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The Anatomy of a 'Growth Miracle'

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1 Introduction

Questions and paradoxes

Many economists (e.g. Lucas 1993) have argued that 'growth miracles' in less developed regions can easily arise out of increased innovation based upon inflows of foreign direct investment (FDI) from the technologically most advanced regions. As pleasing as this thought is to most Western observers, empirical studies (e.g. Kim and Lau 1992; Young 1992, 1995; and numerous country-specific studies) have systematically found that *total input expansion* rather than technological change explains virtually all of the growth in most recent high-growth experiences. In view of these studies, several economists (e.g. Ventura 1997; Radelet and Sachs 1998) have argued that the 'growth booms' from the mid-late 1980s through the mid-late 1990s (although subsequently largely aborted) can be theoretically and empirically explained by sudden increases in the profits from investments within the country.

However, none of the familiar stories explains the predominant *outflows* of foreign investment, direct as well as indirect, that have accompanied all but the most perishable of modern growth booms. Almost from the start, these relatively durable 'growth booms' have featured 'export-led' growth; they have *not* featured systematically positive net inflows of either direct or indirect foreign investment. Thus, starting from abject poverty in 1948, Japan and Germany became the world's two largest creditor nations in less than forty years. Since the early 1990s, China has similarly been generating substantial outflows of net foreign investment. While sudden leaps in domestic savings rates might explain the pattern, no serious scholar has argued that these initially quite poor countries suddenly became hyper-abstemious.

What, then, was the economic shock that created these durable 'growth miracles'? How did it generate such durably high rates of national economic growth? Why did many of the booms suddenly cease? It seems that recent literature on 'growth miracles' has continued an old tradition of raising more

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questions than it answers. The standard literature, however informative, fails to identify a systematic cause of the modern era's repeated instances of persistent and unprecedentedly high national growth rates.

A related question arises in the minds of welfare economists. Almost all authors on the subject – academic as well as lay – write approvingly of these hyper-booming, non-inflationary, economies. But these authors may be overly impressed by macroeconomic evidence, which concentrates on empirical observations of growth rates and aggregate accumulations of national wealth. Traditional microeconomic theory, or welfare economics, tells us that investment and savings subsidies *decrease* welfare in full-employment equilibria. Although recessionary economies may benefit from increases in domestic real investment demand, the crowding-out effects that occur in full-employment equilibria prevent us from seeing any systematic social benefits from an investment subsidy. And the welfare effects of subsidies to savings, foreign investment, or current exports feature a significant terms-of-trade loss. Indeed, basic economics since the time of Bickerdike (1906) informs us that subsidizing exports, even if only indirectly, is a sure way to *reduce* a country's equilibrium welfare due to the induced deterioration in the country's terms of trade. Does a 'growth miracle' really increase the booming country's *ex ante* welfare?

Besides the above questions, the economic literature fails to note, let alone resolve, a fundamental paradox. After the USSR broke the US monopoly over nuclear weapons in 1948, we would have expected Japan and West Germany – easily the two most highly insecure and coveted neighbours of the USSR at the time – to respond to their extraordinary insecurity by saving and investing less. Traditionally, 'borderlands', territories lying in between two enemies, are relatively undeveloped 'buffer zones' because of the insecurity of investments in such regions. The heightened insecurity of post-1948 Japan and West Germany should have substantially *lowered* their growth rates relative to their similarly war-torn neighbours. But the opposite occurred. Savings and investment – domestic as well as foreign – dramatically *increased*. Despite the substantial restoration of their pre-war industrial base by 1960 and continued national insecurity from the 1960s up to the late 1980s, this exceptionally high growth continued. Why? Furthermore, once the prospective savings and investments of Japanese and German families had finally become safe from foreign confiscation with the end of the Cold War in the late 1980s, their 'growth miracles' abruptly died. This is the reverse side of the same paradox.

Similarly, the 'four Asian tigers' – Singapore, South Korea, Hong Kong and Taiwan – that arose in the early-mid-1960s to rival the growth rates of Japan and West Germany were all neighbours of an increasingly expansionist China. What happened during the formative, 1958–65 period was that China introduced nuclear weapons and became much more of a military threat to her already insecure neighbours. One would think, again using

conventional economics, that these relatively threatened countries would have substantially *decreased* their relative savings, domestic investment and growth rates. Instead, the opposite happened. Why?

Another paradox is that the classic 'growth miracles' arose at a time when simple economics would predict the opposite of the large export surpluses that were observed. In particular, simple economics would predict that post-Second-World-War Japan and West Germany, like Western Europe, would borrow from abroad to rebuild their decimated economies and rapidly move towards their pre-war consumption levels. Both effects would have created a large balance-of-trade deficit and influx of foreign investment. The opposite of these domestically efficient changes occurred in the growth-miracle countries. Why?

'Growth miracles' and foreign investment

Once we have understood the phenomenon of the modern 'growth miracle', we will know not to expect any such 'miracle' from foreign investment. In particular, once our background theory and its supporting historical evidence are explained we shall show that the premier growth miracles are the rational consequence of rationally increased *outflows* rather than inflows of foreign investment. We will then know that theory supports history in giving us reason to expect little in the way of 'growth miracles' from inflows of foreign investment.

Nevertheless, inflows of FDI typically deserve a subsidy because they do generate:

- (1) Some, albeit relatively small, *cultural and technological externalities*
- (2) Rationally *stronger military ties* with the investing foreign countries.

Indeed, these externalities have been almost universally responded to with subsidies to FDI (UN Conference 1998). However, observed subsidies may be too large or too small; the welfare economics that might justify further expansions in these subsidies is empirically quite ambiguous.

Moreover, even if we consider only macroeconomic effects, a substantial increase in subsidies to foreign investment inflows would generate:

- (1) *Diminishing returns* in the case of heterogeneous capital and crowding-out in the case of homogeneous capital, which would almost certainly combine to prevent anything resembling a growth miracle
- (2) *Domestic currency appreciation*, which would substantially cool the underlying export boom that has been at the heart of every one of our 'growth miracles'.

We must, of course, consider the largely ill-fated, Southeast Asian and Latin American high-growth experiences that concentrated from the collapse of

the Soviet Union in the mid-late 1980s until the mid-late 1990s. These investment and export booms were indeed accompanied by heavy inflows of FDI. However, we shall find that these booms were endogenous effects of an adaptive *expectation*, especially by foreign investors, of the consequences of virtually the same government policy that had generated the earlier 'growth miracles'. These temporary booms were fuelled by expectations of 'growth miracles' that were largely erroneous because, as we shall see (pp. 18–19), the later countries had much different underlying capacities for economic development than the earlier ones.

What disappointed these expectations was a lack of recognition of the fact that the longer-term macroeconomic effects of 'growth-miracle'-inducing policies depend critically upon the characters of the *underlying societies*. Without understanding this dependence, one cannot understand why most of these countries did not – and, even after full recovery, will not – macroeconomically respond well to the ongoing policy. Consequently, policy makers who – out of external pressure or a misapplication of macroeconomics – desire to create such 'miracles' had best delve more deeply into the classic 'growth miracles'. For most of the world's nations, such miracle-imitating policies are not only both microeconomically and macroeconomically harmful; they are typically quite politically disastrous.

Dependency, tariff-rationalizing externalities and economic ideology

Comparison with the conventional economic model

Our rationality-based explanation of 'growth miracles' will necessarily take us beyond conventional economic theory. Nevertheless, the only thing unconventional about our economic model, besides our assumption of the economic rationality of the policy-makers of the world's less-developed countries (LDCs), is our introduction of an externality that is ignored in conventional theory. Despite the easily demonstrated realism of the externality and corresponding generalization of standard theory, the theory will not sit well with conventional or establishment economists, who are typically unwilling to accept the economics-depreciating consequences of recognizing the existence of this externality. Nevertheless, we shall see that if economists had acknowledged this externality, and correspondingly understood the way that it has influenced modern international institutions, international economics today would be an entirely different subject. And the high-growth economies featured in this chapter would have been readily predicted rather than amazing economists into calling them 'miracles'.

Background: dependency and involuntary trade liberalization

One of the remarkable features of the 'miracle economies' we are discussing is their dependency on the USA and western Europe. These latter, militarily-dominant, countries could have efficiently imposed high protection fees on

their otherwise self-defended military inferiors and allowed them to do their own thing. However, following a policy tradition established in mid-nineteenth-century Japan and southeastern China, they chose instead to insist that their dependencies lower their trade barriers, thereby opening up trade opportunities that had previously been restrained by very high tariffs.

The fact that these early incidences of externally imposed trade liberalization arose during a period in which the West was captured by Classical economics indicates what we shall confirm below, that ideology rather than objective thought has been the basic source of free-trade-inspired policy impositions. The dependent countries may have had good economic reasons for their previously high tariffs.

Chapter outline

Section 2 indicates that the dependent countries have indeed had very good, externality-internalizing, reasons for their high-tariff policies. Section 3 examines the issue of externally imposed trade liberalization in the post-First-World-War, post-Second-World-War and post-Cold-War contexts in which free-trade imposition became increasingly institutionalized in the West. In particular, it describes the optimal, and immediately observed, response of Western dependencies to the hegemon's imposition of artificially low tariffs. This response is to adopt current-account foreign exchange controls in which rations of import licences duplicate the price and quantity effects of the original tariffs. The effect of these import exchange controls is to maintain the country's currency at its original, pre-tariff reduction, value rather than having the currency fall with the increased import demand that would otherwise have been occasioned by the tariff reduction. Indeed, the official excuse for employing these import licences is to prevent the underlying excess demand for foreign currency from reducing the country's initial, typically pegged, currency value.

Although exchange controls are somewhat more costly to impose than tariffs so that slightly freer trade arises, we can hardly expect the Western hegemony to passively accept this import-exchange-control reaction to their imposed tariff reduction. The hegemony's typical reaction is to insist – often successfully – that the dependents depreciate their 'overvalued' currency in order to create market-clearing currency prices. But an identifiable group of dependents will predictably resist the intended trade expansion by increasing their money supplies, which works to restore the original, lower, foreign exchange revenues by raising the costs of their exporters and thereby works to again restore the original equilibrium. This leads the Western hegemony to insist on another currency devaluation, which induces another currency expansion, etc. until the marginal cost of inflation through resource costs to the dependent country rises to where it is equal to the marginal benefit of inflation through its trade-discouraging effect. The result is stable,

rational, hyperinflation. Other, more trade-tolerant, countries substantially accommodate the early devaluation requests in order to avoid this costly resolution of the conflict with the hegemon.

Section 3 also points out that there is an exceptional case in which the free trade-imposing hegemon simply insists that a dependent country *never employ exchange controls*. If the dependent country also possesses a very high defence externality, the only way it is going to be able to discourage consumer durable imports is to make them expensive by creating an artificial scarcity, an artificially high market price, of foreign currency. Since it is better to earn interest on a foreign currency than simply to hoard it, this amounts to a policy that induces the country to choose artificially high outflows of foreign investment. This simultaneously induces the country to adopt artificially high savings rates. With the country's additional savings going into foreign investment, the country is protected against diminishing returns and can go on productively investing until it becomes a dominant force in the world market. At the same time, the induced export boom and low real wage rates, although welfare-decreasing, complement the savings increase with an increase in profits and aggregate demand that supports a virtually continual macroeconomic boom.

Section 4 then shows that such dependents, who again are not given the opportunity to overvalue their currencies by employing current-account exchange controls, do indeed restrict their imports by significantly undervaluing their currencies. This second-best, loss-minimizing, strategy – which requires the dependent country to radically increase its foreign investment levels – creates a 'growth miracle'. Section 4 discusses these cases at length. For now, simply consider the above-mentioned example of the free trade impositions on various nineteenth-century Chinese and Japanese coastal regions. Exchange controls were simply not employed prior to the First World War. Hence, these regions could respond only by greatly increasing their levels of foreign investment, thereby rationally generating the precursors of our post-Second-World-War 'growth miracles', the most recent examples of which are present-day China and India.

Section 5 explains the 1990s temporary Southeast Asian and Latin American booms as an application of the above theory of externally induced currency undervaluation. Nevertheless, in contrast to China and probably India, we find that a long-term accumulation of extraordinary national wealth is not available to most of these countries for they lack a basic ethical precondition for achieving a high level of economic development.

2 Defence externalities and optimal tariffs

Critique of the conventional economic analysis of free trade

The near-universality of effectively high tariffs by dependent nations has been traditionally taken by economists and other social thinkers to be a

reflection of:

- (1) The inefficient political influence of special economic interest groups
- (2) The unavailability of more efficient, first-best, modes of taxation
- (3) Widespread economic ignorance.

However, as elaborated in Thompson and Hickson (2001:106–9), none of these tariff rationalizations is defensible. Regarding the political influence rationalization, high tariffs have often been regularly imposed upon imports for which there is no obvious protective effect (i.e. no clear import substitute) and correspondingly, no identifiable political support from an economic interest group. Moreover, political structures vary dramatically over time and location; yet tariffs have remained a stable, virtually universal, institution for several thousand years. Finally, there is no reason for domestic interest groups to take their political transfers in a systematically inefficient form, especially when lump-sum transfers are readily available.

Regarding the second-best taxation argument (or 'revenue argument') for tariffs, numerous non-protective tariffs have also been regularly prohibitive, generating no tariff revenue whatsoever for the tariff-imposing country. And theoretically first-best taxes such as land taxes are abundantly available but seldom employed by national governments even when populist political pressures support the adoption of such taxes.

The only inference remaining in the standard set is that the tariff-imposing countries are systematically ignorant. However much comfort such an inference may give to the sellers of economic ideology, a universally observed policy cannot have evolved in widespread ignorance of the benefits of a policy alternative when, in fact, that alternative has been repeatedly tried.

In short, none of the conventional tariff rationalizations is defensible.

An alternative, efficiency-based, defence externality theory of tariffs

The alternative theory of international trade and finance developed in this chapter is based on the easily established phenomenon of 'defence externalities'. These externalities arise whenever a state accumulates capital that is coveted by potential aggressors against the state (Thompson 1974, 1979). When an individual in the state accumulates coveted capital, she imposes a cost on the state, which must then expend additional resources on military defence in order to maintain the security levels of others in the state. This externality rationalizes virtually the entire structure of our evolved national income tax structures along with its numerous exemptions and 'loopholes' (Thompson 1974, 1979), and the broad history of taxation as well (Thompson and Hickson 2001, chapter 3). The latter study (especially pp. 172–86), on which the current subsection is about to heavily draw, rationalizes the structure and broad history of tariffs.

Tariffs are an optimal way for a country to internalize the defence externalities resulting from the importation of consumer durables.

Consumer-durable imports should be taxed because they:

- (1) Add to the country's coveted *capital stock* and therefore its overhead defence costs
- (2) Cannot be *practically taxed* to internalize this negative externality with anything other than an import tariff.¹

Producer-durable imports, the taxes on which have been rarely significant (Taussig 1892; Bhagwati 1978), do not call for a tax because the country's domestic income or wealth tax already internalizes the defence externalities with respect to such capital.

The reason this optimal tariff argument is not applied to imports of perishable consumer goods is simply that there is no defence externality for consumer perishables, which do not exist long enough to attract potential aggressors against the state. Correspondingly, peacetime imports of almost all consumer perishables, like industrial machinery, have almost always received extremely lenient tariff treatment. (Also, peacetime tariffs on raw material imports, which are not expected to remain in that form for long, have uniformly been way below the tariff rates on the finished consumer goods producible from these materials (e.g. Yeates 1974).) Consumer durables are thus the only goods that have historically borne significant tariffs!

Certain regions of the world are unusually secure. They can accumulate capital without fear of attracting military aggressors. Very low profits taxes and tariffs are appropriate for such regions. Here, as in the medieval trade fairs, seventeenth-century Amsterdam and various modern 'freeports', we do indeed find very low profits taxes and tariffs, and initial growth to the point of very high ground rents in the secure area. Such regions are predictable centre of free trade and wealth.

In contrast, governments facing very high defence externalities would not survive long without high profits taxes and high effective tariffs; they would so overaccumulate capital that they would soon fall easy prey to military aggression. Significant trade restrictions are vital to the survival of governments with very high defence externalities. Creating a centre of high growth and wealth out of a region with a very high defence externality, now that is a 'miracle', the one we're about to explain.

3 The external imposition of low tariffs: cause and effects

The cause

Colonization, where a dominant country manages and defends a dependent territory, seldom means that the dominant country will impose low tariffs on foreign imports into the colony. Any expansion of capital within the empire means more defence effort by the dominant country. Nevertheless,

trade between a colony and a dominant country is typically quite free. The dominant country defends the capital wherever it is located within the empire; so total defence costs are not significantly affected by a relocation of property within the empire.

However, a dependent country may have to supply its own defence against the military threats of other countries. This normally occurs when a colony is ostensibly 'freed' by its dominant country or when a country loses a war to an aggressor that chooses not to occupy the loser. The efficient response by the dominant country is to collect lump-sum rents from the dependent countries and allow the dependents to raise their own tariffs, except that tariffs against imports from outside the sphere of influence should also be added by the dominant country to reflect its cost of aiding in the defence of the dependent. However, free trade ideology may reverse this optimal policy. In particular, the dominant country may eschew the lump-sum protection payments in favour of inducing the dependent to charge lower overall tariffs. Although inefficient, this does expand the market for the dominant country's exports (thereby generating a benefit through uniformly superior terms of trade) and makes the dependent pay by depreciating the latter's terms of trade and imposing higher defence costs on them. (Also, if the dominant country is an exporter of military equipment or emergency aid to the dependent, then the trade-induced increase in the insecurity of the dependents increases the demand for the hegemon's military outputs.) Nevertheless, this ideologically inspired policy is not an efficient way to collect rent.

The initiating post-First-World-War policy imposition

The ideologically inspired 'Versailles system' imposed such inefficient rents upon the losing countries at the end of the First World War. While granting substantial autonomy and self-defence responsibilities to the defeated nations, the new hegemon imposed artificially low import tariffs upon them. The designers of the system employed economic ideology to rationalize it as beneficial to all countries despite the hegemon's obviously redistributive terms-of-trade benefits from its external imposition of artificially low tariffs and the induced increase in the defence costs of the now-dependent nations. Except for a temporary hiatus – the uniquely successful Dawes Plan era from 1924 through 1927, during which lump-sums were paid to the dominant countries out of tariff revenues so that they had a unique incentive to relax their ideological impositions and permit significantly higher tariff rates – post-First-World-War Europe suffered from the dependents' subsequently high costs of avoiding these tariff reductions and increased defence expenditures, which were surely contributing causes of the Second World War. Despite these negative experiences, ideology is a powerful force, one that does not objectively respond to experience; the hegemon's imposition of artificially low tariffs on dependent nations rapidly spread to other ostensibly independent nations after the Second World War.

This policy expansion worked by inducing other nations to adopt artificially low tariff schedules in return for the right to export to the dominant countries as 'most favored nations' – i.e. without facing discriminatorily high tariff rates (League of Nations 1936). The General Agreement on Tariffs and Trade (GATT) and its successor, the World Trade Organization (WTO), supported by the International Monetary Fund (IMF), arose after the Second World War to further institutionalize the Versailles system. The hyperinflations, governmental repressions, costly social revolutions and frequent local wars during the subsequent, Cold-War period similarly failed to impress the leaders of the dominant countries of the high costs of externally imposed trade liberalization. Indeed, as before, the impositions increased only at the end of the Cold War as the IMF began insisting on more and more comprehensive free-trade policies from its numerous debtor nations.

The basic small-country response to externally imposed trade liberalization

Another novelty of twentieth-century international economics is the immediate post-First-World-War emergence of peacetime foreign exchange controls. (The relevant controls here are current-account rather than capital-account exchange controls; we nevertheless give them the simple label of 'exchange controls', where a dependent country persistently overvalues her currency and correspondingly rations the induced shortage of foreign exchange among her competing importers.) These costly controls were predictably introduced by the self-same central European dependents upon whom the First-World-War victors had imposed low tariffs. Subsequently, peacetime exchange controls also accompanied externally imposed tariff reductions in other dependent nations remaining within the capitalist sphere of influence. Clearly, these exchange controls were being adopted in order to avoid bearing the full brunt of the low tariffs that the dominant countries were imposing on them. Externally imposed trade liberalization and exchange controls have thus persisted in tandem to this date, except in certain post-Second-World-War countries, for which the dominant nations insisted on the avoidance of exchange controls by the dependent nations.

Thus, as described above, when a small post-First-World-War dependent lowered its tariffs and thereby began suffering a continuing deficit in its balance of trade at its initial exchange rate, the dependent state, despite the almost universal disapproval of economists, worked to maintain rather than devalue its initial exchange rate by establishing a system of exchange controls to ration, among her existing importers, whatever foreign reserves were earned by her exporters.

Like the small-country tariffs discussed above, these obviously costly, long-lamented, post-First-World-War exchange controls have largely remained an economic enigma.² Yet the strangely ignored post-First-World-War

relationship between observed peacetime exchange controls and the external imposition of freer trade – exchange controls having consistently followed the external imposition of low tariffs – has a quite straightforward theoretical interpretation. A small country's policy-neutralizing response to an externally imposed tariff reduction is simply to *maintain*, rather than devalue, her initial exchange rate. Since imports are then cash-constrained by exports because exports do not change while imports are in greater demand because of the imposed tariff reduction, imports must be rationed back to their initial level, assuming no change in loans from abroad. So, by employing an overvalued exchange rate and import rationing, the country immediately and efficiently achieves what it can no longer achieve with import tariffs.

The neglect of this obvious historical regularity by leading academic economists is certainly not due to their inability to see the straightforward, Marshall-like, equivalence between tariffs and observed exchange controls (e.g. Bhagwati 1978). Rather, the neglect, including that of leading specialists in the field of exchange controls (e.g. Greenwood and Kimbrough 1987), is likely due to an unwillingness to view small-country trade restrictions as the result of an important economic efficiency. It is much more pleasant, and profitable, for economists to attribute these trade restrictions to some generally non-existent special interests or revenue effects, or some strangely universal, similarly indefensible, political-economic illiteracy. If something like a defence externality had been admitted into economic analysis, the small-countries' polities would have had to be appreciated as remarkably efficient and hardly in need of the advice of policy economists.

More narrowly focused economists, examining the empirical effects of externally imposed tariff reductions, have apparently been thrown off by the fact that the tariff-imposing countries – seeing effective tariff-restoration via exchange controls emerge from the imposition of lower tariffs – have often delayed the dependent country's adoption of exchange controls by financially supporting their increase in import demand through temporary foreign exchange loan subsidies to the recalcitrant dependents. In such cases months, even years, may pass before the loan subsidies, which theoretically decrease the welfare of the subsidizers, cease and exchange controls emerge (e.g. Ellis 1941).

Nevertheless, from the very beginning of these various post-Versailles programmes, exchange controls were almost immediately adopted by the victimized nations who were not given the benefit of foreign exchange loan subsidies. Such a policy response is, of course, a theoretically optimal response to an externally imposed tariff reduction. Mere coincidence does not explain the policy response because the return to high tariffs generated by the 1924 Dawes Plan induced the dependent nations to immediately dismantle their costly exchange control systems. Although the Dawes system was uniquely successful in collecting reparations debt and inducing Central European growth, the ideological unpopularity of this colonial-style scheme

forced it to be replaced after 1927, under both US and League of Nations pressure, by a more 'enlightened' system, one that both reinforced the myth of national autonomy and reimposed lower tariffs. To support the post-1927 system (the so-called 'Young Plan') – i.e. to prevent a reintroduction of exchange controls – temporary foreign exchange loans from the promoters of the 'enlightened' system were extended to Central Europe. The escalating accumulation of these loans had to come to an end, which it did in the middle of 1931. After France's highly publicized refusal of another loan increase and the immediate failure of the Austrian Credit-Anstalt banix, exchange controls were – within days (Ellis 1941) – reintroduced throughout central Europe!

Economists examining the welfare effects of trade liberalization have been similarly thrown off by the related fact that the empirically measured social benefits of a loan-subsidized free-trade policy are generally quite positive in the short run. The small-country costs of a continually excessive importation of coveted consumer goods show up, as we have seen, only in the form of future military problems and political instability. Indeed, the main ostensible beneficiaries of continuing foreign exchange loan subsidies (Central Europe from 1927 to 1931 (Ellis 1941) and the Middle East, Africa, and Latin America after the early 1960s (De Vries 1987), all subsequently suffered relatively extreme military problems and political instability.

Besides the nineteenth- and twentieth-century military and political evidence, and the simple financial evidence (where exchange controls or temporary foreign currency loans immediately follow the external imposition of tariff reductions), there is an additional, structural, tip-off that observed exchange control systems are nationally efficient, policy-substitution-based, small-country responses to externally imposed tariff reductions. It is that the only imported goods facing substantial import licence fees, like the only good facing substantial tariffs, are consumer durables (Bhagwati 1978).

The dominant country reactions and their consequences

The usual reaction of the dominant countries to the adoption of exchange controls by a dependent country is to withhold some defence benefit, typically an emergency line of credit, from the country unless it devalues her currency. This has been chiefly done by the IMF. Soon after the country devalues, its line of credit is extended. But, once this occurs, it ratchets up its money supply by an amount exceeding the original devaluation rate in order to compensate for the increased flow of imports that immediately followed the imposed devaluation, thereby overvaluing its currency by even more than the original overvaluation. Of course, the IMF soon requests another, larger-than-original, devaluation, which may be followed by another, even larger, money supply increase, etc. *Hyperinflation* is the inevitable consequence.

In view of this, those countries unwilling to bear the costs of this economic war with the IMF will simply accede to the IMF's requested devaluation, import more, increase their defence expenditures and harbour a grudge over the external policy imposition. Other countries, because of their high defence externalities, cannot afford this luxury. Their successive devaluation and inflation rates will continue to increase until the domestic resource costs of inflation are so large that the dependent country's percentage increase in the money supply is equal to the percentage devaluation rate. At this, very high, equilibrium inflation rate, the country winds up acceding to some increase in imports (the free trade amounts that occur in between the announced devaluation and before the next jump in the price level) but not to the full free trade equilibrium (because the dependent achieves its desired import flow in between the jump in its price level and the next devaluation).

The above discussion does not predict either abnormally high growth or abnormally productive foreign domestic investment. What it does instead – besides supplying us with a very large control group of normally growing countries – is enable us to understand the systematically rational extent to which small countries respond to the external impositions of low tariffs on them. Once we appreciate this, we are ready to appreciate the exceptional case that systematically generates growth miracles.

An exceptional case

A possible reaction of the hegemon to the anticipation of these responses to their imposed tariff reductions is to simply prohibit the dependent from adopting current-account exchange controls. This reaction arose with respect to post-Second-World-War Japan and Germany, to whom such exchange controls, normally a highly valuable complement to a state's emergency defence efforts, were obsolete because they could not significantly defend themselves against a covetous neighbor. Similarly, while China was developing her nuclear weapon capability from 1958 to 1965, the IMF induced China's suddenly insecure neighbours – Taiwan, South Korea, Hong Kong and Singapore – to eliminate their current-account exchange controls.

Other regions that may have been just as dependent for their defence on Western powers have not been stripped of their capacity to employ exchange controls. The obvious examples are Mexico and Central America. The geographical proximity of these regions to the USA has resulted in ideologically controlled or puppet governments rather than prohibited exchange controls. Along with such governments comes freer trade and extreme political repression to prevent the revolution that would almost surely arise without it. The lacklustre economic performance of these politically unpopular dependents alone is evidence for the inadvisability of free trade policies to them. Free trade does not make a 'growth miracle'.

In any case, as noted above, if a country must charge inefficiently low tariffs and cannot use exchange controls to overvalue its currency, its only remaining option is to *undervalue* its currency. It does this by controlling the foreign exchange market and using domestic subsidies to artificially increase outflows of foreign investment to where domestic consumers must pay very high prices for foreign goods. The domestic macroeconomic effects are to create durable booms in both export- and import-competing industries that accommodate the increased savings and an increase in the labour force because of the lower real wage. Moreover, there is a continual wealth expansion without suffering the diminishing returns and real wage expansions that would quickly cool down a domestic investment boom. So the boom can continue until the country has itself become a major force in the world investment market.

However, certain countries are simply unable to represent or internally defend the interests of successful investors against extortionary domestic attacks. These countries have a very poor record of wealth accumulation. Eliminating exchange controls, which we shall see induces extremely high savings in such countries, would be counterproductive because the savings would be largely spent on internal rent-seeking. The 'growth miracle' countries all had demonstrated the ability to represent and internally protect the interests of large concentrations of wealth. This ethically-determined ability is clearly a necessary condition for producing a 'growth miracle'. We shall return to this when we discuss more recent attempts to create growth miracles in Section 5.

4 West Germany, Japan and the Asian 'tigers': 'economic miracles'

West Germany and Japan

West Germany and Japan's post-Second-World-War voluntary currency undervaluations and corresponding import restrictions could be achieved only by governmental creation of an artificial scarcity of foreign exchange. And, indeed, an undervalued exchange rate through a continual domestic subsidy to capital-account imports, a subsidy-induced surplus in the dependent country's balance of trade, was the explicit policy of West Germany and Japan throughout the Cold War, 1948–88 (e.g. Reuss 1963:54–65 and Minami 1986:242–4, respectively). Of course, capital-account foreign exchange controls were, of necessity, used to prevent a re-importation of foreign exchange through foreign borrowing. Governmental policies inducing capital-account imports, usually in the form of outflows of indirect foreign investment, 'or capital flight,' were staple policies of both Japan and Germany. Given the military insecurities and correspondingly large defence externalities within these countries, it should be clear that they wanted to avoid the consumer-durable imports that they would otherwise have suffered under the low import tariffs that were externally imposed on them.

Nevertheless, currency undervaluation – to the dependent country – is extremely welfare-inferior to the overvaluation and exchange control policy permitted to so many other countries. For one thing, currency undervaluation fails to distinguish between the targeted consumer durable imports and all other imports. It thereby inefficiently restricts the country's imports of consumer perishables and producer goods. For another, currency undervaluation represents an unjustified subsidy to national savings. Finally, as would any subsidy-induced increase in exports, currency undervaluation amounts – again using the Bickerdike (1906) theorem – to an unambiguous terms-of-trade and corresponding welfare loss to the subsidizing country.

Although corresponding benefits accrue to the rest of the world in the form of artificially low prices of imports from West Germany and Japan and artificially high supplies of savings and effort from those two countries, lump-sum transfer mechanisms (like the post-First-World-War Dawes Plan) would – under normal circumstances – alternatively generate higher utilities for all concerned. The unusual circumstances that led the immediate post-Second-World-War USA to rationally prefer the undervalued currency solution is identified later.

Perhaps the most interesting feature of this predictable sequence is the tremendously high regard that economists have expressed for the economic performance of these unusually high-savings, high-growth, economies. Although the popular press may be forgiven for failing to adequately discount future consumption, it is not immediately clear why economists – many of whom are very well aware of the abnormal West German and Japanese post-1945 savings and investment subsidies – would abandon welfare economics for naive comparisons of growth rates.

A quantitative welfare analysis of these savings and investment subsidies may be enlightening: First, up to the late 1980s, the various, US-induced, post-1948 German and Japanese investment subsidies, including the balance of trade surpluses and corresponding governmental subsidies to foreign investment, led these countries to save at rates that are more than *twice* their normal rates. (This is revealed by comparing each country's comparative savings rates in the early 1900s with their comparative post-1948 savings rates (see, e.g. King and Fullerton 1984 and Minami 1986, respectively).) Second, again up to the late 1980s, since the financing of these various savings and investment subsidies came from income taxes (rather than fiscal deficits and national borrowing), *consumer liquidity was directly sacrificed* to generate the increase in savings. This means that the typical consumer discount rate, which is at least twice the investor discount rate, is the relevant rate of discount to apply to the induced investment.³ The welfare loss from the excess investment, the appropriately discounted present cost of the induced investment, is therefore at least as large as the present value of their normal quantity of aggregate investment. Thus, in welfare terms, the adult post-Second-World-War citizens of these countries were made worse off than if

they had saved and invested at their normal rates but the total returns from these investments were completely confiscated!

An important underlying advantage to the USA from vigorously promoting these artificial investment stimuli, promotions that arose immediately after the USSR displayed their highly aggressive, nuclearly supported, intentions in 1947–8, was to furnish the victorious Allies with a rich and highly locationally convenient pair of ransom payments in case the balance of power shifted to the USSR, which it never did. Nevertheless, given the insecurity of post-1948 Germany and Japan, the unusual prohibition of exchange controls imposed a substantial burden on their citizens, whose military insecurity and correspondingly high defence externality would, as pointed out above, have led them to save at *subnormal* rates if they had not been externally induced to do the opposite. It is this potential ransom payment that rationalizes why the USA would induce such heavy investments in regions bordering and highly coveted by their primary Cold-War enemy.

With respect to distributional justice, the blameless descendent populations of these two, consumption-starved, ex-aggressor nations now stand to benefit handsomely from the cumulative realizations of these savings policies and the 1990 dissolution of the once-threatening USSR. The predictable, eventually welfare-enhancing, reductions in the domestic Japanese and German foreign investment subsidies and their corresponding reduced growth rates during the suddenly secure 1990s has been similarly mis-portrayed by economists as economically unfortunate, 'miracle-ending', events.⁴ (While it has long been clear to almost everybody that these countries should have switched to a loose money regime in order to prevent a recessionary adjustment as they were pulling back on their foreign investments in the late 1980s, their inability to do so is evidence that their policy-makers had been succeeding despite a highly incomplete understanding of ordinary macro-economic processes.)

The four Asian tigers

Somewhat later than the USSR, Communist China became a Cold-War threat, to both the West and to their neighbours. Thus, while Mao was developing a nuclear arsenal to complement his militarily aggressive stance during from 1958 to 1965, the Western powers converted several of China's smaller neighbours (Taiwan, South Korea, Hong Kong and Singapore) into Japanese and German-type centres of savings-induced wealth creation, again through a policy forcing these suddenly high-defence externality nations to avoid exchange controls and thereby rationally undervalue their exchange rates (Haggard and Pang 1994; Cumings 1997). Since China has remained somewhat of a military threat despite the break-up of the USSR, the savings and growth rates of the 'four Asian tigers' has remained relatively high.

It might be thought that the FDI that these export booms often attract would work to perversely increase the nation's coveted capital stock. However,

since foreign investors involve their home nations in protecting their investments abroad, there should be no presumption of increased domestic defence costs stemming from such investment. Although domestic investment also expands during these booms, such investment is cost-justified because domestic investors compensate their nations for the extra defence costs with high domestic capital and income taxes.

Taiwan and South Korea, the most responsive to US policy pressure, have set the pattern for the other 'tigers'. Thus, after the USA finally forced an end to both Taiwan and South Korea's overvalued exchange rate policies in 1960, a new pragmatic industrial policy almost immediately arose, one which, quite appropriately, directly subsidized foreign capital-intensive export industries (Haggard and Pang 1994; Cumings 1997, respectively). The initiating jumps in the domestic prices of dollars amounted to the same sort of currency undervaluations that appeared in Japan and Germany, the implicit purpose of which was to reduce the imports of consumer durables to acceptably low levels.

Predicting 'growth miracles'

Note that Germany, Japan, and the four Asian tigers had all experienced substantial economic success prior to the Second-World-War. They had, in particular, revealed that they possessed the cultural prerequisites for high levels of economic efficiency. These prerequisites are:

- (1) A sensitivity of the state's regulations to the expressed interests of its investors
- (2) A bureaucracy ethically dedicated to executing the rules of the state rather than some other concept of efficiency or justice (Thompson and Hickson 2001:12–50).

Prior to the externally imposed exchange control eliminations that initiated their off-the-charts growth rates, these countries had established themselves as capable of generating high levels of economic efficiency and development. The foreign investment subsidy induced by the elimination of a country's right to employ current-account exchange controls would have largely been offset by domestic rent-seeking if these countries were incapable of defending the regulations and rights incidental to high levels of economic development. It is therefore likely that the affected nations would not have continued to accept the elimination of their exchange controls unless they found themselves capable of productively responding to the demands that an undervalued currency placed on an economy. Overinvesting is far more tolerable when it generates abnormal growth than when it generates abnormal domestic rent-seeking.

Perhaps the best example of a poor region that has historically shown itself to be culturally capable of extremely high levels of economic development is Mainland China.

5 Recent 'miracles'

China and India

The failure of Communist ideology on Mainland China led to a highly pragmatic regime in 1979. FDI was encouraged, which brought in Western technology throughout the 1980s and generated a moderate export surplus and visible economic success. Then, in the early 1990s, to gain access to the markets of a developed world that was quite wary of dealing with a large, mainly Communist country, China put itself in the role of a highly dependent state. Like the above dependents, China accepted tariffs that were much lower than it wanted given the state's high defence externality, obviously due to the continuing threat of political revolution. And, again to obtain the acceptance of the developed countries, China's current-account exchange controls weakened in the early 1990s and, by 1994, were replaced by a substantial undervaluation of the currency. The artificially high foreign investment and savings rates after the early 1990s produced the now familiar nearly double-digit growth rates, and should continue to follow this 'growth miracle' path until it returns to at least the kind of equality it had with the developed nations of the West prior to the early-mid-nineteenth century arrivals of the Western hegemon.

Although quantitatively somewhat less dramatic, a similar story applies to India, which similarly accelerated her foreign investment, currency undervaluation response to increased trade liberalization in the early 1990s. The induced increases in her savings and export rates stimulated a remarkably stable 5–7 per cent growth rate for over a decade now. The Indian 'mini-miracle' shows no signs of decreasing.⁵

Southeast Asia and Latin America

Based on the growing relative military strength of the USA, the late 1980s saw the emergence of a new IMF policy. Many discretionary IMF loans came to be conditioned upon entire fiscal and monetary packages that explicitly limited the dependent countries' use of exchange controls. The new policy amounted to a widespread elimination of the previous freedom of IMF borrowers to employ exchange controls to neutralize unwanted tariff reductions and was partially responsible for the generally sharp reduction in exchange controls in the early 1990s (IMF 1976–94).

So a large number of borrowing, high-defence externality, states were suddenly in the same boat as China, and earlier, West Germany, Japan and the four 'Asian tigers'. While maintaining the import licence fees offered by exchange controls as much as they could without losing their loan eligibility, the borrowing, high-defence externality, states of Southeast Asia and Latin America began to use some of their export revenues to purchase investments abroad, thereby creating the beginnings of artificial savings and export booms.⁶

The experiences of these new potential 'growth miracle' countries were distinct from the earlier experiences of Japan, Germany and the four Asian tigers. For investors in the new foreign-investing countries had learned, or thought they had learned, from the experiences of the similarly foreign-investing 'growth miracle' countries. Moreover, the IMF had begun to endorse foreign financial participation in the newly induced expenditures on capital imports. The result was a temporarily very high foreign demand for certain Southeast Asian and Latin American currencies to accompany the waves of supposedly informed speculative foreign investment. This temporary currency demand substantially delayed the real depreciations of these currencies. (While it is likely that the foreign investors had always expected the devaluation, for such devaluations had characterized the earlier 'growth miracles', it is not likely that they were aware of the cultural conditions for sustained high growth. In this sense, the investors were behaving under adaptive rather than rational expectations.) A concurrently predictable consequence of the multi-country export boom is an induced deterioration in their common terms of trade, an end to the widespread inflows of foreign direct, the inevitable devaluation and a corresponding jump in real indebtedness in a 1990s 'debt crisis' that modern authorities have unanimously misattributed to basic structural financial variables and an irrational 'herd effect' or Keynes' 'animal spirits'.

As these countries export their way out of their massive debts and face an uncertain economic future, it is well to keep in mind that we have not seen one 'growth miracle' country achieve a highly developed condition that had not previously achieved such a condition. Many states, including most in Southeast Asia and Latin America, have yet to achieve a high level of economic development and should not be expected to do so without first developing the *cultural conditions* appropriate to such a state. In sharp contrast, China and India, which similarly benefited from the influx of FDI prior to 1997, were not hit hard by the loss of this inflow because they had only to liquidate some of their rationally heavy foreign investment positions in order to substantially offset the reduced inflow. High savings and growth works for China and India because their cultural histories have supplied them with a political ethic that is responsive to the expressed interests of their investors and an educated bureaucracy that greatly respects governmental rules.

6 Conclusion

A nation's optimal savings rate is dictated by the preferences that are registered in the political and economic institutions of that nation. Accepting these preferences, economists should not recommend that these nations work to fulfil the conditions of a modern 'growth miracle.' The excessive sacrifices made by these countries were artificially imposed on them by ideologized countries or Cold-War hegemon. The crude modern version of creating

such a miracle that asks a country to sacrifice in order to attract very high inflows of FDI is a recipe for debt and certain disappointment. The much more accurate version, which asks the country to sacrifice by heavily and continually investing in foreign countries, thereby generating an export-led growth boom, is not advisable from the standpoint of welfare economics and not even advisable from a macroeconomic standpoint unless there is a sound basis for believing that the country possesses the cultural prerequisites to sustain a high level of economic development.

Notes

1. Personal property taxes, general taxes on consumer-owned stocks of consumer goods, have always been prohibitively unpopular due to their corruption-inviting and privacy-invading effects. Even so, luxury consumption taxes, which would apply to all sales of consumer durables, domestic as well as foreign, would be theoretically preferable to import tariffs in a standard competitive model. This is called-for in the Conclusion of Thompson (1974). It was not until the mid-1980s, when a consistent theory of retailing ('monopolistic competition') was produced (Thompson *et al.* forthcoming), that I came to see the substantial lack of realism in the standard competitive model as regards goods produced for a local market. Such goods are rationally tailored to local tastes rather than made relatively homogeneous for sale in the wider export market. The former products require more quality refinements and retailer explanation than the latter, more homogeneous, products. The result is a much higher retail markup, or excess of price over marginal cost, for locally produced goods than for imports. With the retail markup serving as a substitute for a tax on domestically marketed consumer goods, the only justifiable consumption tax is on imports of consumer durables.
2. The usual rationale for exchange controls, that differential import license fees are a convenient way to interpersonally price discriminate between different foreign buyers (e.g. Ellis 1941 or Bhagwati 1978), does not apply to small countries. Besides, differential tariffs to different importers are at least as convenient as sales of import licences. In fact, such discriminatory tariff reductions – in preference to discriminatory import licence fees – are regularly granted to members of defence alliances, for whom the relocation of a consumer good within the alliance is of little military consequence, and therefore of little tax consequence in an efficient alliance.
3. We could arrive at the same conclusion that we are about to reach by alternatively assuming perfect capital markets and reasonable variations in the marginal costs and benefits from the consumer sacrifice.
4. The reason for the qualification with respect to the welfare benefits (that they are 'eventual') is that the recessionary macroeconomic effects of the reduction in exports should have been – but were not – accompanied by expansionary monetary policies. As a result, a large part of the observed reductions in Japanese and German growth rates represent real economic losses. Rational economic policy thought offers no explanation for the inability of these countries to switch to expansionary monetary policies to combat their now-quite-lengthy recessions. What *does* explain this policy anomaly are the special constraints on banking institutions (hyper-creditor domination) that both countries had evolved to support their undervalued exchange rates. (Short-term inflation increases import demand and reduces export supply and thereby reduces the initially optimal degree of

domestic currency undervaluation at the fixed exchange rate.) The backward-looking leaders of these essentially pragmatic countries simply see no reason to scrap the monetary institutions that served them so well for so long a time.

5. An exaggerated element of these growth rates results from the fact that an abnormal expansion in the market sector of these economies attract a substantial influx of people from subsistence agriculture and the underground economy, individuals whose incomes had not appeared in the country's national income statistics. One reason these high growth rates should be expected to gradually decline is that the size of these sectors gradually declines.
6. The standard, textbook treatment of the Southeast Asian Boom of the 1990s is that these countries, in accepting lower tariffs and weaker exchange controls have simply chosen to accept the path of trade liberalization (e.g. Caves, Frankel and Jones 1996). Nevertheless, at least one official source reports that these booms were accompanied by such large export surpluses that total consumer imports substantially fell in the 1990–6 period (United Nations 1998).

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