

# **A Generalised Linkage Approach to Local Production Systems Development in the Era of Global Value Chains, with special reference to Africa**

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# The issue

- **SSAfrica increasing backward and forward integration into GVCs**
  - **Towards a VC-led industrialisation model**, beyond EOI or ISI?
  - **Evidence** is still scattered, high heterogeneity and sometimes misleading statistics: overall limited impact in domestic value addition (particularly among mfg industries), lock-in in low-value tasks, increasing dependence on commodity exports, local production systems remain disarticulated and skewed (missing M in SMEs), limited collective learning at the local production system level, ...
- **Does VC-led industrialisation deliver ‘quality of growth’ in SSA countries?**
- **If not, what is missing in the VC-led industrialisation model?**
- **What industrial policies to support ‘quality of growth’ in SSA?** | <sup>2</sup>

## The main thesis

- The paper aims at **refocusing** the industrial policy and growth debate in Africa from **GVCs integration to local production systems (LPSs) development**.
- It is argued that the **quality of growth in Africa critically depends on the ‘cumulative’ processes of increasing value addition, collective learning and linkages development in the LPSs, coupled by ‘strategic’ integration into regional as well as global VCs.**

# Outline

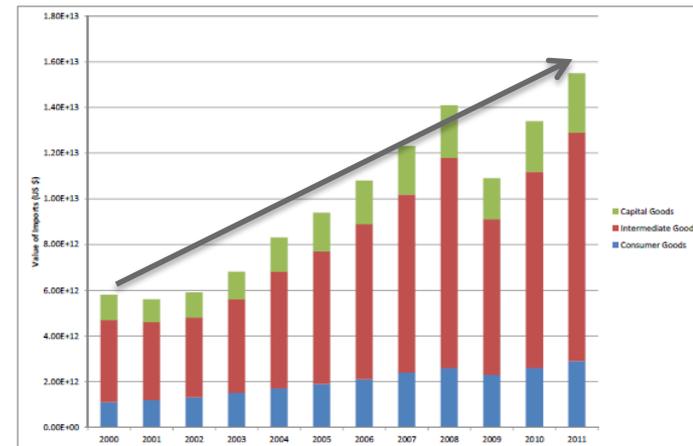
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2. **The VCI mirage in Africa:** quantitative and qualitative evidence
3. **Refocusing the debate:** from GVCs integration to Sectoral Value Chains (SVCs) and LPSs development
4. **A stylised LPS framework for assessing the quality of growth in Africa:**
  - » (types and quality of) **linkages**,
  - » (types of) **production system configurations**,
  - » and (cumulative dynamics of) **value creation and capture** (including rents chains)
5. **LPS-targeted industrial policy**

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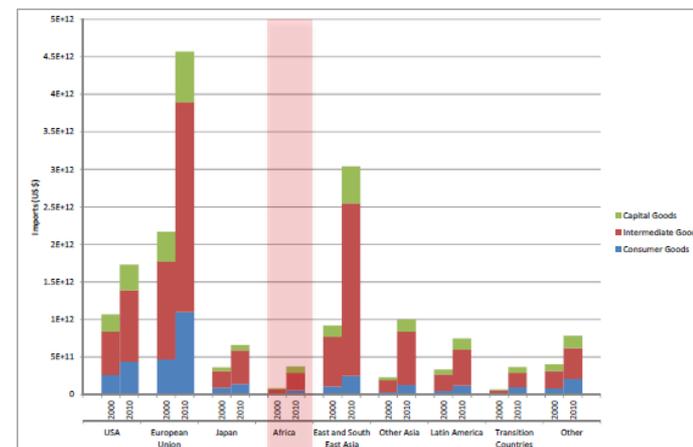
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# Beyond ISI and EOI: the new GVCs-led industrialisation (VCI) model

- **Increasing value of world imports** (with intermediate goods making up 65% of world imports in 2011)
- **The new Value Chain industrialisation model** stresses: the **importance of importing inputs for increasing export performance**, thus the **need for more trade liberalisation**
- **Developmental/Political economy perspectives** remind us that there are **opportunities but also risks**: TNCs penetration and value extraction, low tech lock in, limited local value creation and distribution



Source: UN COMTRADE

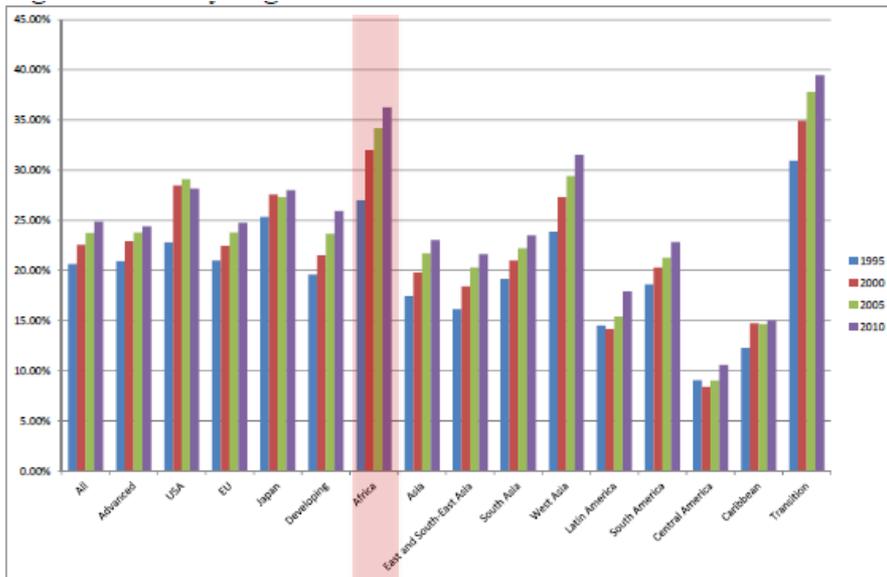


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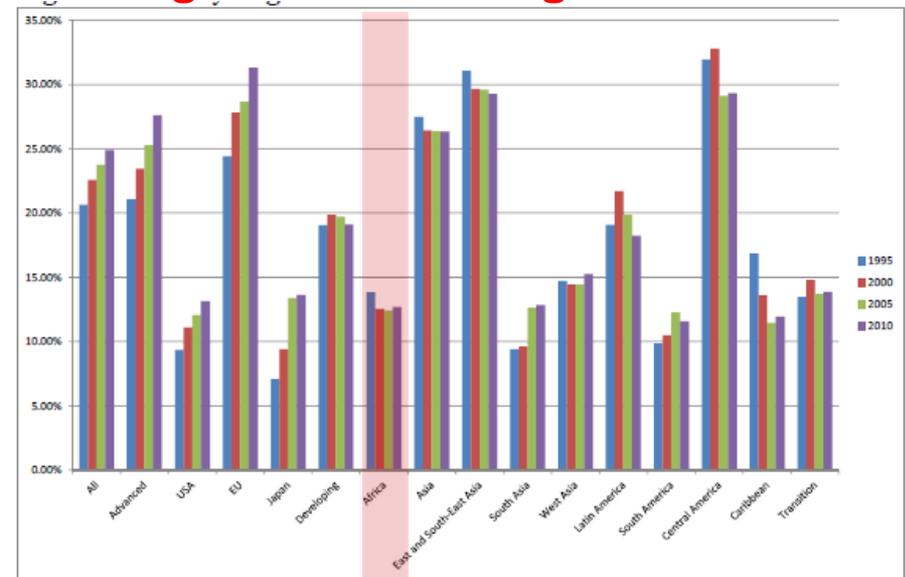
# The VCI model in Africa: evidence (macro)

Much of Africa's participation in GVCs is in upstream production, with firms in Africa providing primary products and simple manufactures to firms in countries further down the value chain (as a result very small value contribution, just 1% of foreign VA)

## Mainly upstream integration

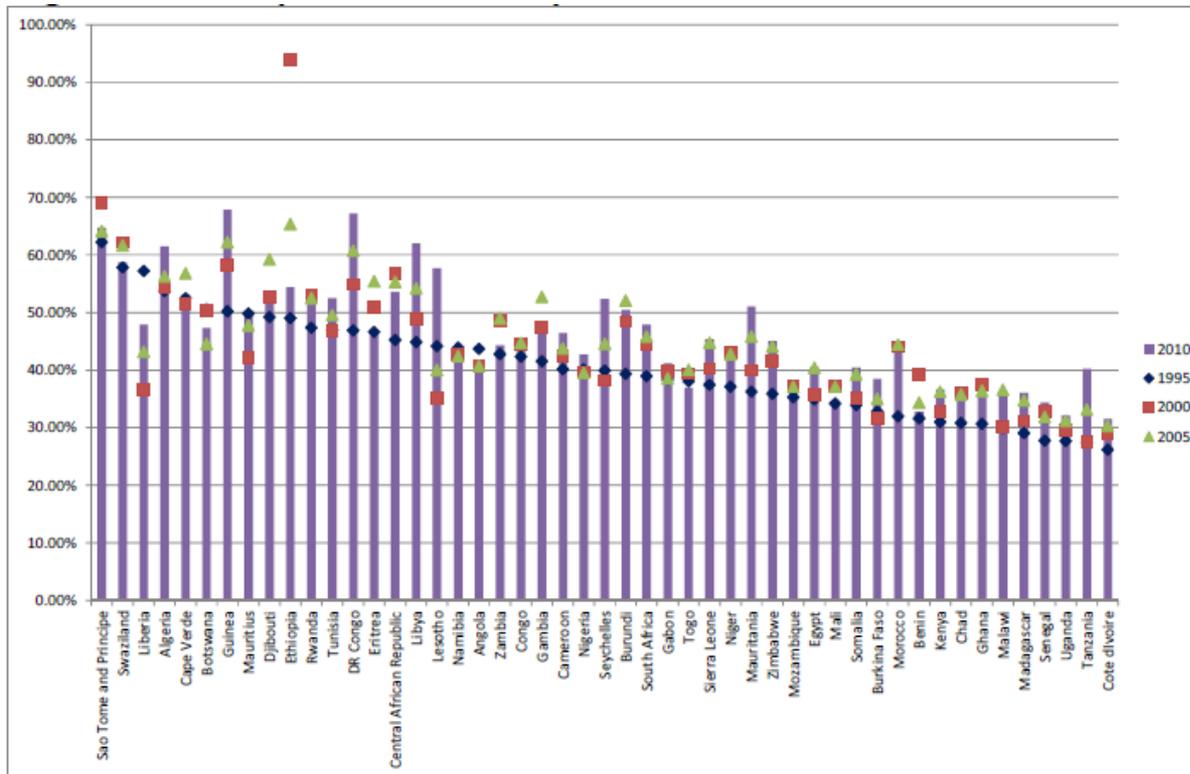


## Limited downstream integration, and little signs of increasing since 1995



# The VCI model in Africa: evidence (by country)

some African countries have been able to move into downstream production, with Mauritius, Botswana, Ethiopia, Kenya and **Tanzania** among other countries, reporting shares of downstream production in total GVC involvement of 50% or more in 2010.

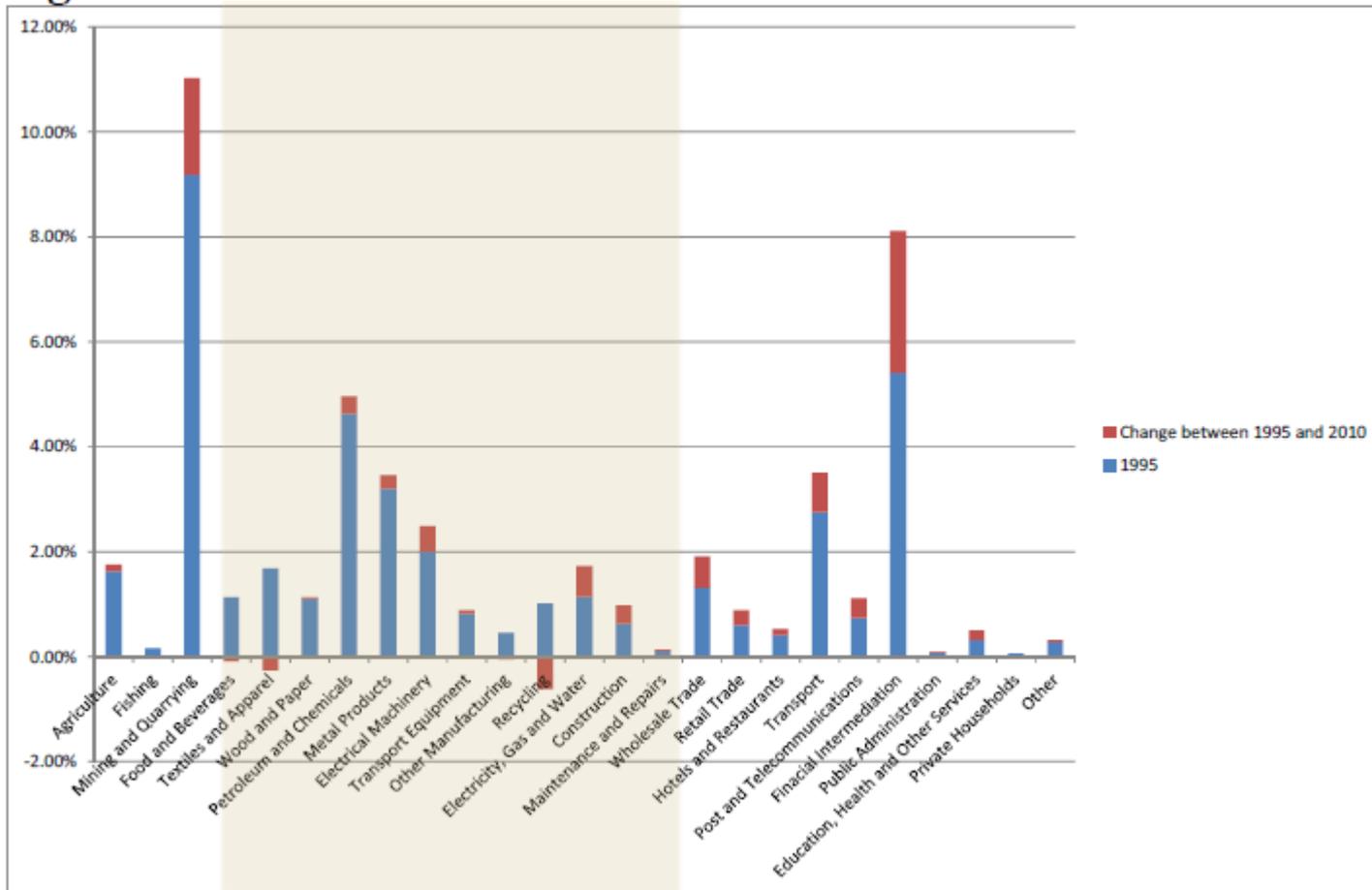


# The VCI model in Africa: evidence (sectors/products) – Example: Tanzania

- **Clothing is the only manufacturing industry showing increasing value addition** within the Tanzanian manufacturing system consistently over time from 1997 until 2011

2004-2011	DEMAND																												
SUPPLY	g_primaryagr	g_otherprim	g_energy	g_procfoods	g_bevtabacco	g_textiles	g_clothing	g_leather	g_lumber	g_paperpub	g_chemicals	g_nonmetmin	g_metals	g_fabmetals	g_transpequig	g_machinery	g_othermanuf	g_water	g_constructio	g_distributio	g_transport	g_communicatio	g_finance	g_insurance	g_obsict	g_oconsumer	g_oservices		
primaryagr																													
otherprim																													
energy																													
procfoods			●	0						●	0												●	0	●	0			
bevtabacco																								●	0	●	0		
textiles																													
clothing	●	0	●	1	●	1	●	1	●	1	●	1	●	1	●	1	●	1	●	1	●	1	●	1	●	1	●	1	
leather	●	0	●	0	●	0	●	0	●	1	●	0	●	0	●	0	●	0	●	0	●	0	●	0	●	0	●	0	
lumber			●	0					●															●	0	●	0		
paperpub																													
chemicals			●	0																			●	0	●	0			
nonmetmin		●	0	●	0	●	0		●	0	●	0		●	0						●	0	●	1	●	1	0		
metals									●	0	●	0											●	1	●	1	0		
fabmetals									●	0	●	0											●	1	●	1	0		
transpequig																							●	0	●	0			
machinery	●	0	●	0	●	0	●	0	●	0	●	0	●	0	●	0	●	0	●	0	●	0	●	0	●	0	●	0	
othermanuf																							●	0	●	1	●	0	
water																													
construction																								●	0	●	0		
distribution																													
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# The VCI model in Africa: evidence (by sectoral contribution)



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## Refocusing the debate: from GVCs integration to Sectoral Value Chains (SVCs) and LPSs development

### Increasing research on GVCs and GVCs taxonomies (beyond traditional vertically integrated sector model)

- “Buyer-driven chains” versus “producer driven chains”
- “Vertically specialised chains” versus “Additive chains”

however, these taxonomies are often problematic and analytically unclear:

- “in the same sectors there are both buyer- and producer-driven chains, and within chains there are often components of buyer-driven sub-chains in producer-driven chains and vice versa” (Kaplinsky and Morris, 2015)
- Within an additive chain, we can have both production in line (sequential) and in parallel – production process theory (Andreoni, 2014; Andreoni and Chang, 2016)

## Refocusing the debate: from GVCs integration to Sectoral Value Chains (SVCs) and LPSs development

Value Chains are heterogeneous because of:

- Structural heterogeneity: VCs have sector-specific features
- Governance heterogeneity: different governance structures

### **better focus on Sectoral Value Chains and their Governance**

- **Commodity Value Chains** (tend to be additive)
- **Manufacturing Value Chains** (tend to be vertically specialised in the case of LM-Tech products, vertically specialised but clustered for H-Tech complex system products)
- **Service Value Chains**

### **Local production systems are part of the GVCs, but they**

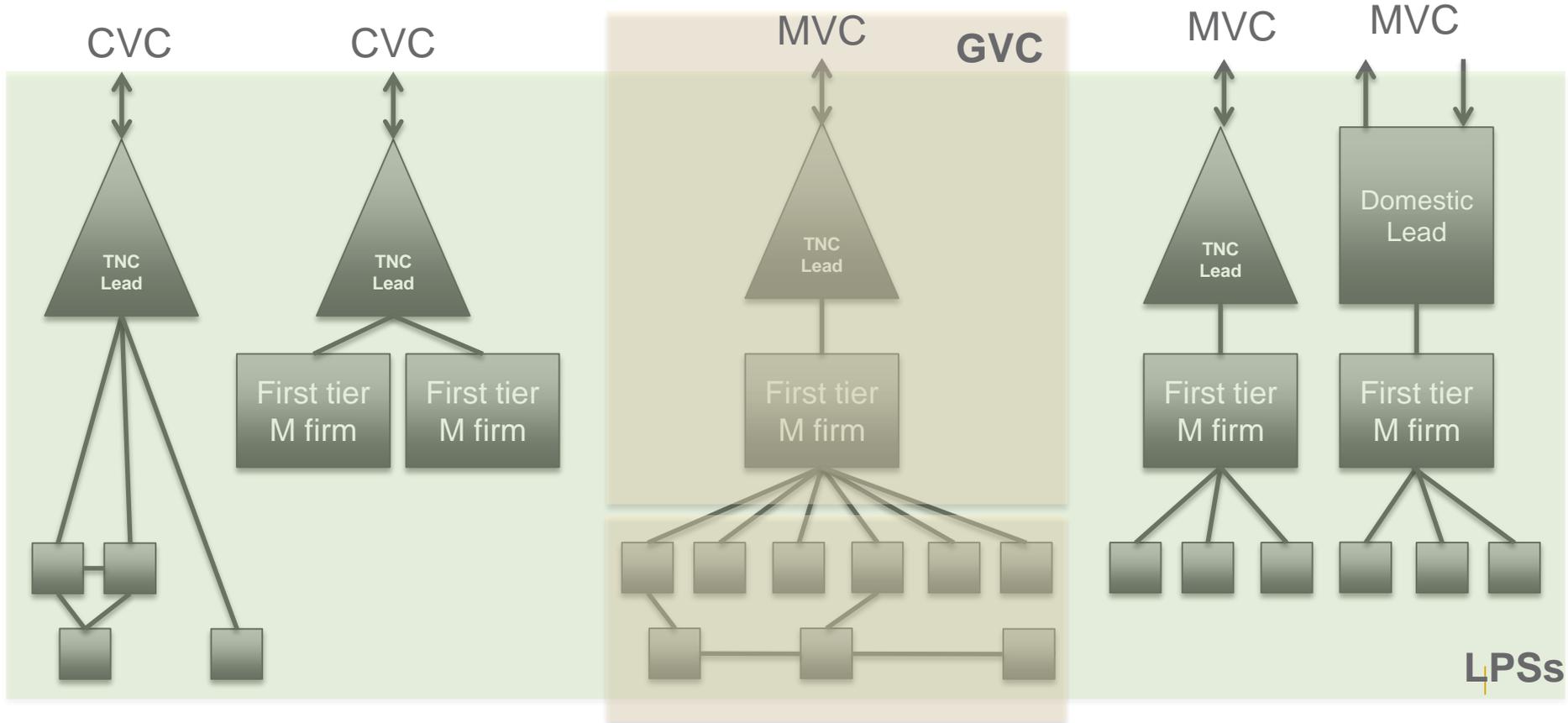
- entail multiple relationships (different types of linkages)
- can take different forms (production system configurations)
- (as a result) experience different value creation&capture dynamics

## A stylised LPS framework for assessing the quality of growth in Africa: **(types and quality of ) Linkages**

- LPSs develop as a result of cumulative dynamics involving different types of linkages (Hirschman, 1958 & 1977)
  - **Production**: input/output induced investments ('linkage effect'), in SAA domestic supply chains are limited and over-dependence on imported intermediate goods including industrial raw materials!
  - **Technological**: inters-sectoral learning along similarity and complementarity patterns, in SAA often limited by lack of standards and technological scale-up competences
  - **Consumption**: generally driven by new incomes earned in process of staple production and export (minerals, tropical agro products, etc.), in SAA significant increases in consumption/rents extraction
  - **Fiscal**: state's revenues from taxing staple-related new incomes/rents, in SAA limited by low enforcement capability and political settlement

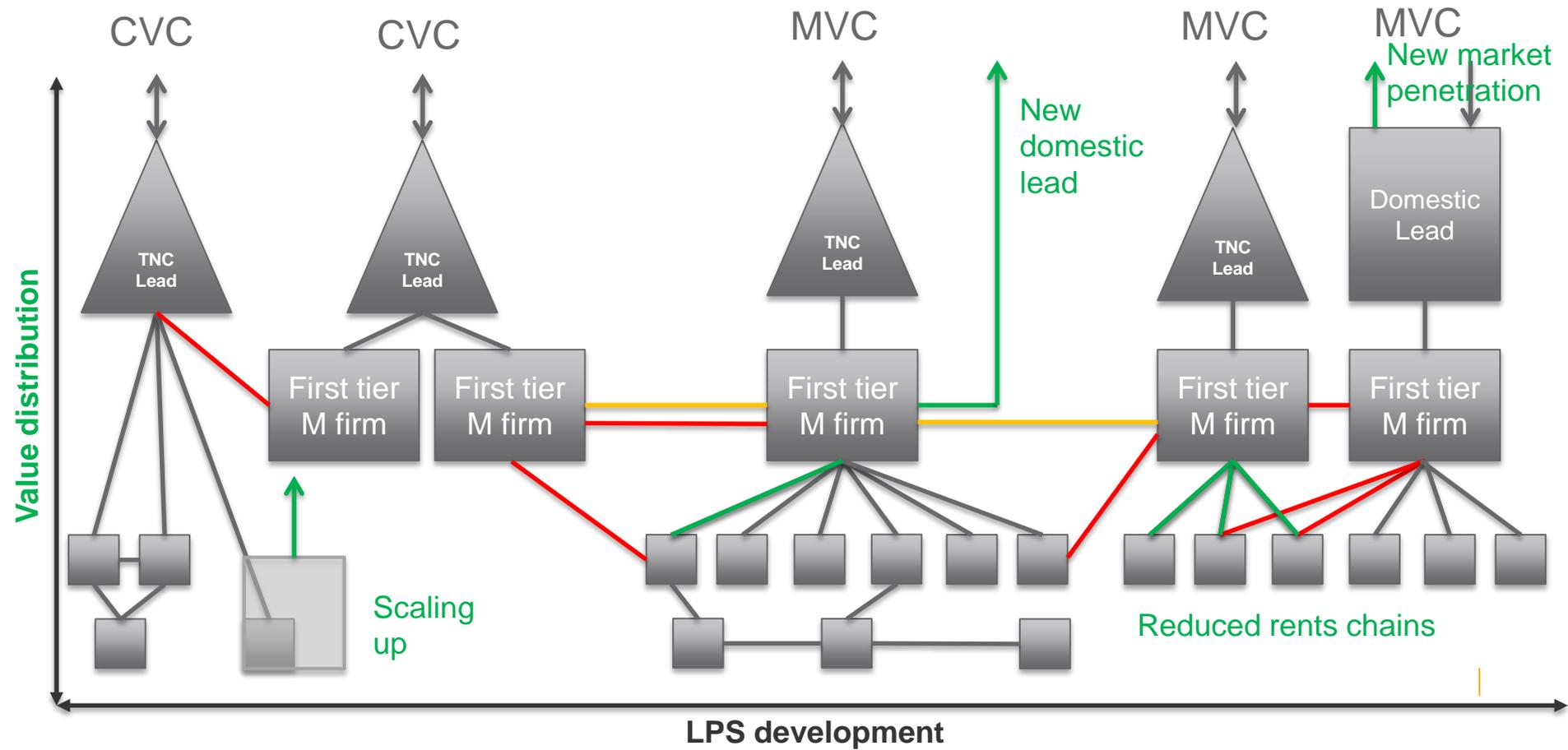
# A stylised LPS framework for assessing the quality of growth in Africa: **LPS Configurations**

In developing countries we observe different LPS configurations, resulting from the presence of different sectoral value chains



A stylised LPS framework for assessing the quality of growth in Africa: Value creation, capture and distribution dynamics depend on

1. Increasing LPS production linkages and technological linkages
2. Increasing value distribution/creation opportunities (reduced rents chains)



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## LPS-targeted industrial policy: Scaling-up, micro-level efficiency and organisational capabilities

Developing **production linkages** in LPSs, with a **focus on critical nodes (Medium size enterprises) and opportunities for scaling-up and thus linking-up** (product, process, functional, chain upgrading)

- **Increasing productivity is a function of investment-led scaling-up processes (reaching efficient production scale):** Targeted support of domestic medium enterprises (50-100, depending on sectors), e.g. financial system reforms, matching-grants schemes, etc.
- **Increasing productivity is a function of capital investments, but ALSO depends on how capital investments are used/organised in production:** Support increasing micro-level (shop-floor) efficiency and **organisational capabilities development**, (across ALL companies, in particular medium size)

## LPS-targeted industrial policy: collective learning and technological linkages development

Developing **technological (and production linkages)** in LPSs, with a **focus on technology and production services offered by “intermediaries”** (PPPs and PTIs, Public Technology Intermediaries – Andreoni and Chang, 2014; Andreoni et al 2016 forthcoming CJE)

- **Public technology intermediaries are present in many African countries, but are completely disconnected from the private sector**
- PTIs provide **quasi public good infra-technologies** including measurement methods (*metrology*), testing facilities (*conformity assessment*), specifications and quality control techniques (*standards*), evaluated scientific and engineering data and technical dimensions of product interfaces
- PTIs provide **sector/task/product specific consultancy services** on new **production technologies**, productivity-enhancing **organisational solutions**, **market opportunities** analysis (market vulnerability, competitors analysis) and **trade support** (international standards conformity assessment, etc.)

## LPS-targeted industrial policy: strategic management of consumption and fiscal linkages

While the Kaldorian foreign demand multiplier remains critical,

- **Need for capturing domestic demand (consumption linkage):** in many SSA countries (and even for low-tech products) the **domestic demand is captured by imported products** (cheaper products/dumping practices, in particular Chinese manufactured products; crowding out low-tech value chain entrants; ‘perceived’ higher quality; standardised and reliable; also interchangeability for intermediate products and machinery components)
- **Need for strategic integration in regional markets (SADC, EAC for SSAfrica):** regional markets have **lower entry barriers** in terms of product quality, **still learning, diversification and scale opportunities**
- **Need for strategic use of fiscal linkages** (learning rents allocation and policy enforcement) **for entering global markets** (products with short technological-cycles) **and defy comparative advantage**

# From GVCs, to LPSs and LPS-targeted IP

## *Next steps*

- **Consolidation of the empirical evidence on GVCs impact on LPSs development** (Henriksen et al 2010; Humphrey and Navas-Aleman, 2010) **and LPSs data** (World Bank Enterprise Survey, UNIDO Investor Survey, National Industrial Surveys)
- **Development of a LPSs taxonomy based on stylised types of LPSs as emerging from country cases** (especially Tanzania, EAC and South Africa)
- **Identification/Selection of LPS Industrial policy instruments and production of a comprehensive list** (also based on existing research on PTIs, effective policy instruments and targeting, including Andreoni 2016 *Strategies for Emerging Technologies and Strategic Sectors*, OECD Working paper series, Paris: OECD).

**Comments are welcome, thanks**

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