reforms are carried out and sustained. The creation of market & non-market channels for inflow of technology and its diffusion inside the country are an important aspect of such reforms. The effectiveness of these information channels also depends on the presence of educated and skilled manpower at critical nodes (decision-making levels). Diffusion within the country is linked to the availability of efficient and competitive transport and communications services within the country. The cross border flow of technology is linked to International trade & travel and foreign direct & indirect investment. International market perceptions, including (historically) accumulated perceptions and ideological & geo-political biases, can speed-up or slowdown the growth acceleration.

In the second half of the 20th century many countries which were successful in escaping from low income seem to have been what in Arthur Lewis phrase could be called 'Labour Surplus economies' characterised by 'disguised unemployment' and 'Dualism.' It is possible that the availability of 'under-employed labour' provides time (breathing space) for the education systems to gear up for generating labour augmenting human capital. There have also been some countries, which stagnated after reaching lower-middle income levels, and got onto the 'bell curve' of growth in the late 20th century. These countries may have built up, 'surplus labour-augmenting human capital' during the slow growth phase, which could play the same role as 'surplus labour' in low-income countries.

The acceleration of growth must, however, stop, as there are (social, cultural & natural) limits to how fast institutional changes can occur in tune with the changing needs of a higher income economy. The growth rate must therefore eventually plateau out at the top of the Bell curve. Thereafter, the period for which the country remains on the high growth portion of the Bell curve depends on the same generic factors that are responsible for initiating the 'catch-up.' Development of markets and market-supporting institutions, appropriate and adequate public goods, removal of growth-debilitating externalities, policy reforms and good macroeconomic management, continue to play a role in sustaining high growth. Within the generic heads, the precise factors and their nature (required quality) may change. For instance, the quality of human and institutional capital is more important at higher income levels. In countries that have or have created appropriate socio-political conditions, immigration of skilled persons can act as a substitute for internal generation of critical skills.

A country that is able to adapt and evolve institutionally, culturally and socially will eventually approach the Global Income Possibility Frontier. As the international pool of technology and production possibilities that can be drawn on from outside diminishes, growth will start to decelerate down the right of the bell curve. Further as the country reaches 'high income' category growth will decelerate to developed country levels ('deceleration phase').⁸

This is the stylised growth path of the economy, which moves ideally from 'low' income to 'high' income. Given uncertainties in the international and domestic environment and shocks arising there off, countries on the 'catch-up' path could also be subject to cyclical variation in the form of 'Growth cycles.'⁹ Alternatively these shocks could be severe enough to throw the country off the high growth path for a number of years if the country fails to respond appropriately. Coupled with failure to carry out needed reforms or fundamental restructuring, or to make qualitative changes, the *setback* could be severe enough for the country to remain stuck at lower growth levels for half a decade or several decades. Alternatively the setback could be followed by a second wind of reforms and growth recovery resulting in a 'double bell' curve.

In the modern international environment, as prevalent over the last two decades, 'Market Euphoria' has played an important role in determining how high the growth rate reaches and for how long it is sustained.¹⁰ One important medium for the transmission of these impulses has been international capital flows including foreign direct investment. Though mild euphoria is indistinguishable from Keynesian 'Animal spirits,' an attempt to keep growth above the sustainable level by suppressing negative developments and possibilities to sustain high euphoria can only be temporarily successful. Eventually growth will fall (even) below the sustainable level. The more closed, undemocratic and repressive (intellectuals, media) the country, the longer the period for which the cumulating weakness can be suppressed and the longer this 'temporary' success can last.¹¹ If this happens in a situation in which "euphoria" is keeping the growth rate from falling steeply, the correction could be so drastic that it results in "panic" and growth collapse (crisis).¹² This in turn could disrupt the institutional fabric and impose a permanent cost in terms of lower cumulative growth than would have taken place if strengths and weaknesses were continuously exposed to open debate and discussion as is the case in a truly free society.

⁸ Factors that could slow the deceleration of the trend growth rate to developed country levels are R&D and rising female participation rates. Unskilled migrants such as maids (who are classified as temporary residents) could facilitate this.

⁹ Virmani (1998) considers the issue of macro-economic management of growth.

¹⁰ Perhaps ideological fervour or geo-political considerations have also played some role.

¹¹ In exceptional cases suppression of inconvenient facts/problems may go hand in hand with genuine efforts to address the problems.

¹² Temporary non-tattonment equilibrium.

B. HGE Growth Patterns

The annual per capita income growth rates of each high growth economy (HGE) is plotted and analysed in terms of the stylised ‘bell curve’ given above. Annual data for Vietnam is available only from 1995. This gives the clearest indication of a complete but aborted bell curve, with a collapse of growth from over 7% to a range of 2% to 3% (figure 1.1). Vietnam appears to be at a crossroad. If fundamental system reforms are made, the aborted bell curve could give way to ‘double bell’ curve in the next decade. India, China and Indonesia are the three other low-income countries among the star performers. India and China were the only two star performers in the ‘accelerating’ phase of ‘catch-up’ during the eighties and part or whole of the nineties. India whose per capita income is about half that of China’s, remains unambiguously in the ‘acceleration’ phase (figure 1.2), while China seems to have completed the ‘acceleration’ phase and reached the ‘plateau’ phase during the second half of the nineties (figure 1.3). India’s acceleration phase also appears to be the most gradual and prolonged compared to the other high growth countries.

Available data suggests that the Indonesian growth experience was an aborted bell curve. Indonesian growth jumped directly in one year (1968) to the ‘plateau’ phase of the bell curve (figure 1.4). It decelerated equally abruptly back to a slower growth in 1998. It is therefore almost like a step function with rectangular edges. While the trend rate of per capita growth over the entire period is about 3.5%, the average per capita growth rate over the ‘plateau’ phase was about 5.4% per annum. From 1989 to 1996 the actual growth rate was higher than the average growth rate for the high growth period. This is the first time since 1960 that the growth rate remained above the average rate for eight contiguous years. It is consistent with the hypothesis that ‘euphoria,’ (sustained perhaps by tacit collusion between Indonesia’s former rulers and external players)¹³, kept actual growth above the sustainable level. As a result, a possible gradually declining growth trend was converted into a potential crisis.

Thailand appears to have been in the ‘plateau phase’ of ‘catch-up’ since 1962, with an average growth of per capita GDP of 5.5% per annum till 1996 (figure 1.5). Two growth cycles or sub-phases are however discernible. The first sub-phase between 1962 and 1986 and the second since then. During the first seventeen years of this sub-phase (1962 to 1978), growth of per capita GDP averaged 5% per annum, falling to 3.5% during the second part (1979 to 1986). During the second part of sub-phase one, growth was continuously below the four-decade linear trend rate. In the second sub-phase, per capita GDP growth rose steeply to an unprecedented 8% per annum for the ten-year period 1987 to 1996, before collapsing in 1997. During the first part of sub-phase 2, there was only one year in which the growth rate (at 4.5%) was lower than either the

¹³ The former by suppressing negative news & information and the latter by ignoring negative factors that came to its attention.

average of part one of sub-phase one (5%) or the average growth rate from 1962 to 1996 (5.5%).

Thailand's growth can therefore be characterised either as a double bell (step) consisting of the two sub-phases or as a single bell with the second sub-phase representing 'euphoria'. If the later view is taken, then 'euphoria' was involved in keeping Thailand's actual growth rate during 1987 to 1996 above the sustainable level. One sign of this was the great divergence in the Agriculture sector between the share of Value Added (12.5%) and the share of labour force (64%).¹⁴ The ratio of these two, a measure of the relative productivity of agriculture, was 0.2 in 1990, the highest among the economies considered here.¹⁵ Comparable figures in 1990 for the much poorer countries are, India (31%, 64%, 0.48), China (27%, 72%, 0.37) and Indonesia (19.4%, 55%, 0.35). The panic and sharp decline in growth in 1997 and 1998 has therefore brought the high growth 'catch up' to a premature end (at least for the time being) while it is still a lower middle-income country.

Malaysia is also a middle income country which has gone through similar growth cycles during its 'plateau phase' which covers the entire period from 1961 to 1997 (Figure 1.6). The average growth rate of per capita income during this period at 4.5% was one- percent point lower than that of Thailand during its high growth period. Further, there is a clearer double bell pattern in the case of Malaysia, with growth building up from an average of 3.6% per annum during 1961 to 1971 to 5.6% during 1972 to 1981. Growth slowed during 1982 to 1987 to an average rate of 1.5% per annum ending the first bell curve.¹⁶ Growth revived to 6.1% per annum during 1988 to 1997 before collapsing in 1998 and thus ending the second bell curve. Though the average growth rate during the second (10-year) high growth period was only 0.5% point higher than in the earlier high growth period, there were only two years in which growth rates in the former fell (marginally) below the average growth rate during the latter. Even in these two years the growth rate (5.3%) was higher than the complete high growth period average of 4.5%. It therefore appears that actual growth was well above sustainable levels during the entire ten years, and that the euphoria-panic syndrome may have had a role in the Malaysian crisis.

One reflection of this euphoria was the difference in perceptions about India and Malaysia, whose trend growth of per capita income differed by only 0.2% per annum from 1980 to 1998 (table 2). Nobody operating in East Asia

¹⁴ This fact first came to our attention in 1996 and raised a doubt about whether it was reflective of structural problems which must eventually slow growth from its searing pace. The subsequent observation of an 8% current account deficit increased the unease despite the explanation provided by Thai officials at an ESCAP meeting in Bangkok that being financed largely by FDI it was quite sustainable, and a better measure of risk would be CAD-FDI.

¹⁵ One small (desert) country, Oman has a lower relative labour productivity.

¹⁶ A graph of the period 1961 to 1986 shows the bell curve clearly, with the linear trend growth projected forward declining to less than 3% by 1998.

would have put India even in the next lower, leave alone the same, performance category as Malaysia.¹⁷

Chilean growth is hard to characterise because of the extremely high variance. The co-efficient of variation of per capita GDP growth over the period 1961 to 1998 is 1.9. This is the biggest among the high growth countries being considered in this section. If we divide the total period into two sub-periods 1961 to 1983 and 1984 to 1998, we find that the volatility is high only in the former. The average growth rate of per capita GDP was low (0.9%) and the co-efficient of variation high (6.5), while the growth trend was flat or mildly rising, during the first sub-period. The opposite was true from 1984 to 1998, with an average growth rate of 6%, a CV of 0.4 and a declining trend. A clearer bell pattern also emerges in the post 1984 period (figure 1.7). Thus during the eighties and nineties Chile seems to have covered the entire gamut from the 'accelerating' to 'plateau' to 'decelerating' phase of the bell curve. This is despite the fact that with about 42% of US per capita GDP (in PPP, 1997 US\$) it still has a lot of catch up potential left.

Korea had a very gradual and smooth 'accelerating' 'plateau' and 'decelerating' phase from 1961 to 1997, with a modest peak around 1983 (figure 1.8). There is no clear indication in the per capita GDP growth data that there was any 'euphoria.' The growth rate for 1996 (1997) was marginally above (below) the linear trend rate. The growth rate was somewhat above the trend in 1994 and 1995, but three years of above trend growth has taken place often in the past. Korea has been on the 'decelerating' phase of the bell curve and appears to still be on it despite the crises of 1998.

Ireland has been on a rising (linear) trend growth path since 1961 (figure 1.9). It suffered a growth setback in the early eighties and emerged strongly from it in the late eighties. Thus an 'accelerating' growth phase is observable since the mid-eighties. There is also an indication that Ireland may have reached the 'Plateau' phase in the late nineties. With per capita GDP (at PPP) about 60% of the US level there is still considerable scope for fast catch-up growth.

Hong Kong was in the 'plateau' phase of growth during the sixties and most of the seventies (figure 1.10). Since then it has been gradually decelerating. Even more so than in the case of Korea there is no evidence of 'euphoria' in the growth data, with actual per capita growth almost exactly at the long term linear trend in 1997 (2.2%). Political developments, which could in principle, have a profound effect on the institutional structure in which the economy operates, may have changed future trends in a way it is difficult foresee at present. These could have also modified the response of economic agents to external shocks. With the exception of the 1998 crises Hong Kong

¹⁷ Its freedom ranking also changed in 1998, i.e. after the crisis.

growth has declined smoothly down to developed country levels, while its per capita income increased to 84% of US levels.

Among the set of high growth countries in our set, perhaps Singapore comes closest to the ideal bell curve of 'catch up' growth. In terms of this curve, per capita income growth increased in the sixties to reach a peak around 1972 (figure 1.11). Growth has been on a gradually declining trend since then, as Singapore raced to reach and then exceed the per capita income of the USA. Despite the sharp fall in growth in 1998 and 1999, the trend growth rate still appears to be above 3%. With a female labour force equal to 39% of total in 1997, compared to 45.5% in the USA, there is still scope for raising per capita income of the national population. Higher education and Research and Development will play a much more critical role, as the 'catch-up' growth possibility is largely exhausted.

The two small high growth countries Botswana and Mauritius, whose per capita GDP in 1997 was of the same order as that of Thailand and Malaysia have followed different growth paths during their high growth period. Botswana has followed an almost perfect Bell curve pattern with premature end, while the growth trend of Mauritius has been virtually flat for four decades. Botswana growth accelerated very quickly during the late sixties to reach very high levels. Gradual deceleration during the eighties and somewhat faster deceleration during the nineties followed the high growth hump of the seventies. Average per capita GDP growth during 1969 to 1991 was 9.6% per annum. This fell to 2% during 1992 to 1997. By 1995 the high growth period seemed to have come to a premature end, though growth seems to have picked up since then. The per capita GDP growth rate of Mauritius, in contrast, has shown a gradually rising trend over the four decades (average of 3.7%). The growth rate of 2.8% during the sixties and seventies was followed by a faster growth rate of 4.6% in the eighties and nineties. The variance in growth also appears to have declined between the two sub-periods (CV fell from 3.1 to 0.5).

C. Representative HGE: Determinants

In this section we look at some of the variables which have been mentioned as determinants of high growth, in the context of 'catch up'. The countries are ordered in terms of the average (1980-98) ratio of their per capita GDP (in purchasing power parity) to that of the USA (X-axis). The higher the income the closer the country is to the Global Income Possibility Frontier (GIPF). This allows us to identify possible changes in importance of different variables with the stage of development.¹⁸ Figure 2.1 plots the trend rate of growth of per capita GDP as estimated earlier (left Y-axis) and the average

¹⁸ In their critique of cross-country regressions, Rodriguez and Roderik (1999) had suggested that the importance of various determinants of growth may vary with stage of development.

gross domestic fixed investment rate (right Y-axis) over the same period. Both variables trace out the bell curve of catch up growth, but the hump in the case of per capita income growth is shallower, while GDFI shows an up turn at higher income levels (second bell?). This is a remarkable confirmation of the simple stylised framework of catch up outlined in section III.¹⁹

It is instructive to interpret this cross sectional bell curve as the inter-temporal bell curve of catch up for a representative high growth economy (RHGE). The trend growth rate of per capita GDP of the RHGE entering the catch up path accelerates fairly sharply to a 20-year average of between 3% to 4%. This is accompanied by (or driven by) a rise in its gross domestic fixed investment rate to about 27% of GDP. This is due to a set of policy reforms among which the most prominent (in recent decades) has been the modification of policies which distort the market and the removal of government interventions that hinder its operation.

GDFI peaks at about 33% when the RHGE is in the lower-middle income category. The growth rate peaks at around 5% subsequently when the RHGS crosses over from the lower to upper middle income category. The gross domestic fixed investment declines more sharply to about 24% by the time the RHGS has become a high-income country. As the average incremental capital output ratio declines by about one point over this period, there must be substantial efficiency gains during this phase of catch up. The per capita GDP growth rate, however, starts decelerating while the RHGE is in the middle-income category and then decelerates gradually to about 3.7%, at which time the RDGE would have become a high-income economy.

It is intriguing that there is a second spurt of investment after the RHGE has reached high income. It is as if some countries refuse to accept the inevitable deceleration of growth towards the developed country levels as they approach the Global Income Possibility Frontier. This requires them to step up their fixed investment rates sharply to maintain growth. For the current set of high-income countries the GDFI rate was raised by 6% points. The incremental capital output ratio (for the RHGE) rises from a trough of about 4.7 when it crosses to the high-income category to about 6 by the time it reaches the middle of this category. This suggests that the effort by government to maintain high growth may not necessarily be welfare enhancing. In the case of a truly free market economy the per capita GDP growth rate would likely have declined naturally to 3% or less along with investment.

As the role of foreign investment in growth has increased in the past two decades we plot it as a ratio to both GDP and Gross domestic investment (figure 2.2). Both curves show a fairly flat U-shape over the range of per capita income.²⁰ If we interpret these curves as inter-temporal ones for the

¹⁹ As given for instance by the formula $e^{-at}(1 - e^{-bt})$, where a, b are constants and t is time.

²⁰ In the graph of average (1980-97) FDI/GDI and FDI/GDI, Vietnam, Malaysia and Singapore are positive and India and S. Korea are negative outliers. The variance around the curve appears, however, to be quite high.

representative high growth economy (RHGE), then it can be said that the role of Foreign Investment in total investment declines (or remains constant) as the country moves from low to middle income and then starts increasing. Direct Foreign Investment falls from up to 10% of Gross Domestic Investment to about 5% of GDI by the time the RHGE crosses from lower to lower-middle income. It then starts to rise and doubles by the time the RHGE reaches the middle of the high-income category. Direct Foreign Investment changes much more slowly as a ratio of GDP, declining from over 2% of GDP at the low-income level to less than 1.7% of GDP by the time it is crossing over to the middle-income category. High income RHGEs which have continued to grow at high rates have had to push FDI back up to 3.5% or more of GDP and over 10% of Gross domestic investment.

On the basis of this analysis, we can frame the following hypothesis:

Hypothesis 1: Foreign Direct Investment, can play a critical role in helping a country break out of the ‘low level equilibrium trap’ and on to the ‘catch up growth path.’

Corollary 1.1: The break out role of Foreign Direct Investment declines with time as the economy adjusts to the new set of expectations.

FDI being an outside source of knowledge, capital & risk taking brings in a whole new and different set of expectations into an economy trapped in a traditional set of (‘rational’) expectations. It also has the capital and risk taking ability to make what for domestic investors at that point in time be very large and highly risky investments.

Hypothesis 2: The role of Foreign Direct Investment in helping transfer (genuine) “high technology” increases as the gap between the Domestic Information Possibility Frontier and the Global Income Possibility Frontier closes.

Corollary 2.1: The importance of FDI in transferring information & knowledge from the Global pool to the Domestic pool increases as the set of un-exploited global technology declines with the rise in domestic per capita GDP.

Hypothesis 3: The role of FDI is least important in maintaining high growth in a middle-income country with adequately developed channels for the flow of (domestic and/or international) capital.

The net role of FDI is a combination of the two factors mentioned in Hypothesis 1 and Hypothesis 2, yielding a shallow U shaped curve for the degree of importance with per capita GDP.

Education and Human capital are widely accepted as important factors in economic growth [Barro and Lee (1993) and Barro (1997)]. The most reliable and readily available data is for literacy and school enrolment (gross). Figure 2.3 shows the illiteracy rates for the high growth economies. The representative high growth economy starts with an illiteracy rate of 20% to 25% and this is reduced to 12% or less by the time it reaches the highest income level.²¹ This suggests that an illiteracy rate of up to 20% to 25% may not constrain high growth in low-income country. Similarly, a middle (high) income high growth country may not be too constrained by illiteracy levels up to 11% to 15% (5%). Though these levels appear to be high, the illiteracy rate of retirees and those approaching retirement, may not be relevant to the relatively new, growing segments of the economy. As the countries, which have reached upper-middle or high-income level have grown very rapidly from low income, the group of illiterate retired people may still be 5% at the end of the journey.

What is critical is education of those entering the labour force. This is measured by the enrolment ratios in primary school, secondary school and at tertiary levels. The primary school (gross) enrolment ratio of the representative high growth economy rises from about 96% at low income to 101% at high income (in terms of the pattern/trend in fig 2.3).²² A ratio exceeding 100% is probably the result of a proportion of students going through cycles of dropping out and rejoining.

This leads us to the following two hypothesis, which contradict conventional wisdom:

Hypothesis 4: Universal 100% literacy is not a pre-requisite for a low-income country to break out of the low growth trap and accelerate on to the high growth catch up path.

Corollary 4.1: Illiteracy among retirees and those nearing retirement age (i.e. above 50 or 55) is not a constraint on achieving high catch up growth.

Corollary 4.2: If there is a region within a growing country in which illiteracy is more than 25% it is likely to be left out of the growth process and the benefits of rising income. In such a region literate residents who want to participate in the country's growth can only do so through migration.

Corollary 4.3: Literacy of workers and non-working parent(s) is important for growth.

Hypothesis 5: Introduction of Universal Primary Education is necessary for moving a country on to high growth path and keeping it there.

Corollary 5.1: The coverage of the primary school system must make it accessible to over 95% of a country's children.

²¹ India and Oman are outliers with excessively high average illiteracy rate over 1980-97.

²² India, Oman and Botswana are outliers with low average primary enrolment during 1966-85.

Corollary 5.2: If there are one or more regions within a growing economy in which there are no primary schools the relative income of their residents will stagnate.

The representative high growth economy requires a minimum secondary enrolment rate of about 30%. As the RHGE moves from low to high income the gross secondary school enrolment rate rises from this level to over 75% by the time it reaches high-income. With the rise in income levels a portion of students who have completed secondary education will move into the tertiary education system. The representative high growth economy initially has a gross tertiary enrolment rate of 0 to 3%. As the RHGE moves from low to high income the tertiary rate rises from this level to plateau out above 30%.

The ratio of tertiary to secondary enrolment rises progressively from about 15% at low-income to 45% at high income, and the number of secondary school students going into the work force will tend to drop proportionately. As the secondary school enrolment is rising over the same period the proportion of new entrants into the labour force who have a secondary education will also rise (from approximately a third to half).

This leads us to the following hypothesis:

Hypothesis 6: A minimum threshold level of Secondary school enrolment is necessary for a low-income economy to transit from 'low-income equilibrium trap' to high catch up growth.

Hypothesis 7: A tertiary education system is not a pre-requisite for a low-income country to move from low to high growth. A low-income country can enter the high growth path even if the tertiary enrolment ratio is minimal.

Corollary 7.1: A small group of elite with tertiary education obtained domestically or from foreign educational institutions can put the economy on a high growth path.

Corollary 7.2: An early development of the tertiary education system can, however, be beneficial to those countries which move quickly from low to high income (very high growth rate during middle income levels).

Hypothesis 8: The Secondary School and Tertiary Enrolment rates must rise progressively to cover about three-fourth and a third of all children respectively, if a country is to maintain high growth during the entire path from low income to high income.

The openness of the trade regime has been identified as an important factor in economic growth [Edwards (1993), Sachs and Warner (1995), Krueger (1998), Stiglitz (1998)]. The ratio of customs duty revenues to value of imports is one measure, which has been used to define openness. Though the potential

downward biases in this measure have been noted (e.g. Rodriguez and Rodrik (1999)] there are also upward biases in countries without a pure sales or value added tax. Countries that collect indirect taxes at the production stage either have a countervailing duty at the border point or no such duty (or both-for different domestic taxes). In the first case the customs duty collection contains the CVD and gives an overestimate of the protection, a data problem that can in principle be corrected. In the second case domestic taxes must be subtracted from the customs duty to determine the protective element (bias against foreign goods).²³

Another measure of openness is the trade-GDP ratio. Logically the combination of several countries into a single customs unit (for instance EU) will reduce measured trade with outsiders, as intra-country trade within the new unit will not appear in trade statistics. It follows that large countries must have a lower trade-GDP ratio than smaller ones with equal protection. Thus it is necessary to adjust for size before using this measure as an index of protection.

For the representative high growth economy the trade-GDP ratio seems to fall with population (market size) and to rise as square of per capita GDP. Figure 2.5 shows that for a representative high growth economy the trade-GDP ratio is around 25% at the low-income level. The RHGE's trade-GDP ratio rises gradually during middle-income levels and faster during high-income.

We would hypothesise that for countries reaching the high- income level, the rise of the trade ratio at that income is part of a cluster of policies,

- a) Designed to raise domestic fixed investment, foreign investment and exports, so as to keep growth from falling to “normal” developed country levels.
- b) Which may not be consistent with Welfare maximisation, and
- c) Which may involve implicit coercion of economic agents by the policy makers.

D. Summary Performance: HGEs

The growth pattern of the high growth countries (HGEs) during the last two decades of the 20th century, which is the main focus of this paper, can be summarised as follows:

Among the HGEs only two remain in the low-income category at the end of the century. Vietnam the poorest seems to have gone through the entire bell curve of catch-up from acceleration through plateau to deceleration. Its high growth catch up seems to have come to a premature end for the time being. India the other HGE in this category was also the only country in the accelerating phase of catch-up.

Three HGEs remain in the lower-middle income category. China was in the plateau phase during most of this period and seemed to have entered the

²³ For India both problems exist simultaneously (for central & state level taxes respectively) so that the average tariff is a gross over estimate of the protection.

decelerating phase at the end of the century. Indonesia went through the plateau and deceleration phases during these two decades, though this was masked by euphoria during the nineties. The euphoria was offset by the onset of panic in 1997 bringing the high growth catch-up phase to a premature end.

In our judgement a soft landing and gradual deceleration would have been much more likely if the society had been more democratic, and media and political & civil society truly free. This would have allowed weaknesses and problems to be exposed and addressed gradually thus diffusing any euphoria. In fact they accumulated without public acknowledgement by any of the significant economic and political actors (domestic and foreign) till they had reached explosive dimensions by about 1996.²⁴ This has a wider lesson for other closed, authoritarian countries even when they are overlaid with a veneer of democracy.²⁵ Though the paper does not analyse macro-economic factors, it is clear that the fixed exchange regime also played an important role. We, however, disagree with views such as those of Sachs and Woo (1999) that underlying structural weaknesses were not important.

After a relative deceleration in growth during 1980 to 1986, Thailand underwent a second spurt of acceleration and deceleration between 1987 and 1998 (second bell). In a longer perspective, Thailand's growth during these decades could be viewed as a decelerating phase of the complete bell curve. In the latter perspective the first two-third of the eighties were a warning whose lessons were not fully learned and the negative factors in the economy perhaps consciously underplayed or hidden. These negatives accumulated under the blanket created by the euphoria of the first half of the nineties.

Malaysia and Chile are the two upper-middle income countries among the star performers. The growth pattern of Malaysia during the last two decades shares more of the characteristics of Indonesia than of Thailand, despite the bigger gap in per capita income. Like Indonesia it had part of the plateau phase and the decelerating phase during these decades, while the end of the period was marked by euphoria. Prior to the recent crises, Thailand did not have a single year of negative growth while both Malaysia and Indonesia have had a periodic year of negative growth over the last four decades. It shares with Thailand only a period of relative growth deceleration, during 1982 to 1987, before another (but milder) acceleration-deceleration cycle. Chile on the other hand went through an entire cycle of acceleration-plateau-deceleration during the last two decades somewhat similar to Thailand, but with no evidence of euphoria. The broad conclusion is that the growth patterns seem to be much more varied at the

²⁴ In late 1996 on learning from an economist who had worked in Jakarta, that about half the capital of Indonesia (from which almost half of GDP originated), did not have a modern water and sewage system, we concluded that there were a lot of suppressed/unknown negatives in Indonesia and its growth would slow in the next few years. Such negative facts about the HGEs were never even hinted at in publications or by experts.

²⁵ A couple of common sense tests can be applied. A. Change of rulers (leader & party). B. 1) The Mars test: How long would it take for a person from Mars to learn about the country's problems and negatives by listening to TV or reading the newspapers. 2) Does one ever hear criticism of the country's leader (Prime Minister, President or Party Chief)? 3) Do academics & intellectuals feel free to fearlessly criticise the government, and is such criticism made and is accessible to the general public?

middle-income level. Different shocks, setbacks and policy responses impose individualised cyclical patterns on the overall catch up curve.²⁶ A greater degree of pragmatism and flexibility in policy seems to be required to maintain high growth during this phase and successfully take the country to the high-income level.

Among the high-income countries Ireland stands out as a country on the accelerating phase of catch up during these two decades. It shares this distinction with India a country with a fraction of its per capita income. As in the case of Chile and Thailand, in a longer perspective this acceleration succeeded a period of slower growth (second bell). The growth patterns of South Korea, Hong Kong and Singapore show a much cleaner pattern. During the last two decades the first went through its plateau and deceleration phase, while the last two were in the deceleration phase with Hong Kong decelerating much faster than Singapore. Consequently, by the end of the century, Singapore's per capita GDP has caught up with the US but Hong Kong has not.

V. CONSUMPTION/INCOME DISTRIBUTION

It is sometimes argued that there is a trade-off between growth and income distribution. It is therefore useful to examine consumption or income distribution of the high growth economies. Of the 11 medium-large high growth economies neither distribution is available for three (S. Korea, Hong Kong & Singapore). The consumption distribution is available for Vietnam, India and Thailand, while the other six countries have the income distribution available. It is likely that in most countries the consumption distribution is better than the income distribution, because of a positive correlation between saving rates and income. This limitation has to be kept in mind.

India (1994) appears to have the best distribution among the high growth countries, both in terms of the Gini co-efficient of expenditure (29.7) and in terms of the share of consumption going to the lowest 10% (4.1%) or lowest 20% (9.2%) of the population. If we compare these with all (92) countries for which consumption/distribution data is available, only 16 have a consumption/income distribution better than that of India. Of these, three (Norway, Poland & Bangladesh) also have relatively high growth rates (top 20). Of the sixteen, 7 are from E. Europe and 7 from W. Europe. Rwanda and Bangladesh are the only two developing countries with a better consumption distribution than India. Another E. European country had a better Gini but worse share for the poorest. Thus India which was among the ten fastest growing economies in the world during 1980-98 also had a consumption distribution which is among the 16 to 20 best ones in the world.

²⁶ Botswana was in the decelerating phase and Mauritius in the plateau phase during these two decades. Botswana's high growth spurt therefore appears to have come to an end, while that of Mauritius continues.

The second most equal country among the high growth economies is Indonesia with a Gini co-efficient of income of 36.5 and income shares of 3.6% and 8% for the lowest 10% and lowest 20% respectively.

VI. STARS OF THE 21st CENTURY!

A. Growth Projection: HGEs

This section attempts to answer the question; “Which will be the ten fastest growing countries in the first decade of the 21st century.” The attempt is however slightly more modest, in that the question actually answered is, “Which countries among the Star Performers of the last two decades of the 20th century are also likely to be the star performers in the next decade.” A corollary of the answer is an inter se ranking of these countries. The per capita GDP growth forecasts on which the ranking made, are based on the growth trend analysis in the previous section, and on examination of the ‘catch up curves.’ The focus as in the rest of the paper is on medium-large countries. With the exception of Ireland, all the star performers have been affected by the Asian crises. The mean growth forecasts are therefore extremely tentative (table 3).

Eight of the eleven high growth economies from the 1980-98 period continue to find a place among the star performers in the 21st century. This high performance momentum or inertia was noted even by the World Bank (1993) Asian Miracle study. Only three countries, Hong Kong, Malaysia and Indonesia are forecast to drop out of the ranks of this elite. The dropping out of Malaysia is presaged by its 11th position during 1980-98, and its estimated performance during the full two decades, 1980-2000 (table 2). Hong Kong was estimated to drop from 7th position in 1980-98 to 10th position for the full two decades. This trend is indicative of the fact that it has come to the end of its high growth curve and leads to its dropping out from the set of high performers. The change in its political status coupled with its currency board system may keep it from growing at the upper end of the normal high- income developed country range.²⁷ Though Indonesia was at 9th position during the two decades, the Euphoria-Panic cycle has imposed additional costs on it, which will take time to be made up, before it can hope to get back into the ranks of the star performers.²⁸

Table 3: Star Performers of the 21st Century- Per Capita GDP Growth						
Country	Size	Forecast:2000-2010				
		Rank	Growth Range		Avg gr rt (tentative)	
			Min	Max		
Ireland	m	Top 3	6.1%	8.4%	6.9%	
China*	l	Top 3	4.6%	7.1%	5.9%	

²⁷ Given (asymmetric) downward price stickiness, close ties to and increasing influence of China and Chinese real depreciation, a currency board will not (in my view) sustain high growth in Hong Kong.

²⁸ Apart from the visible political upheaval.

India**	l	Top 3	4.9%	6.4%	5.7%
Chile	m	Top 6	2.8%	6.3%	4.6%
Korea, Rep.	l	Top 6	2.9%	5.7%	4.4%
Vietnam	l	Top 10	1.3%	5.6%	3.5%
Singapore	m	Top 10	1.7%	4.3%	3.0%
Thailand	l	Top 10	1.5%	4.4%	3.0%
X	l or m	Top 10			
X	l or m	Top 10			
Notes:					
1) The forecast for 2000-2010 is a judgmental one based on analysis of past trends.					
2) * The forecast for China assumes that past over-estimates of growth by 2%					
Would be gradually corrected over the decade (0.2% point per annum).					
Actual growth could be lower or higher as correction is faster or slower respectively.					
3)** The min is based on a worst case scenario, which has a few years of very low growth.					

The top three performers in the 21st century are forecast to be Ireland, China and India (table 3). Ireland and India were the two surprise entrants to the ranks of the star performers. They were also the only two countries in the accelerating phase of high growth during the past two decades. There are indications that the growth of Ireland may soon reach a plateau. Maintenance of this growth rate would make Ireland the fastest growing economy in the next decade.

China in contrast to the other two countries went through its accelerating and plateau phase during this period and seems to have entered the decelerating phase. Any forecast of China's growth is, however, complicated by the fact that (as now generally accepted), past growth is over estimated by an average of 1 to 2% per annum. In making the forecast we have assumed a past overestimation of 2%, and projected it to be corrected (through better statistical systems) over the next decade, to become 0% by the end of the decade. If this statistical improvement does not take place, the official growth numbers would tend to be about one per cent higher than forecast. Conversely if we look only at the statistically corrected growth rates of per capita GDP, they would range between 3.6% to 6.1% with an expected value of 4.9%. This would, however, still put China among the top three performers during the next decade.

Our reasons for taking the upper end of the statistical error (2%) and for forecasting a real underlying per capita GDP growth rate of 4.9% per annum over the next decade requires some justification. It is based on our analysis of euphoria and the possibility of accumulated negatives in a society and polity such as China. Among the inconsistencies or incongruities, which suggest such hidden negatives are the following:

a) Reports of masses of unemployed people roaming the countryside (or trying to enter cities without authorisation) looking for work. A typical low-income Asian "labour surplus economy" (a la Arthur Lewis) is characterised by disguised unemployment or underemployment in the rural sector. For such a

country to have mass open unemployment after 18 years of 10.6% (or even 8.6%) growth, denotes inconsistency.

b) One of the enduring facts about low-income developing countries is that they have relatively low domestic saving rates, higher domestic investment and a corresponding deficit on the current account of the Balance of payments. China in contrast has phenomenal levels of domestic savings and investment coupled with very high levels of FDI and a surplus on the current account for 12 of the past 17 years (with an average surplus about 0.5% of GDP). This is a historical anomaly, which is unlikely to be sustainable.

c) China has comprehensive capital controls, a current account surplus and rising foreign reserves for much of the period. Yet the last two years have seen repeated discussion/speculation of a Chinese devaluation. With capital account controlled, a devaluation in the presence of current account surplus and rising reserves is a complete violation of market economics (but perhaps not of socialist mercantilism). Yet this did not figure in discussion or analysis till very recently.

d) China's labour intensive exports are highly competitive. This cannot, however, be said of the capital-intensive exports produced by the state enterprises. Yet a very large variety of such exports at unbeatable prices are increasingly found in developing countries. The possibility that these entail implicit subsidies in the form of losses financed by loans from the State banks cannot be ruled out. If true this would mean that recent estimates of Non-performing loans - up to 33% of outstanding portfolio - may be under-estimates. It would also suggest future difficulties with respect to export growth.

Despite these potential negatives our forecast assumes a decline in average real per capita GDP growth of only about 2% points, which would still leave China at number three rank among the growth stars of the first decade of the 21st century. The number two rank would be taken by India.

As it enters the 21st century, India a low-income country is still on the accelerating phase of its catch up, with an enormous amount of catch up still left. The greatest strength (some would say weakness) is the free, open and democratic society and polity, which ensures that all weaknesses and problems are fully exposed and debated. The actual growth rate within the range of rates indicated will depend on the pace and depth of reforms that follows from this knowledge. The worst case scenario can result iff some critical reforms, such as the reallocating and improving the quality of government expenditure, are not undertaken in the next 5 to 10 years. From among the variables analysed in this paper the most significant negative is the relatively high illiteracy rate of 38%. This is however expected to come down below 25% during the next decade. The gross primary (100%) and secondary enrolment rates are already up to par while tertiary enrolment remains above par (positive factor).²⁹ Other important

²⁹ Though drop-out rates will have to be reduced to improve net enrolment rates.

variables such as Foreign Direct Investment and foreign trade are on a clear increasing trend with policy distortions substantially corrected.³⁰

Achievement of per capita GDP growth of over 5.5% would require a substantial step-up in the pace of economic reforms on the lines indicated in Virmani (1999). An average growth rate of 5.7% per annum over the next decade (based on an average pace of reforms) is the most likely outcome (table 3). This would be 1.6 per cent point higher than the trend growth rate during the last two decades (table 2) and would move it from 6th rank in 1980-2000 to third or higher rank in 2000-2010. This is a feasible proposition, because;

a) A spurt of reforms in 1991 and 1992 increased growth by about 1 % during the next eight years compared to the previous 12, and

b) India will undergo a demographic transition during the next two decades which will lower the dependency ratio (Bloom and Williamson (1998)) and could increase per capita GDP growth rates by about 0.7%.

South Korea is likely to retain its position among the 6 fastest growing economies while Chile moves up to this sub-category possibly overtaking S. Korea in ranking. Korea has previously had (1979) and recovered from very sharp drops in growth, even though the current one is much sharper and may reflect a larger accumulation negative factors requiring policy reform and new approaches. Moving even part way back to its long term trend, which is very likely, would be enough to help retain its position in the this sub-group. Chile has been moving up the growth rankings and appears set to continue on this path. In its case the record following a year of negative growth is mixed, with some setbacks being more permanent and reducing trend growth while others have been followed by a renewal of vigorous growth. The growth slowdown this time is relatively minor and therefore expected to be reversed.

Vietnam, Singapore and Thailand are the other three high performers of the last two decades, which may retain their position in the top ten. Though Vietnam seems to have come to an end of one bell growth cycle, it has the potential to re-accelerate given sufficiently purposeful reforms. There is however the possibility that such reforms will not take place for political reasons and Vietnam will drop out of the top ten. Thailand still has high growth potential but also an accumulated baggage of un-addressed negatives. The degree of attention and success in dealing with the accumulated problems will determine its growth ranking. In both cases we have assumed an average pace of reforms in making the judgement that they will remain in the top ten. There is much less uncertainty about Singapore, which will continue on its gradually declining growth trend. Growth is however, unlikely to decline so much as to remove it from the top ten during the next decade.

With two slots opening up in the top ten, promising potential candidates for inclusion among the star performers of the first decade of the 21st century

³⁰ QRs on BOP grounds will be completely eliminated by 2001 as per irreversible written commitments. All governments during the nineties have verbally committed to bringing tariff rates to ASEAN levels by 2003-5.

are Sri Lanka, Norway, Laos, Poland, Bangladesh and Uganda. Thus for the two slots vacated by Asian countries in the top ten, three of the six potential candidates are from Asia and four out of six are poor countries in which policy reforms will play an important role.³¹ In the case of Sri Lanka and Bangladesh, the creation of a South Asian common market could also play a catalytic role given the projected growth rate of India.³²

From among the small high growth countries Mauritius is likely to improve its rank vis-à-vis Botswana, which may drop below the tenth best of the large-medium countries. Lesotho and Oman are likely to move above this growth rate with the former possibly becoming the top performer among the small countries, while Oman competes with Mauritius.

B. Size: China and India

We have shown in the previous section that India and China are likely to be among the three fastest growing economies in the World in the first decade of the 21st century. This has certain implications for the Global Economy. In terms of relative size, measured by GDP in purchasing power parity, the five largest economies in the world in 1998 were the USA, China, Japan, Germany and India.³³ By the end of 1999 India will overtake Germany to become the fourth largest economy. Taking the tentative growth projections in Table 3 and estimating a per capita GDP growth rate for the USA, Germany and Japan as 2%, 1.9% and 0.9% per annum over the next decade we make some illustrative projections for the large countries. The Indian economy is projected to be 10-15% larger than that of Japan (in terms of GDP at PPP) in 2010. Thus by 2010 India's economy will be among the three largest in the world after the USA and China. Its per capita income (/GDP at PPP) would still however be about one-twelfth of Japan's and about one-tenth that of Germany.

The countries with the largest contribution to World GDP growth in 2010, in terms of absolute US \$ value of additional GDP (at market exchange rate) will also be China, USA and India (along with Germany). In that year, China's contribution is projected to be about 45% and India, Germany and Japan's about 17-18% that of the USA.³⁴ The incremental contribution of UK, S. Korea, and Brazil would be 0.5 to 0.6 that of India in 2010.

These increments to GDP would also be an approximate measure of their incremental contribution to World trade in goods and traditional services (e.g.

³¹ Over a slightly longer horizon of 15 to 20 years, Malaysia and Indonesia would still be potential candidates.

³² Perhaps followed by an Asian Common Market including ASEAN.

³³ This is a much better way to compare the relative size of different economies than nominal exchange rate based estimates, even though it is far from perfect.

³⁴ The increase in India's GDP in PPP would be about 80% that of USA in 2010. S Korea the next largest contributor (in PPP terms) would have an increase in GDP only 23% that of India's.

international transport & communication).³⁵ With a host of newly tradable services likely to enter world trade in the next decade, however, the PPP based increments to GDP may provide better indicators for the increase in trade in previously non-traded services.

VII. CONCLUSION

While attention has been focused on the Asian Tigers, Asian NICs and the Chinese dragon during the past two decades, the performance of the Asian Elephant, India has largely gone unnoticed.³⁶ In terms of per capita income the accepted measure of economic performance, India was the eighth fastest growing economy in the world during 1980-98. It is estimated to be the sixth fastest during the last two decades of the 20th century. Only S. Korea & Singapore among the 'Asian Tigers,' Thailand & Indonesia among the NICs (Newly Industrialised Countries) and China (the newest Asian HPE), will have a higher trend growth rate during these two decades.

In the first decade of the 21st century India's growth ranking is projected to improve further to the top three. In the next decade therefore India is forecast to grow faster than the 'Asian Tigers' and the 'Asian NICs'. Its only Asian (or Emerging market) competitor in the growth sweepstakes will be China's Dragon economy the newest Asian entrant to the group of star performers. The cycle of history will after half a century have turned full circle, with these two large emerging economies again engaged in friendly competition for the number two slot in the economic growth and development sweepstakes.

By 2010 India will be the third largest economy in purchasing power parity. In that year its contribution to the growth of the World economy in current USDs will also be the third largest, along with that of Germany and Japan. Despite its relatively low per capita income, India will therefore be (along with the USA, EU, China and Japan) one of the five most important economies in the world in 2010.

³⁵ The market exchange based estimate of tradable goods has the same value as the PPP based estimate.

³⁶ This was pointed out in Virmani(1999).

VIII. APPENDIX TABLES

A. Table A1: Size of Economies

Table A1. Size of the Economy in 1998					
		GNP (PPP)			
No.	Economy	Population	Per-Capita	Absolute (bi \$)	GDP (mi \$)
1	China	1239	3220	3,984	960,924
2	Korea, Rep	46	12270	569	297,900
3	Thailand	61	5840	357	153,909
4	Singapore	3	28620	91	85,425
5	Botswana	2	8310	13	5690
6	Ireland	4	18340	68	80,880
7	Vietnam	78	1690	131	24,848
8	Hong Kong	7	22000	147	166,554
9	Chile	15	12890	191	78,025
10	Indonesia	204	2790	569	96,265
11	India	980	1700	1,661	383,429
12	Malaysia	22	6990	155	71,302
13	Sri Lanka	19	15720	46	15,093
14	Lesotho	2	2320	5	792
15	Norway	4	24290	108	145,896
16	Turkey	63	6430	410	189,878
17	Portugal	10	14380	143	106,650
18	Lao PDR	5	1300	7	1,753
19	Egypt	61	3130	193	78,097
20	Poland	39	6740	261	148,863
21	Bangladesh	126	1100	138	42,775
22	UK	59	20640	1,219	1,357,429
23	Denmark	5	23830	126	174,272
24	Finland	5	20270	105	125,673
25	Pakistan	132	1560	205	63,895
26	Uganda	21	1170	25	6,653
27	Japan	126	23180	2,928	3,783,140
28	Spain	39	16060	632	551,923
29	Australia	19	20130	378	364,247
30	Dominican Rep	8	4700	39	15,489
31	Nepal	23	1090	25	4,479
Economies not in WDR 1999-00					
	Mauritius	1	9360	11	4151
	Oman	2	8690	20	13438
Large economies					
	USA	270	29340	7,923	8,210,600
	Japan	126	23180	2,928	3,783,140
	Germany	82	20810	1,709	2,142,018
Economies not in WB data set					
	Taiwan	22	10550	227	226825

B. Table A2: Growth Trends

Table A2. Trend Growth Rate of Economies										
Trend Rate of Growth: Annual Average (%)										
No.	Economy		Gross Domestic Product				Per Capita GDP			
			1980-90	1990-98	1980-98	1980-00	1980-90	1990-98	1980-98	1980-00
1	China	l	10.2	11.1	10.6	10.1	8.7%	10.0%	9.2%	8.8%
2	Korea, Rep	l	9.4	6.2	7.9	7.7	8.2%	5.2%	6.8%	6.6%
3	Thailand	l	7.6	7.4	7.5	7.1	5.9%	6.2%	6.0%	5.7%
4	Singapore	m	6.6	8.0	7.2	6.9	4.9%	6.1%	5.4%	5.1%
5	Botswana	s	10.3	4.8	7.8	7.5	7.4%	2.1%	5.0%	4.7%
6	Ireland	m	3.2	7.5	5.1	5.3	2.9%	7.0%	4.7%	4.9%
7	Vietnam	l	4.6	8.6	6.4	6.2	2.5%	6.5%	4.3%	4.1%
8	Hong Kong	l	6.9	4.4	5.8	5.3	5.7%	2.5%	4.3%	3.7%
9	Chile	m	4.2	7.9	5.8	5.6	2.6%	6.3%	4.2%	4.0%
10	Indonesia	l	6.1	5.8	6.0	5.7	4.3%	4.1%	4.2%	3.9%
11	India	l	5.8	6.1	5.9	6.0	3.7%	4.3%	3.9%	4.1%
12	Malaysia	l	5.3	7.7	6.3	6.0	2.7%	5.4%	3.9%	3.5%
13	Sri Lanka	m	4.0	5.3	4.6	4.7	2.6%	4.1%	3.3%	3.4%
14	Lesotho	s	4.4	7.2	5.6	5.2	1.7%	5.1%	3.2%	2.8%
15	Norway	l	2.8	3.9	3.3	3.1	2.4%	3.4%	2.8%	2.7%
16	Turkey	l	5.4	4.1	4.8	4.6	3.1%	2.3%	2.7%	2.6%
17	Portugal	m	3.1	2.3	2.8	2.8	3.0%	2.2%	2.7%	2.7%
18	Lao PDR	s	3.7	6.7	5.0	4.9	1.4%	4.1%	2.6%	2.5%
19	Egypt	l	5.4	4.2	4.8	4.9	2.9%	2.2%	2.6%	2.7%
20	Poland	l	1.8	4.5	3.0	3.2	1.1%	4.3%	2.5%	2.8%
21	Bangladesh	l	4.3	4.8	4.5	4.6	1.9%	3.2%	2.5%	2.6%
22	UK	l	3.2	2.2	2.7	2.6	3.0%	1.9%	2.5%	2.4%
23	Denmark	l	2.3	2.8	2.5	2.4	2.3%	2.4%	2.4%	
24	Finland	l	3.3	2.0	2.7	2.8	2.9%	1.6%	2.3%	2.4%
25	Pakistan	l	6.3	4.1	5.3	5.2	3.2%	1.2%	2.3%	2.2%
26	Uganda	m	3.2	7.4	5.0	5.0	0.8%	4.3%	2.3%	2.3%
27	Japan	l	4.0	1.3	2.8	2.6	3.4%	1.0%	2.3%	2.1%
28	Spain	l	3.0	1.9	2.6	2.6	2.6%	1.7%	2.2%	2.3%
29	Australia	l	3.4	3.6	3.5	3.5	1.9%	2.4%	2.1%	2.1%
30	Dominican Rep	s	3.1	5.5	4.1		0.9%	3.6%	2.1%	
31	Nepal	m	4.6	4.8	4.7	4.5	2.0%	2.1%	2.1%	1.8%
Economies not in WDR 1999-2000										
5b	Mauritius	s	6.2	5.1	5.7	5.7	5.3%	4.0%	4.7%	4.7%
15b	Oman	s	8.3	5.7	7.1	6.8	4.4%	0.7%	2.75%	2.3%
Large economies										
	USA	l	3.0	2.9	2.9	3.0	2.1%	1.9%	2.0%	2.0%
	Japan	l	4.0	1.3	2.8	2.6	3.4%	1.0%	2.3%	2.1%
	Germany	l	2.2	1.6	1.9	1.9	2.1%	1.1%	1.7%	1.6%
Economies not in WB data sources										
	Taiwan**	l	7.9	6.3	7.2	6.9	6.3%	5.0%	5.7%	5.5%

Table A2. Trend Growth Rate of Economies (continud)

			Annual Average growth rate (%)			
No.	Economy		Population			
			1980-90	1990-97	1980-98	1980-00
1	China	l	1.5%	1.1%	1.3%	1.3%
2	Korea, Rep	l	1.2%	1.0%	1.1%	1.1%
3	Thailand	l	1.7%	1.2%	1.5%	1.4%
4	Singapore	m	1.7%	1.9%	1.8%	1.8%
5	Botswana	s	2.9%	2.7%	2.8%	2.8%
6	Ireland	m	0.3%	0.5%	0.4%	0.4%
7	Vietnam	l	2.1%	2.1%	2.1%	2.1%
8	Hong Kong	l	1.2%	1.9%	1.5%	1.5%
9	Chile	m	1.6%	1.6%	1.6%	1.6%
10	Indonesia	l	1.8%	1.7%	1.8%	1.7%
11	India	l	2.1%	1.8%	2.0%	1.9%
12	Malaysia	l	2.6%	2.3%	2.5%	2.4%
13	Sri Lanka	m	1.4%	1.2%	1.3%	1.3%
14	Lesotho	s	2.7%	2.1%	2.4%	2.4%
15	Norway	l	0.4%	0.5%	0.4%	0.4%
16	Turkey	l	2.3%	1.8%	2.1%	2.0%
17	Portugal	m	0.1%	0.1%	0.1%	0.1%
18	Lao PDR	s	2.3%	2.6%	2.4%	2.4%
19	Egypt	l	2.5%	2.0%	2.3%	2.2%
20	Poland	l	0.7%	0.2%	0.5%	0.4%
21	Bangladesh	l	2.4%	1.6%	2.0%	2.0%
22	UK	l	0.2%	0.3%	0.2%	0.2%
23	Denmark	l	0.0%	0.4%	0.2%	0.2%
24	Finland	l	0.4%	0.4%	0.4%	0.4%
25	Pakistan	l	3.1%	2.9%	3.0%	3.0%
26	Uganda	m	2.4%	3.1%	2.7%	2.7%
27	Japan	l	0.6%	0.3%	0.5%	0.4%
28	Spain	l	0.4%	0.2%	0.3%	0.3%
29	Australia	l	1.5%	1.2%	1.4%	1.3%
30	Dominican Rep	s	2.2%	1.9%	2.1%	2.0%
31	Nepal	m	2.6%	2.7%	2.6%	2.6%
Economies not in WDR 1999-2000						
5b	Mauritius	s	0.9%	1.1%	1.0%	1.0%
15b	Oman	s	3.9%	5.0%	4.4%	4.4%
Large economies						
	USA	l	0.9%	1.0%	0.9%	0.9%
	Japan	l	0.6%	0.3%	0.5%	0.4%
	Germany	l	0.1%	0.5%	0.3%	0.3%
Economies not in WB data sources						
	Taiwan**	l	1.6%	1.3%	1.5%	1.4%

Notes: 1) Large(l)/Medium(m) economies are defined as those with population greater than or equal to 20/10 mi. or GDP greater than US \$ 100/40 billion. Rest are small(s).

2) The growth trend for 1980-98 is a log average of the growth trends for 1980-90 & 1990-98, from WDR 1999-2000. Data on Mauritius and Oman are from WDR 1998-99.

3) Forecasts of 1999 and 2000 are from ADB Asian Economic Outlook 1999 (update) and IMF World Economic Outlook October 1999.

Own estimates are made for countries for which neither publication gives a forecast.

4) Data for Taiwan are from IMF WEO, and are non-comparable to the others.

C. Table A3: Summary Statistics (Averages for Period 1980-97)

Table A3: Summary Statistics (Average of period:1980-97)									
	Lower Income		Lower Middle Income				Upper Middle Income		
	India	Vietnam	Lesotho	Indonesia	Sri Lanka	China	Thailand	Malaysia	Botswana
gnppc:ppp	1016	1038	1751	1902	1558	1443	3646	4423	4709
gnppc-ppp:Country/usa	0.05	0.04	0.09	0.09	0.07	0.06	0.17	0.21	0.22
gdppc:ppp	1025	1261	1048	1452	1574	1983	3718	4667	4839
gdppc-ppp:Country/usa	0.05	0.05	0.05	0.06	0.07	0.09	0.17	0.22	0.23
pcgdp gr rt	3.9	4.3	3.2	4.2	3.3	7.2	6.0	3.9	5.0
gdi/gdp	23.5	20.0	61.2	28.3	25.4	36.8	34.3	34.2	28.7
gdfi/gdp	21.6	20.6	60.8	30.6	25.1	25.8	33.6	34.1	26.6
ICORf	3.9	3.1	14.6	4.0	5.0	3.2	5.2	5.1	3.2
fdi/gdp	0.2	4.0	1.9	2.1	1.0	0.9	1.3	4.7	2.6
fdi/gdi	0.8	16.9	3.3	5.3	3.8	3.1	3.7	13.3	9.7
Illiteracy rate	52.1	11.6	22.3	21.1	11.6	23.9	8.0	20.6	32.8
Primary enrolment*	83.1	110.5	104.1	99.4	95.1	110.1	90.7	94.0	87.8
Secondary enrolment*	33.9	43.1	20.2	34.4	59.0	47.5	28.8	51.6	25.6
Tertiary enrolment*	5.9	2.3	1.8	8.9	4.3	3.4	17.9	8.2	3.9
Tertiary/Secondary	17	5	9	26	7	7	62	16	15
Secondary-Tertiary	28	41	18	26	55	44	11	43	22
Export/GDP	8	27	18	26	30	14	32	71	55
Trade/GDP	19	61	149	50	71	27	67	140	99
Population (mi.)	824	64	2	174	17	1107	54	17	1
	High Income					Upper Middle Income			
	Portugal	Ireland	Singapore	H. K.	Norway	Mauritius	Korea, S	Chile	Oman
gnppc:ppp									
gnppc-ppp:Country/usa	9172	9777	15481	15289	15758	5525	7107	6729	6597
gdppc:ppp	0.43	0.46	0.71	0.71	0.75	0.25	0.32	0.311	0.313
gdppc-ppp:Country/usa	9369	11040	15376	15289	16100	5602	7209	7162	7532
pcgdp gr rt	0.45	0.52	0.71	0.71	0.77	0.26	0.33	0.33	0.36
gdi/gdp	2.7	4.7	5.4	4.3	2.8	4.7	6.8	4.2	2.7
gdfi/gdp	27.5	19.7	39.2	29.1	25.7	25.9	33.1	21.5	21.4
ICORf	27.1	19.3	37.6	27.5	24.4	24.3	32.6	19.9	24.1
fdi/gdp	8.7	3.4	4.3	4.5	7.1	5.9	4.6	3.9	
fdi/gdi	1.5	1.5	9.7		0.8	0.7	0.3	2.5	1.3
Illiteracy rate	5.4	7.5	25.6		2.7	2.5	0.9	10.9	6.6
Primary enrolment*	13.2		12.0	10.5		20.7	4.6	6.4	46.2
Secondary enrolment*	114.9	102.5	108.5	109.9	98.2	102.8	105.1	111.4	52.9
Tertiary enrolment*	52.8	94.4	60.4	64.6	95.1	48.5	80.6	60.6	20.9
Tertiary/Secondary	26.1	31.0	21.7	19.3	45.1	4.1	39.4	22.0	4.3
Secondary-Tertiary	49	33	36	30	47	9	49	36	20
Export/GDP	27	63	39	45	50	44	41	39	17
Trade/GDP	30	59	188	122	39	58	34	28	51
Population (mi.)	68	115	372	241	74	119	68	56	89
Note:	* Average Gross Enrolment rates are for following periods:								
	Primary(1966-1985), Secondary(1971-90), Tertiary(1976-95).								

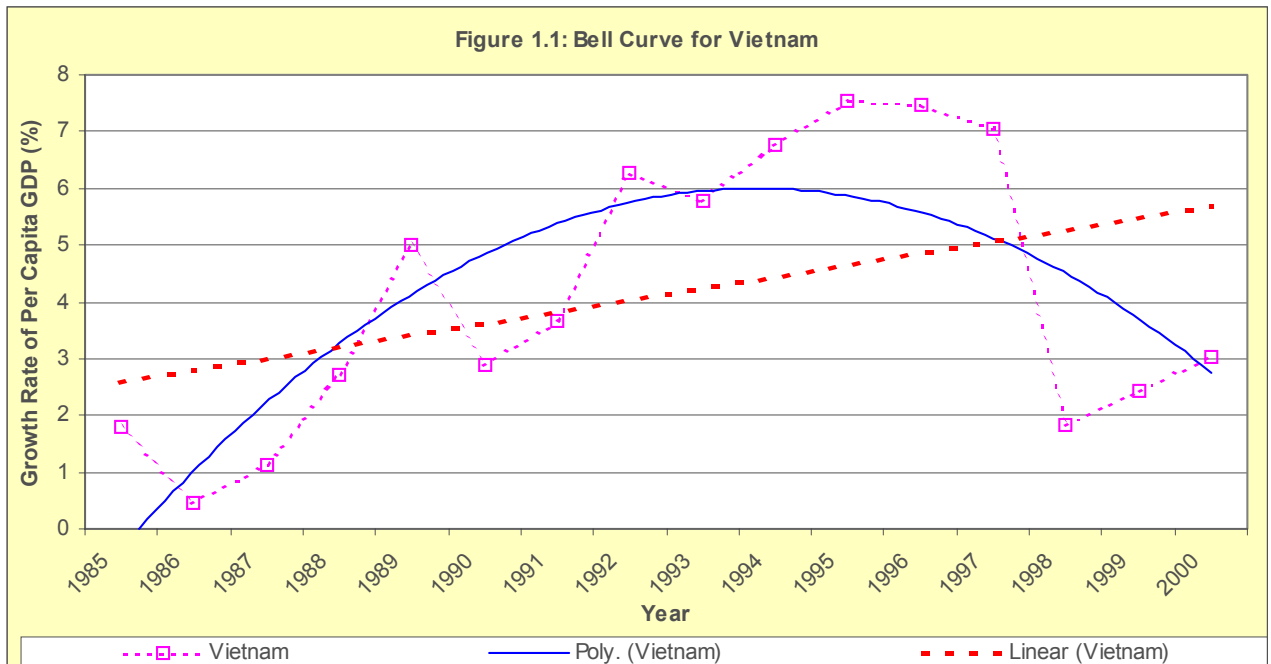
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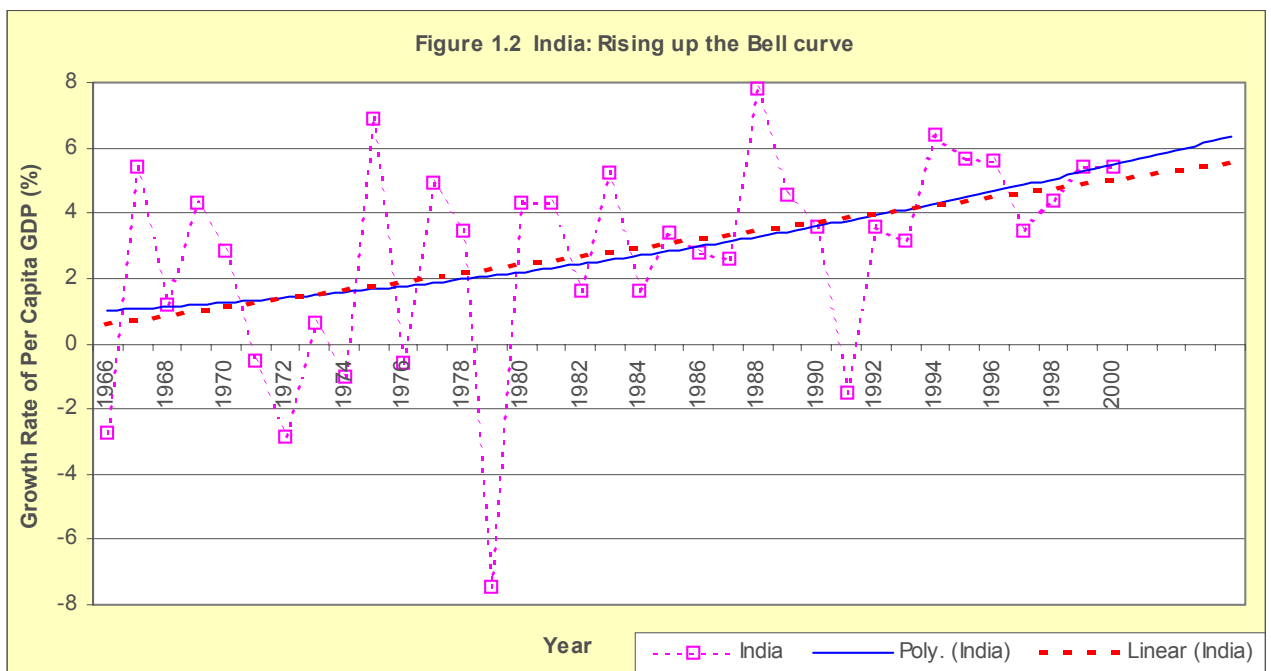
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X. FIGURES

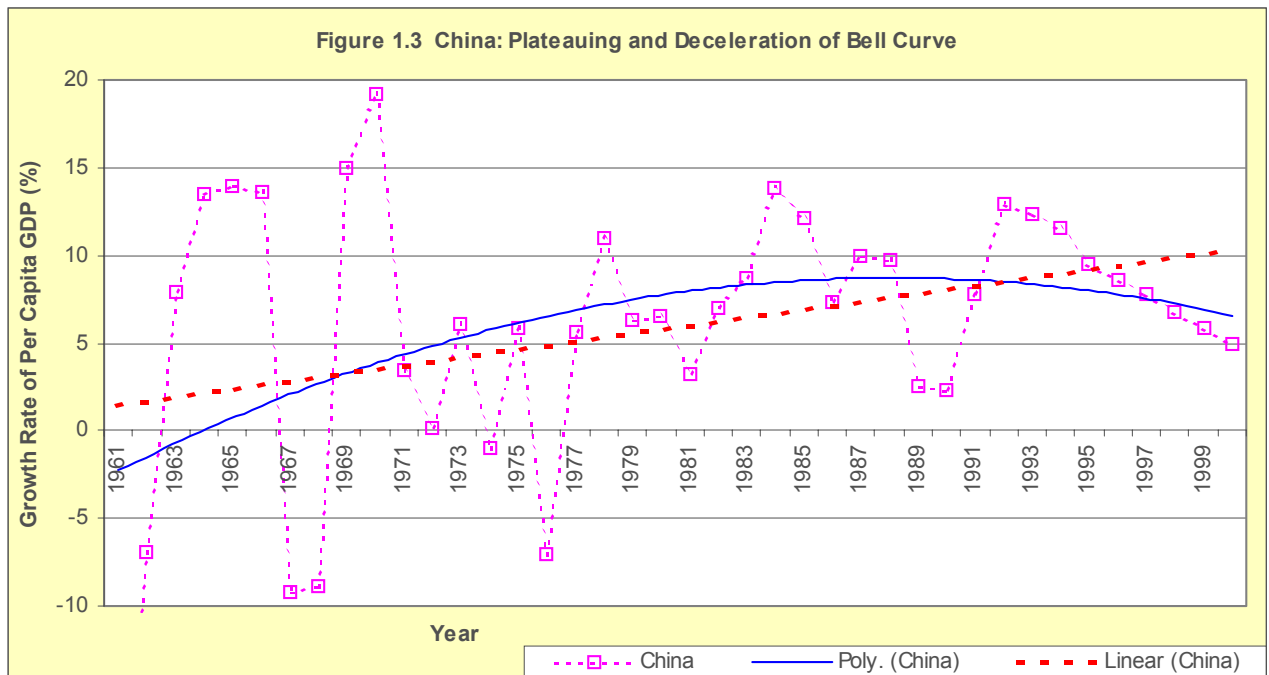
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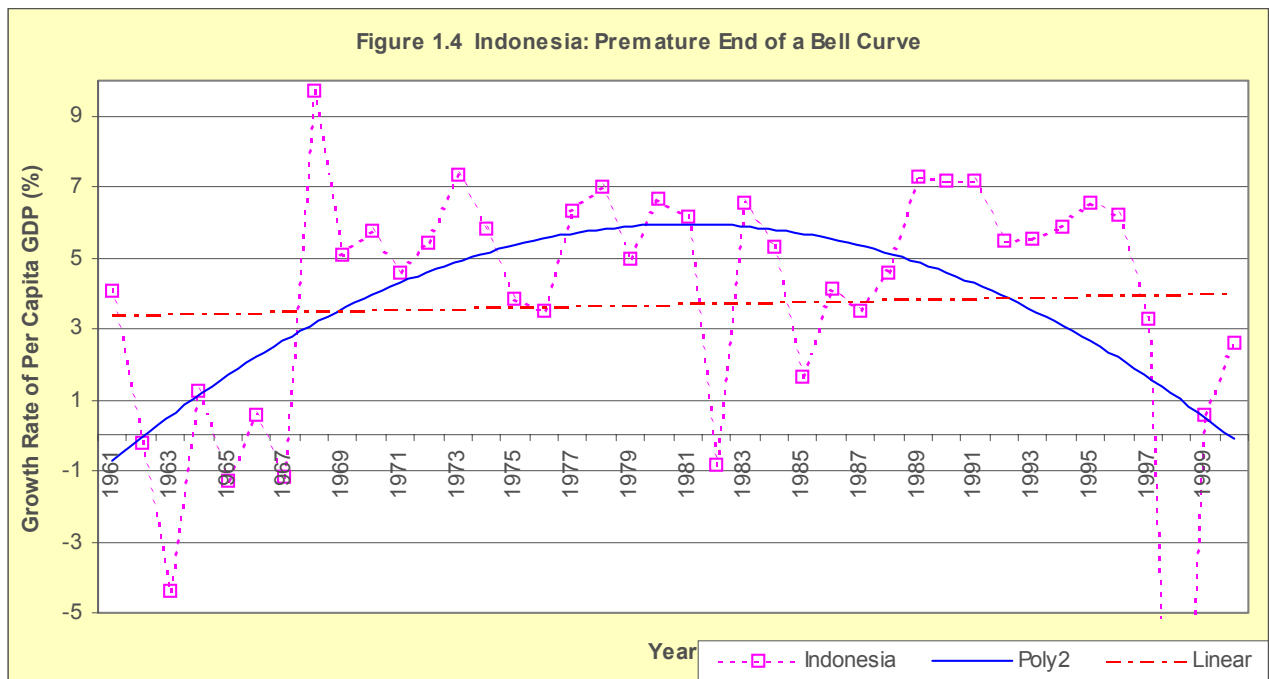
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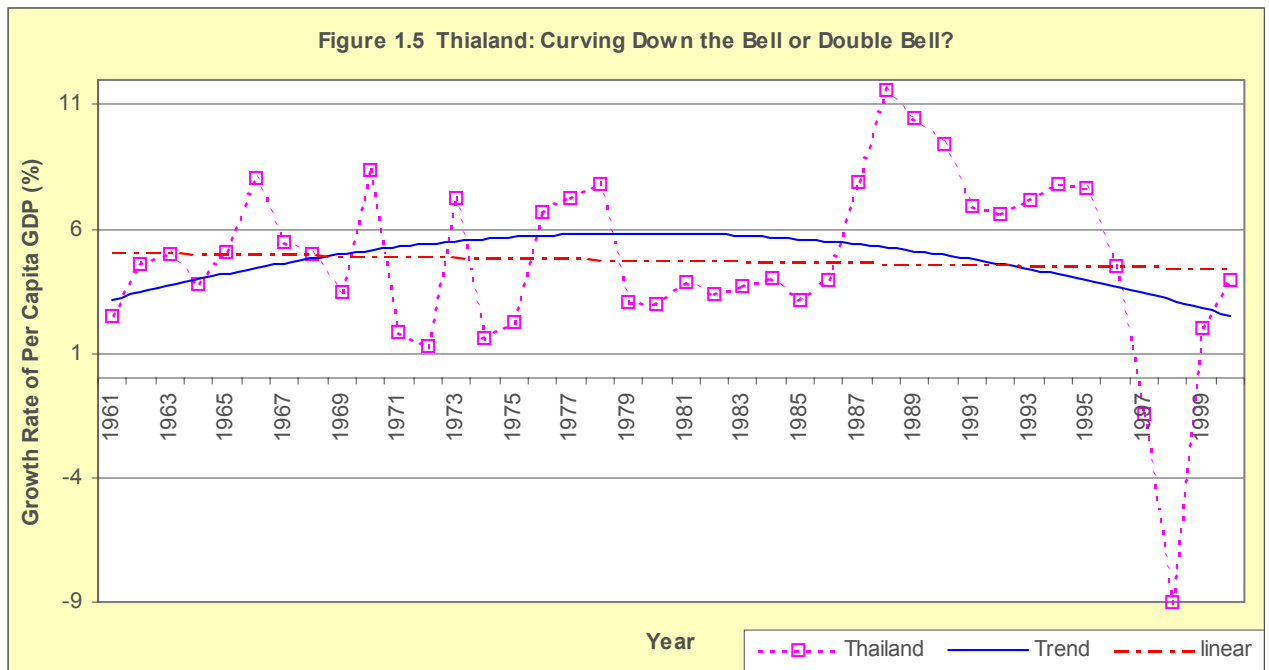
C. China



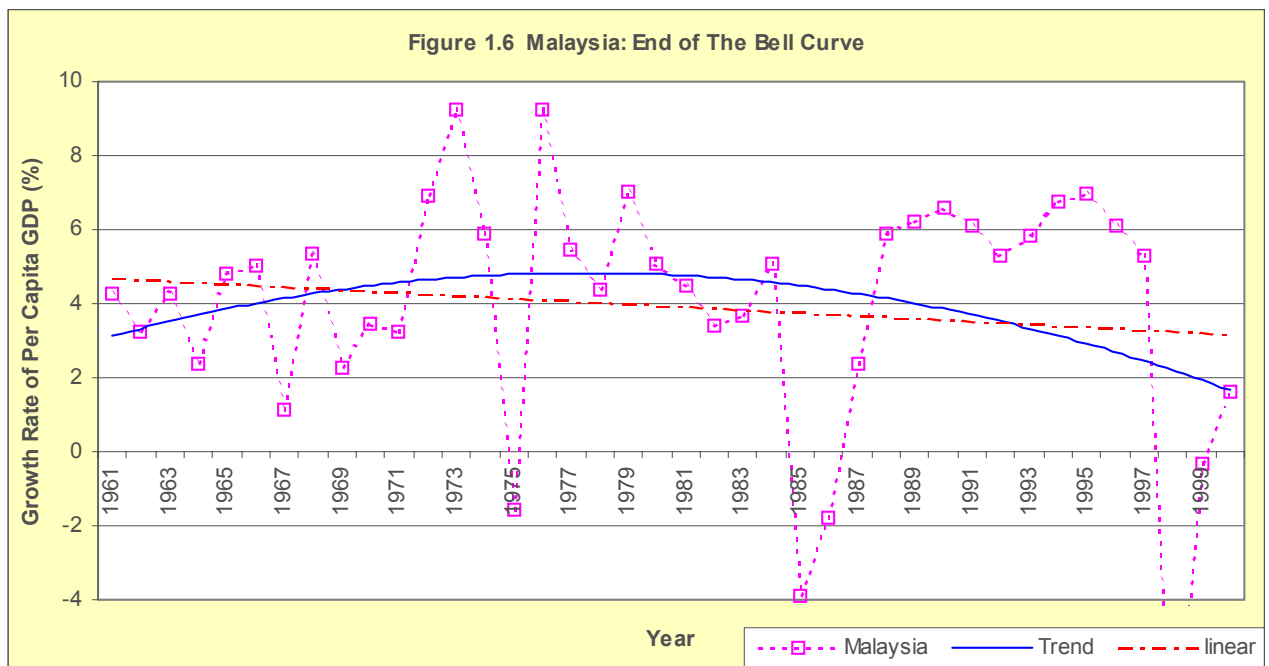
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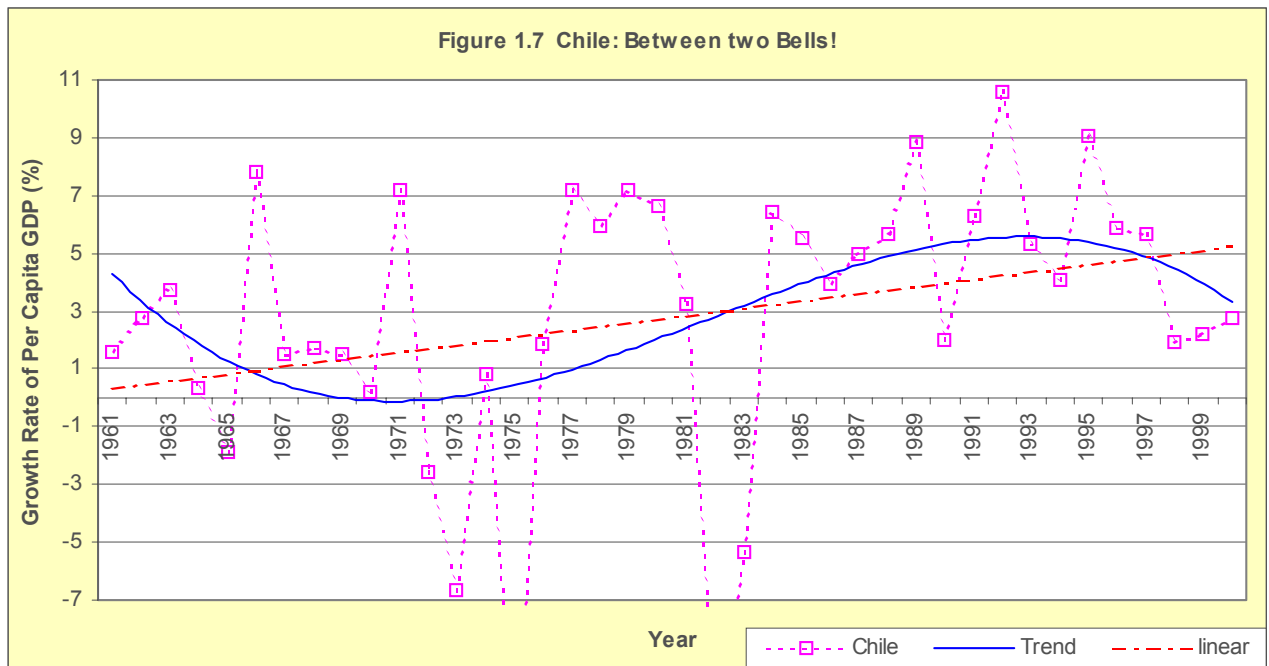
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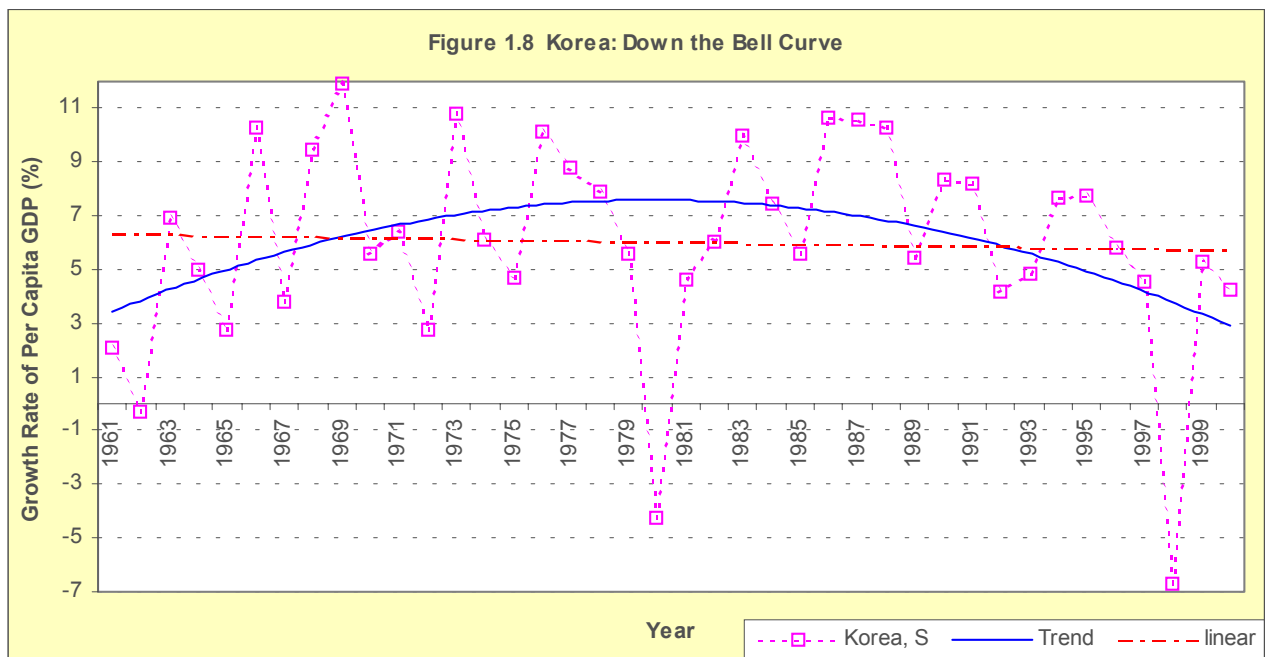
F. Malaysia



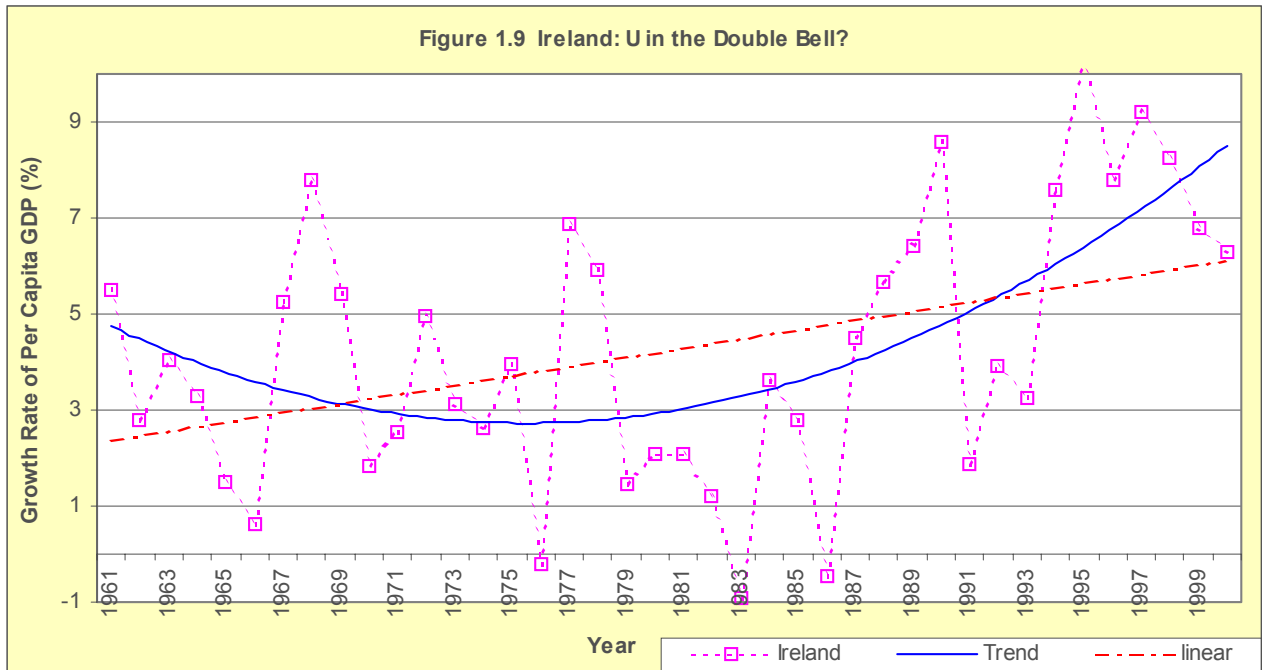
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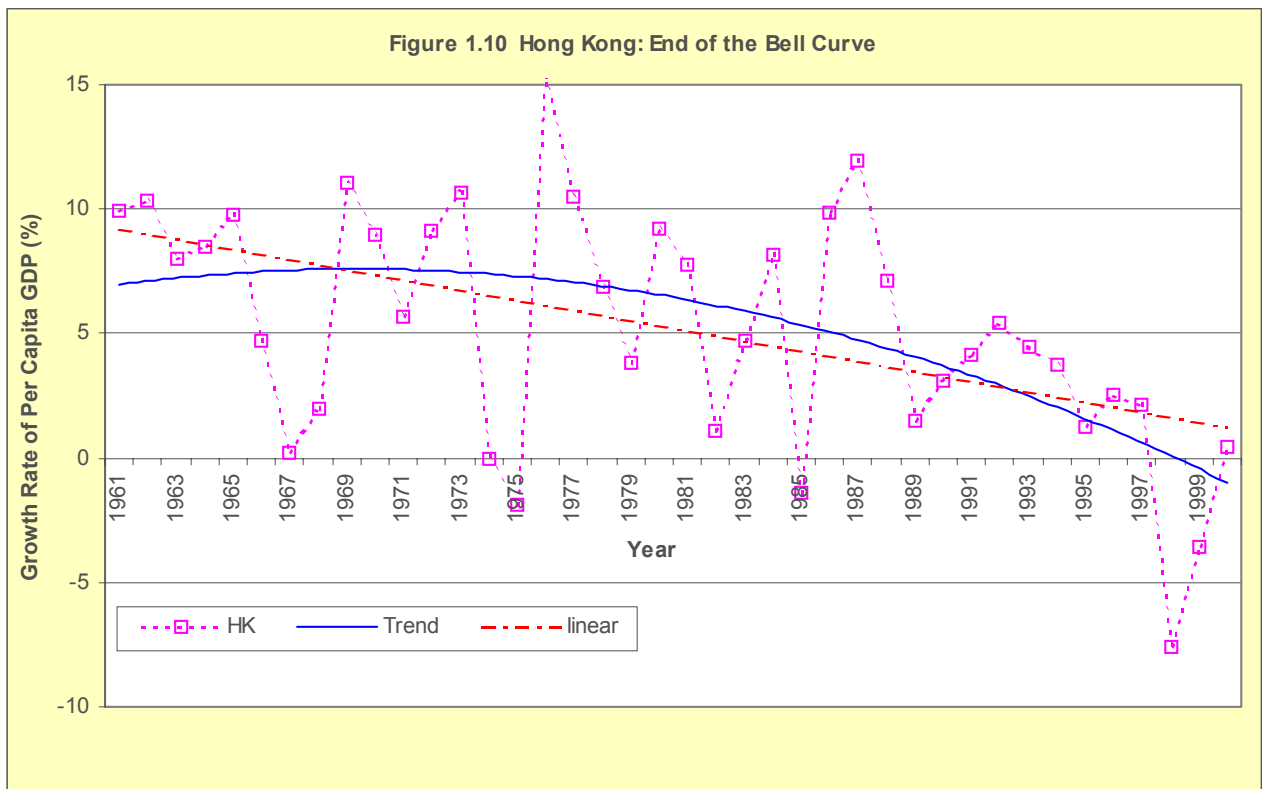
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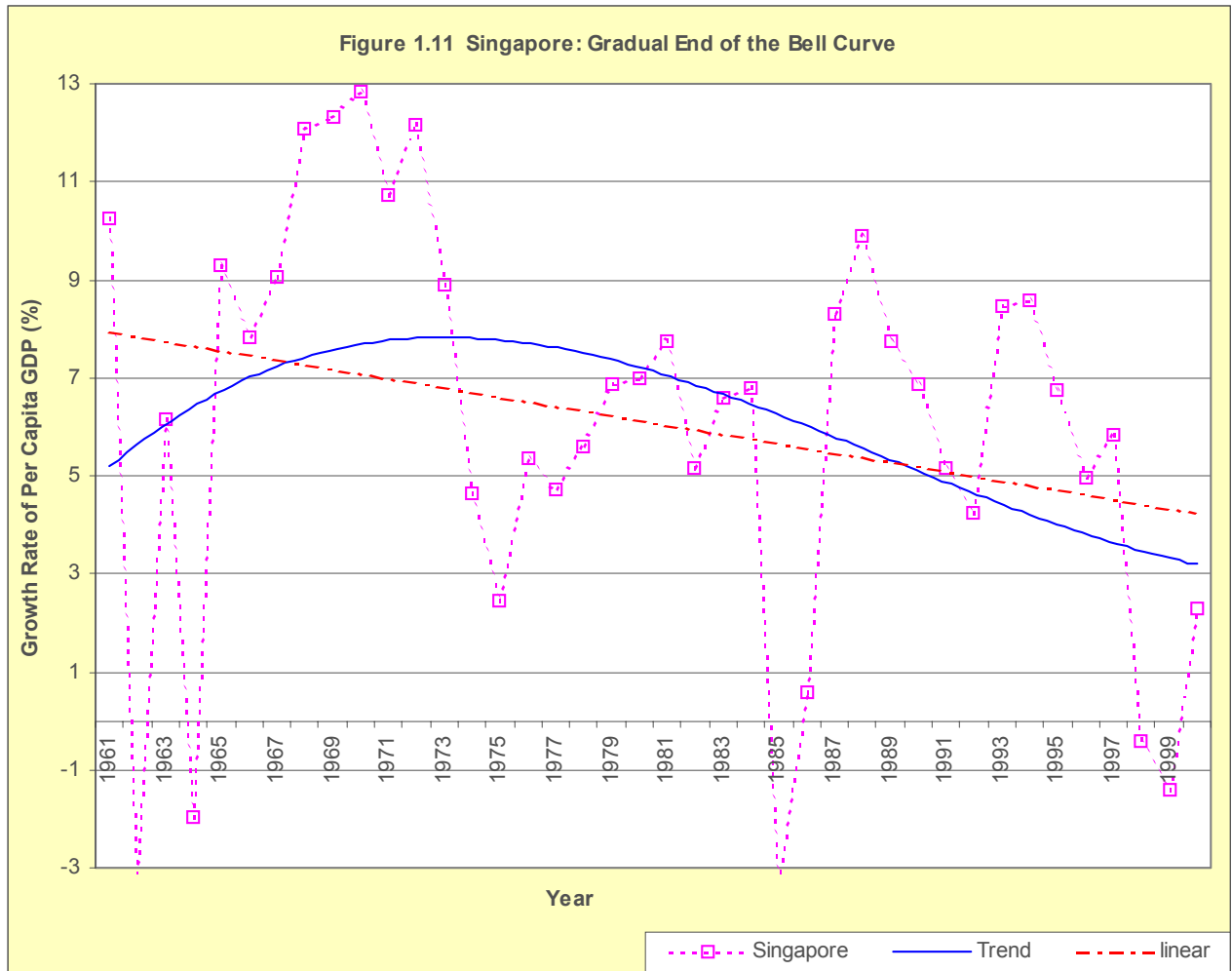
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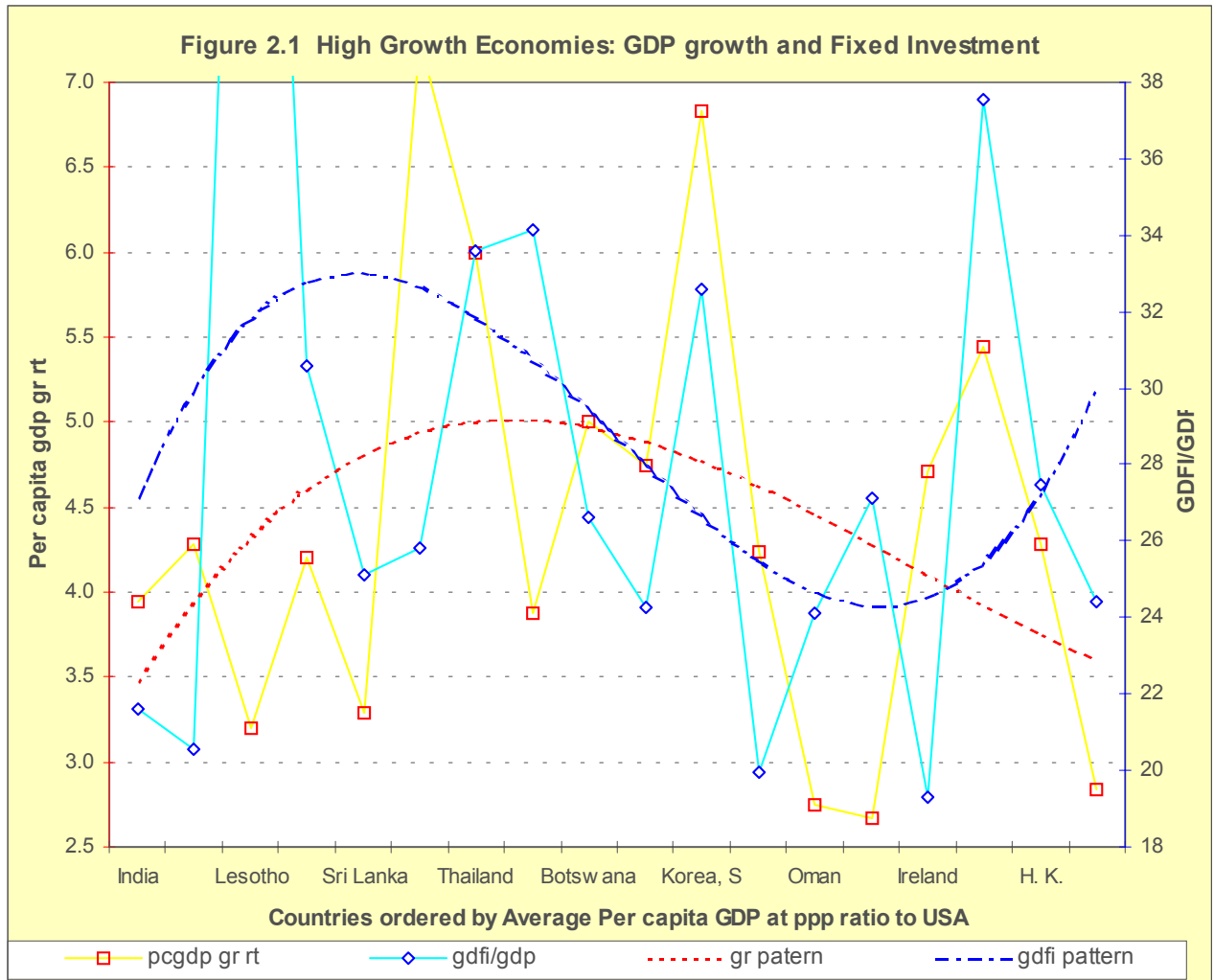
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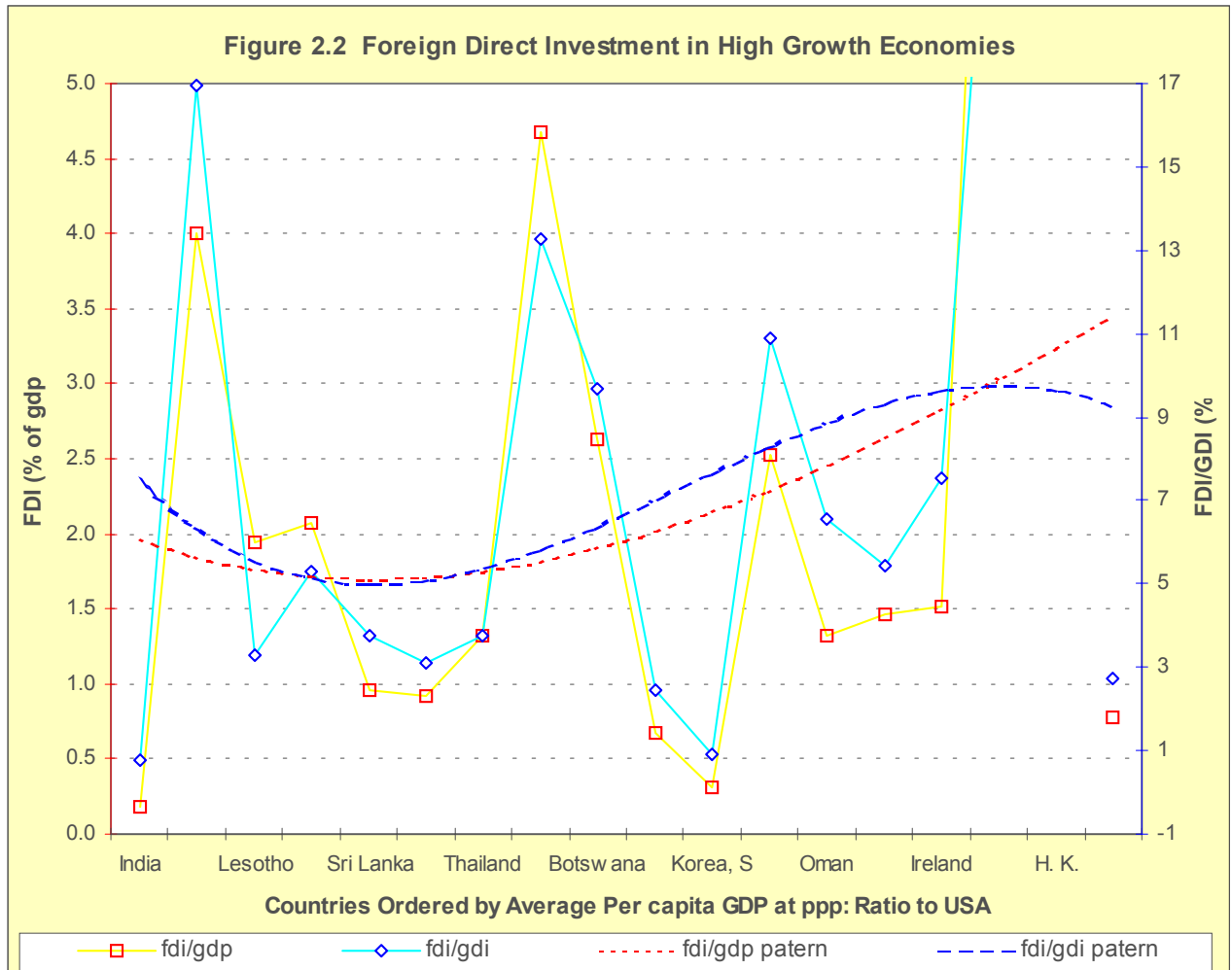
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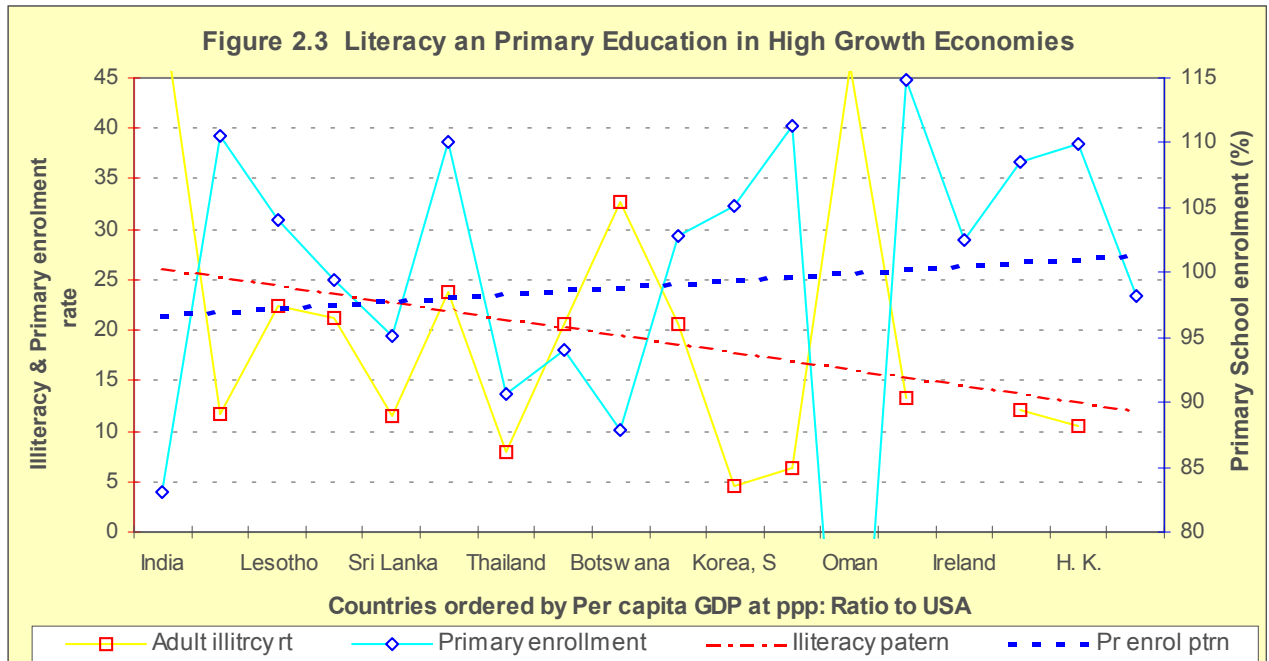
L. Growth & Investment



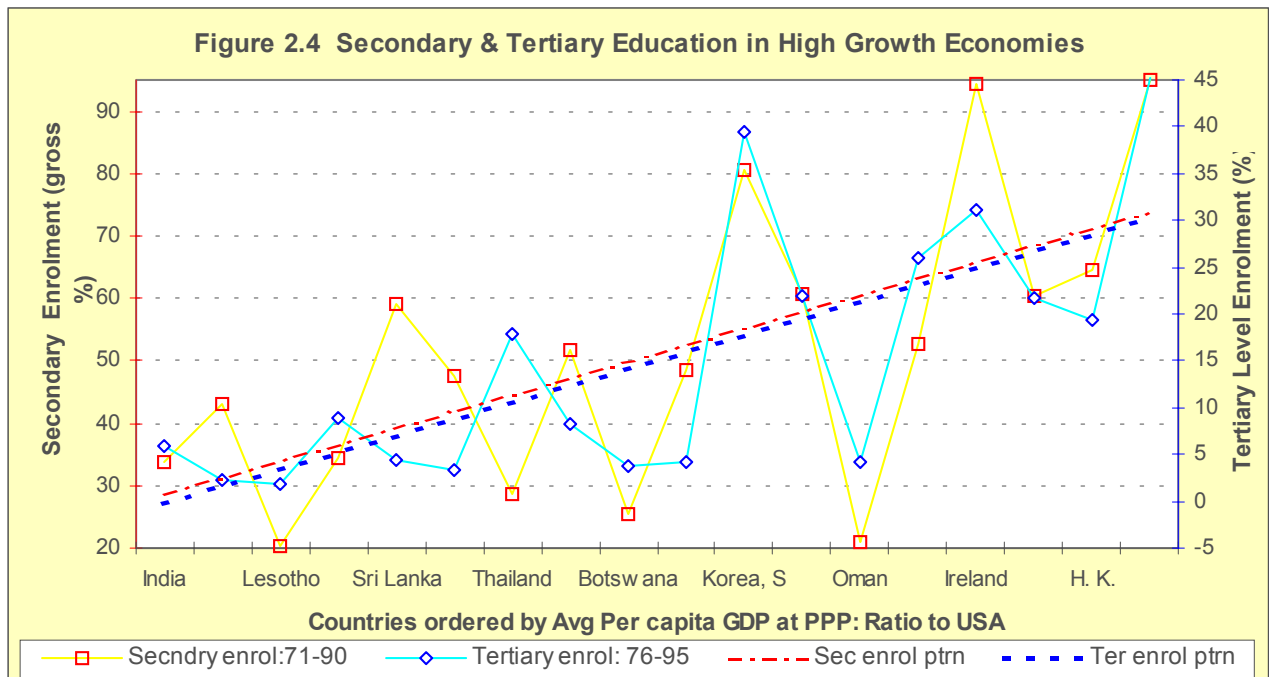
M. Foreign Direct Investment



N. Literacy & Primary Enrolment



O. Secondary & Tertiary Enrolment



P. Trade and Exports

