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into Industrial Policy in the Developing World
with an Ethiopian Application**

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ABSTRACT

This paper considers the relevance and applicability of industrial policy as a tool for economic development for the world’s poorest countries.

Recent theoretical breakthroughs in Economic Geography and experiences of East Asian countries have together reawakened the role of government in promoting poor-to-rich country income convergence. Clustering – the amalgamation of said theory and practice – has been conceptualised from both economic and policy perspectives in the early 1990s. Yet its consequences are not so clear-cut, and governments across the developing world seem wary of policy implications.

Ethiopia, however, has ‘taken the bull by the horns’. Incorporating both a decade of double-digit growth and the extensive policy reforms in a similar time-frame has sparked the attention of academics and policymakers alike. The correlation-causation diagnosis has been met with appraisal and scepticism in equal measures in attempts to measure the effectiveness of cluster policy on economic growth.

This essay addresses two prominent clusters in Ethiopia – namely the leatherwear and floriculture industries –, evaluating government policy in said industries. The prospects and lessons learnt both internally for Ethiopia and externally for the developing world are then considered.

Keywords SUSTAINABLE GROWTH, INDUSTRIAL POLICIES, CLUSTERS, ETHIOPIA.

JEL classification: O25, O55, R58.

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1. Introduction

The marked disparity in global living standards is well-documented, and is the subject of vast bodies of research – be it theoretical, empirical, geographical, political, or even philosophical.

The lack of convergence in certain regions mixed with its success in others is also subject to great lengths of research and debate. Qualitatively, the concept of ‘conditional convergence’ is strongly argued. It, unlike its unconditional convergence predecessor, states that many variables, including an economy’s geography, institutions, culture, international relations, economic openness, etc., may all play varying roles in its long- term growth prospects (Lin, 2009; Hill, 2014).

The aim of this paper is not to explore the roots of (under) development. The aim of this paper is rather to consider, through the lens of a Core-Periphery world, which public policies, if any, can be undertaken to promote or generate sustainable economic growth in the world’s poorest regions. Shared with the perspective of Collier (2016), the paper will argue that underdevelopment of economies is, at its core, a domestic issue, and that governments in the developing world can guide its economy to reach superior development paths.

Indeed, throughout the paper it is considered what poor countries can do to promote sustainable growth domestically. The insights of the ‘New Economic Geography’ - the theory of agglomeration and competitive advantage - will be applied, showing that Peripheral countries can theoretically be proactive in promoting their national competitiveness and ultimately, long-term growth.

Despite the extensive theoretical and empirical studies demonstrating the role of agglomeration (see Fujita and Thisse, 2002), empirical testing of this model – *i.e.* that agglomeration of industry in one location implies the loss of industry in a counterpart region – is lacking, and methodologically tricky (Krugman, 2010). Yet it could better explain the growing disparity in global incomes since the 19th Century than does traditional trade theory. Indeed, Hanson (1994; 1997) studies the effects on Mexican manufacturers’ location choice after the ratification of the NAFTA agreement. Increasing returns of the industry indeed foster agglomeration, and this is empirically demonstrated as new Mexican

manufacturers agglomerate, with statistical significance, near the US border and away from more Southern regions as US-Mexican integration increases (Hanson, 1997).

So too have Brülhart and Torstensson (1996) shown in Europe that larger and increasing returns industries are located nearer 'Core' EU areas during early integration. Additionally, Davis and Weinstein (2003) have tested for the roots of economy's industrial structure *vis-à-vis* its trade patterns. While the traditional Heckscher-Ohlin framework for explaining economic trade does play a role in explaining specialisation patterns, it would not support the strong home market effects that data portray. Accordingly, they find evidence that agglomeration effects play a greater role in explaining divergence between manufacturing production between Core and Periphery, supporting the predictions of the New Economic Geography.

The ex-post rich industrial agglomerations have been empirically tested for their presence and stability. Indeed, there is evidence that advantages of certain locations have persisted and increased over time (see Davis and Weinstein, 2001; and Bosker *et al.*, 2008 for example).

Rodrik (2011:141) asserts that new technologies and growth have disseminated in «*areas with the right preconditions, [which has] entrenched and accentuated a long-term division between the core and the periphery.*»

Yet, policymakers have observed both theoretical insight from the 'New Economic Geography' and the 'miraculous' experiences in Asia, culminating in the promotion of the 'new industrial policy'. Indeed, UNIDO (2009) present the case for developing clustering activity in developing countries. In the 131 countries studied over the period 2000-2005 the association between this 'new' industrial policy and growth in GDP is fairly astounding. Evidently, however, directional causality remains very difficult to control for (Brakman and van Marrewijk, 2012). Nonetheless, whether cluster policies play a role in the promotion and/or sustenance of growth in the developing world is of increasing relevance in the academic literature and practitioner's toolkit (World Bank, 2009). Benner (2013) studies several clusters across the developing world and concludes that, while clusters in developing countries will have lower levels of technology and innovation *vis-à-vis* developed countries' clusters, they can be globally competitive, and accordingly cluster policy is a highly applicable development policy.

Fujita and Thisse (2013) assert that there is sufficient evidence that clusters emerge endogenously. Empirically and historically, this seems to have been the case for the more successful regions of the developing world (for an extensive historical review of countries converging through manufacturing promotion, see Chang, 2005). Accordingly, one must consider what role – if any – policymakers in the developing world should play in attempting to realise these proven gains. Rodrik (2011: 144) states that there exists the possibility:

«To steer an economy away from its natural specialisation in raw materials. Economic growth [is] achievable – even if a country start[s] at the wrong end of the international division of labour.»

This essay will argue, through theoretical, empirical, and historical lenses, that governments in the developing world can be proactive in policymaking for sustainable growth, through the creation of their own ‘Cores’ of value added industry.

Indeed, Section 2 distinguishes – among what poor countries can do to promote sustainable growth domestically – three different routes: taking a *laissez-faire* stance which allows clusters to form naturally; choosing a ‘light-handed’ approach to intervention or a more directed, ‘heavy-handed’ approach.

Section 3 considers and evaluates the case of Ethiopia, where extensive public strategies are currently attempting to promote growth – through the application of said theory and insights explored in this section – in two of its most renowned cluster initiatives: the leatherwear and floriculture industries.

Section 4 offers an evaluation of the attempts of Ethiopian industrial policy considering three main aspects. *First*, the role played by Government; *second*, the approach taken in promoting the industries (with respect to the three approaches developed in previous Section 2); and *finally*, an evaluation will be drawn, considering the future prospects of the industries before inferring generalizable and non-generalizable lessons both from the Ethiopian case and for other developing countries seeking growth strategies.

Section 5 concludes.

2. Clusters and new industrial policy: implications and applications

Clusters can be defined as «a system of interconnected firms and institutions whose value as a whole is greater than the sum of its parts.» (Porter, 1998: 213). Still, this concept may also suffer from ambiguity as there are no clear, implementable policy implications provided as to how they may (or may not) be stimulated (Brakman and van Marrewijk, 2012). Despite the successes of industrial development in Asia, industrial policy had largely been discarded due to the equal number of failures in Sub-Saharan Africa, and the «neoclassical presumption that industrial policy does not work.» (Otsuka and Sonobe, 2011: 1).

Yet, in recent years, the idea of industrial policy in developing countries has been ‘reawakened’ through *i*) an apparent lack of success of the Washington Consensus (Williamson, 2000; Pack and Saggi, 2006), and *ii*) the theorisation and potential application of clusters: how the New Economic Geography purports that agglomeration and increasing returns

may be also applicable for developing countries (Monga, 2013). Indeed, industrial policy is no longer viewed as an attempt to boost general national manufacturing, rather the selection of some areas and/or industries worthy of attention given their potential to become globally competitive. So too has the concept of ‘industrial policy’ been extended to also include non-traditional agriculture and services (Gebreyesus, 2014a). Indeed, this structural change is of greatest importance (Pack and Saggi 2006; Rodrik 2006), and the reawakening of this ‘new’ industrial policy is central to this essay.

Empirically, clusters are increasingly observed across the global economy (Lenchuk and Vlaskin, 2010). Slaper and Ortuzar (2015: 7) declare that:

«Developing industry clusters has become a key goal for economic development as clusters have been shown to strengthen competitiveness by increasing productivity, stimulating innovative new partnerships, even among competitors, and presenting opportunities for entrepreneurial activity.»

The theory explored in Krugman (1991), Krugman and Venables (1995) and Puga (1998) has provided strong theoretical justifications for clustering, and there is extensive empirical evidence for how specialised production will agglomerate and provide increasing returns and growth for a region/economy (World Bank, 2009; Lenchuk and Vlaskin, 2010; Otsuka and Sonobe, 2011). Belleflamme *et al.* (2000: 160) assert that in order to do so:

«Firms must be able to serve almost equally all markets (globalization) in order to enjoy the local advantages associated with the formation of a cluster (localization).»

Indeed, ‘looking outward’ for economic growth possibilities is a focal point for policymakers in developing countries (Andersson *et al.*, 2004).

Yet, for regional and development policymakers, evidently wanting to ‘cash-in’ on the idea of increasing returns and exponential growth, there is no specific guidance on how to do so (Newlands, 2003). Additionally, despite the theoretical justification and empirical support of clusters, we cannot consider that clusters are the cure-all panacea that some policymakers make them out to be (Martin and Sunley, 2003). Furthermore, it must be acknowledged that *«the empirical support for agglomeration economies does not, by itself, justify the use of cluster policies.»* (Brakman and van Marrewijk, 2012: 17). Indeed, much EU regional development budgets have seen insufficient returns to be considered a great success (see Barro and Sala-i-Martin, 2004).

Accordingly, government’s role – if any – in the promotion of clusters is hotly debated:

- should public policy take a *laissez-faire* stance (allowing clusters to

form naturally) (§ 2.1);

- a ‘light-handed’ approach to intervention (a non-targeted approach promoting cluster generation and supporting existing clusters) (§ 2.2);
- or a ‘heavy-handed’ approach (policies directed at specific industries to cluster in specific locations) (§ 2.3)?

Each perspective will be analysed, drawing from theory and evidence, before exploring two current cluster formations in Ethiopia in the following Section (see § 3).

2.1 *Laissez-faire*

Few critics of cluster initiatives would deny the existence of clusters and how agglomeration can increase economic productivity in a certain region. Yet, their arguments are driven from the belief that the market will best select which industries and which locations to cluster, without public policy (inefficiently) targeting specific industries and/or locations to promote clusters. Instead, the role of government should be minimal: focusing on the provision of public goods (including education, infrastructure, and health), protecting property rights, creating a stable macro-economy and political climate, and, amongst others, allowing free trade and foreign direct investment (den Hertog *et al.*, 1999). From these general principles, clusters may or may not form, subject to rational decision-making of firms and entrepreneurs. Indeed, “agglomerations are [simply] the outcome of decisions by individual firms to locate close to each other” (UNIDO, 2009: 72).

Governments are accordingly tending to shift away from direct intervention (den Hertog *et al.*, 1999). If indeed firms have such mutual gains from co-location, then, as Newlands (2003) argues, they should naturally co-locate together. This would entail the ‘automatic cooperation’ of firms, declared in Marshall’s (1890) seminal work.

Indeed, using Duranton *et al.*’s (2010) framework the *laissez-faire* argument holds that government ought to continue to provide general public goods without selecting the promotion specific regions and/or industries. When, or if, the output of a certain industry in a certain sector reaches a threshold point, then the forces of agglomeration will ensure that a cluster will naturally form. As argued in Navickas and Malakauskaite (2010), public policy should not focus on forcing interaction between firms, rather allowing them to interact if the market deems it efficient. Indeed, in UNIDO (2009), it is claimed that industrial clusters in fast-growing developing countries are no more likely to form in EPZs (Export Processing Zones) than outside them.

With reference to developing countries, Altenburg (2015) argues that potentially successful clusters are far less visible – or indeed inexistent – in comparison with developed countries. This naturally limits the efficacy and even possibility for governments in developing countries to

identify, from a top-down perspective, which industries and which locations to promote through the use of cluster initiatives (Benner, 2013). Indeed, in his seminal paper, Lucas (1988) warns that ‘picking winners’ is no easy task.

Accordingly, critics of public-driven cluster initiatives largely focus on two areas of policy failures. On the economic side, some authors claim that targeted cluster policies entail inefficiencies and government failures. Duranton *et al.* (2010: 50) declare that clusters are «*a second-order issue that wrongly receive first-order attention*», asserting that clusters will arise naturally in a well-functioning economy, and that cluster policies require solving coordination problems and market failures for which the government simply lacks the resources and knowledge to correct. Analogously, it is argued that targeted cluster initiatives may destabilise other pre-existing economic activities in the developing country (Andersson *et al.*, 2004), and can come at the cost of wider and more vital public interventions (Harrison, 1992).

Additionally, interventions may also entail unwarranted political effects. Particularly rife in developing countries, many authors advise against public activity to clustering given the special interests that are at play.

«Policies that support your location or stimulate your sector have always been in demand. When combined with the overwhelming empirical evidence that higher density is associated with higher productivity, this demand makes it easier to justify cluster policies.» (Duranton *et al.*, 2010: 51).

Indeed, through the use of cluster policies, «*deceitful and untrustworthy behaviour*» (Imrie and Raco, 1999: 964) are by no means eradicated, and promotion of ‘national champions’ can have considerable effects on the economic and political credibility of the government (Porter, 2000).

2.2 Light Intervention

Yet, the very existence of the Marshallian externalities in clusters (1890) – to which even the most ardent laissez-faire development economists will admit existence – usually invoke legitimacy for government action. These externalities induce market failure and will entail underinvestment in both the exploration of sectors (Hausmann and Rodrik, 2002; Collier, 2016) and in specialised infrastructure, scientific knowledge and skills (Porter, 2000). Indeed, the rationales for government action in the formation of clusters, for den Hertog (1999), are four: *i)* to create favourable conditions for the functioning of markets; *ii)* to compensate for externalities therein (such as R&D and knowledge creation); *iii)* because the government is an important player in the economy; and *iv)* to remove imperfections through providing information to

actors in a (nascent) cluster. It is in this vein that Porter (1998: 103) asserts:

«National governments must care for both and ensure that the fundamental infrastructure, including the institutional and regulatory conditions required for new clusters to evolve as well as for existing ones to grow, are in place.»

The market failures associated in absence of government intervention can largely be segmented into two categories: *i*) the associated positive externalities in the discovery of clusters; and *ii*) the positive externalities generated when a cluster is functioning.

The former is highlighted extensively in Hausmann and Rodrik (2002) and Collier (2016), and is conceptually simple, yet has fairly resonating implications for governments in developing countries. Given that there are uncertainties in which industries an economy may generate strong competitive advantages, there is great social value to the costs of discovery, given that these can be imitated. Accordingly, the initial entrepreneur undertaking these discoveries will not capture all of the social value – the ‘discovery problem’ –, and investment into new industries will be scarce and socially inefficient (Collier, 2016). This market failure acts both as a classic example of a positive externalities and imperfect information, and thus calls for government intervention (Collier, 2016). In doing so, an economy can be *«learning what [it] is good at producing.»* (Hausmann and Rodrik, 2002: 3).

Although sounding rather vague, Hausmann and Rodrik (2002) detail some policy implications for governments in the developing world. Indeed, both generic and specific policies are promoted to encourage entrepreneurship and investment in new activities. Collier (2016) promotes investment in urbanisation and connectivity in developing countries, asserting that proximity directly increases the incentives for the discovery and expansion of industrial clusters. Hausmann and Rodrik (2002) suggest that offering cheap credit (through national or international development banks, for example), giving tax holidays, and subsidising exports and investments could prove vital – whereby increasing the payoff to successful innovators is an efficient way to promote ‘self-discovery’. The above policies were used extensively in both Japan and the more recent growth ‘miracles’ in the Far East, and more recently in Mauritius (Evans, 1995; Collier, 2016). Trade protection, on the other hand, is increasingly ill-advised as many pre-industrial countries are deemed too small to sustain it (Cypher, 2014).

Secondly, regarding clusters that are already functioning, specific policies can be implemented to promote their growth and competitiveness, overcoming a ‘coordination problem’ (Rodriguez-Clare, 2005). Most policy suggestions in the literature focus around supporting private-public collaborations, the promotion of collective learning, and the encouragement of networks between stakeholders in regions that the

market has determined as potential successes. This can include trade associations and relevant research institutions (Newlands, 2003); the co-provision of urban transport and land-use planning (Duranton, 2011); and specialised infrastructure and trade capacities with local and distant markets (Porter, 2000). A meta-study undertaken by UNIDO (2009) covers in-depth case studies of 10 clusters across the developing world. The authors claim that their successes are dependent upon a sound selection of cluster location (in or near urban areas, with good access to airports and sea ports), with specialised infrastructure, that manage to attract FDI, and with a specialised ‘cluster convening organisation’ that promotes the networking of stakeholders within the industry (including final producers, intermediate suppliers, specialised educational institutions, and relevant public institutions, amongst others) (Porter, 2000; UNIDO, 2009).

In sum, advocates of the light intervention approach to cluster promotion in developing countries justify their claims due to the market failures in cluster discovery due to the positive externalities associated with discovery (Hausmann and Rodrik, 2002), and inefficient functioning of existing clusters due to coordination and communication problems (UNIDO, 2009; Page, 2012; Collier, 2016). It is in this vein that the OECD (1999: 18) conclude that:

«The main task of the public policy maker has become one of facilitating the clustering process and creating an institutional setting which provides incentives for market-induced cluster formation.»

2.3 Heavy Intervention

Alternatively, it is also claimed that ‘heavy’ intervention is the best policy for cluster promotion in developing countries. This implies policies directly targeted at the promotion of cluster in specific, predetermined industries, usually in predetermined locations (Slaper and Ortuzar, 2015). Indeed, Pickernell *et al.* (2007) assert that, in order to encourage agglomeration, policymaking to promote specific industries must be based upon knowledge of local resources and processes.

UNIDO (2009) warn that, due again to the coordination problem explored above, companies will fail to harmonise their decision-making and location preferences and hence the cluster size will remain small and sub-optimal, or even inexistent. Accordingly, generating the necessary basis for the cluster to form and grow may itself require government action. For Pickernell *et al.* (2007), generic economic development interventions will fall short of directed policies to generate growth in promising industries. The UNIDO (2009) concludes that both the Chinese button cluster in Qiaotou and the electronics cluster in Penang, Malaysia, the respective governments played a ‘heavy-handed’ role in specifying location and industry to foster through policymaking: both

provincial government and city councils invested heavily into labour training and R&D for technology in China; and in Malaysia, the government actively pursued international investors and undertook public-private partnerships to promote production of electronics. Both cases extensively relied upon direct government intervention, both in tangible terms (such as specific investments that generated positive externalities) and in less tangible terms (through the promotion of networks and linkages).

Pickernell *et al.* (2007) suggest that governments in developing countries contrast the current local economic context with its ideal, thereby revealing the specific areas upon which to focus the industrial policy. One such way to do so is through dialogue with local producers: the government can reach consensus with industries upon their most pressing needs, before enacting policies to provide them. This is one of the most vital initiatives in development policymaking for Felbinger and Rohey (2001). Thereafter, government can enforce directed and localised policies to promote entrepreneurialism, provide tax and regulatory relief, and create private-public partnerships to invest in both human capital, and physical infrastructure and technology upgrading. These, for Felbinger and Rohey (2001) are all of crucial importance for the expansion and growth of a cluster.

These processes, whilst sharing similar theoretical justifications for government intervention in the previous sub-section, are clearly more pointed towards specific clusters in specific areas, and the arguments posed in this current sub-section clearly call for directed action towards the development of specific industries in specific locations. Clearly, this contrasts with both the non-action and light, generic government policy as addressed in the respective previous sub-sections respectively.

2.4 A theoretically unresolved question

Which approach – of the three mainstream views supported in the literature – is optimal for a country seeking to expand its industrial development, is clearly debated. Quantitatively assessing these approaches and their effects is unsurprisingly difficult, given the difficulty of quantifying ‘government action in market x ’ and controlling for the extent of endogeneity and omitted variables when considering ‘government action in market x ’ on national (or regional) growth and development. Accordingly, case studies and interpretation of descriptive data have been utilised extensively by macro-development economists (although micro studies comparing government intervention and firm-level productivity are beginning to be undertaken and receive some attention in the following Section).

Considering theoretical justification for incorporating agglomerations – or clusters – that specialise and export, as a route for national

economic growth even in the world's poorest countries, and having explored how best to promote this, Section 3 will evaluate the role of the Ethiopian government in doing so, in two of its most renowned cluster initiatives: the leatherwear (§ 3.2) and floriculture industries (§ 3.3).

3. An Ethiopian Application

The case of Ethiopia has received particular interest in academia and (development) policy circles. Three facts reveal why this is the case:

- Ethiopia is very poor (in 1995 – after the first election – GDP per capita was current PPP\$ 419);
- Ethiopia is growing very quickly (averaging over 10% per annum since 2003);
- Ethiopian authorities have re-introduced industrial policy extensively.

Indeed, the Ethiopian case has received great speculation – much appraisal and equal scepticism –, upon the role of industrial policy in promoting growth (Gebreeyesus, 2014a).

Weak agglomeration forces and high transportation costs are prevalent throughout Africa, and, as a poor landlocked country, Ethiopia may be particularly prone to a 'proximity trap', as discussed in the 2009 World Development Report (World Bank, 2009; Collier and Venables, 2007). Yet, Ethiopia seems to have grasped the theory previously explored (see § 2), through the promotion of clusters as a route-out of the 'trap' (Fujita and Thisse, 1996). A brief economic history and summary of current affairs will be considered (§ 3.1), before addressing and evaluating the role of government in promoting the leatherwear (§ 3.2) and floriculture clusters (§ 3.3).

3.1 A Brief Economic History (1974-2017)

Mangistu's military dictatorship started with the *coup d'état* of 1974 led by the Dergue – a Marxist-Leninist, Soviet-backed group – come to an end as political backing and economic aid from the Soviet Union deteriorated with the fall of the USSR, and the Ethiopian People's Revolutionary Democratic Front (henceforth EPRDF) overthrew the regime (Lyons, 1996). Thereafter, in 1991 a transitional government was installed, Eritrea won independence in 1993 – after a resounding referendum (Government of Eritrea, 1993) –, prior to the completion of the Ethiopian Constitution in 1994, and a multiparty election in 1995 which was won by the EPRDF (Lyons, 1996).

The new revolutionary democratic government embarked upon a transition to a market economy, and alongside World Bank and IMF-sponsored reform programmes, the government sought to foster com-

petition, promote the private sector, and open up the economy to trade and international finance (Gebreyesus, 2013).

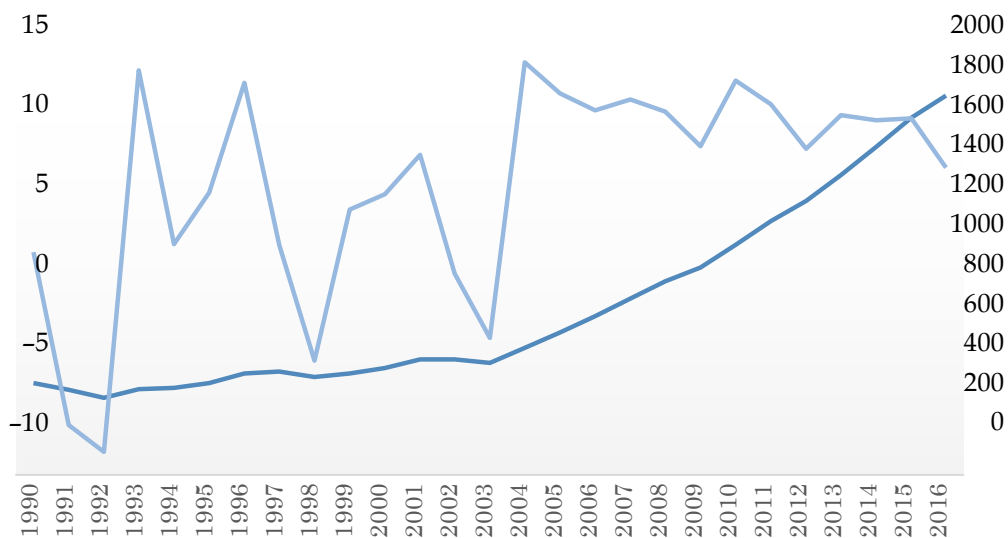
The first reform programme (1992-1995) undertook ‘the classic’ IMF-WB measures including: *i*) a 150% devaluation of currency and liberalisation of the FOREX market; *ii*) removals of subsidies; *iii*) great reductions in tariffs; *iv*) introduction of new investment, labour and public enterprise laws; and *v*) easing market entry for private financial institutions (Sgard, 2016).

Initial high growth of the economy and industry (31% and 49% respectively in 1993), were later let down due to slow growth – 3% by 1996 (Gebreyesus, 2013) – and the Eritrean-Ethiopian War which ensued from 1998 to 2000 – estimated to have cost \$1m USD per day (Abbink, 2010).

By the late 1990s, following this clear slow-down in growth (see **Figure 3.1**), the Ethiopian government «adopted an export promotion strategy to address the lack of progress [...] A comprehensive industrial policy was then formulated in 2002/03» (Gebreyesus, 2013: 9). This was formalised and implemented through three major programmes:

- the Sustainable Development and Poverty Reduction Plan (2002-2005);
- the Plan of Action for Sustainable Development and Eradication of Poverty (2005- 2010);
- and the Growth and Transformation Plan (2010-2015).

Figure 3.1 – Ethiopian GDP and GDP per Capita



Ethiopian GDP growth, Annual % (LHS); and GDP per Capita, PPP, Current International \$ (RHS). (NOTE: Add colours to the Key)

Source: World Bank (2017).

Alongside extensive public investment into transport infrastructure, public utilities and Ethiopian Airlines (Foster and Morella, 2011), Ethiopia also directed specific industrial policy towards agro-manufacturing. Given the less-advanced technologies required, and an abundance of low-skilled labour and extensive stock of livestock, the EPRDF has highlighted agro-manufacturing as a sector worthy of attention as both a vehicle of growth and poverty reduction (Altenburg, 2010). Indeed, the aforementioned development plans integrate agriculture and urbanisation and industrial development (Gebreeyesus, 2013).

From 2004 until today, the Ethiopian economy has grown at over 10%, with real current per capita income over 4 times higher than 1991, and 3 times higher than 2002 (World Bank, 2017), since the development of the new industrial policy (see Figure 3.1). The Second Growth and Transformation Plan (henceforth GTP II), is now underway, aiming to achieve an annual average real GDP growth rate of 11% whilst adhering to the post- 2015 Sustainable Development Goals (SDGs) as set out by the UN.

The essay will now seek to address this correlation between ‘export promotion strategy’ and GDP growth, by focusing on two industries central to the Ethiopian industrial plans (importantly at different stages): the leatherwear and floriculture industries. Crucial to this application is the consideration of *i*) the role of the industry in the recent growth surge, and *ii*) the role of the government in promoting said industries.

3.2 The Leatherwear Cluster

Almost a century ago, Armenian investors first founded two shoe factories in Addis Ababa. Only recently has the potential for an Ethiopian competitive advantage in producing leather manufactures been realised, and today over 1,000 enterprises are producing leather shoes and other leather products in and around Addis Ababa (Sonobe *et al.*, 2006). Ranking first in Africa for livestock resources, the Ethiopian cattle stock is over 55 million, 26 million sheep and 23 million goats (UNIDO, 2012), all of which play a role in the leatherwear industry. Accordingly, the Ethiopian government is wanting to harness this strength in Factor Conditions (à la Porter, 1990) to generate a competitive cluster (USAID, 2013). Vitality, however, the government seeks to add value in this cluster – Ethiopian farmers should not merely seek to export the hides of cattle, yet locally transform them into products that increase export earnings, and hence add greater national income. The Ethiopian government has thus considered manufactured leather products as a centrepiece of industrial policy: a combination of its Factor Conditions (cattle and labour) in a low-skilled industry, and potential Demand Conditions – locally, regionally, and internationally – for low-cost leather goods.

3.2.1 Policies Used

Since 2002, in the aforementioned 5-year Development Programmes, the Ethiopian government has sought to promote the growth of the leather goods industry, particularly with an eye for producers to export (Bräutigam *et al.*, 2016). The specific incentives for firms in the industry will be considered – looking at spatial, financial, organisational and human capital policies –, before evaluating them.

Spatial Policy – Several policies specified in the GTP I and II have promoted the spatial agglomeration of firms. Two major spatial policies have been undertaken: one aimed at small and micro enterprises, and the other at medium and large producers. Small and micro leather manufacturers are typically located in the “Merkato area” of West-Central Addis Ababa, while larger firms with mechanised factories tend to be found in Southern Addis Ababa (UNIDO, 2012).

For the small and micro producers, Merkato has long-been an established leatherwear cluster – prior to government spatial policy. Potentially contradictorily, government policy has attempted to re-locate these micro-manufacturers, having erected several buildings with manufacturing infrastructure outside the area, whilst charging highly subsidised rents (Getahun, 2016). The larger enterprises, instead, have located in government-sponsored Industrial Zones. Here land provision and semi-constructed factories are rented at highly discounted rates (UNIDO, 2012; Abebe and Schaefer, 2013).

Financial Policy – Several significant policies have been implemented regarding the finances of leatherwear producers. Firstly, the Development Bank of Ethiopia have established a credit modality scheme whereby when an entrepreneur has raised 30% of a project investment cost in equity, the DBE will offer the remaining 70% in loans (Abebe and Schaefer, 2013). Secondly, a 150% export tax has been applied on raw hides and skins and semi-finished leather products and crust leather in 2008 and 2012 respectively, in an attempt to promote the manufacturing and exportation of leather for higher value final products, as oppose to raw materials and semi-finished goods (Fitawek and Kabala, 2016).

So too are there further incentives for domestic leather producers to increase their international presence as: the Ethiopian government allow an exemption of duties on imported capital and have signed bilateral investment treaties for large producers of leather footwear (avoiding ‘double-taxation’ in projects involving international stakeholders) (Mbate, 2016); and the National Bank of Ethiopia have created a scheme for producers to hold export earnings in a retention account – with a credit guarantee scheme –, maintaining FOREX balances used in order to promote their exports (Oqubay, 2015).

Cluster Organisation Policy – In terms of cluster organisation, the Ethiopian government have pursued increased private-public coordination for more efficient entry to and exit from the market (streamlining bureaucratic processes) and a cluster overseeing organisation aligning the Ministry of Industry, the Ethiopian Investment Agency and the Ethiopian Leather Industries Association to address coordination and market failures (Mbate, 2016). Indeed, the Leather Industry Development Institute (henceforth LIDI) provides information and support to international stakeholders, disseminating information on current and upcoming investment opportunities, advisory services for investors, and consultancy services for firms in the sector (Oqubay, 2015).

Human Capital Policy – As mentioned, Porter (2000) calls for the promotion of local human capital and research into enhancing the efficiency of producers in the cluster. Accordingly, LIDI links educational institutes to the industry to aid the process of matching between labour and employees (a Marshallian externality), and local universities to itself to undertake joint studies on product and HR development (Mbate, 2016). Higher and applied educational courses are offered in the manufacturing of footwear and leather goods for school-leavers. So too has an Engineering Capacity Building Programme been introduced to 79 degree programmes in engineering for further R&D and technological progress in the sector (Mbate, 2016).

3.2.2 Evaluation of Policies and Prospects for Industry

The policies explored have been introduced with the scope of *i*) overcoming the coordination problem to induce clustering (UNIDO, 2009) and *ii*) promoting the manufacturing and exports of leatherwear. An evaluation of the policies, with respect to these goals, will now be offered.

Cluster Effects – Bigsten *et al.* (2008) and Siba and Gabreeyesus (2014) have econometrically tested for the presence of cluster effects and the effects on profitability of firms in the leatherwear industry in the medium and large producers cluster. It is estimated that a 10% increase in the number of producers in the cluster increase average productivity by 1% Bigsten *et al.* (2008). But, Siba and Gabreeyesus (2014) demonstrate that a 10% increase in productivity reduces prices by 2.2%. The authors demonstrate that the net effect on firms' revenues is thus ambiguous. Accordingly, there is no incentive for firms to agglomerate endogenously. Yet, the gains to consumers – local and international – from agglomeration are clear, and accordingly, as argued in Page (2012), public policy must do more to encourage the geographical clustering of leatherwear producers and complementary firms. This is central to Ali *et al.*'s (2016) more recent study. They find strong and statistically sig-

nificant evidence of co-location of large leather producers and related businesses (forward and backward linkages) are increasingly clustering on the outskirts of Addis Ababa. The increased productivity effect of agglomeration thus seems to have eclipsed the price reduction effect that more concentrated competition also provides. Thus, in the implementation phase of GTP I, agglomeration has become increasingly attractive for business leaders, and cluster policies are thus seen to be functioning toward their ultimate goal.

Analogously, [Rijkers et al. \(2010\)](#) test for location effects on the characteristics and performance of leather manufacturers in the same cluster. Firms operating there are demonstrated to be larger, grow more quickly, and have higher productivity in capital and labour. These results control for differences in infrastructural quality, credit access and transportation quality. This indicates that, while these tangible scale effects are at work, so too do intangible Marshallian externalities play a role in promoting productivity – that simply being collocated with competitors, suppliers, and buyers is significant in the productivity and growth of leather producers in Addis Ababa.

Finally, [Gebreyesus and Mohnen \(2013\)](#) consider the role of agglomeration in the innovative capacity of local leatherwear producers. Through local interactions with buyers, sellers, and competitors (both vertical and horizontal linkages), the authors find that enterprises select themselves into embedded networks. Indeed, trust and repeated-interactions are strong predictors of network sustainability – which is exemplar of the literature on social capital (see [Putnam, 1995](#); [Glaeser et al., 2002](#)). These networks are then econometrically tested for absorption of innovation. Indeed, network position and innovative capacity and absorption are positively and significantly related – clustering provides innovative (and thus more sustainable) growth benefits, as well as the price and productivity benefits explored above ([Gebreyesus and Mohnen, 2013](#)).

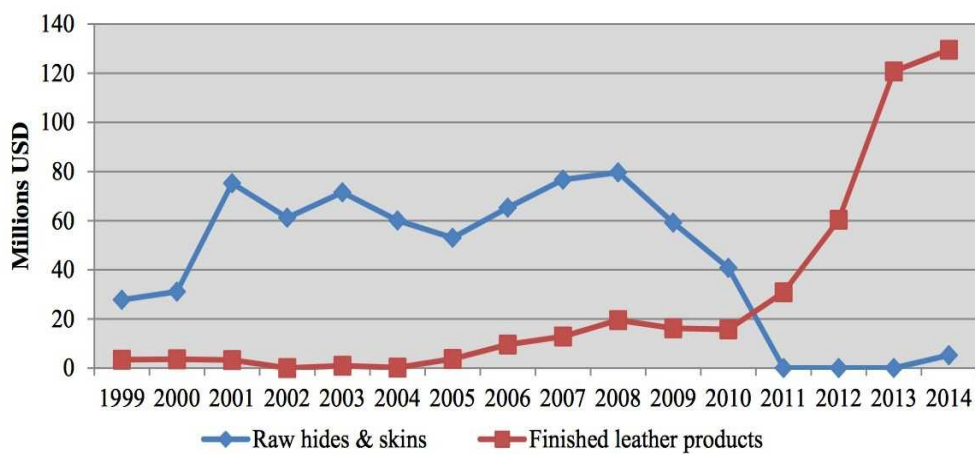
Productivity and Export Effects – In an attempt to discontinue the exportation of unprocessed and semi-processed leather, and to thus boost local leather manufacturers' capacities, the 150% export tax on raw and semi-processed leather was imposed. Traditional economic theory would suggest that applying export tariffs stops the income gains that specialisation and trade bring ([Romer, 2001](#)); yet, through applying the concept of 'dynamic comparative advantage', potential long run income and growth benefits may outweigh the short-run income losses ([Aghion and Howitt, 1998](#); [Redding 1999](#)). Put simply, without public policy, farmers export hides to wealthier countries – historically Italy, but increasingly China ([Fitawek and Kalaba, 2016](#)). With an export tax on raw materials, local leather manufacturers ought to purchase raw leather and manufacture them into final goods for domestic and international

consumption (UNIDO, 2009).

Fitawek and Kalaba (2016) study the effects of this export tax on raw hides and skins (in 2008) and semi-finished leather goods (in 2012) on Ethiopian leather manufacturers’ productivity and exports. The authors have found that there has indeed been a mass-shift of Ethiopian exports from unfinished to finished leather products. Figure 3.2 highlights this.

Indeed, from the implementation of the export taxes (in 2008 and 2012), there has been a clear shift in the makeup of Ethiopian leather exports from unfinished to finished products.

Figure 3.2 – Ethiopian Leather Exports by Type

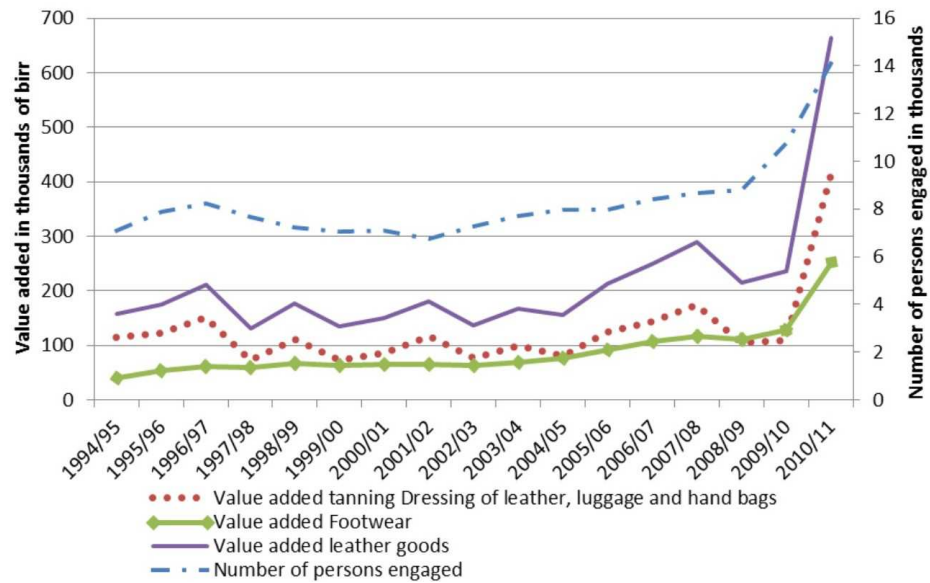


Source: Fitawek and Kalaba (2016).

The 2014 export revenues of finished leather products far exceed revenues from raw hides and skins in the previous two decades, showing great policy success in the promotion of leather manufacturers. Fitawek and Kalaba (2016) show that the tax and export growth thereafter mainly arises from both competitiveness and market-size effects. This competitiveness effect is further studied in Abebe and Schaefer (2015). A take-off in value-added in the leather manufacturing industry is clearly demonstrated in Figure 3.3.

Siba and Gebreeyesus (2014) further explore leather manufacturers’ productivity of firms that export. While controlling for productive firms that will self-select into exporting, they find that, simply by exporting, firms enhance productivity by 8-19 percentage points per annum. So too do exporting firms benefit from ‘exporting hysteresis’, whereby they are more likely to continue to export in the future (Siba and Gebreeyesus, 2014). Indeed, the export-promotion strategy seems to be working: learning-by-exporting is clearly underway, as the authors demonstrate, for which sustainable growth benefits are anticipated – a clear goal set out in GTP I and II.

Figure 3.3 – Value-Added in Ethiopian Leatherwear

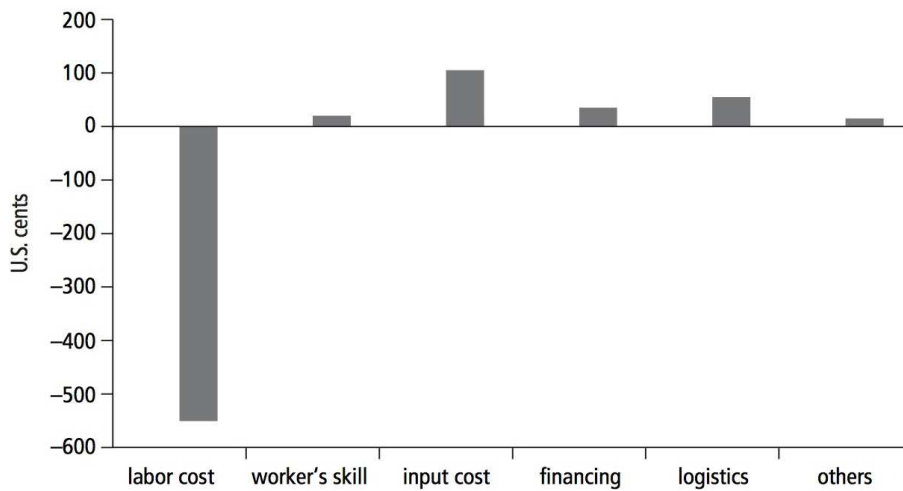


Source: Abebe and Schaefer (2013).

Yet, a recent study with a firm-level dataset of leatherwear small and micro enterprises has shown that certain government intervention may be having adverse effects. Getahun (2016) studies small and micro enterprises, previously established in Merkato, that chose to re-locate to government-subsidised buildings outside of the endogenously formed cluster in Merkato. Such government policy has been dubbed ‘relocated clusters’ (see Ali, 2012).

Getahun’s finding is that those relocated enterprises have lower productivity and growth than those that remained in Merkato. While these results ought to be treated with conservatism (given the endogeneity problem of potentially less-successful firms self-selecting into the government-sponsored initiatives), it highlights that relocation cluster initiatives have not worked for smaller firms.

Furthermore, despite clear growth of the sector in terms of employment, output, productivity, exports and earnings, the leatherwear cluster in Ethiopia is far from the eventual globally-renown cluster that the EPRDF envisions. The US\$130 million exports in leather products in 2014 (Fitawek and Kalaba, 2016) is very small compared to Vietnam’s US\$2.3 billion exports (Dinh et al., 2012), and miniscule in comparison with China’s US\$76.4 billion (CLIA, 2016). This is despite a 12 and 37 percent production cost advantage over the two countries respectively, and that an Ethiopian worker will produce as many similar shoes of equal quality as a Vietnamese worker (and 80% of the Chinese worker’s level) (Dinh et al., 2012). Figure 3.4 demonstrates the Ethiopian production costs of shoes compared to China.

Figure 3.4 – Relative Shoe Production Costs

Source: [Dinh et al. \(2012\)](#).

On a global scale, therefore, the leatherwear cluster needs continuation of the significant growth it has experienced. Scale and expansion cannot be invoked overnight, yet still the Ethiopian government and leatherwear producers need to make continued progress. Recommendations to unleash Ethiopia's potential revolve mainly around accessing quality processed leather – this could require increased government presence in the intermediary phase from farm to factory and increased importation of high quality skins.

[Dinh et al. \(2012\)](#) claim that poor disease control and weak veterinary services account for much of the quality issues. A [USAID \(2013\)](#) study has shown that a relatively low-cost (US\$10 million) animal vaccination programme could reduce animal infestation rate from 90 to 5 percent, for example. So too do local tanneries require increased investment and importation of skins to form which to learn in order to increase quality of processed hides to be sold to leatherwear manufacturers ([Kebede et al., 2011](#); [Dinh et al., 2012](#)).

Both these issues revolve around Porter's original assertion that Related and Supporting Industries to the cluster are also of crucial importance for the cluster's growth and development ([Porter, 1990](#)).

3.3 The Floriculture Cluster

Unlike the leatherwear cluster, the floriculture cluster is young and was not even present in the earliest national Development Strategy. The first floricultural farms set up in 1993, both Ethiopian-owned. Despite near-ideal conditions for floriculture to grow (high terrain, temperate climates), neither firm was able to significantly grow or export ([Belwal and Chala, 2008](#)). Indeed, the Agricultural Development Led Industri-

alisation vision made no mention of floriculture, and neither the floriculture included in the Export Promotion Strategy of 1998 (Gebreyesus and Iizuka, 2010).

The pioneering company, Golden Rose, was a British-owned firm that had failed to win other investment opportunities in Ethiopia, and took the advice of a consultant that rose flowers provided great promise in a region approximately 50km west of Addis Ababa (Gebreyesus, 2014a). In 2000, Golden Rose began exporting and several domestically-owned early imitators began producing and exporting from 2001 onwards. Again, it was at this point that the government noticed the potential for a hidden cluster in floriculture, given the natural *Factor Conditions* and *Firm Strategy, Structure and Rivalry* that were beginning to flourish. So too is horticulture highly labour intensive and therefore a route to extensive job creation (Staelens *et al.*, 2014). Accordingly, the floriculture industry received specific attention in the Sustainable Development and Poverty Reduction Plan (2002-2005) and onwards.

3.3.1 Policies Used

The Welmera Cluster is found to the west of Addis Ababa. As with leatherwear, the EPRDF specified several areas vital for targeting. Again: spatial, financial, cluster organisation, and human capital policies will be considered before evaluating them.

Spatial Policy – From 2002 onwards, land was offered at under US\$20 per hectare (very cheaply), and leasing payments were scheduled for over 20 years, reducing the financial burden for business owners. This was specifically targeted near to Addis Ababa airport. Indeed, unlike leather goods, demand for cut-flowers is almost exclusively international (Belwal and Chala, 2008), so the role of spatial policy also coincides greatly with Ethiopian transport policy for the exportation of cut-flowers (evidently with a short shelf-life). Indeed, during the early years, transportation of flowers was only available on the very limited cargo space on very few Ethiopian Airlines and Lufthansa flights (Gebreyesus and Iizuka, 2010). The expansion of Ethiopian Airlines, whilst obviously providing many benefits, plays a major role in the exporting feasibility for cut-flower exporters, and now offers 6-10 weekly flights to Amsterdam and Liège (van der Wall, 2015).

Financial Policy – Again, as with the leatherwear firms, entrepreneurs in the floriculture sector are able to access cheap credit from the Development Bank of Ethiopia following the aforementioned 70:30 debt-equity rule (Abebe and Schaefer, 2013). No collateral requirements were put in place (Gebreyesus, 2014b) and so too was the fixed interest rate (at 7.5%), which has been essentially negative in real terms as inflation has stayed consistently above this rate for 10 years plus (besides a

brief period of deflation in late 2009) (Central Statistics of Ethiopia, 2017). Additionally, imports of inputs are duty free, no tax is paid on inputs purchased domestically, and flowers are exempt of export tax (Belwal and Chala, 2008).

Cluster Organisation Policy – The Ethiopia Horticulture Producers and Exporters Association (henceforth EHPEA) was a privately-founded organisation between five firms in 2002. It was founded in the hope of addressing the government with their collective wants and lobbying to have them met (Gebreeyesus and Iizuka, 2010). It is clearly vindicated by the government, since the state established the Ethiopian Horticulture Development Agency in 2007 to work in harmonious operation with it (Schaefer and Abebe, 2015). Furthermore, the Chairman of EHPEA was invited to help in the formulation of the first 5-year Development Plan, which importantly now focused towards floriculture (Gebreeyesus and Iizuka, 2017). Together, this private-public partnership has grown significantly in its role: it has enforced the adoption of the international code of conduct across the industry, has attracted strong connections from international aid agencies, hosted horticultural fairs, and created partnerships with international institutions for capacity building and training (Staelens *et al.*, 2014).

Human Capital Policy – Technology and skills pertinent to the horticulture sector in Ethiopia were imported and learnt from abroad. In the early formation of the cluster, the few international firms imported machinery and other equipment to boost productivity; thereafter the domestic firms followed suit (Gebreeyesus and Iizuka, 2010). Then, despite being a relatively low-skilled job, most early-entrant firms sought to hire Kenyan expatriates from Kenya who provided the skillset in flower production (Staelens *et al.*, 2014). Thereafter, as the cluster began developing, further measures were taken as a result of interactions between the government and the EHPEA. Specifically, skills and knowledge were diffused among the workforce through in-house and external training schemes: in 2007, over 80% of farms offered training schemes for their production workers, whose uptake was 70% (Gebreeyesus and Iizuka, 2010). Government further works alongside the EHPEA to construct a strong code of conduct (relevant to international standards) and to teach those employed accordingly. Furthermore, State Universities now offer several BSc. and MSc. degrees in floriculture, and have established further links with European educational institutes upon ameliorating human capital and productivity in the sector.

3.3.2 Evaluation of Policies and Prospects for Industry

The policies explored have been introduced with the scope of promoting the productivity of the sector in the localised clusters and the

exportation of cut-flowers. As with the previous leatherwear cluster, evaluation of the above policies, with respect to these goals, will now be evaluated.

Cluster Effects – As mentioned, unlike the medium and large leatherwear cluster – which was an industry targeted from the outset by the government –, the floriculture cluster began blossoming from private entrepreneurial activity. Indeed, using Hausmann and Rodrik's (2002) 'discovery phase' terminology, the process of revealing a potential competitive advantage was undertaken by private actors, not originally by government. The discovery, for which Golden Rose is accredited, that Ethiopia provides prime flower cultivating land then incentivised 'follower firms' to relocate in the proximity (Staelens *et al.*, 2014). Already Marshallian externalities were becoming present as firms began labour pooling, sharing technology and benefitting from knowledge spillovers.

Initial private action and late government awareness of the sector's potential does not mean that the government's role has been negligible, however. Indeed, the sector's potential only began to be realised when the government began interacting with and co-creating policy for the floriculture firms. Between 1998 and 2002, the number of firms increased from 2 to 3; yet in the four years post-government action, the number of firms grow from 3 to 53 (Gebreyesus and Iizuka, 2017). Government policy was vital in several aspects for the growth of the sector. Firms were successfully incentivised to collocate near to the airport: it has been shown that producers in the cluster have significantly lower transport times to the airport, which again has led to lower costs and higher profits for firms in the cluster (Mano and Suzuki, 2013). The offer of cheap credit from the Development Bank of Ethiopia saw an increase in use of the 70:30 offer by over 50% for foreign-owned firms, and by one third for the domestic firms between 2007-2010. In 2010, "one in three flower investments in Ethiopia appears to be directly financed by the DBE" (Schaefer and Abebe, 2015: 31). Mano *et al.* (2011) also highlight that government-induced clusters provided statistically significant positive effects on the development of the labour market. Indeed, the sector's "miraculous growth [...] may not have been realised without the strong support of the government" (Mano *et al.*, 2011: 1170).

Productivity and Export Effects – Just as growth in the number of floriculture firms grew exponentially after government intervention, so too did the export value of cut-flowers. From 1998 to 2002, value of exports increased from \$0 to \$19,442; in the following 4 years, this had reached \$69 million. Growth of exports has not stopped since then, and in 2015, value of cut-flower exports reached \$662 million (see Figure 3.5).

Figure 3.5 – Ethiopian Exports of Floriculture

Source: UN-COMTRADE (2017).

Qualitative research, undertaken in [Mano and Suzuki \(2013\)](#), reveals that firms agglomerated in the cluster share more technical knowledge and market information through personal interactions – one of the Marshallian externalities. Collective efficiency (*à la* [Schmitz, 1999](#)), is also achieved through agglomerated firms taking joint action: agglomerated firms share information on market prices and optimal choice in selection of rose variety. So too are forwards-backwards linkages reported more in the cluster, and labour-pool matching is superior ([Mano and Suzuki, 2013](#)). The three Marshallian externalities are thus fulfilled for business-owners in the cluster.

Quantitatively, the authors go on to test the effects of being located in the cluster on the productivity and profitability of the firms. Farms in the cluster produce flowers with 50% higher values, average sales revenue per worker increased by 91%, and average value-added per worker increased by 210%, all statistically significantly ([Mano and Suzuki, 2013](#)). Indeed, the authors confirm presence and benefits from being located in the floriculture cluster, and find evidence for all Marshallian externalities.

Additionally, cooperation between the members of the EHPEA and the government institutions have positively enabled the convergence to international codes of practice in the industry ([Gebreyesus, 2014b](#)). The paper econometrically confirms that firms located in the cluster are more likely to comply to international standards, which in turn has a positive causal association with being more productive and exporting, providing “*evidence of a positive urban agglomeration effect*” ([Gebreyesus, 2014b: 27](#)).

Finally, using data from extensive interviews from stakeholders, [Belwal and Chala \(2008\)](#) reveal that FDI has also played a significant role in the sector, with again collaboration between industry and gov-

ernment in attracting and welcoming it. Described as a ‘major catalyst’ for the industry’s remarkable success, the authors also go on to credit government support and the functioning of the EHPEA.

4. An Evaluation of Ethiopian Industrial Policy

In evaluating the clear attempts of Ethiopian industrial policy, three main aspects will be considered.

- *First*, what role did government play in the development of the studied clusters?
- *Second*, which approach did government take in promoting the industries (with respect to the previous Section’s *laissez-faire*/light-handed/heavy-handed analysis)?
- And *finally*, what lessons can Ethiopia and other developing countries learn from Ethiopia’s experimentation with industrial policy?

4.1 Role of Government

That government played a role in the agglomeration of floriculture and leatherwear producers into clusters, and, that being located in a cluster has a positive effect on a firm’s productivity and exports are both difficult to refute. Yet, the true size of government’s effect is more difficult to measure: would the government not choose to form a cluster in the area with, to the best of its knowledge, optimal land for cultivation/production? If so, on the macro side, regressing x (‘firm located in cluster’) on y (‘productivity/exports etc.’) would suffer from omitted variable bias. This ought not to discourage policymakers however, instead the hypothesis should be: do firms located in a well thought-out cluster perform better than those that don’t? Now, regressing x (‘firm located in government-determined cluster’) on y (‘productivity/exports etc.’) would no longer suffer from this omitted variable bias. In response to the updated hypothesis on the Ethiopian case, the answer would generally be ‘yes’.

While cluster initiatives in the floriculture and large leatherwear producers’ clusters have been shown to have positive effects, it is undeniable that government intervention caused also some adverse effects. On the micro side, moving small enterprises away from ‘naturally-formed’ Merkato small producer cluster has generated negative effects on these re-located firms (Getahun, 2016). Yet, all firm-level studies are subject to selection into treatment bias.

Another issue, however, is that of reverse causality. Does government choose to set-up cluster initiatives where already-productive firms already functioning? Given that, by definition, cluster policymaking is a non-random process, it seems impossible to credibly calculate a causal

effect of cluster policy on firm productivity/exports, which explains the lack of such in the literature (Mano and Suzuki, 2013). Unlike studies in micro-development economics where randomised control trials can be used to test policy (of the provision of school uniforms on educational outcomes; a certain medicine upon health; or the provision of micro-credit to business growth, for example), the very nature of macro-economic policymaking – incorporating large areas, sectors of the economy and populations – denies this possibility. Accordingly, economists and policymakers must use descriptive statistics, inference and analytical skills to judge the effect of public initiatives for clusters.

The leatherwear and floriculture clusters provide strong cases of government-induced clustering policy: large firms in southern Addis Ababa provide an example of a government-induced location for the cluster from the outset. So too was land offered cheaply for floriculture producers in a specified zone, both of which are viewed as successful policymaking, and both of which are shown to generate positive effects on production and exportation when located in the clusters (Schaefer and Abebe, 2015). Potentially, therefore, while the exact extent of how industrial policy affects productivity growth of the explored industries is hard to pin-down, it is difficult to refute that Ethiopian industrial policy has had largely positive effects. Both the descriptive statistics and qualitative evidence explored above show that government policy has helped the development of said industries. So too do the economic analyses in the clusters studied purport that important measures (such as productivity and exports) are significantly greater in clusters that *i*) involve significant public-private interaction; and *ii*) have been originally founded by private actors.

4.2 Approach of Government

Subsequently, the experiences of industrial policy in Ethiopia point towards the ‘light-intervention’ approach to cluster policymaking explored in a previous Section (see § 2). In the cases studied, when government has tried to relocate clusters of pre-determined products in new locations, its effects have been less successful. The attempts at relocation of small and micro leatherwear enterprises offers evidence to this assertion.

Another example of such would include the government-implemented cluster policy in the pre-nascent metal and engineering industry in Ethiopia. Gebreeyesus (2014a) uncovers that attempts at industrial promotion of metal and engineering industries in Ethiopia are far from successful. Having very little presence in the Ethiopian economy prior to the 2006, attempts to grow the sector have largely failed. His insight suggests that while the floriculture and leatherwear industries have been export-oriented, the metal and engineering industry has

been import-substituting. This inward-looking strategy, despite showing great success historically in the industrialisation of the UK, USA and China (see [Chang, 2005](#)), is criticised for two main reasons. *Firstly*, the Ethiopian economy is too small to reap the generate any rewards from ISI (see [Franko, 2007](#)); and *secondly*, the world is far more globalised today than in previous decades/centuries, and accordingly distancing oneself from trading chains will only harm the economy (see [Frankel and Romer, 1999](#)).

It can also be argued that certain policies in the leatherwear sector have been too ‘heavy-handed’ (see § 2.3). Relocating an already-functioning cluster of small and micro producers may have harmed them. Instead creating policy coordinated with producers already in the Merkato cluster has proved beneficial. High levels of connectivity, trust and linkages are difficult to generate with public policy – especially for micro-enterprises that already function in a cluster ([Porter 2000](#)). Accordingly, spatial policy should not focus on relocation for small enterprises, but instead on providing access to credit, infrastructure, the functioning of markets, and development of human capital. These suggested policies would align with the *laissez-faire* literature on promotion of clusters. Yet, of great importance, interaction between the public and private sector should also be pursued – thus the ‘light intervention’ approach has shown to work optimally for small producers.

So too have similar proactive cluster policies have proved extremely beneficial for the larger producers of both floriculture and leatherwear on the outskirts of Addis Ababa. Of greater importance, these large producers are the firms that account for the extensive growth in productivity and exports – the aims of the industrial policy and the drivers of the boom in both industries. Despite the great differences in the production processes of the products, the industries have undergone similar policy processes with resounding success.

The two major differences between the larger-firm clusters are: *i*) that the zone for the floriculture cluster was essentially dictated by climatic conditions; and *ii*) that the export tax applied to raw hides and skins was applicable only to the leatherwear sector so as to promote the manufacturing of (and adding value to) the raw materials for sectorial and economic growth (obviously flowers have no intermediate inputs and thus no tax could be applied). Apart from these distinct differences – biological necessity and raw material protection – that are applicable only to the respective industries, the successful development of both clusters had resounding similarities.

Indeed, the structural transformation – stimulation of industry and discovery of non- traditional, high value agriculture – experienced in the two case studies have been driven primarily by the coordination of the policymaking process due to the interaction of private and public bodies in both clusters. Alongside good generic policy on health, educa-

tion, and infrastructure, sector-specific policy has been vital (Gebreeye-sus and Iizuka, 2010). Selecting industries that showed great signs of promise and coordinating policy between the private representative body and the government resources dedicated to interactions resulted in policies such as: the offering of subsidised credit, the development of industry-specific trainings and international partnerships, directed transport links to access international markets, the attraction of FDI in the industries, the hosting of international events, and coordination between domestic producers and international buyers. These policies, therefore, point more towards the ‘light interaction’ methodology explored in the previous Section (see § 2.2) and general literature.

When, therefore, government responds to and works alongside the pre-existing private actors in the sectors with the flexibility to coordinate policy with representative bodies for the private actors in the cluster, the results have been far more successful. This insight would thus agree with Lucas’ (1988) insight that ‘picking winners’ is indeed no easy task. Yet it would also reaffirm Hausmann and Rodrik’s (2002: 38) conjecture that:

«An open-minded, experimental approach, together with a penchant for evaluation to ascertain what is working and what is not, is more likely to produce structural transformation than an approach that relies on first principles or best-practice blueprints imported from elsewhere.»

4.3 Lessons from the Experience

On the one hand, the Ethiopian authorities have many lessons to learn from their practice of industrial policy. Neither are the prospects clear for each explored cluster and for further industrial policy in the country. On the other hand, international observers – other developing states seeking growth; and international organisations and developed states, both of which are involved in the global development agenda – can take great insight from the ongoing experience in Ethiopia.

4.3.1 Lessons and Prospects for Ethiopia

Without needing to reiterate the policies and their successes, whether the industries have been fully successful is still another question. Financial constraints and lack of technical know-how are the biggest issues faced by both leatherwear producers and floriculture firms (Ali *et al.*, 2016). Annual leatherwear export sales – currently around US\$200 million – are still far behind their 2020 goal of US\$800 million; while floriculture exports are closer, yet still US\$ 170 million behind their export target (GTP II, 2016). Neither cluster, therefore, is yet to fulfil its potential, and so too has government made policy mistakes. The government also seems limited in its capacity to enforce all policy measures, this has come at a cost to the growth of all preferential sectors

in Ethiopia (Abebe and Schaefer, 2013).

Yet, Gebreeyesus (2014a: 1) rightly reminds that “*learning from past experiences is an inevitable process of policymaking*”. For the leatherwear cluster, particular emphasis has been placed on the poorly-incentivised suppliers of raw hides and skins, and low productivity in leather tanneries (Altenburg, 2010). The role of Related and Supporting Industries in Porter’s (1990) original work on clusters is vital. Here, the first and second stages of the leather production process are hampering the effectiveness in the actual manufacturing of processed leather to final goods. Policies that local authorities should thus consider include the conglomeration of raw hides and skins producers and tanneries as they are often unorganised and operate outside the formal sector (Abebe and Schaefer, 2013); and, linked to this, government should aid the price signalling process to behavioural changes of farmers, as hides and skins are still viewed with secondary importance (Altenburg, 2010). Indeed, a more global view of the entire value-chain process – instead of overly-focusing on the final stage – of leatherwear production should reap rewards to all stakeholders in the production process.

For the floriculture sector, policies and results have run more smoothly. This could well be because there are simply fewer stages of production and interactions in the cluster (Hailu, 2010). Alongside government and each other, floriculture firms follow a basic process of grow, collect, sell, and transport. Yet, headwinds may face this sector. *Firstly*, floriculture prices are less stable than manufacturing goods (IMF, 2016). Unstable and unpredictable revenues for businesses and tax collectors – the ‘resource curse’ (Sachs and Warner, 1995) – is a problem renown in developing countries with advantages in primary goods (Collier, 2007). *Secondly*, the floriculture industry in Ethiopia also naturally limited by itself: Ethiopia already produces world-renown quality flowers. While there is room for productivity growth – upgrading labour and capital efficiency – and expansion for total output of flowers, both are finite. With manufacturing goods, there are many complementary and more advanced goods to diversify into: technology is more innovative and the variety of goods becomes infinite (Furman *et al.*, 2002). Over-dependence on floriculture – whilst the most successful case of cluster initiatives in Ethiopia – will thus come at a long-term cost.

4.3.2. Lessons for International Observers

The insights from the case studies are plentiful, yet one must be wary of generalisation: successes and failures from the cases of two clusters cannot be considered recommendations and warnings for all potential sectors in all developing countries. The marked move-away from the ‘Washington Consensus’ has nonetheless proven substantially beneficial in the Ethiopian case. Furthermore, certain parallels from the

Ethiopian case run alongside the experiences of other countries.

In both cases, cluster policy has been most successful when policy has been welcoming of and responsive to entrepreneurialism. The near century-old leatherwear industry and discovery of competitive advantage in floriculture were originally founded by private actors. Government-induced relocation and/or establishment of new clusters from a top-down approach has proven more difficult. Instead, government policy acting in coordination with representative bodies of industry has enabled the exponential growth of the sectors in recent years. Industrial policy – again, the promotion of industry and non-traditional agriculture or services – has shown, in the Ethiopian case, that there should be light/directed intervention alongside general macro-economic stimuli. That is, while governments should promote stable inflation, be open to FDI, promote human capital and so on, they should also promote targeted industry: promoting entrepreneurialism, localising industry, and coordinating policy with promising industry representative bodies. This insight runs parallel with general theory (Hausmann and Rodrik 2002, 2006; Pack and Saggi, 2006) and experiences of several developing countries (Chang, 2005; Rodrik, 2006; Collier, 2016; Gebreyesus and Iizuka, 2017).

As per Hausmann and Rodrik (2002), the level of uncertainty of what a country may be good at producing is great, thus a top-down government dictation of industry and location will likely fail. That the relocation of some micro firms away from the existing Merkato has failed emphasises this insight. Thus, governments in the developing world should promote the ‘self-discovery’ process through entrepreneurial and policy experimentation (Gebreyesus, 2013). Rodrik (2004: 3) concisely asserts:

«The right model for industrial policy is not that of an autonomous government applying Pigovian taxes or subsidies, but of strategic collaboration between the private sector and the government with the aim of uncovering where the most significant obstacles to restructuring lie and what type of interventions are more likely to remove them is critical»

Supporting industries that eventually fail to grow substantially is also seen as part of the process in this ‘light intervention’ approach to industrial policy. It should therefore be seen as an experimental process of trial and error. The lack of success in the metal and engineering cluster attempts should not deter foreign governments or international development organisations, as the successes of floriculture and leatherwear have grown and outweighed the failure extensively. Government and International policy should therefore seek to aid the ‘discovery process’ by offering cheap credit for entrepreneurial activities and then coordinating policy with new and existing clusters to overcome both the positive discovery and informational externalities respectively. This is

on top of the typical *laissez-faire* macro suggestions of infrastructural development, investment in human capital, openness to FDI, and stability of the macro-economy (IMF, 2016).

Accordingly, three principles are therefore emphasised for optimal state-business relations and coordination in clusters. *Firstly*, policy cannot be based upon an impossibly omniscient government. Instead, policy should be based on flows of information from interactions with private actors. Indeed, embeddedness must bring the government closer to the private sector (Evans, 1995). *Secondly*, while this embeddedness is a source of information, it also raises rent-seeking issues. This requires the promotion of discipline in the policy: “*explicit targets and objectives, monitoring and evaluation, and support phase-outs*” are all suggested in Gebreyesus (2014a). *Finally*, public-private relations transparent and accountable to the society at large (Rodrik, 2013).

5. Conclusive Remarks

This paper seeks to highlight insights from international economic theory to reveal that cluster policy – which has received increased attention in academia and amongst policymakers – can theoretically justify public intervention for developing countries in pursuit of growth. Importantly, this ‘new’ industrial policy does not entail generic attempts to boost national aggregate industrial output, but instead considers localised manufacturers and non-traditional agricultural and service sectors, functioning in coordinated clusters. Accordingly, the economics and management perspectives on clusters and cluster policies were addressed and their implications highlighted.

Thereafter, the literature review considered the highly-debated role of government in the promotion of said clusters: the *laissez-faire*, light intervention, and heavy intervention approaches were presented.

Then case studies of the Ethiopian leatherwear and floriculture clusters were undertaken. Despite the great differences between the industries and a level of disparity in their respective successes, similarities and lessons from the experiences have been acknowledged. The cases provide further evidence for promoting the ‘new’ industrial policy for developing countries. That is, manufacturers may not need be *per se* the sole recipients of industrial policy. Instead, value-added clusters that harness a combination of local factors and sector potential with local and global demand trends seem highly worthy of policy attention.

For Hausmann and Rodrik (2002), government policy should firstly promote entrepreneurial activity to harness the positive externalities associated with the discovery of successful industries, and secondly to create interaction between the public and private sectors in order to harness the positive informational externalities for when a cluster is

functioning. This non-stringent perspective allows for experimentation and evolution of public policies, which should be flexible and seeing to the needs of the industry.

The cases studied in Ethiopia confirm that policy should seek to promote the co-location of producers around a privately-initiated area of a privately-selected product. So too have Ethiopia's extensive provision of credit and other financial incentives for said producers, promotion of pertinent human capital development, attraction of FDI, conformity to international standards, and importantly, the creation of a public body with policymaking power that interacts with private actors, all proven vital and successful public interventions. The paper thus aligns with the 'light intervention' theoretical approach conceptualised in [Hausmann and Rodrik's \(2002\) 'Economic Development as Self-Discovery'](#).

The paper also conforms with several important applied papers that have studied Ethiopian industrial policy in said sectors ([Gebreeyesus, 2013; 2014a; 2014b; Gebreeyesus and Iizuka, 2010; 2017; Priewe, 2016](#)). Specifically, the Ethiopian take-off in growth can largely be accredited to the 'heterodox' industrial policies that it has implemented in the last 15 years. Nonetheless, potential headwinds loom for Ethiopia. The current drought has caused significant drains on agriculture producers, and more importantly, has cost human life. Diversification away from traditional agricultural goods will not only help to protect against such harsh events, but will also promote more sustainable long-run growth ([Assefa and Gedefe, 2014; Tesfay, 2015; Priewe, 2016](#)). Ethiopia has shown that 'new' industrial policy can foster sustained economic growth; structural transformation is achievable, even in the world's poorest regions.

References

- Abbink, J. (2010), "Ethiopia-Eritrea: Proxy Wars and Prospects of Peace in the Horn of Africa". *Journal of Contemporary African Studies*, Vol. 21, No. 3, pp. 407-426
- Abebe, G. and F. Schaefer (2013), *High Hopes and Limited Successes: Experimenting with Industrial Policies in the Leather Sector in Ethiopia*. Ethiopian Development Research Institute, EDRI Working Paper, No. 011.
- Aghion, P., and Howitt, P. (1998), *Endogenous Growth Theory*. Cambridge (MA): MIT Press.
- Ali, M. (2012), *Government's Role in Cluster Development For MSEs: Lessons From Ethiopia*. CMI Report, No. 2/2012.
- Ali, M., Godart, O., Görg, H. and Seric, A. (2016) *Cluster Development Programmes in Ethiopia: Evidence and Policy Implications*. Kiel Institute for the World Economy, UNIDO Project: "National Cluster Development Framework for Ethiopia".
- Altenburg, T. (2010), *Industrial Policy in Ethiopia*. German Development Institute, Discussion Paper No. 2/2010.
- Altenburg, T. (2015), *Industrial Policy in Developing Countries: Failing Markets, Weak States*. Cheltenham, UK: Edward Elgar Publishing.
- Andersson, T., Serger, S.S., Sörvik, J., and Hansson, E.W. (2004) *The Cluster Policies Whitebook*. Malmö: The International Organisation for Knowledge Economy and Enterprise Development.
- Assefa, B. and Gedefe, K. (2014), *An Economic Inquiry into Ethiopian Exports: Pattern, Characteristics, Dynamics and Survival*. Ethiopian Development Research Institute, EDRI Working Papers, No. 14/2014.
- Auty, R. (2002), *Sustaining Development in Mineral Economies: The Resource Curse Thesis*, New York and London: Routledge.
- Barro, R.J. and Sala-i-Martin, X. (2004), *Economic Growth*. Cambridge (MA): MIT Press.
- Belleflamme, P., Picard, P. and Thisse, J.F. (2000), "An Economic Theory of Regional Clusters". *Journal of Urban Economics*, Vol. 48, No. 1, pp. 158-184.
- Belwal, R. and Chala, M. (2008), "Catalysts and Barriers to Cut Flower Export: A Case Study on Ethiopian Floriculture Industry". *International Journal of Emerging Markets*, Vol. 3, No. 2, pp. 216-235.
- Benner, M. (2013), *Cluster Policy in Developing Countries*, MPRA Working Paper, No. 44257.
- Bigsten, A., Gebreeyesus, M. and Söderbom, M. (2008), *Agglomeration Effects in Ethiopian Manufacturing*, Background Paper, UNIDO Industrial Development Report 2009, Gothenburg: University of Gothenburg.
- Bosker, M., Brakman, S., Garretsen, H. and Schramm, M. (2008), "A Century of Shocks: The Evolution of the German City Size Distribution 1925-1999". *Regional Sciences and Urban Economics*, Vol. 38, No. 4, pp. 330-347.
- Brakman, S. and van Marrewijk, C. (2012), *Reflections on Cluster Policies*, CE-

- Sifo Working Paper, No. 3963.
- Brühlhart, M. and Torstensson, J. (1996) *Regional Integration, Scale Economies and Industry Location*, Centre for Economic Policy Research, Discussion Paper, No. 1435,
- Central Statistics Agency of Ethiopia (2017), *Inflation Rate, 10 Year Trend*, Addis Abeba.
- Chang, H.J. (2005), “Policy Space in Historical Perspective – with special reference to Trade and Industrial Policies”. *Economic and Political Weekly*, Vol. 41, No. 7, pp. 627- 633.
- Collier, P. (2007), “Africa’s Economic Growth: Opportunities and Constraints”. *African Development Review*, Vol. 19, No. 1, pp. 6-25.
- Collier, P. (2016), *Growth and Sustainability in Developing Countries*. Lecture to Master in International Affairs, Institut d’Études Politiques de Paris.
- Collier, P. and Venables, A.J. (2007), “Rethinking Trade Preferences: How Africa Can Diversify its Exports”. *The World Economy*, Vol. 30, No. 8, pp. 1326-1345.
- Cypher, J. (2014), *The Process of Economic Development*. 4th edition, London: Routledge.
- Davis, D.R. and Weinstein, D.E. (2001), *Market Sizes, Linkages, and Productivity: A Study of Japanese Regions*. NBER Working Papers, No. 8518.
- Davis, D.R. and Weinstein, D.E. (2003), “Market Access, Economic Geography, and Comparative Advantage: An Empirical Test”. *Journal of International Economics*, Vol. 59, No. 1, pp. 1-23.
- Den Hertog, P., Leyten, J., Limpens, I. and Whalley, J. (1999), *Approaches to Cluster Analysis and its Rationale as a Basis of Policy*. Literature Review for the RISE Project, CENTRIM: University of Brighton.
- Dinh, H.T., Palmade, V., Chandra, V. and Cossar, F. (2012), *Light Manufacturing in Africa: Targeted Policies to Enhance Private Investment and Create Jobs*. World Bank Publications: Washington D.C.
- Durantón, G. (2011), “California Dreamin’: The Feeble Case for Cluster Policies”. *Review of Economic Analysis*, Vol. 3, No. 1, pp. 3-45.
- Durantón, G., Martin, P., Mayer, T. and Mayneris, F. (2010), *The Economics of Clusters: Lessons from the French Experience*. Oxford: Oxford University Press.
- Evans, P.B. (1995) *Embedded Autonomy: States and Industrial Transformation*. Princeton: Princeton University Press.
- Fitawek, W.B. and Kalaba, M. (2016), *The Role of Trade Policy in Ethiopia’s Leather Industry: Effect of Export Tax on Competitiveness*. 5th International Conference of the African Association of Agricultural Economists, Sept. 23-26, 2016, Addis Ababa.
- Foster, V. and Morella, E. (2011), *Ethiopia’s Infrastructure: A Continental Perspective*. World Bank Policy Research, Working Paper, No. 5595.
- Frankel, J. and Romer, D., (1999) “Does Trade Cause Growth?”. *American Economic Review*, Vol. 89, No. 3, pp. 379-399.

- Franko, P.M. (2007), *The Puzzle of Latin American Economic Development*. Lanham: Rowman and Littlefield.
- Fujita, M. and Thisse, J.F. (1996), "Economics of Agglomeration". *Journal of the Japanese and International Economies*, Vol. 10, No. 4, pp. 339-378.
- Fujita, M. and Thisse, J.F. (2002), *Economics of Agglomeration: Cities, Industrial Location, and Globalization*. Cambridge: Cambridge University Press.
- Fujita, M. and Thisse, J.F. (2013), *Economics of Agglomeration: Cities, Industrial Location, and Globalization*. Cambridge: Cambridge University Press.
- Furman, J.L., Porter, M.E. and Stern, S. (2002), "The Determinants of National Innovative Capacity". *Research Policy*, Vol. 31, No. 6, pp. 899-933.
- Gebreeyesus, M. (2013), *Industrial Policy and Development in Ethiopia: Evolution and Present Experimentation*. UNU-WIDER Working Paper, No. 6.
- Gebreeyesus, M. (2014a), *A Natural Experiment of Industrial Policy: Floriculture and the Metal and Engineering Industries in Ethiopia*. WIDER Working Papers, No. 163.
- Gebreeyesus, M. (2014b), *Firms Adoption of International Standards: Evidence from the Ethiopian Floriculture Sector*. UNU-MERIT Working Papers, No. 007.
- Gebreeyesus, M. and Iizuka, M. (2010), *Discovery of the Flower Industry in Ethiopia: Experimentation and Coordination*. UNU-MERIT Working Paper, No. 025.
- Gebreeyesus, M. and Iizuka, M. (2017), "Using Functions of Innovation Systems to Understand the Successful Emergence of Non-Traditional Agricultural Export Industries in Developing Countries: Cases from Ethiopia and Chile". *The European Journal of Development Research*, Vol. 29, No. 2, pp. 384-403.
- Gebreeyesus, M. and Mohnen, P. (2013), "Innovation Performance and Embeddedness in Networks: Evidence from the Ethiopian Footwear Cluster". *World Development*, Vol. 41, pp. 302-316.
- Getahun, T.D. (2016), *The Effect of Industrial Cluster Policy on Firm Performance in Ethiopia: Evidence from the Leather Footwear Cluster*. The Centre for Development Research, ZEF Discussion Papers on Development Policy, No. 208.
- Glaeser, E.L., Laibson, D. and Sacerdote, B. (2002), "The Economic Approach to Social Capital". *The Economic Journal*, Vol. 112, No. 483, pp. 437-458.
- Government of Eritrea (1993), *Eritrea: Birth of a Nation*. Asmara: Government of Eritrea Publishing
- Hailu, H.K. (2010), *Success Factors in Micro and Small Enterprises Cluster Development: Case of Gullele Handloom Clusters in Ethiopia*. Research Report, Pretoria: University of South Africa.
- Hanson, G.H., (1994), *Regional Adjustment to Trade Liberalisation*. NBER Working Papers, No. 4713.
- Hanson, G.H. (1997), "Increasing Returns, Trade, and the Regional Structure of Wages". *Economic Journal*, Vol. 107, No. 440, pp. 113-133.

- Harrison, B. (1992), "Industrial Districts: Old Wine in New Bottles?". *Regional Studies*, Vol. 26, No. 5, pp. 469-483.
- Hausmann, R. and Rodrik, D. (2002) "Economic Development as Self-Discovery". *Journal of Development Economics*, Vol. 72, No. 2, pp. 603-633.
- Hausmann, R. and Rodrik, D. (2006), *Doomed to Choose: Industrial Policy as Predicament*. John F. Kennedy School of Government, Cambridge (MA): Harvard University.
- Hill, M.J. (2014), *International Economic History*. Lecture to "Grau in Economia", Universitat Pompeu Fabra.
- Imrie, R. and Raco, M. (1999), "How New is the New Local Governance? Lessons from the United Kingdom". *Transactions of the Institute of British Geographers*, Vol. 24, No. 1, pp. 45-63.
- IMF (2016), *The Federal Democratic Republic of Ethiopia*. IMF Country Report, No. 322.
- Kebede, S.W., Aredo, D. and Fekadu, B. (2011), *Trade Liberalisation and Poverty: A Micro-Macro Analysis in Ethiopia*. Proceedings on the German Development Economics Conference, Berlin, No. 44.
- Krugman, P. (1991), "Increasing Returns and Economic Geography". *Journal of Political Economy*, Vol. 3, No. 99, pp. 483-499.
- Krugman, P. (2010), *New Economic Geography, Now Middle-Aged*. Association of American Geographers, 16th April 2010.
- Krugman, P. and Venables, A.J. (1995), "Globalization and the Inequality of Nations". *Quarterly Journal of Economics*, Vol. 110, pp. 857-880.
- Lenchuk, E.B. and Vlaskin, G.A (2010), "The Cluster Approach in the Innovation Development Strategy of Foreign Countries". *Studies on Russian Economic Development*, Vol. 21, No. 5, pp. 484-492.
- Lin, J.Y. (2009), *Economic Development and Transition: Thought, Strategy, and Viability*. Cambridge: Cambridge University Press.
- Lucas, R.E. (1988), "On the Mechanics of Economic Development". *Journal of Monetary Economics*, Vol. 22, No. 1, pp. 3-42.
- Lyons, T. (1996), "Closing the Transition: The May 1995 Elections in Ethiopia". *The Journal of Modern African Studies*, Vol. 34, No. 1, pp. 121-142.
- Mano, Y. and Suzuki, A. (2013), *Measuring Agglomeration Economies: The Case of the Ethiopian Cut Flower Industry*. Hitotsubashi University Repository, Technical Report, No. 04.
- Mano, Y., Yamano, T., Suzuki, A. and Matsumoto, T. (2011), "Local and Personal Networks in Employment and the Development of Labour Markets: Evidence from the Cut Flower Industry in Ethiopia". *World Development*, Vol. 39, No. 10, pp. 1760-1770.
- Marshall A. (1890), *Principles of Economics*. London: Macmillan.
- Martin, R. and Sunley, P. (2003), "Deconstructing Clusters: Chaotic Concept or Policy Panacea?". *Journal of Economic Geography*, Vol. 3., No. 1, pp. 5-35.
- Mbate, M. (2016), "Structural Change and Industrial Policy: A Case Study of Ethiopia's Leather Sector". *Journal of African Trade*, Vol. 3, No. 1-2, pp. 85-

100.

- Monga, C. (2013), "Theories of Agglomeration: Critical Analysis from a Policy Perspective". J.E. Stiglitz and J.Y. Lin, Eds., *The Industrial Policy Revolution I: The Role of Government Beyond Ideology*. London: Palgrave MacMillan.
- Navickas, V. and Malakauskaite, A. (2010), "The Impact of Clusterization on the Development of Small and Medium-Sized Enterprise Sector". *Journal of Business Economics and Management*, Vol. 10, No. 3, pp. 255-259.
- Newlands, D. (2003), "Competition and Cooperation in Industrial Clusters". *European Planning Studies*, Vol. 11, No. 5, pp. 521-532.
- Oqubay, A. (2015), *Made in Africa: Industrial Policy in Ethiopia*. Oxford: Oxford University Press.
- Otsuka, K. and Sonobe, T. (2011), *A Cluster-Based Development Policy for Low-Income Countries*. The World Bank Policy Research, Working Paper, No. 5703.
- Pack, H. and Saggi, K. (2006), "The Case for Industrial Policy: A Critical Survey". *World Bank Research Observer*, Vol. 21, No. 2, pp. 267-297.
- Page, J. (2012), "Can Africa Industrialise?". *Journal of African Economies*, Vol. 21, No. 2, pp. 86-124.
- Porter, M.E. (1990), *The Competitive Advantage of Nations*. New York: Free Press.
- Porter, M.E. (1998), *On Competition*. Boston: The Harvard Business Review Book Series.
- Porter, M.E. (2000), "Location, Competition, and Economic Development: Local Clusters in a Global Economy". *Economic Development Quarterly*, Vol. 14, No. 1, pp. 15-34.
- Priewe, J. (2016), *Ethiopia's High Growth and its Challenges: Causes and Prospects*. Institute for International Political Economy, Working Paper, No. 70.
- Puga, D. (1998), *The Rise and Fall of Economic Inequalities*. Centre for Economic Performance, Discussion Paper, No. 314.
- Putnam, R. (1995), "Bowling Alone: America's Declining Social Capital". *Journal of Democracy*, Vol. 6, No. 1, pp. 65-78.
- Redding, S. (1999), "Dynamic Comparative Advantage and the Welfare Effects of Trade". *Oxford Economic Papers*, Vol. 51, No. 1, pp. 15-39.
- Rijkers, B., Söderbom, M., Loening, J.L. (2010), "A Rural-Urban Comparison of Manufacturing Enterprise Performance in Ethiopia". *World Development*, Vol. 38, No. 9, pp. 1278-1296.
- Rodriguez-Clare, A. (2005), "Clusters and Comparative Advantage: Implications for Industrial Policy." Inter-American Development Bank *Working Paper* 523.
- Rodrik, D. (2004), *Industrial Policy for the Twenty-First Century*. Harvard University Faculty Research Working Papers Series, No. 047.
- Rodrik, D. (2006), "Goodbye Washington Consensus, Hello Washington

- Confusion? A Review of the World Bank's Economic Growth in the 1990s: Learning from a Decade of Reform". *Journal of Economic Literature*, Vol. 44, No. 4, pp. 973-987.
- Rodrik, D. (2011), *The Globalization Paradox: Why Global Markets, States, and Democracy Can't Coexist*. Oxford: Oxford University Press.
- Rodrik, D. (2013), "Unconditional Convergence in Manufacturing". *The Quarterly Journal of Economics*, Vol. 128, No. 1, pp. 165-204.
- Romer, D. (2001), *Advanced Macroeconomics*. New York: McGraw-Hill.
- Rosenfeld, S.A. (1997), "Bringing Business Clusters into the Mainstream of Economic Development". *European Planning Studies*, Vol. 5, No. 1, pp. 1-22.
- Sachs, J. and Warner, A.M. (1995), *Natural Resource Abundance and Economic Growth*. NBER Working Papers, No. 5398.
- Shaefer, F. and Abebe, G. (2015), *The Case for Industrial Policy and its Application in the Ethiopian Cut Flower Sector*. The Ethiopian Development Research Institute, EDRI Working Papers, No. 12.
- Sgard, J. (2016), *Reforms and Growth in Emerging Economies*. Lecture to Master in International Economic Policy, Institut d'Études Politiques de Paris.
- Siba, E. and Gebreeyesus, M. (2014), *Learning to Export and Learning by Exporting: The Case of Ethiopian Manufacturing*. United Nations World Institute for Development Economics Research, UNU-WIDER Working Paper, No. 105.
- Slaper, T. and Ortuzar, G. (2015), "Industry Clusters and Economic Development". *Indiana Business Review*, Vol. 90, No. 1, pp. 7-9.
- Staelens, L., Louche, C. and D'Haese, M. (2014), *Understanding Job Satisfaction in a Labour Intensive Sector: Empirical Evidence from the Ethiopian Cut-Flower Industry*. EAAE 2014 Congress "Agri-Food and Rural Innovations for Healthier Societies", Ljubljana: August 26-29.
- Tesfay, M. (2015), "Measuring Total Factor Productivity for Ethiopia: Regression Based Growth Accounting the Case of the Post-1991 Period". *International Journal of Economics and Empirical Research*, Vol. 3, No. 12, pp. 587-604.
- UNIDO (2009), *Breaking In and Moving Up: New Industrial Challenges for the Bottom Billion and Middle-Income Countries*. UNIDO: Industrial Development Report.
- UNIDO (2012), *Ethiopia: Technical Assistance Project for the Upgrading of Ethiopian Leather and Leather Products Industry*. Independent Evaluation Report.
- UN-COMTRADE (2017), *United Nations Commodity Trade Statistics Database*.
- USAID (2013), *Agricultural Growth Program: Livestock Market Development End-Market Analysis for Meat/Live Animals, Leather and Leather Products, Dairy Products Value Chains*.
- Van der Waal, J.W.H. (2015), "Horticulture Sector Study for Nigeria". *Journal of Agrarian Change*, Vol. 15, No. 1, pp. 1-80.
- Williamson, J. (2000), "What should the World Bank think about the Wash-

ington Consensus?”. *World Bank Research Observer*, Vol. 15, No. 2, pp. 251-564.

World Bank (2009), *World Development Report 2009: Reshaping Economic Geography*. Washington: World Bank Press.

World Bank (2017), *World Development Indicators*. Washington: World Bank Press.

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