Current issues and debates in industrial policy – some reflections for the Southern African Customs Union (SACU)

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Contents

Abbreviations

EU	European Union
GATT	General Agreement on Tariffs and Trade
HOS	Heckler Ohlin Samuelson (model)
ICT	Information Communication Technology
IMF	International Monetary Fund
IMP	Industrialisation Master Plan (Lesotho)
IPAP	Industrial Policy Action Plan (South Africa)
IT	Information Technology
NIEs	Newly Industrialising Countries
R&D	Research and Development
SACU	Southern African Customs Union
SMME	Small, Micro and Medium Enterprise
TRIMS	Trade Related Investment Measures
TRIPS	Trade Related Intellectual Property Rights
UK	United Kingdom
UN	United Nations
US	United States
WTO	World Trade Organisation

Current issues and debates in industrial policy

Industrial policy is a highly contested and rich area of economic debate. Because various definitions and approaches to industrial policy have worked in some countries at specific times and not in others, little consensus on any aspect of the topic exists. The most useful approach to this vast body of theoretical and case study literature is to examine key debates and show how economic theorists and analysts have traded critiques and counter critiques to develop specific views on how structural transformation and growth can best be achieved using industrial policy. The result is a dense and often confusing collection of views and counterviews. This report looks at key areas of contestation that are viewed as most relevant to the Southern African Customs Union (SACU); and hopefully provides a clear picture of the underlying concepts underpinning these divergent views.

The link between industrial policy and growth

The international discourse on the definition, scope and implementation of industrial policy is so voluminous, and so well established, that the central issue of *why* less developed or lagging industrial countries wish to pursue such policies is often overlooked. In the context of the disparate levels of industrial and economic development within the SACU membership, as well as the nature of the debate on Article 38 of the 2002 SACU Agreement[1], which deals with industrial policy, and the changing global trade context within which the customs union operates, it makes sense to begin this section right at the beginning of the debate.

Economic development in essence is about structural transformation. That is about the transformation of human and physical capital and institutions so as to achieve increased productive capacity and hence growth. Historically, economic development and structural transformation from low-productivity activities to high-productivity activities was exemplified in the transformation from agrarian to industrial production. In the modern age, high-productivity sector determination within manufacturing (and in services and agriculture) has become more complex, but still conforms to the same economic logic and rationale. The orthodox, neo classical view of economic development is that as long as macroeconomic stability and other fundamentals are in place (such as property rights), and, in so far as well functioning markets exist, then structural transformation will be an automatic process. With less developed or lagging countries, the orthodox view of international trade suggests that to escape the self-limiting nature of producing non tradables for the domestic market, developing nations should decrease protection barriers and enter the global market specialising in producing goods in which they are relatively good (or relatively less bad). The theory of static comparative advantage based on Ricardo's work and later the Heckler Ohlin Samuelson model (HOS) plots a gradual growth path for developing nations towards higher incomes and better living standards for its citizens.

Essentially the orthodox approach argues that the optimal real economy structure for a nation is endogenous to the country's endowment structure in terms of its relative abundance of labour, skills, capital and natural resources. In order to upgrade this structure, the first requirement is to upgrade the country's endowment structure; i.e. to launch an endogenous process of upgrading existing endowments. In most poor countries this means focussing on labour and/or resource intensive types of activity. Focusing on such activities will allow firms to be competitive in domestic and later in international markets and advance organically. As firms grow they will claim increased market share and create the greatest possible economic surplus in the form of salaries and profits. When this surplus is reinvested it earns the highest possible returns because the economic structure is optimal

[1] It took six years to negotiate the 2002 SACU Agreement. The output was a framework document, the details of which were to be developed subsequent to its signing. In the eight years since the new SACU Agreement came into force there has been little progress in developing Part 8 of the Agreement, which deals with Common Policies, and specifically Article 38, which deals with Industrial Development Policy. This slow pace of progress should not be construed as tardiness. Rather it is the manifestation of a myriad of complex drivers, motivations, attitudes and substantive challenges which characterise the current SACU context.

for that country's endowment structure. Over time, this strategy allows the economy to accumulate physical and human capital thereby upgrading the endowment structure of the country, as well as the industrial structure. In this view gradual, endogenous growth and development is achieved by firms becoming more competitive over time in more capital-intensive and skill-intensive products.

In this traditional view, government intervention to support structural transformation is limited to dealing with market failures such as externalities and co-ordination and generalised upgrading of human and physical capital endowments. The above views have characterised the stance of the World Bank and of the International Monetary Fund (IMF) for the past three decades and is generally associated with a view that industrial policy should be seen as a generic, broad, non-sector specific aggregation of activities which improve the business environment and competitiveness of the economy as a whole.

The opposing view is that the structural transformation necessary to achieve economic development and growth *is neither easy nor automatic*. Proponents of this view argue that in the complex global arena of the 21st century, a mix of free market and government activity is necessary to foster and achieve growth and development through structural transformation. Authors such as Rodrik (2004) argue that too much government intervention in the structural transformation process will crowd out and kill private entrepreneurial and market-led growth; too little government intervention will result in markets continuing to do what they have always done and hence keep developing countries in their current specialisation in traditional, low-productivity products.

Although the structural transformation debate is often characterised as a stark dichotomy between those favouring government intervention and those who seek to limit intervention, most economic scholars believe that there is a role for government to play in developing industrial policies to support structural transformation and hence growth and development. The issue becomes not one of whether government has a role to play or not, but rather what that role should be.

Key industrial policy issues and debates

The theory related to industrial policy is extensive. In this section three key debates have been identified which are particularly applicable to the deliberations of SACU Member States and SACU itself. The first debate deals with how ambitious structural transformation should be in the context of a less developed country. The debate revolves around whether countries should comply with their existing comparative advantage or whether they should defy it, and hence to what degree countries should seek to specialise or diversify their industrial structure. Depending on the ambitions of a developing country in relation to these options, a debate then emerges as to how such goals are best achieved. This then is the second key debate which deals with the idea of broad versus narrow definitions of industrial policy and the appropriate tools and competencies necessary to follow such intervention strategies.

The final debate revolves around how much policy and market space actually exist to enact industrial policy in the current global context. This report deals with these only at a theoretical level.

Comparative advantage, specialisation and diversification

The orthodox view of structural transformation remains largely based on the works of Ricardo and the HOS model, which argue that developing countries should specialise in the production of goods in which they enjoy a comparative advantage and accept a gradual and incremental path up the ladder of development and industrialisation. It is generally accepted that this gradual approach sits poorly with the ambitions of developing countries and it is this desire to miss some of the rungs in the ladder of development which frame discussions of comparative advantage, specialisation and diversification.

In 2004, Rodrik made an important contribution to the industrial policy debate when he formulated a list of "stylised facts of development" derived from empirical regularities observed across numerous countries and over an extended period. The first stylised fact presented by Rodrik is that economic development requires diversification not specialisation, or more specifically that diversification is a key

correlate of economic development. This assertion is a shot across the bows of the traditional orthodox view and runs contrary to the principle of comparative advantage and the idea that gains from trade arise from specialisation. Rodrik's analysis of data shows that increased diversification has resulted in increased income generation across countries and time, and that only when a sufficiently high level of growth has been attained (the benchmark used is Ireland in 2000) does a shift from diversification to specialisation result in increased income generation. In other words one of the reasons why rich countries are rich is because of the breadth of their economies and the diversification of goods they produce. Poorer countries produce, in contrast, a narrow range of products. This suggests, for developing nations, that "the first order of business in development is to learn how to do new things, not to focus on what one already does well" (Rodrik 2004:10).

The second, third and fourth stylised facts relate to what these "new things" should be. Rodrik's work shows that: (1) rapidly growing countries are those that have large manufacturing sectors; (2) that growth accelerations are associated with structural changes in the direction of manufacturing; and that (3) countries that promote exports of more sophisticated goods grow faster than countries promoting exports of less sophisticated goods.

The stylised fact that countries with large manufacturing sectors grow and develop faster than those without is merely an empirical finding based on cross-country comparisons but reinforces the well-established argument that the manufacturing sector is the key driver of development and growth. The more interesting stylised fact is the finding that growth accelerations within a specific country can be attributed to the performance of the manufacturing sector. There are few examples of sustained economic growth in less developed countries in the past 50 years; however, there have been numerous examples of growth spurts/halts periods in such nations. Empirical evidence shows that bursts of growth in developing countries have been associated with increased employment in the manufacturing sector and an increase in the share of manufactured goods in total exports, while decreased manufacturing sector employment and exports are documented when growth fizzles out. This leads Jones and Olken (2005:17) to conclude that "regime shifts in economic growth see broad moves into and out of manufacturing, rather than intra manufacturing reallocation." In other words, resources moving in and out of manufacturing accounts for stop/start growth in developing nations. As such, if resources can be maintained in the manufacturing sector generally growth is more likely to be maintained.

The third stylised fact of Rodrik relates to the problem of what new goods developing countries should consider producing. The implication of producing and exporting more rather than less sophisticated is that industrial upgrading is indicative of economic performance.

These first four stylised facts show that in order to grow, a less developed country needs to get onto a track of diversification, and turn its back on traditional specialisation policy prescriptions. Attention should be focused on the manufacturing sector, and within this sector diversification and the production of new products should be sought. As much industrial upgrading as possible should be sought as the more sophisticated manufactured exports are, the higher the levels of ensuing growth. Finally the stylised facts show that intra-manufacturing re-allocations are not the principle driver of breaks in sustained growth, but rather growth is impeded when resources flow out of manufacturing. Based on this data and analysis the initial direction and focus for developing countries is clearer but how realistic is it?

A fifth stylised fact presented by Rodrik is crucial to the realism of debate being posited and stipulates that "specialisation patterns are not pinned down by factor endowments" (Rodrik, 2004:11). The position put forward by Rodrik is basically[2] that successful countries have pushed the limits of their static comparative advantage and quickly diversified into new activities that are the domain of countries considered more developed than themselves. In other words, the argument is that an

[2] The assertion is demonstrated by some complex quantitative methodology which enables the author to demonstrate the level of productivity of specialised exports relative to comparative advantage.

existing endowment structure in a country need not be a deal breaker in terms of setting its sights on sophisticated, high-productivity sector growth. The author concedes that the sophistication of a country's exports is in part determined by the country's overall productive capacity and its human and capital constraints but that policy is also an important determinant[3].

Given that Rodrik's stylised facts are empirical and positivistic in nature they cannot be contradicted, however, the debate regarding how these outcomes were achieved and the theoretical underpinnings of them remain highly contentious. This contestation is seen in the debate between those who believe countries should comply with their comparative advantage and those who believe countries should defy their comparative advantage.

Orthodox economists who believe that countries should follow their comparative advantage, and thus disagree with the policy implications drawn from Rodrik's stylised facts, believe that Rodrik's policy prescriptions are too onerous and too expensive. They argue that exogenously imposing an optimal industrial structure on a country that requires large amounts of resources which they do not posses (capital and skilled labour) and ignores factors which they have in abundance (unskilled labour and natural resources) has unacceptably high costs in terms of both financial resources and governance quality. Proponents of this view, such as Lin (2009) and Lerner (2010) argue that to implement policies which defy comparative advantage, governments have to provide substantial protection and subsidisation to firms that are not viable without such support and cannot quickly become internationally competitive. They argue that such firms cannot generate any real surplus for society and that without this continuous flow of surplus it is harder to finance improvements in the factors of production necessary to make this more advanced industrial structure sustainable. In this view the level of protection required to support firms to produce these new products distorts market signals. This distortion is such, moreover, that it slows the country's accumulation of physical and human capital as well as encourages firms to divert their energies from productive entrepreneurship into rent seeking, which corrupts institutions and further slows capital accumulation. The orthodox view is thus that government support of exogenously determined structural transformation based on defying competitive advantage will lead to "retarding and slowing the upgrading of [a country's] optimal industrial structure ... and … find itself becoming a long run nursemaid to sickly infant industries that never mature" (Lin, 2009:5). In addition, in this orthodox view, competitive advantage will not materialise as government protection and limited resources impede competition within the country. Also, industrial clusters will be thin and patchy.

In terms of the role the state should play, the orthodox view is that state intervention has a role to play in supporting a country's ambition to produce new products, but that this role should be limited to dealing with instances of market failure and should be facilitative in nature. The two key market failures identified are information externalities and co-ordination. With information externalities, it is accepted that economic innovations, whether they fail or succeed, yield important information about what are profitable opportunities and what are non-profitable market opportunities. In reality this information generated by the innovators themselves cannot be withheld from competitors or would-be imitators, resulting in an undersupply of information in the market. Government subsidies are in this case seen as a possible facilitative mechanism to encourage innovation and offset first mover disadvantages.

The second market failure for which orthodox economists see a role for government is co-ordination failures. In this view it is accepted that in order for a developing country to climb up the industrial ladder a host of other changes also need to occur. This is the case given that as industrial production becomes more sophisticated, technologies become more complicated, capital requirements increase, the scale of production and the size of markets increase; also market exchanges increasingly take place at arm's length. A smooth and flexible industrial upgrading therefore simultaneously requires

[3] The example used in his illustration is that Bangladesh and China have relatively similar factor endowments, yet their growth paths have been fundamentally different, due to China's determined effort to acquire the technology and skills necessary to diversify its exports and move into more sophisticated export markets which were previously the domain of highly developed countries.

improvements in infrastructure, education, and financial and legal institutions. Individual firms cannot internalise all these changes cost effectively and co-ordination among firms to achieve these changes is impossible. For this reason "it falls to government either to introduce such changes itself or to co-ordinate them" (Lin, 2009:3).

Critics of this orthodox, neo classical approach, who believe that countries should defy their comparative advantage in order to develop and grow, take issue with the fundamental assumptions of the HOS model. The crux of their argument is that while the HOS model and its underlying assumptions are useful in understanding short-term allocative efficiency, the assumptions are not acceptable or useful when considering long-term development and structural transformation. The two assumptions of the model that are most problematic for the comparative advantage defying school are the factor mobility and technology assumptions which relate to industrial upgrading.

The traditional HOS model assumes that factors of production are perfectly mobile within a domestic economy. By this reasoning if, for example, a steel mill closes down because government reduces tariffs on steel, the resources employed in the industry (workers, buildings, equipment) will be employed at the same or higher levels of productivity by another industry which has become relatively more profitable, say the computer industry. With this assumption in place no one loses from the decision to reduce steel tariffs. In reality steel workers are unlikely to have the skills necessary to work in the computer industry and blast furnaces and huge steel mills cannot be re-configured to meet the needs of computer producing firms. As such trade liberalisation might benefit the country as a whole, but the owners of factors of production which have low or no mobility will lose out. Chang (2009) argues that this is a serious problem for developing countries where compensation mechanisms are weak or absent. In developed countries the welfare state works as a mechanism to partially compensate losers from the trade adjustment process through unemployment benefits, guarantees of minimum incomes and substantial re-training and re-skilling programmes. In the absence of these supportive mechanisms "the victims of trade adjustment are not even partially compensated for the sacrifice they have made for the rest of society" (Chang, 2009:8). As such critics of the orthodox view argue that the HOS model is inadequate for the analysis of medium- and long-term adjustment mechanisms as they occur in reality in developing countries.

The second assumption of the HOS model which is criticised by those opposed to the comparative advantage argument relates to the assumption that there is only one best technology for producing a particular product and that all countries have the same ability to use that technology — i.e. similar technological capabilities. Chang (2009) argues that this is fundamentally incorrect and "assumes away the very thing that makes some countries developed and other not" (Chang 2009:8), namely that developed and developing countries are in fact separated by their abilities to use and develop technology.

Chang's argument revolves around the idea that factor accumulation does not happen as an abstract process; for example capital is not accumulated as capital but in concrete forms such as textile machines and machine tools for car parts. Similarly human capital is accumulated with expertise in particular fields. As such Chang argues that human and capital formation acquired during incremental traditional growth processes based on comparative advantage will not necessarily result in the type of accumulation required to climb the industrial ladder. Chang further argues that technological capabilities are accumulated through concrete production experiences in forms of collective knowledge embodied in organisational routines and institutional memories. Even if a country did have the right capital and the right human capital mix to enter a new industry, these might still not be combined rapidly into an internationally competitive firm or industry because they need to undertake a learning path before they acquire all the necessary technological capabilities at a competitive level.

The essence of this debate is thus that given the nature of the process of factor accumulation and technological capabilities, "it is simply not possible for a backward economy to accumulate capabilities in new industries without defying comparative advantage and actually entering the industry before it has the 'right' factor endowments" (Chang, 2009:9). On this basis, supporters of this view argue that

government intervention in structural transformation should exceed the facilitating role of government described by traditional orthodoxy and expand its role to cover specific and broad range support for specific new industries. This view is essentially an infant industry argument.

Countering the orthodox criticism that this leads to the government playing permanent nursemaid to infant industries which never mature, Chang suggests that the time taken to develop technological capabilities, and the cost to society for achieving these capabilities, is difficult to predict and that unless a country actually enters an industry and develops it, it is impossible to know how long it will take for a country to acquire the necessary capabilities to become internationally competitive or how worthwhile an investment it has been. Two prominent examples which support this view include Japan's 40-year support of its car industry and the 17 years it took Nokia to make a profit in electronics while being subsidised by its sister forestry company.

Summing up, it appears that there is consensus that economic development and growth require structural transformation, more specifically adjustments towards increased productive capacity in both human and physical capital most notably in the manufacturing sector. Rodrik's stylised facts do not appear to be disputed, even by orthodox, neo classical economists. However, it is the question of how this transformation occurs and the role of the state in the transformation which remain highly contentious. The orthodox view suggests that the path towards industrial upgrading and the production of more sophisticated new products to replace traditional low-value exports should be based on a gradual, endogenous development of capabilities based on the current endowment structure of the country and hence its comparative advantage. The role of government should be facilitatory and aimed at dealing with generalised market failures, whereafter transformation is essentially automatic. The contrary view is that the assumptions of factor mobility and uniform technological capabilities do not hold, especially in developing countries. With factor mobility it is argued that the automatic trade adjustment mechanism imposes too high a cost and too many losers in lagging countries where compensation mechanisms do not exist and that technological capabilities cannot be accumulated in abstract. Based on these points of disagreement, it is argued that lagging countries cannot gradually and endogenously accumulate and improve their endowments to allow them to enter new industries, but rather they need to jump in and start doing new things in order to accumulate the required capabilities to compete internationally. Proponents of this school of thoughts argue, on this basis, that comparative advantage should be seen as a benchmark only and that infant industries can and should be supported in advance of a country's current endowments and industrial structure. In this view government's role is less facilitative and more interventionist and narrowly focused.

This debate on conforming to or defying comparative advantage sets the foundation stones for the second, more well-known debate in industrial policy, namely whether industrial policy should be broad, generalised, universal and horizontal in nature or whether sector-specific, narrow, vertical industrial policy should be undertaken. In this debate, the scope of the argument is expanded to cover not only different schools of theoretical thought but importantly different views on the capacity and capabilities of government to provide industrial policy support. As such the debate becomes more complex. Not only is what needs to be done at issue but importantly how it is to be done is debated.

Broad versus narrow industrial policy

In the previous sub-section it was argued that there is generalised consensus that lagging economies in the world need to move up the industrialisation ladder and that government has a role to play in this ascension. This is the domain of industrial policy and orthodox and non-orthodox economists concur that industrial policy is alive and well in countries that adhere to the agenda of orthodox reform exemplified by the Washington Consensus, as well as in countries which eschew such an approach. Indeed Rodrik (2004:29) comments that "industrial policy has run rampant during the last two decade and *nowhere more so* than in those economies that have steadfastly adopted the agenda of orthodox reform". (The issue which arises is thus not one of industrial policy versus no industrial

policy, but rather what type of industrial policy and what policymakers mean when they talk of industrial policy.

Before entering the substance of the debate it is worth making two preliminary points on why industrial policy is such a difficult beast to come to terms with.

Using a literal interpretation, industrial policy should mean simply policies that affect industry. There are, however, two difficulties inherent in adopting this literal approach in the industrial context. First, industry is directly and indirectly affected by the entire range of policies adopted by a nation's government, more so than any other single activity in a country. This point is acknowledged by economists within the EU for example who, when schematically representing EU industrial policy, include in their formal diagram of industrial policy a box for "policies not for industry but affecting industry" as well as a box labelled "non industrial measures directly affecting industry but not meant only for industry" (Pelkmans, 2006). This issue of breadth creates difficulties in deciding whether industrial policy should be seen as including any policy which affects industry (the universal view or broad view of industrial policy) or whether industrial policy should be limited to a narrower interpretation based on policies directly targeted at achieving goals for a specific industrial sector (the selective/sectoral view of industrial policy). In reality it will be shown that most industrial policies include a combination of both approaches in which some sectorally targeted policies are complemented with universal policies aimed at improving competitiveness in general.

The second difficulty in interpreting industrial policy follows from the first. If the extent of industrial policy cannot be defined, and if contributing parameters cannot be established, it becomes impossible to assess the impact of a country's industrial policy using quantifiable measures. In addition, even if quantifiable measures could be used, the complementarity, linkages and externalities arising from successful industrial policies cannot be captured. Hence, the true benefits of industrial policy (using either definition) are impossible to establish. If it is impossible to prove causality between policy measures and outcomes it becomes difficult to argue in favour of such measures.[4]

Returning to the narrow versus broad industrial policy debate, the traditional, orthodox view believes that industrial policy should aim at improving the overall business environment and productive capability of a nation's factors of production. The rationale for intervention is based on market failure and the role of the state is seen as facilitative. To this end acceptable policies to improve endowments include policies to upgrade infrastructure (roads, ports, rail, logistics), policies to increase human capital (education, skills development, training and re-training) and policies to support technological development (research and development (R&D), information communication technology (ICT) and innovation support). Acceptable policies to improve the overall business environment include: competition policy, regulation of the establishment and operation of business, encouragement of innovation, small business development. This scope of industrial policy is often referred to as universal, horizontal or broad industrial policy as it does not seek to support specific firms or industries past the point of dealing with the market failures which stymie new industrial endeavours.

Proponents of narrow, selective or sectoral industrial policy argue that, over and above the facilitative role of the state to deal with market failures and improve national endowment productivity, a role also exists for the state to support specific industries in the path towards structural transformation. Supporting infant industries and supporting the market to undertake new activities and produce new goods and services in defiance of a country's comparative advantage is seen as an important role for government to avoid the continued production of traditional exports. This role includes substantially more than merely handing out subsidies and providing trade protection. Based on the work of

[4] This difficulty was perfectly illustrated in the late 1990s when economists sought to interpret the so called Asian Miracle. From the 1980s onwards countries such as Taiwan, South Korea and Japan adopted targeted sectoral policies and achieved double digit growth for well over a decade. While most analysts interpreted the Asian Miracle as a success of highly sophisticated, targeted industrial policy, the World Bank concluded that an analysis of the data did not prove that targeted industrial policy was responsible for these countries' outstanding growth performance and that the growth could have been the result of other variables and conditions.

Amsden (1989) in documenting the rise of South Korea, for example, it is seen that industrial policy in this instance included:

- Co-ordination of complementary investments
- Co-ordination of competing investments through entry regulations, investment cartels and negotiated capacity cuts
- Policies to ensure scale economies via state-mediated mergers and acquisitions, infant industry early stage export targets and licensing conditional upon scale
- Regulations on technology imports
- Regulations on foreign direct investment via entry and ownership restrictions, local content, technology transfer requirements and export requirements
- Mandatory worker training for large firms to resolve poaching issues in the labour market
- State provision of venture capital and incubator support programmes
- Export promotion via export subsidies, export loan financing and guarantees and marketing assistance, and
- Government allocation of foreign exchange to selective industries.

Supporters of the selective industrial policy view provide numerous examples of where selective industrial policies have worked.[5] Recent arguments by both Chang and Rodrik show that Latin America and less developed countries in general performed better under the era of import substitution and high protectionist policies than they did in the 1990s when such policies were thrown overboard. Despite the preponderance of evidence which suggests that selective industrial policies can and do work, proponents of selective industry policy concede that they are unable to *prove* that such policy works. Two recent additions to the universal versus selective industrial policy debate in the past five years have helped economists and politicians re-examine their views. The first contribution by Ul Haque (2007) in a paper presented to a UN Conference on Trade and Development. In this paper Ul Haque took a giant leap forward by suggesting that a new way of looking at the orthodox view is to accept the school's core ideas but to argue that the pace of change achieved in this approach may be too slow in relation to the growth aspirations of developing countries and the global pace of change.

In his argument, Ul Haque suggests that not only is the market failure and automatic transformation argument too slow and cumbersome in the 21st century, but that there are flaws in the market failure argument itself. First, Ul Haque suggests that market failures are not easy to locate. Even if market failures are located, their seriousness may not be apparent and neither might the required intervention on the part of the government. This suggests that the basis of market failure as a rationale for government intervention may not be as formulaic as suggested by proponents of the orthodox view.

A second point raised in his argument is that the market failures approach makes public policy focus on supplying lacking inputs such as physical capital, skills and technology. While an important policy area, the author also raises the issue that in most developing countries there is also a strong lack of demand for such inputs as seen in high unemployment rates of educated and skilled workers and the presence of industrial excess capacity. In such situations governments might be called upon to intervene – to try to limit a country's brain drain, for example. This is not a traditionally accepted manifestation of market failure but it is a reality in many developing nations.

[5] The list includes not only modern experiences such as POSCO in South Korea, Embraer in Brazil, the electronic industry in Taiwan and Singapore, the Chilean salmon industry, Dubai's Jebel Ali Port and the US internet and chip industry but also examples throughout history dating as far back as the 18th century in Britain when the first Prime Minister Robert Walpole is credited with starting the first infant industry programme in 1721 (Chang 2009:11).

Third he argues that the orthodox market failure approach excludes the possibility of private sector failure, which occurs when a firm's goal of maximizing profits conflicts with national development. So for example, if an enterprise wishes to relocate to another country to enjoy better tax treatment, the exit of that firm may have negative consequence for the country as a whole. In this non-traditional market failure governments in both developed and developing countries tend to try to intervene.

Finally he argues that the market failure argument is undermined by the fact that often governments intervene because markets work too well rather than when markets fail. His argument is that the unfettered pursuit of profits by private sector firms is liable to destroy market competition if firms are allowed to collude and form monopolies that strengthen their market position. This behaviour would be economically rational for a profit-maximising firm, and if markets were allowed to work freely then collusion and monopolisation would ensue. Antitrust legislation and competition policy suggests that governments intervene when markets work 'too well', as well as when markets fail.

The upshot of Ul Haque's contribution is that even by using the market failure rationale as the descriptor for the scope of universal industrial policy, the reality of government intervention is far wider than merely tackling traditional market failures, thereby suggesting that even the domain of traditional, universal industrial policy has to be expanded even by orthodox economists.

A second extremely important contribution to the industrial policy debate in the past five years has come from Chang (2009) who tries valiantly to break the deadlock between the universal and sectoral schools of thought and to move the debate forward by suggesting a moderation of the two extremes. Essentially he argues that all governments undertake universal or broadly defined industrial policy and that the debate essentially revolves around whether narrow industrial policy should be formulated and implemented. He argues that even if economists are unable to prove that sectorally focused industrial policy works, the chance for success is far from negligible and hence the question should be how can it be made to work better?

Following Chang's lead in attempting to move the debate forward, three key elements of the debate need to be considered. The first issue is the universal versus narrow industrial policy divide and the tendency for politicians and economists to polarise the debate. Most universal or broadly defined industrial policies focus on cross cutting issues which are aimed at improving the productivity and competitiveness of industry in general. These approaches often include policies to upgrade infrastructure (roads, ports, rail, logistics), policies to increase human capital (education, skills development, training and re-training) and policies to support technological development (R&D, ICT and innovation support). Chang argues that even these general policies have discriminatory effects which amount to targeting. For example, undertaking technological support programmes favours technology intense industries, skills development and education policies favour firms which require high-skilled workers; while deciding to upgrade deep water ports in favour of road infrastructure favours one set of firms ahead of others. This point is substantial: if universal industrial policies do have discriminatory effects then the difference between universal and sectoral industrial policies is simply one of degree, i.e. is less targeting better than more targeting? This moves the debate more into the realm of how good a country is at targeting as opposed to whether it should target at all. Chang suggests that rather than thinking about universal industrial policy *versus* sectorally targeted industrial policy, the best way forward is to think about sectoral targeting within universal industrial policy. In this view the either-or construct is removed and the issue becomes one of how much or how little targeting should be sought. As will be shown, this middle-ground approach does not resolve many of the fundamental issues that industrial policy theorists and practitioners argue about but it does at least potentially take one major dichotomy off the table.

If Chang's view is accepted, and certainly history and an overview of current international industrial policy support this view, the next logical issue to deal with is whether the state is competent to select sectors for an industrial policy. The classic argument against targeted sector-specific industrial policy is that if an industry was genuinely worth promoting, then the private sector and the free market would allocate resources to that industry without the need for government to intervene. However, if a

sector is in decline, or is under threat from more competitive foreign producers, then the state should let such industries close or relocate as this will improve the global allocation of resources and ensure economic efficiency[6]. The assertion by countries such as the US and organisations such as the World Bank and IMF remains that the state will make lower-quality commercial decisions than business people and that the state can neither pick winners or beat the market. Chang counters this assertion by arguing that the issue is not about whether the government is cleverer or more omnipotent than the market but about perspective. He argues that governments are able to make decisions based on a longer-term, and more holistic and strategic, perspective than individual firms and that it is thinking of this nature that resulted in the Korean steel industry, the Japanese car industry and the Brazilian aircraft industry as just three examples. Chang remains quiet, however, on the point of industrial policy being used to prop up sectors in decline or sectors under threat from other lower-cost producers.

Identifying new growth sectors and supporting threatened sectors are two sides of the same coin and yet in theory and in practice different approaches are used. For example, in 2004 the EU collectively agreed that the future of the union lay in knowledge-intensive industries and that Europe lagged behind other developed countries in the fields of information technology (IT), innovation, technology and R&D. It therefore, at the signing of the Lisbon Treaty, supported a targeted industrial policy to grow this sector across Europe. At the same time France, Germany and the UK put before the EU a proposal to sectorally target the manufacturing sector given what the three nations saw as a threat of de-industrialisation driven by the exponential growth of emerging economic giants such as India and China. They argued that protecting the manufacturing sector was strategically important for their domestic economies and the internal European market. The EU rejected the appeal and argued that market forces should prevail.

A few additional points should be added to Chang's defence of governments having a role to play in selecting sectors or picking winners as it is often referred to. The first additional point is made by Ul Haque who believes that the idea that selective industrial policy equates to selecting winning industries is a mischaracterisation on two fronts. First Ul Haque argues that governments do not create industries using narrow industrial policy. They instead create conditions that permit a country to become particularly good at producing certain things. In addition, the concept of "win" is problematic given that success is a constantly changing and evolving concept and that neither an industry nor industrial development can ever be considered to have succeeded or won once and for all. Rodrik also weights in on this point suggesting that government does not pick winners in isolation but in consultation with the private sector. He therefore argues that picking sectors is a collaborative activity harnessing the best of government's strategic long-term perspective and the private sector's commercial know how. As such he argues that as long as a solid public private process is in place there should be no fear of selecting sectors.

If the general point Chang makes about the potential benefits of the state in collaboration with the private sector selecting sectors based on a longer-term, more strategic perspective is accepted, then the key issues become: what are the organisational forms that encourage more long-term, strategic thinking? And, how can these be supported? This is an important point for individual developing countries attempting to grow in the midst of increased globalisation, and so too for SACU and its deliberations not only on the content of Article 38, but on the role, functions, powers and competencies of supporting supranational and intergovernmental structures.

The argument that the state may have an advantage over business in terms of strategic perspective and identifying future potential in industry in the long run is relatively uncontentious at a high level as a standalone concept. Few governments would negate Rodrik's point that government and the private sector should be in dialogue to identify such opportunities. However, the idea of the state having an important role to play in terms of a different long-term perspective brings with it two attendant, far

[6] The caveat to the latter argument is that declining or less-competitive sectors which are strategic to a nation can be supported, for example the armaments industry.

more controversial issues. The first issue is that a narrowly defined industrial policy targeting a specific sector will de facto distort market signals and partially suspend market discipline related to that sector. Co-ordination and discipline will therefore need to be supplied by the state. Examining case studies of such industrial policy interventions, it becomes clear that industrial policy tends to succeed where the state is able to impose strict discipline on the recipients of its support; and conversely tends to fail when such discipline is not effectively imposed. In South Korea, for example, export-orientated firms that received government subsidies and support had a given time period within which to increase exports by a certain percentage. If such export goals were not achieved, the recipients were immediately eliminated from the programme. The ability to impose this type of discipline is a function of the quality of government leadership, the political and operational strength of the government, the ability to implement and monitor activity and generally the level of bureaucratic competence of the state.

Chang's defence against critics who argue that sector-specific industrial policy should not be attempted by developing countries which exhibit flawed leadership, politically weak and fragmented government and bureaucratic weakness is rather tepid but has some validity. First he argues that it is not necessary to have the perfect state to implement narrow industrial policy but that a "good enough" state is sufficient. He argues that as long as a "good enough" solution is in place to deal with specific political economic problems related to a specific sector targeting programme then medium-term goals related to improving the broader quality of the state and bureaucracy can be realised over time. Evans (1995), who looked at the political economy of the Asian Tigers before and during the growth phases of the 1980s and 1990s, suggests that the aforementioned issue should be unravelled further.

Evans identifies a concept called embedded autonomy as the distinguishing factor between governments which were able to successfully follow targeted industrial policy and those which failed. Embeddedness is defined as good communication and ties with the private sector. Autonomy is defined as governmental and political autonomy or isolation which allows state officials to make policy professionally and independently of private interests. In Evan's analysis the interdependency of these two factors is crucial to successful narrowly focused industrial policy implementation. Social embeddedness without autonomy would leave state officials vulnerable to private sector pressure leading to cronyism and corruption. Autonomy without embeddedness would leave officials isolated from the real world conditions on the ground and lead to poor decision-making and possible miscalculations. Evan's argues that embedded autonomy works, as for example in South Korea and Taiwan, when the state creates a meritocratic bureaucracy of highly skilled people who can freely combine their close contacts with the private sector with their independent understanding of global market dynamics to steer economic intervention in a direction which maximises national interests.[7] Evan's analysis suggests that Chang's "just good enough" argument probably needs to be qualified with some necessary fundamentals being in place before specific competencies can be tested.

The second point made by Chang is that some targeted policies are more difficult than others and he advocates that governments choose policies which are in line with their existing capabilities. Chang's argument is subtle and critical for SACU's forward progress. Essentially Chang dismisses the notion that a state needs a perfect government and a highly sophisticated well-functioning bureaucracy in order to attempt any type of sector-focused industrial policy, but concomitantly warns against choosing policies which are overtly at odds with existing capabilities. In addition, sector selection will be influenced by the level of political import and polity attached to it and the idea of choosing sectors initially that are not politically controversial has shown great advantages for the progress of integration in the EU for example. The important point is that balance and realism is important. A developing country or a bloc such as SACU should not be frightened off by naysayers who admonish

[7] Evans points out that the Asian Tiger governments were able to achieve embedded autonomy principally because the US government poured billions of dollars into these governments in the 1980s to secure their compliance and capacity in the Cold War.

"do not try this at home" until you have a highly efficient bureaucracy – but simultaneously they should not be overly ambitious and bite off more than they can chew given current capabilities.

From the above it can be argued that theory and case studies support a median view of what industrial policy is. There will always be an element of universal or broad industrial policy in a national industrial programme and this may or may not be accompanied by sector-specific or narrowly targeted industrial policy interventions. The constraints to successfully implementing sector-specific industrial policy are substantial but may be managed even in a developing country with a less than perfect bureaucracy, and the threat of the misuse of the approach to prop up industries which should be allowed to decline or relocate can be accommodated as can the risks of corruption and cronyism. The question really boils down to how much targeting should be undertaken and how much targeting can be successfully undertaken given capacity constraints and political power relations.

Lall (2007) sums up the debate by suggesting that industrial policy is highly contextual and that no blueprint exists for good industrial policy or the mix between universal and targeted industrial policies. He argues that the thought processes and tools used in countries where selective industrial policies were implemented successfully are not very different from the thought processes and tools used in countries where selective industrial policies were not successfully implemented. Rather he argues that "the secret lies in the combination of those policies and the efficacy of their implementation" (Lall, 2007:7). This brings the debate full circle to the issue raised in the introduction of this paper – namely the importance of getting not only the substantive content of policy "right" but also getting the systems of implementation "correct". In other words, no matter how good the "what" of a SACU common industrial policies approach is, the "how" such policies are implemented will be equally if not more important to the realisation of the industrial development goals of the 2002 SACU Agreement.

Space for industrial policy in the 21st century

The final debate on industrial policy theory looks at the question of how much space actually exists in the current era for a country (or trading bloc) to actually implement industrial policies. Several very interesting insights have been posited in terms of this current perceived lack of space, many of which have serious strategic implications which SACU will need to take into account moving forward.

Ul Haque (2007) argues that the foremost constraint to government's room to manoeuvre in the area of industrial policy in the current era is the change in the policy environment. He argues that the policy environment is one of market liberalism, which is embraced by virtually all developed and developing countries. He suggests that whereas initially the Washington Consensus position was imposed on developing nations via organisations such as the World bank and IMF, there has been a fundamental shift in the perceptions of governments' role in economic management and that virtually no country now aspires towards central planning, undertaking large public sector industrial projects or relying on high levels of protectionism to achieve structural transformation. This does not mean that countries have foresworn the use of trade policy to further national interest or that different market system debates no longer exist, but merely that the pervasive, dominant approach to economic management globally is now far more neo liberal than it was for example when the newly industrialising countries (NIEs) began their export drives in the late 1980s and early 1990s. This suggests that the global manoeuvring room for industrial policy is less than it was previously.

The role of industrial policy is also circumscribed by what Ul Haque refers to as "the WTO's (World Trade Organisation's) increased intrusiveness (compared to GATT) into what were previously domains of domestic policy" (Ul Haque, 2007:5). Not only have trade barriers generally been lowered in the past two decades, but under the WTO the use of export subsidies and quantitative restrictions are now forbidden with only the least developed countries obtaining exemption. In addition new rules governing trade now also include measures with respect to foreign direct investment whereby countries cannot apply domestic content or performance requirements on investors (in the case of trade related investment measures, TRIMS), as well as, minimum standards related to intellectual

property (in the case of trade related intellectual property rights, TRIPS). In addition the WTO's multilateral framework and the subsequent rise of bilateral or regional trade agreements have further eroded the policy space available to developing countries to implement structural transformation via industrial policy.

Chang (2009) agrees with Ul Haque that the WTO has become more intrusive and that industrial policy is now more difficult to implement but he cautions against exaggerating the constraints imposed. First he notes that the WTO does not oblige countries to abolish all tariffs and he notes that many developing countries have chosen tariff ceilings that remain considerable. For example, India cut its weighted average tariff from 71% to 32%, Brazil from 41% to 27%, and Chile from 35% to 25% (Amsden 2005:219). These are all large cuts but absolute tariff levels are still high relative to those applied by developed nations. Second, Chang raises the topic of emergency tariff increases (import surcharges) which he believes allow room for substantial targeting in developing countries. These emergency measures are available in the wake of sudden surges in sectoral imports, as well as when balance of payment issues arise. Third, Chang notes that not all subsidies are illegal for everyone and that less developed countries can use export subsidies as well as subsidies for agriculture, regional development, basic R&D and environmentally related technology upgrading. Moreover, Chang argues that subsidy restrictions apply only to trade related subsidies and that domestic subsidies can still be freely implemented when undertaking targeted industrial policy at home.

While the global rules make industrial policy, and specifically targeted industrial policy, more difficult for developing countries than the heyday of such policies undertaken by the NIEs two decades ago, there is agreement that some space still exists for clever and determined governments to create sufficient manoeuvring room to be able to achieve their structural transformation goals. Trade policy can remain a tool of industrial policy and authors such as Chang strongly advocate that developing countries increase the use of this potentially powerful tool. A far more pressing problem with regard to policy space, however, has emerged and this problem is far more difficult to deal with.

The most influential change in the global trade environment in the recent past has been the role and behaviour of major corporations. International trade flows have over the past 15 years been increasingly controlled and driven by major corporations or lead firms mainly from industrialised countries. These lead firms no longer operate in textbook competitive markets and undertake arms length transactions based on lowest-cost production. Rather, these firms and large corporations develop well-integrated value chains, commercial networks, international production networks and intra-firm trade agreements where trade and contracts are based on long-term relationships and established power relations. It is no longer enough to be a low-cost supplier to get ahead in international trade; suppliers need to be "picked up" by lead firm, which Ul Haque argues is "as much a question of luck as productive efficiency" (Ul Haque, 2007:11). The low-cost advantages used by countries such as Korea and Taiwan to drive their inclusion into global trade and drive their domestic development would not be generally feasible or effective for developing countries in today's global environment.

This new global value-chain phenomenom creates problems for developing countries to access global markets. In addition to the chicken and egg problem of developing a sufficient track record to allow them to get "picked" to join a lead firm chain, the terms on which they may enter a chain are also highly compromised. Value chains operate on the basis of power relations. In the global scenario, lead firms have a disproportionate amount of governance power and this allows them to determine how economic rents will be distributed along a chain. Theory and empirical evidence show that the bulk of returns along a chain gravitate towards logistics, marketing, advertising, retailing, product development and other intangible activities while rents for actually producing goods are low. Thus the activities of less developed countries in conjunction with the ability of lead firms to determine what return developing countries receive make the future outlook for developing countries seeking to enter the global market exceedingly scary.

Pack and Saggi (2006) take this argument further and suggest two additional pitfalls for developing countries trying to increase their rate of industrialisation in the current business environment. The first point they raise is that in large lead firm buyer networks, lead firms use their power to provide exacting specifications for what is to be produced, and also how it is to be produced. These networks foster ever increasing efficiency and cost reductions at a massive rate, meaning that infant industries seeking to break into these value chains face the prospects of immiserising growth and a race to the bottom in terms of prices – while still not being guaranteed sales. The second point they make is that lead firm orders are so massive in absolute unit terms that these orders may well be beyond the production capabilities of smaller countries even when industries enjoy government support.[8]

The literature in this area remains nascent and only recently have theories and ideas been posited as to how developing nations should react. One contribution to the debate was made by Weiss in 2005 who worked on Akamatsu's 1930's theory of the "flying geese pattern of industrial development" in East and Southeast Asia. Essentially Weiss shows that all East Asian countries began their transformation to more industrialised economies by focusing on technologically simple labour intensive goods such as clothing, toys, sports equipment and processed foods. Various countries graduated from these goods to more capital intensive, technologically more sophisticated goods over time. What happened was that those which graduated most quickly (first tier NIEs) vacated export markets which were then filled by second tier NIEs, until they graduated up the industrialisation chain and again vacated the market for third tier NIEs. Weiss suggests that the flying geese pattern could in principle be extended to other developing regions, but would necessitate the more industrially advanced country in a particular region to open up its economy to imports from lagging countries and to allow such laggards to pursue promotional policies and protection levels to take advantage of this vacated space regionally and ultimately globally. Weiss goes on to suggest that these levels of protectionism could be achieved using the "special and differentiated treatment" under the WTO. However, it is hard to believe that such an idea would not be appealing in principle to SACU given the heterogeneity of the Member States and their differing levels of industrial development.

A suggestion by Pack and Saggi could also be of interest in the SACU context. These authors look at the institutional and economic history of Japan, Korea and Taiwan's national trading companies. In these countries, government understood that individual manufacturing firms did not have the productive capabilities to meet global demand individually. The government set up, at great cost, trading companies which aggregated output from small firms and then traded these aggregated outputs on the international market. Although the set-up costs were substantial, the marginal cost of adding additional firms was low and allowed local producers to access markets otherwise unavailable to them.

A mix of opinions suggests that developing countries will not be able to enter these value chains and should look towards alternative options for development and growth. Some authors suggest a return to import substitution, enterprise development and small, micro and medium enterprise (SMME) support, while others suggest that developing countries take advantage of changing production and consumption patterns and enter markets such as biofuels, fair trade, certified sustainable and organic food production, as well as tourism and trade in tasks such as business process outsourcing (UN, 2007). This brings the argument full circle back to what Rodrik argued – that developing nations must undertake a process of self discovery to work out how and where their economies can access and compete in the global market. Options are indeed more limited than previously, but as argued, scope exists for developing nations to benefit from well-conceived industrial policy and global integration.

The above debates demarcate just some of the decisions, competencies and choices facing policymakers when considering (using Lall's terminology) what heaven they are seeking and which route to heaven they should follow. Considering these debates in a single domestic economy is a highly complex and often emotive process. Considering these debates in relation to a bloc of

[8] They use the example of Walmart and Target (large US retailers) placing orders for socks from China's sock factories in its special economic zones in batches of 500 000.

countries committed to some form of economic integration (especially countries with highly divergent levels of development) is an exercise of such intricacy and complexity that the approach to resolving these issues is often tackled at a process, principle and framework level rather than at the substantive level of detail used in domestic policymaking.

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