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Industrial Policy, Trade-Agreements and Decisions in Time:

Two reasons why developing countries willingly limit their options and one imaginative way of stopping it

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TABLE OF CONTENTS

SECTION I:
INTRODUCTION

Our take-off point is one of the central conundrums in international political economy today. Namely, what is the motivation behind joining, and effect of, a free-trade agreement (FTA) for a developing country (DC)? Below are two quotes which are in stark contrast to each other and serve as a backdrop for our analysis.

> "Developed countries are benefiting from the World Trade Organisation (WTO), as are a handful of middle-income countries. The rest, including the great majority of developing countries, are not. *It is as simple as that."*
>
> *- Jawara &Kwa (2003)*

> "We are confident that WTO membership will enhance our capacity and capability to be more competitive in trade through policy and legislative reforms as to attain an overall increase in trade efficiency*."*
>
> *-Mr. Pyakural, Minister of Industry, Nepalupon upon accession to the WTO, Aug 2003*

This essay, whilst not aiming to land at either side of the debate, adds an extra element to it. Why, if FTAs are bad for DCs do they continue to join them (Guzman 1998)? It seems paradoxical that DCs willingly limit their options.

However, it is a perfectly rational action. By understanding the political conditions under which governments are taking strategic decisions, the critics of FTAs may see how the choice to join is rational and proponents of liberalisation may see how joining is not motivated by the superiority of comparative advantage theory, but rather is the result of constraints on strategic decision-making.

What is of interest here is how a DC government reacts to the offer of a FTA. By way of limiting the parameters of this discussion we define DCs as the 50 or so countries which depend on agriculture for at least one-quarter of their export earnings, and account for a

diminishing share of world trade and income (as defined by --UNDP 2005:118). The share for agricultural exports is highest for Latin America (29% excluding Mexico) and Sub-Saharan Africa (16%). They command a very narrow range of exportable commodities and face declining terms of trade. For these countries the combined price index for all commodities fell by 53% between 1997 and 2001 (--UNCTAD 2003). However, it should be noted that this analysis is relevant to most countries facing the strategic choice of joining a trade-agreement.

In Section II we undertake a general survey of the literature regarding industrial policy and FTAs. There is a vast pool of sources to draw from, but the central point here is that DCs have an interest in a well-defined and long-term industrial policy.

Section III is where we get into the issue of strategic decisions in time. We find two reasons why signing up to a FTA that limit policy-options is rational. First, when confronted with the choice of becoming party to a FTA the government weighs costs against benefits. The outcome depends on which *time-horizon* the government employs for its strategic choice. Second, typically DCs consistently face time-consistency problems, and thus credibility problems. In the face of questionable credibility in the eyes of private economic agents, DCs seek to bind commitments externally through FTAs.

Section IV tries to offer a tentative solution in the form of an externally induced loan-programme. As the model proposed is highly simplified, it must be seen as the beginning of a research programme with the purpose of tackling the dual problem analysed in Section III. Section V concludes the discussion noting that we need to conceptualise DCs acceptance of FTAs in a different light. The popularity among DCs for FTAs is not the result of the

superiority of comparative advantage theory, but the effect of constraints on strategic decision-making.

SECTION II:

INDUSTRIAL POLICY AND FTAs

II.1 Industrial policy 101: what it is and why it matters

> "Anytime a government consciously favours some economic activities over others, it is conducting industrial policy […]. The trick for the government is not to pick winners, but to know when it has a loser." (Rodrik 2004b:12, 29)

A typical DC economy is more centred on the production and export of primary products than developed countries. Primary product production reap little value-added, more or less constant returns to scale and declining terms of trade (Shaffaeddin 2000). Thus it is the aim of every DC to move up the value-chain and enter into industries which are more competitive, exhibit increasing returns to scale and offer opportunities for value-added and innovation (Chang 2003).

This is hardly controversial. However, the way to do this *is*. Few advocate the view that free trade is the only way to industrial success, though all agree that trade plays a vital role (see for example Dollar 1992, Edwards 1993, Easterly&Levine 1994, Neary 1993, Collier 1995, -- UNDP 2003). Nevertheless, it is clear that the process of industry upgrading is of great importance. Only seven countries account for more than 70% of low-tech exports and 80% of high-tech exports from all developing countries (UNIDO 2004). Over the period 1980-2000 manufacturing value added in developing countries grew at 5% a year with almost the entire increase recorded in East Asia (UNIDO 2002). Developed countries account for more than 80% of manufacturing value-added worldwide (UNDP 2005:118).

Though trade is important, the task of upgrading industry must include some degree of industrial policy - 'carrot-and-stick' measures with the aim of increasing investment, creating incentives for R&D, creating backward and forward linkages and promoting scale industries. Typical 'carrots' include loans for working capital, loans for fixed assets and investment projects, equity investment, loans to specifically favoured sectors, credit programs for particular regions, horizontal tax incentives, tax incentives to specific sectors, tax incentives to particular regions, trade protection and so on (Rodrik 2004b).

Rents received by private economic agents are subjected either to performance requirements, as for example Korea's requirement to export, or to close monitoring (Chang&Evans 2000). The use of the 'stick' is essential in that it disciplines opportunistic action by the recipient of the rent (Hausmann&Rodrik 2003). Rodrik (2004b:11) in fact attributes the relative success of East Asia vis-a-vis Latin America to the industrial policies of the latter using too much of the carrot and too little of the stick. As such, one of the challenges that a DC government faces is finding the most appropriate mix of policies. Arriving upon the optimal policy-mix requires strong state capacity.

The state, and its capacity, is naturally a crucial determinant of the success of industrial policy. A state that actively pursues an industrial policy is often called a *developmental state*. The origins of the term come from the role of the Japanese state in industrial upgrading in the 1950s and 1960s (Johnson 1982). Empirical analysis clearly shows that the ability to control industry and direct resources into uses that will reap long-term global mobility in the value-chain is invaluable for the developing country (Chang&Green 2003). The literature is vast on the topic (see for example Amsden 1989, Wade 1990, Chang 1993, Evans 1995, Woo-

Cumings 1999). Even the World Bank has recognised that the role of the state is crucial in this endeavour (World Bank 1993, World Bank 1997, Haggard 1995:28, Amsden 1989:317)

Indeed, the recent crises in East Asia, a region that extensively used the developmental state model, have been blamed on the decline, rather than the persistence of such state structures (Chang&Evans 2000:25, Wade 1998, Singh 1999, Chang 2000, Kay 2002). Though riddled with controversies, the historical evidence suggests that a well-executed industrial policy is important, indeed crucial for lifting DCs out of low productivity traps (see for example Aswicahyono&Feridhanusetyawan (2004) for the case of Indonesia).

Even though the body of literature is highly detailed, both empirically and theoretically it falls short on one account. The state must be able to determine *time-frames* within which an industrial project may be deemed a success or a failure, and consequently be rewarded or discontinued. Even though we understand the importance of industrial policy through the empirical analysis of successes and failures, there is little analysis done on what *planning-horizon* the government should employ.

As such, the literature surveyed does not explicitly demonstrate that *time matters*. In short, the industrial upgrading recipe for DCs is incomplete; it contains a description of ingredients, but not a guide on how long these ingredients should be kept stewing.

II.2 Why time matters

> "…the analysis of industrial policy needs to focus not on the policy *outcomes* […] but on getting the policy *process* right. We need to worry about how […] private and public actors come together to solve problems in the productive sphere, each side learning about the opportunities and constraints faced by the other, and not about whether the right tool for industrial policy is, say, directed credit or R&D subsidies." (Rodrik 2004b:3)

It would be over-ambitious to attempt to complete the recipe in this short essay. However, for the purpose of the subsequent analysis, it is apt to point to some reasons as to why time matters in the formulation of an industrial policy and underline the role that the government plays through its *planning in time*.

For example, an important component of an industrial upgrading campaign is creating incentives for the capital-owning class to invest in potential successes. Investment invariably carries risk, and risk may be particularly discouraging when the investment required is in value-added and scale industries. The time from which sunk costs are invested until it can be transformed into profitable industrial capital must be adequately insured by the government such that the potential cost of failure is to the capitalist not large enough to discourage risk-taking (Rodrik 2004b:12). If the government is unable to mitigate risk and forecast returns in the future, agents will postpone irreversible investment in favour of liquidity (Dixit&Pindyck 1994). The government must thus help equate social marginal cost with *expected* return of projects for investment to take place. This means planning in time.

Encouraging entrepreneurialism present formidable challenges. From the conception of an idea to the production of a sellable good, the obstacles may be many. But the developmental state's responsibility goes beyond mediating appropriate risk-premiums. Even before the idea is conceived, the potential entrepreneur must understand that she can *become* an entrepreneur. Thus, even before the 'self-realisation', or the process of successfully moving along a learning curve of trial-and-error starts (Rodrik 2004b), the government must plan for what has not yet been realised. Klinger et al. (2004) have empirically shown that the number of new innovations is positively associated with the height of entry barriers into the currently non-existent market. Thus, the government must assure potential entrepreneurs that they will retain some exclusive rights over new innovations. To be able to do this, the government must plan in the long term.

Closely connected to this second reason why time matters, is the more abstract issue of the aggregate economy's learning curve. Investment in reverse engineering, R&D, education and trial-and-error processes are all determinants of the country's mobility in the value-chain (Chang 2003:112). All these measures take time before they bear fruits. Some tasks carry potentially enormous sunk costs such as building technology parks, providing universal secondary education and so forth. To commit to these costs means committing to *future* prosperity at the cost of current risk-taking.

As a last example of why time matters in industrial upgrading, we look at institutional change. Institutions in the public sector need to reinvent themselves[1]. "The strong element of legacy, inertia and path dependence in the determination of institutional forms must be acknowledged at the start. Even new institutions are built out of the raw material of existing institutions"

[1] 'Institutions' as defined by North (1984:8)

(Chang&Evans 2000:13). Undoubtedly, a reform-minded government that aims at comprehensive industrial policy will face the challenge of reinventing the institutions that may support reform and reduce transaction costs (North 1990)**.** Just as the private sector and the entrepreneur engages in trial-and-error processes, so must the government**.** This is a time-consuming activity. It requires a visionary government - one that can credibly pledge to supply financial resources into the future for the purpose of overcoming sticky institutional path-dependency. The rewards may be substantial, such as in the case of Korea;

> "[…] Institutional changes formed the basis for a cascade of changes in the behaviour of the private sector, which in turn produced an extra-ordinary transformation of the Korean economy. From a backward exporter of tungsten and ginseng, Korea became an exporter of labour-intensive manufacturer goods a world power in capital- and technology-intensive exports." (Chang&Evans 2000:39)

The Park regime of Korea, which has often been held up as a model of the developmental state, did not, however, simply arrive with a clear blueprint (Chibber 1999). It engaged in a series of institutional experimentation in its early days with the full-fledged developmental state only coming into action later (Amsden 1989:317, Evans 1995). One of the most important institutional changes that the Park regime undertook is telling of the importance of planning in time. It implemented an economic planning board and five-year plans which were designed to ensure predictability and combat market coordination failures (Chang&Evans 2000:28).

Whether it is the government that needs to reinvent itself through a trial-and-error approach to policy-making (Rodrik 2004b:19), the industrialist who needs insurance to invest, or the entrepreneur who seeks incentives for 'self-realisation', all are dependent on the

developmental state's ability to plan credibly in time. The importance of which will become abundantly clear through the subsequent sections. Analysis that concerns the role of the state in development must include insight into the way in which the government perceives itself and its prospects in a *temporal perspective*. A failure to do so may lead to the misinterpretation of the motivation behind DCs' strategic choices. This essay deals in particular with choices as regards to participation in FTAs.

II.3 Understanding FTAs, with the WTO as a case in point

There is a wealth of literature on the impact of FTAs on a country's ability to conduct industrial policy. Conceptually, trade-agreements are instruments that promote the free movement of capital and goods across national borders. According to comparative advantage theory, free trade leads to the most efficient allocation of resources, while restricted trade costs the consumer, producer and therefore social welfare.

For simplicity, this essay does not differentiate between the effects of different FTAs, unless explicitly stated. Clearly there are large differences in the impacts of bilateral, regional or multilateral agreements, though these intricacies are for the most part not relevant to the remaining discussion. However, given that 90% of trade is conducted under the auspices of the WTO, it is an appropriate test case (O'Brian&Williams 2004:147).

The WTO, born out of the Global Agreement on Tariff and Trade (GATT) in 1995, has an expressed goal to reduce barriers to all trade in order to promote global efficiency. In addition the WTO (and other FTAs) seeks to harmonise and dismantle regulation, cater for private capital and productive resources to move freely across national borders, and ensure that

owners of capital are not differentiated between. This is essentially the agenda of 'deep integration' (Shadlen 2005b).

Many of the Sub-Saharan African countries, which have to a large extent accepted this agenda seem not to have reaped the benefits of increased trade-liberalisation. The share of world exports from a region (excluding South Africa) of 689 million people is less than half that of Belgium with 10 million people (--UNDP 2005:117). Interestingly, East Asia, India and China, all developing countries which accepted the deep integration agenda to a lesser degree and later than Latin America, have been the fastest growers over the last three decades or so (Rodrik 2004b:6-11). Despite this evidence, the average tariff in DCs has fallen from 25% in the late 1980s to 11% today as a result of the proliferation of FTAs (--IMF 2005). The bargain of promised market access for deep integration is very real for developing countries (Shadlen 2005a).

The deep integration measures of the WTO, and in particular it embodies on services (GATS), intellectual property rights (TRIPs) and investment (TRIMs), place severe restrictions on the "[…] 'development space' for diversification and upgrading policies" (Wade 2003:622). In short, there is a trade-off between the benefits of international cooperation and the ability to shape national strategy (Haggard 1995:4, Shadlen 2005b, ActionAid 2005). Market access comes at the cost of limited policy options in *the future*.

The standard narrative on trade's role in development stresses specialisation through comparative advantage as an ultimate goal for DCs. Imbs&Wacziarg (2003) dispute this indirectly when showing that specialisation has historically not been the route to development. The authors examined structural changes in time for a large cross-section of countries. Their

results show that, as the now developed countries have grown richer, they have in fact diversified their industrial base and only at a point when income is relatively high proceeded to specialise and concentrate resources (Imbs&Wacziarg 2003:64). As Rodrik (2004b:7) comments, "whatever it is that serves as the driving force of economic development, it cannot be the forces of comparative advantage". Rather it signifies successful industrial policy. Economic agents are given space and support to conduct trial-and-error projects. Industrial policy is about experimenting with industrial avenues which have potential, pre-liberalisation.

Though challenged (notably by Amsden&Hikino 2000, Casacuberta et al. 2004), there is thus wide agreement with the claim that the deep integration that has been pushed through the WTO bargain and other trade-agreements *limits* the ability to commit to meaningful industrial strategy for a DC. Analysts only disagree about *the degree* to which it imposes limitations.

One of the most important components of industrial policy is encouraging the economy to have a steep learning-curve. In practice this means encouraging the adoption of new and improved technology, continued entrepreneurial activity and nurturing expertise within scale industries. In this regard it is instructive to conduct a brief analysis of how one of the agreements embodied within the WTO, TRIPs, affects the ability of the government to employ upgrading policy. This agreement forces DCs to impose more stringent intellectual property regimes, giving private actors stronger patents on knowledge, thus conferring greater monopoly rents to the owner.

As Chang (2003:270-1) has illustrated, those countries that are now 'developed', did not grant such protection until later stages in their development. In fact, countries like Britain, the Netherlands, Austria and France openly allowed patenting of imported inventions. This

enabled them to quickly adapt technology to domestic productive uses, and become competitive in international markets.

Similarly Weiss (2005a, 2005b) surveys how the WTO is clearly more enabling for developed countries than for DCs. “Rich nations as a group have carved out a multilateral order which best suits their current developmental trajectory – one that diminishes space for promoting industries critical to their climb up the development ladder, while increasing scope for sponsoring the technology–intensive sectors now critical to securing national prosperity” (Weiss 2005b:1). Weiss concurrently finds that while WTO rules allow rich countries enough scope to climb the ladder through science and technology “[…] for those countries still climbing the ladder of development […] TRIPs reduce the development space that the GATT formerly allowed” (Weiss 2005a:349).

As competition in production markets are increasing, value-added opportunities are becoming concentrated at each end of the value-chain. Retailing, marketing and research and development are essentially the activities within which the potential for value-added is most prominent. As developed countries in practice acquire exclusive ownership over knowledge that allows such productive activities, DCs are stuck in high-competition production activities in which rents above normal rates of return are small and opportunities for higher value-added activities are few and far between Gereffi (1995:115).

However, TRIPs still leaves some ‘wiggle room’ for countries who wish to commit to industrial policy (Drahos 2001:796). Some see the real danger for upgrading policies today as being the proliferation of Bilateral Investment Treaties (BITs). Choudry (2005) calls the proliferation of BITs ‘laser-guided liberalisation’. These are particular forms of FTAs through

which the deep integration in turn for shallow integration bargain is intensified (Shadlen 2005a), a topic we shall return to later.

II.4 Towards understanding choice

The purpose of this section has been to draw the following three conclusions. First, a DC that seeks to promote industrial growth must use the instruments of industrial policy. In general such policy is aimed at lifting domestic industry out of constant-return activities through 'carrot-and-stick' measures. Second, a successful industrial policy must be credible, coherent and have a long-term horizon. Time matters for all agents in society.

Third, by using the WTO and TRIPs as proxies, we conclude that FTAs have '*constraining effects'* on the state and its strategic choices. It should however be acknowledged that FTAs do present *'enabling effects'* as well (Weiss 2005a:351). Here, it suffices to assume that *on aggregate* a FTA offered to a developing country *constrain* options available to it. The rest of the analysis must be judged in light of this.

Before we proceed, we must enter one more caveat. We treat the subject of this analysis, the DC government, as concurrent with a 'Rational Actor Model' (Allison&Zelikow 1999:15). The government is a rational, benign and unitary actor whose action results from a calculated strategic problem, and whose priority is development for the entire economy. Clearly, this is a simplification of reality that glosses over tensions and motives vested within the decision-structures (Chabal&Daloz 1999). However, it is not unreasonable to assume that such a view serves as the closest possible approximation of a generalised reality.

The question is then, why do DC governments continue to join FTAs if it in effect means limiting their options? This essay will now proceed to show that the answer lies in different corollaries of the second conclusion. Crucial to understanding this, the nature of industrial policy *now* is that the benefits are largely reaped at some point in *the future*.

SECTION III:

DECISION-MAKING IN TIME –

TWO REASONS WHY DCs WILLINGLY LIMIT THEIR OPTIONS

III.1 The problem of planning

"Governments may not even know what it is they do not know" (Rodrik 2004b:16)

III.1.1 The decision paradigm: a skeleton explanation

A DC that considers joining a FTA faces the task of *forecasting* pay-offs. Barring irrationality the choice will be according to what is predicted to reap the best outcome. In short, the country joins a FTA if its cost-benefit analysis satisfies the following condition;

(1) $$[\ (\text{benefit}_{n\text{-}p} - \text{cost}_{n\text{-}p}\ ) < (\text{benefit}_{p} - \text{cost}_{p})\ ]$$

Where 'n-p' denotes non-participation in the trade-agreement, and 'p' denotes participation. 'Cost' and 'benefit' refers to the perceived costs and benefits in a time period *after* the decision has been taken. Thus;

(2) $$[\ \text{benefit}_{n\text{-}p} \neq \text{cost}_{p}\ ,\ \text{benefit}_{p} \neq \text{cost}_{n\text{-}p}\ ]$$ **(Unless by coincidence)**

Or, the benefits of not participating are not the same as the costs of participating as all four terms are relational with regards to the situation before the decision has been made. The further relevance of that will be clear later.

This seems elementary. However, in much of the literature that deals with FTAs vis-à-vis DCs, the costs and benefits on each side is seldom disaggregated. Agreements are generally accepted as beneficial in wholesale (see for example Mandelson 2005) or rejected as simply prohibitively costly (see for example Jawara&Kwa 2003), thus misinterpreting the complex aspect of decision-making.

That said, disaggregating all four terms and endowing them with content is an unfeasibly complex task here. Nonetheless, with the backdrop of our analysis of industrial policy we are enabled to make a superficial, but crucial inference - understanding how the costs and benefits of entering a FTA relate to industrial upgrading is arguably the most important element of the decision-making process.

III.1.2 The decision

> "[…] our telescopic faculty is defective. We see future pleasures, as it were, on a diminished scale, we are subjected to irrational discounting." Pigou (1950[1920]:29)

The government doing the cost-benefit analysis in t=0, and which is able to have a planning-horizon until t=2, or in the long-term, will face this condition, leading to *non-participation*;

(3) $$\mathbf{[\ (benefit_{n\text{-}p} - cost_{n\text{-}p}\ ) > (benefit_{p} - cost_{p})\ ]\ in\ t=2}$$

As the government employs a *long-term* planning-horizon, discounting the future at a low rate, the benefits of non-participation can be envisioned. It is perceived as beneficial not to

limit policy-options since at a determinate point in the future, the sunk costs of strengthening the industrial base (in t=1) is offset by the benefits of the industrial policy materialising in the long-term (t=2). However, if the government making the cost-benefit analysis in t=0 can afford only to have a policy-making horizon to t=1 the result would be the opposite:

(4) $$[(benefit_{n-p} - cost_{n-p}) < (benefit_{p} - cost_{p})] \text{ in } t=1$$

This is so because in t=1, the benefits from industrial policy have not yet materialised, and thus ceases to factor into the decision. For some reason, the DC government is restricted to short-term planning with high time-discounting rates, thus industrial policy is completely left out of the equation, indeed not even considered.

The obvious question is then, why are policy makers unable to plan to t=2? Four reasons will be highlighted here, two domestic and two external. These are *typical, but not exhaustive or exclusive* of the political conditions faced by DCs. They merely serve as proxies for a wide range of different political pressures which prohibit the DC from planning for the long-term.

III.1.3 Two internal reasons for myopia

1) Domestic political instability

A government facing political instability, civil unrest or any other destabilising movement in the country, will cease its long-term planning. Its efforts are concentrated on combating the pressures on it in the attempt to maintain power. This is also true in countries where there is an autocratic government (Chabal&Daloz 1999). The autocrat relies heavily on the different levels of patron-client relationships to maintain his/her power. If these are threatened, or

control is on the wane, an autocrat will probably abandon any long-term strategy and settle for short-term gains. The cost-benefit analysis then fails to take into account the positive returns from a well-planned industrial policy, and thus the country joins the FTA (concomitant with expression **(4)**).

2) The presence of a dominating industry

The dominating industry may have trade union bargaining power or may be deeply intertwined with the government such that its needs become policy. As most DCs have their 'comparative advantage' in primary products, the dominating industry is likely to be in primary production (Shafer 1990).

As it would be the concern of a primary product producer to gain market access, or shallow integration, *as soon as possible*, and given its powerful role in domestic political life, a short-term perspective is adopted by the government (Haggard 1995:9).

III.1.4 Two external reasons for myopia

1) Debt and conditions imposed by international financial institutions (IFIs)

The debt crisis of the 1980s was a time when policy-horizons shrank considerably (Rodrik 2004a:6). The need to maintain a constant flow of foreign exchange is a very important priority for a DC in debt. However, quintessentially important to the analysis at hand, the need for cash is *immediate*. A government in debt needs to focus its efforts on export orientation in primary products in order to secure inflow of foreign exchange. Long term upward mobility becomes an untenable policy objective.

Also, the conditionality that is attached to loans by the IFIs is often concerned with the active engagement of the DC in the international trading regime (Haggard 1995:7, Collier 1995, Kanbur 1991). This shortens the potential life span of an industrial policy and thus its long-term pay-offs cannot be envisioned.

2) Bilateral Investment Treaties (BITs)

Since the United States entered into its first BIT in 1981, the number of treaties world-wide has multiplied many times over (Haggard 1995:37). DCs' active acceptance of these treaties can also be seen in terms of governments' ability to plan for the future.

A DC's success in the international trading regime is largely dependent on its ability to command a significant export market share and attract investment. Often the DC's greatest 'competitors' are its geographical neighbours. As countries in vicinity of each other often exhibit the same export profile and investment prospects, they will be constantly battling to get the best possible terms on their market access and secure the most direct investment despite the deep integration that this entails (Haggard 1995:33, Shadlen 2005b). The offer of signing a BIT is attractive especially because of the competitive nature of this process. That extra concession offered may lead to that much more investment (Guzman 1998:670-671). "The incentive to sign a BIT comes from the ability to get an advantage over one's rival host countries *in the short run*" (Guzman 1998: 679).

Thus, the government of a country that has not signed a BIT will look to its neighbours and feel compelled to sign one as well. It is forced to have a short time-horizon so as to protect its relative market share from capture. As the government, then, makes decisions according to their short-term outcomes, it will be unable to appreciate the potential benefits that a long-

term industrial policy may reap. Any one country joining and gaining preferred market access compels its neighbours to abandon long-term strategy, and join for fear of exclusion (Gruber 2001:714). The problem of collective action is evident. If every country had the ability to plan to t=2 there would be no such problem.

As a minor point, it is helpful to revisit our cost-benefit equations again (in particular **(2)**). Both sides of the condition for joining the trade-agreement need not be positive (Shadlen 2005a). Both participating and not participating in t=1 or t=2 relative to t=0 may in benefit-cost terms actually be negative. Both joining and not joining leads to worse outcomes than what is the *status quo* at which time the decision is made (t=0). Thus it may be that the choice is one of the *least worst* outcome for the future without being 'left behind' (Gruber 2001:709).

III.1.5 Strategic decisions face planning constraints

Thus we have one reason why DCs willingly limit their options. What is clear is that politics has a major influence on strategic choices. It is important to underline that the benefit-cost analysis that has been considered here, exclusively considered industrial policy *ceteris paribus*, and can consequently not be a complete representation. However, it shows that the outcomes of strategic decisions depend on the ability to plan in the long-run.

III.2 The problem of credibility

III.2.1 Non-vacuous planning

In the previous sections private economic agents have been seen as responding positively to incentives and 'carrot-and-stick' measures of industrial policy[2]. However, the reality is more complex since planning does not happen in a vacuum. By understanding the conditions under which private economic agents make their decisions, it becomes clear that the government has challenges that go beyond the ability to plan in the long-run. We need to look at the complex inter-play between the government as an agent of development, and rational private economic agents as respondents to policy.

III.2.2 Understanding time-inconsistency

The approach of considering the microeconomic foundations when analysing macroeconomic policy, was first labelled the "Lucas Critique" and triggered a profound rethinking of the tools by which to control the economy (Triulzi&Montalbano 2001). Lucas (1976) argues that optimal decision rules[3] change as alterations in policy induce changes in the decision-paradigm as economic agents respond in the next time-period, which in turn necessitates re-estimation and future changes in policy, and so on.

This powerful critique was further developed by Kydland&Prescott (1977) and labelled 'the problem of time inconsistency'. They proved that choosing optimal policy in an inconsistent

[2] Here we define 'private economic actors' as domestic. The problem of time-inconsistency also applies to foreign actors with interests domestically, though effects may be more diverse.
[3] At each point in time, the decision selected is best, given the current situation and given that decisions will be similarly selected in the future.

manner in each incremental time-period is sub-optimal over time. What this means is that every economic policy action considered optimal *ex ante* is not necessarily as such *ex post*.

> "Even if there is an agreed- upon fixed social objective function [say, industrial upgrading,] and policymakers know […] the effects of their actions, [optimal decision rules] do not result in the social objective function being maximised. The reason for this apparent paradox is that economic planning is not a game against nature, but, rather, a game against rational economic agents." (Kydland&Prescott 1977:473)

This follows from the conclusion that current decisions of economic agents depend in part upon their expectations of future policy actions. If the government makes an optimal plan incrementally, economic agents will expect government policy to change and will base their behaviour on the changes they foresee. As a result, given an opportunity to re-optimise and change its plan at a later date, the government would generally do so as economic agents have responded in ways that the government could not foresee.

The game played between policy-makers and economic agents in this manner generates a less optimal outcome than a policy based on consistent, rule-based policy-making. The policy-maker fails to take into account the effects of her inconsistent policy rule upon the decision-paradigm of economic agents, causing vacillating policy-making inter-temporally.

Industrial policy must be maintained long-term for it to pay off. For carrot-and-stick measures to work, economic agents must have the expectation that they will actually be carried out at the end of the defined time-period. The government must have credibility in its policy choices. If not, even though the government fully intends to stick to its plans and thus not

renege on its promises and threats, economic agents will expect the government to renege which in turn make responding to government policy today risky, and essentially unviable.

III.2.3 The credibility paradox: doomed if you do and doomed if you don't

Given the problem of time-inconsistency, how does the government ensure credibility? Kydland&Prescott (1977) advocate 'rules rather than discretion' arguing for governments binding their policies through policy-rules. Without long-term credibility only those rules that the policy maker has no current incentive and ability to abandon become credible in the eyes of the economic agent (Persson&Tabellini 2000:2, Drazen 2000:102). For example as Lapan (1988) has shown, the inability of the government to commit credibly to a tariff before production decisions are made leads to sub-optimal production decisions by producers. Clearly, then, the problem is solved if the government is seen to be credible in its policy promises (Boko&Lapan 2001).

Collier (1995) provides ample empirical evidence on the prevalence of vacillating trade policy as a result of inconsistent and non-credible decision-making.

> "[…] for example, in the past decade, Nigerian trade policy has swung from intense foreign exchange rationing, indicated by a parallel market premium of over 300%, to a completely free market back to even more intensive rationing, and most recently back to a free market" Collier (1995:547)

He concludes that because of various political pressures, for example tied to aid and trade liberalisation, private agents are forced to allow for the possibility of policy to reverse, which creates an environment which is highly hostile to investment and industrial upgrading. More

often than not, including in the case of policy areas beyond trade-policy *per se*, DCs' track-record renders policy promises non-credible as far as the economic agent is concerned (Rodrik 1998).

Thus, the government that wishes to upgrade its industry is in a catch-22 situation. Even when policy-rules are clearly defined, private actors will have no incentive to believe in the self-enforcement mechanisms of the government. As rational economic actors survey their historical experience with trade-policy, they become increasingly risk-averse and fall pray to hyperbolic time-discounting and eventually cease to plan for investments (Hansen 2004).

The DC government is then set for a double-whammy; the costs it sinks into regulatory capacity and risk-mitigation are lost. Consequently, the government must renege on its commitments in the medium-term as taxation from increased production is not forthcoming. This in turn makes private economic agents even more disbelieving in the face of an additional set of broken promises, and the whole exercise has done nothing but destroy the government's hope of being perceived as credible in the future while worsening its fiscal liquidity.

This is an aspect of the time-consistency problem which has not been sufficiently highlighted in the literature. It is clearly the case that even when the government manages to plan in the long-term, industrial policy is unviable due to its historical record. As such, the most efficient commitment mechanism is to commit to as few policy promises as possible, or in other words, commit to free trade.

III.2.4 Strategic decisions face credibility constraints

In realising that it has no option but to abandon industrial policy, the DC government seeks pre-commitment mechanisms to improve its credibility (Boko&Lapan 2001, Drazen 2000:132-139). Domestically it seeks instruments through the building of institutions that help bind commitments. However, as inertia and path-dependency makes institutional change sticky and long-term, this is not fruitful. Externally the search is bound to be as unsuccessful as there are no external enforcement mechanisms in the form of laws or institutions that have the expressed goal of supporting long-term industrial policy.

The second-best, sub-optimal choice is to commit to a FTA. Binding commitments through FTAs are credible in the eyes of private economic agents (Boko&Lapan 2001) as these commitments are externally enforced, and are unrelated to the government's policy-making history. The problem of consistency is the second reason why DCs limit their choices

III.3 An accelerating dual problem of constrained planning and credibility

Given our analysis, it can be concluded that the strategic choice of entering trade-agreements despite their crippling effect on 'policy space', is perfectly rational. The DC government chooses a *negative* option. The choice to increase trade is not motivated by the will to achieve specialisation and exploit comparative advantage, but is made because the optimal option of industrial policy is not available.

Such high time-discounting has been aptly described by Chichilinisky (1997) as 'the dictatorship of the present over the future'. Concurrently it is important to recognise that very

low discounting would be a ‘dictatorship of the future over the present’. *Indeterminate* industrial policy is precisely that. However, that proposition is in itself an oxymoron given that what defines industrial policy is that it is time-bound. Consequently, arguing for industrial policy is arguing for a temporary dictatorship of the future over the present, while arguing for unhindered trade is arguing for an indeterminate dictatorship of the present over the future. The use of the word dictatorship is apt. Most of the East Asian countries which experienced industrial progress enjoyed few political freedoms during their restructuring.

However, the explanation put forth here does not implicitly condone dictatorship by arguing for industrial policy. As regards the non-domestic aspect of the planning constraint, the ability to plan in the long-run is dependent on external pressures, as such not directly related to regime-type. When it comes to the credibility constraint, it is really a dictatorship of *the past* over the present and the future. Again, this is unrelated to the regime-type today. However, in the case of countering the internal reasons for myopia there seem to be an advantage in having an unwavering dictatorship that can quell adverse political pressure.

This is nevertheless not the only solution. In order to counter domestic political instability, one solution is to commit to an external mechanism that gives incentives to stay on the path to restructuring the economy. A tentative draft is suggested for such an external mechanism in the penultimate section of this essay. Another option is to nurture those political constituencies which *may benefit* from industrial planning.

Though special interest politics is not strictly under analysis here, it is instructive to look at how constituencies are affected. Advocates of free-trade are adamant that the support for

liberalising trade is nearly universal in the long-run. Even rent-seeking groups, such as an import-substitution lobby will eventually see the advantages of comparative advantage.

However, as industrial policy means 'picking' losers and winners, the issue of free-trade is undoubtedly a contested one among private economic agents. The government that considers instituting a wide-ranging industrial policy package invariably needs the support of private economic agents (particular investors, representatives of potentially favoured geographical areas, etc.) who see themselves as natural targets for supportive policies. However, as the government failed to institute industrial policy in the past, or the chance of it happening becomes smaller as a function of decreasing credibility, these groups come to command diminished political power (Grossman&Helpman 2001:275, Persson&Tabellini 2000:40).

When a government chooses to cancel long-term planning (in effect industrial policy), it also, albeit involuntarily, chooses to *dismantle future coalitions*. This further exacerbates the declining potential for instituting industrial policy in the future (Drazen 2000:101). Preferences are *not static* and given that the option that is optimal (industrial policy) is unavailable, *preferences become increasingly biased in favour of free-trade* as time goes by. This vindicates the advocates of free-trade, albeit in a different way than what it seems like at first sight. In the long-run there is a bias in favour of free-trade. However, this bias does not originate in the wish for increased specialisation, but evolves as a result of changing preferences.

Consequently, one of the alternatives to dictatorship is to actively support the constituencies which are positively predisposed to the suggested policy program. These groups must be nurtured at a point when they are strong enough to play a role. If not, their preferences will

change and eventually these groups will disappear, as has increasingly been the case in Korea after intensified liberalisation (Chang&Evans 2000).

To sum up, the problems of constrained planning and credibility impede on DC governments' ability to make the optimal strategic choice in the long-run. Constrained planning disallows the government to let the benefits of long-term industrial policy feed into their cost-benefit analysis. Constrained credibility makes long-term policy-making untenable. In addition, because of non-static preferences this process is in fact accelerating. DCs thus willingly limit their options and contribute to continued "competitive liberalisation" (former US Trade Representative, Robert. B. Zoellick, quoted in Choudry (2005:12)).

The prospects seem pretty grim. However, in reformist spirit this essay will now go on to discuss how an externally enforced pre-commitment mechanism may induce credibility and create 'development space' to plan. This effort must be seen as little more than a step towards encouraging a research program on the topic of planning in time.

SECTION IV:

POLICY IMPLICATIONS AND MODEL DRAFT

> High time-discounting by today's generation at a cost for future generations "[…] is ethically indefensible and arises merely from the weakness of the imagination." (Ramsey 1979[1928]:261)

IV.1 Confronting problems of planning in time

Given that DCs continue to join FTAs, are policy-makers guilty *en masse* of a 'weakness of the imagination'? Naturally, economic agents and policy-makers alike discount the future at a certain rate. We would deem irrational a choice that favoured a good tomorrow over a good of same magnitude today (Rae 1905[1834]:53).

However, if the good tomorrow is larger than the benefit today *after* the discount rate has been taken into consideration, it would be rational to sacrifice benefits today in order to gain more tomorrow. This essay has shown that future benefits of industrial policy are substantial, and that only when the discount rate rises to high levels, for reasons accounted for above, will tomorrow's benefits be sacrificed. Faced with planning and credibility constraints such high discounting becomes rational despite Ramsey's warning.

We must then ask, what are the means by which high discounting can be avoided? There is clearly circumstantial political pressure for each DC which is difficult to circumvent by crude generalisation. A step in the right direction, however, would be to devise some method by which we can determine what the optimal planning-horizon for the government is. In other words, by building a model that presents solvable time-points.

Without a specific value assigned to the end-period of a policy-horizon, the reference point for the government would be a vague 'point in the future'. This is disconcerting both for the government and economic agents (Ruge-Murcia (1995). Thus the discount-rate increases accordingly as there is no time-frame within which to judge individual industrial achievement. If not eradicating the problem of constrained planning and credibility, defining these points in the future is certainly of some help. It would bring us closer to a completion of the recipe.

What is presented below is one such attempt. As is obvious, this is a highly simplified model with clear limitations as far as its real-world application goes. Nevertheless, the next few pages should represent a step towards 'strengthening the imagination'.

IV.2 Proposal: an externally enforced loan-package to combat planning and credibility constraints

As discussed, there are two ways of combating domestic political reasons for myopia. One is supporting political constituencies which have an interest in industrial policy. Another is through an external pre-commitment mechanism that induces credibility and space to plan. This essay will now make attempt at designing a solution to the latter. First we define a way to quantify time-points, and then we look at how a loan-program may help planning and credibility.

Consider a DC with the following characteristics in *the current time-period*. It has a stable, rational and benign government, it faces no immediate political emergency (such as elections), it has no outstanding debt, it is currently not a party to a FTA that limits its 'policy

space' and it has little or no institutional infrastructure to conduct a coherent industrial policy. The country is presented with a FTA that limits its options in the long-run, but is attractive in the short-run.

IV.2.1 Learning-by-doing, the bedrock of industrial upgrading

Section II concluded that the process of trial-and-error by investors, potential entrepreneurs and public institutions is the key to industrial upgrading. For simplicity, by crude approximation we define the level of successful industrial upgrading according to *the ratio of failures to successes* in all these crucial areas on aggregate. It is assumed that the process of aggregate trial-and-error in the economy is getting progressively more successful in each time-period, given a certain industrial policy program with a set of strict policy-rules. We define the following function for the aggregate economy's learning curve:

$$f_t = b\rho + (1-\rho)f_{t-1}$$
$$f_0 = a$$

We find the solution of the parameter and its initial condition as:

(5) $$f_t = (a-b)(1-\rho)^t + b$$

Where '*b*' is the expected fraction of failures to successes in an economy that has peaked in terms of trial-and-error efficiency, i.e. a developed country. Similarly, *a* is the expected fraction of trial-and-error at which the DC starts its industrial policy, while ρ is a parameter which defines the speed at which f_t approaches *b*, or the rate of learning by trial-and-error. We get a trajectory much like this:

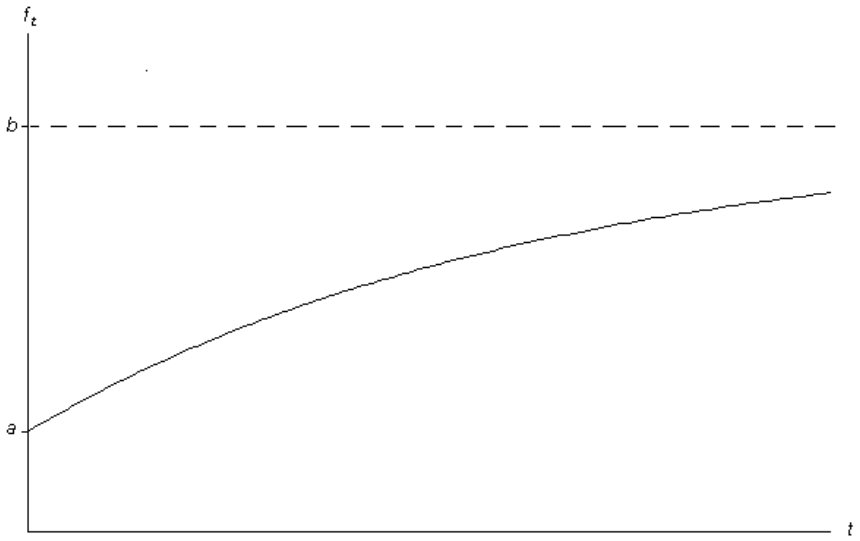

Figure 1: Trajectory of aggregate economy learning curve

Essentially the economy is moving up the learning curve and becomes more successful in its entrepreneurial efforts and institutional reinvention. The government considering a FTA can with some certainty predict the shape of this curve.

There is a vast literature on the learning curve (see for example Romer 1990, Arrow 1962:155, Lucas 1988:14). The simple learning-curve model proposed here assumes a more or less constant damped exponential increase in the proportion of successes. This is an issue which has been hotly debated in the literature (Young 1993:445), and may be in contradiction to such widely accepted theories as those based on Schumpeterian 'creative destruction' in technological change. A more complete learning-curve would exhibit features which allowed for sudden spurts and troughs to be forecasted (Reinert&Reinert 2003).

IV.2.2 The forecasted costs incurred by the government when conducting industrial policy

Through industrial policy the government absorbs a certain constant share of the failures *ad valorem* as a result of investment guarantees or bearing the cost of risk-taking, and that it collects a certain constant share of the successes by means of taxation. In addition the government has to bear the constant cost in each time-period of regulating industry, overcoming coordination failures, monitoring etc. We can thus define a function of how industrial policy impacts on the government's overall account balance, g_t:

(6) $$g_t = \theta f_t - \phi(1 - f_t)) - m + g_{t-1}$$

Where θ represents the share of successes recouped by the government in each time period and Φ is the cost incurred by the government by failures. The constant cost of regulating and monitoring industrial performance is represented by m. By substituting **(5)** into **(6)** we get

(7) $$g_t = \left((a - b)(1 - \rho)^t + b\right)(\theta + \phi) - m - \phi + g_{t-1}$$

Government accounts can thus be represented by a trajectory much like this (up to T_2):

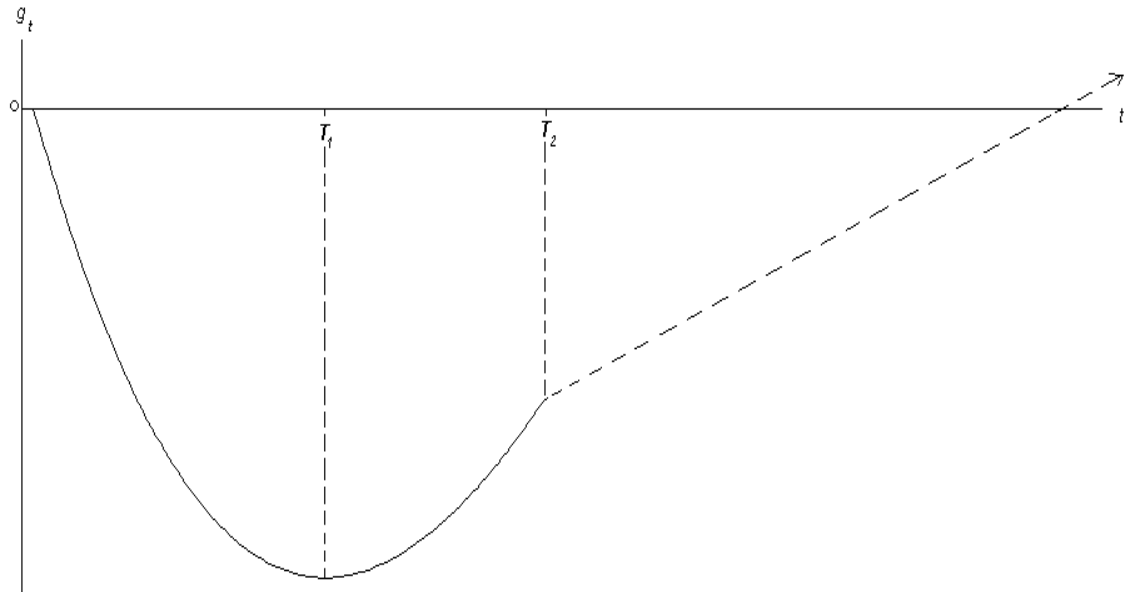

Figure 2: Government accounts over time

We solve by setting the initial condition $g_0=0$ to get:

(8) $$g_t = b(\theta + \phi) + \frac{(a-b)\left(1-(1-\rho)^t\right)(\theta+\phi)}{\rho} + t(-m-\phi+b(\theta+\phi))$$

Then to state the change between periods we find Δg_t as:

(9) $$\Delta g_t = g_t - g_{t-1} = (\theta+\phi)\left((a-b)(1-\rho)^{t-1}+b\right) - m - \phi$$

For ease, though this is a discrete time system, we treat it as a continuous function to obtain the desired time-points. At the beginning of the process of industrial upgrading, the government's accounts are worsening (Figure 2). However, at the minimum, T_1, the trial-and-error process is in *ad valorem* terms reaping more benefits than costs to the government. With

some additional conditions imposed below, expression **(9)** allows us to determine the time-points T_1 and T_2.

IV.2.3 Designing a loan program to combat planning and credibility constrains

The loan is issued by a foreign agent (i.e. World Bank, International Monetary Fund or bilaterally) under the following terms:

- It is initially interest-free
- There are no instalments or interest payments (aggregated at a rate *r)* untilT_2.
- The loan is paid out in incremental time-periods as required. Any violation of contract immediately suspends the loan disbursement.
- If at any point the government breaks the contract with the creditor by reneging on its industrial policy-rules, it becomes liable to start paying *r*.
- Creditor agent ensures that policy towards the country is favourable to the industrial policy plan (timely market-access for selected products, help to avoid 'competitive liberalisation' regionally, etc.), and together with the government plans for the future liberalisation of trade in the DC.

These specific conditions enable us to define two time-points (Figure 2). The point T_1, at $\Delta g_t \geq 0$ is found to be:

(10)
$$T_1 = \frac{\log(m + \phi - b(\theta + \phi)) - \log((a - b)(\theta + \phi))}{\log(1 - \rho)} + 1$$

T_1 is the expected time-period at which the trial-and-error process in the economy is in *ad valorem* terms reaping more benefits than costs for the government. If the government financed industrial upgrading up until that point without a loan, this would be the ideal

planning-horizon for time-discounting to be reduced. T_2 is the expected point at which the trial-and-error process brings sufficient benefits to start servicing the loan at the pre-determined rate r as imposed by creditor. I.e. $\Delta g_t = r$ can be solved to obtain:

(11) $$T_2 = \frac{\log(m + r + \phi - b(\theta + \phi)) - \log((a - b)(\theta + \phi))}{\log(1 - \rho)} + 1$$

At the limit of this point, the government can afford to service its loan while continuing to better its accounts. This is shown in Figure 1 as the broken trajectory that increases more slowly after T_2 due to the added burden of starting to service the loan.

Thus we have attempted to determine precisely what time-points the government (and creditor agent) needs to plan for. It should be noted that it is possible to find concrete values for all parameters here. The values assigned to parameters m, r, θ *and* Φ are to some extent determinable by political choice – all have an effect on the discount-rate of the government and private economic agents. These are essentially the variables that are considered to find the right 'policy mix', as discussed in Section II. The remaining variables which relate to the learning curve are initially given by circumstances beyond political influence.

It is however likely that there may be some problems with our assumptions of constant independent variables. For example, it is more likely than not that the amount the government spends on regulation, monitoring, rewarding, punishing and institutional reinvention, m, has a direct impact on the speed of learning, ρ. A more complete model would aim to separate these effects. For now, let us turn to what the impact of such a loan-program has on the problems of constrained planning and credibility.

IV.2.4 Impact on the parties to the loan agreement

The government

The government is offered a loan which allows it to sink costs into industrial planning and upgrading in each time-period. Because it is being supported credibly by an external pre-commitment mechanism it can plan to T_1, the time-period when industrial policy is starting to pay off. However, because it is a loan, and not a grant, it must plan to T_2. Only beyond this time-period does the industrial upgrading process start to finance the loan in a sustainable way. Most importantly, being able to plan thus far leads the government to choose the optimal option of temporary non-participation in the FTA.

The government is 'forced' to plan for the long-term and commit to planning for it to receive the loan at the start of the policy programme. Even though it goes deeper and deeper into debt before T_1, it makes the strategic choice to not renege on its promises - it knows that if it is able to plan to T_2 the costs that are sunk in the form of loans will start to be recovered in a manner which is sustainable, i.e. no need for rapid liberalisation for market access. If it reneges at any point before T_2, the debt is unsustainable.

Reneging on its policy rules is sub-optimal even in the current period as the agreement with the creditor forces it to start servicing the debt immediately if the terms are broken. The amnesty given to the government in the form of conditional suspended debt-servicing is in essence the pre-commitment mechanism that gains the government credibility in the eyes of private economic actors.

The government which is offered the choice between a loan program of this design and a FTA will, when considering the loan program, be able to see far enough into the future (to a specific date) to envision the benefits of industrial planning. In addition the government is enabled to define policy-rules that are valid and credible up until at least T_2.

Private economic agents

With an external pre-commitment mechanism the government indirectly regains credibility and policy rules are deemed credible in the eyes of economic agents. They also know that the government has incentives to plan until T_2, which allows long-term planning. Economic agents find government promises credible by virtue of the government having incentives to reach a point of industrial upgrading when it will be able to pay off debts in a sustained manner. In addition, the private economic agents know that because it is debt, and not aid, the government cannot discount the future at a high rate at any given point before T_2.

Creditor agent

This is perhaps where the loan-program design encounters the most obvious obstacles. Why would any external agent suddenly become positively predisposed towards industrial policy guided autonomously by a DC government? The crucial point here is that by quantifying the planning-horizon with a set time-point, it is not a question of whether liberalisation will happen, but at what pace it will happen.

The WTO already has similar mechanisms in place in the shape of special and differential treatment and temporary safeguard mechanisms which postpone certain aspects of the liberalisation program for a set time-period (Amsden&Hikino 2000, Kerr 2005). What this

loan-program demands of the creditor is that it allows for the DC to develop its productive resources to a point when industrial upgrading has gained significant pace.

As was shown in Section II, there seem to be very small global efficiency or welfare gains materialising as a result of Sub-Saharan Africa liberalising early. And as has been highlighted by the European Union Trade Commissioner, DCs should be granted appropriate space to develop into efficient trading-partners as it would be beneficial to all parties (Mandelson 2005).

There must emerge a mixture of good-will and stern self-interest on behalf of the creditor. Otherwise this cannot work. Good-will is admittedly not exactly in abundance, though there are some signs of it (such as the United Nations Millennium Development Goals or the recent G8 declaration[4]). However, stern self-interest is also important in that it solidifies the commitment mechanism in the eyes of the government and private economic actors. The creditor must send clear signals to the effect that it will not make any concessions beyond what is stipulated in the loan agreement.

A last point to remark is that if the DC government does not renege, the creditor only looses the interest payments in the period $t=0$ to T_2 and the opportunity-cost of the loan up until that period. It is a cheap option for the creditor, as compared with an aid package large enough to reap the same outcomes in the long-run.

[4] See www.un.org and www.g8.gov.uk respectively

IV.3 Strengthening the imagination

This model must be seen as merely an example to show that with the backdrop of the analysis on the constraints on planning and credibility it is possible to derive ways of combating damaging time-discounting. Clearly, the model as put forth is extremely simplified and avoids some tricky issues like *moral hazard* and the actual speed of liberalisation.

However, its strength lies in *quantifying planning in time* by offering solvable solutions to optimal planning-horizons in the form of T_1 and T_2. In a sense it is an initial reply to Ramsey's (1979[1928]:261) accusation of a prevailing 'weakness of the imagination'. However, there is clearly scope for further imaginative work.

SECTION V:

CONCLUSION

A DC in its early stages of industrial development has an interest in temporarily steering away from FTAs until it can compete in sectors which offer higher value-added and scale potential. That requires planning in time. However, a DC faced with a FTA will join despite it limiting its options. This essay found two reasons for this sub-optimal outcome. First, a DC faces constraints on planning in the long-run due to various domestic and external political pressures. Second, a DC faces constraints on its ability to conduct credible policy-making which renders private economic agents unresponsive to policy. The result of which is competitive liberalisation among DCs and an increasing bias among domestic constituencies in favour of trade-liberalisation.

The model draft proposed in the previous section is simple with clear limitations. However, the intention was not to solve the problems of planning and credibility, but to merely chart out a course for further research. There are two important shortcoming of this model. First, it goes only a short way in justifying the existence of a benevolent creditor. Given the current climate of accelerating liberalisation, the incentives for the creditor must be strong for it to commit to DC industrial upgrading. Clearly this problem is political in nature. Second, it does not include a solution to *when and how* trade-liberalisation becomes optimal.

The theory of comparative advantage tells a story of static efficiency. Industrial policy, on the other hand, is about achieving dynamic efficiency. These are not competing paradigms but must be seen as complementary. We must view DCs' acceptance of FTAs in a different light

removed from the debate noted in the introduction. Through an understanding of the pressures that DC governments face we can conclude that joining an FTA is not optimal today, but it is the only available option. Thus, the fact that DCs join FTAs is not the result of the superiority of comparative advantage thinking, but the effect of constrained planning and credibility.

The way to remedy we must go farther than building models. We must view critically the prevailing view on trade-liberalisation – the sooner, the better.

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