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*Edited by Marta Marson and Luca Bortolotti, University of Turin and OEET*

### **THE DRIVERS OF ECONOMIC DEVELOPMENT**

The XXII Italian Association for the Study of Comparative Economic Systems (AISSEC) Scientific Conference held in Pescara in June 2022 collected several contributions on the topic “(Re)discovering the drivers of economic development”. This newsletter contains three articles based on a selection of presentations focusing on the drivers of economic development, exploring the key characteristics, dynamics and the policies that can actively support developing and emerging countries in the process of economic development.

The newsletter adopts thus a macroeconomic perspective, with special attention reserved to the economic decisions that governments can implement in the pursue of economic development. Indeed, the three articles focus respectively on comparative advantages, structural policies and tax revenues.

In the first article of this newsletter, Andrea Boltho provides an insightful description of the changes in the revealed comparative advantage indices of four East Asian countries (Japan, South Korea, Taiwan and China) from 1950 onwards in the capital intensive sectors and in particular on the growth of the high-tech sector of machinery and transport equipment. This covers industries which were considered as totally unsuited to what were relatively poor and labour-abundant economies, whose comparative advantage was seen to lie in simple labour-intensive consumer goods and semi-manufactures. Yet, despite this conventional wisdom, governments in all the four countries actively encouraged in a variety of ways the growth of advanced manufacturing companies. Andrea Boltho argues that their unorthodox policies must have played an important role for the achievement of the registered successes.

The second article by Marouani, Youssef and Zaki also focuses on the policies which can support structural change in developing countries, by distinguishing and modelling their effect in the short and long run. The article shows that structural policies promote structural change over the long run, yet their effect is mostly insignificant over the short run. Quite surprisingly it is found that structural policies exert more effect on services share in value added rather than on manufacturing, with deindustrialization trends characterizing the period considered. Results also highlight the importance of macroeconomic countercyclical fiscal policies and undervalued currencies in enhancing structural change.

Development policies however need resources for their implementation and the capacity to raise revenue to finance this is indeed a main issue for developing countries willing to actively encourage structural change and growth. Based on this consideration the last article by Antonio Savoia discusses the relationship between tax revenues and political institutions placing constraints on the executive power. Based on historical data from 31 countries for the period between 1800 and 2012 it shows that these two

aspects may reinforce each other over time, so that good governance seems to go hand in hand with the capacity to mobilize domestic resources for development.

## Comparative advantage and East Asia's experience

by *Andrea Boltho*\*

*The text that follows briefly looks at changes in the revealed comparative advantage indices of four East Asian countries (Japan, South Korea, Taiwan and China) over half a century or more for the capital intensive and increasingly high-tech sector of machinery and transport equipment. This covers industries which were considered as totally unsuited to what were relatively poor and labour-abundant economies, whose comparative advantage was seen to lie in simple labour-intensive consumer goods and semi-manufactures. Yet, despite this conventional wisdom, governments in all the four countries actively encouraged in a variety of ways the growth of advanced manufacturing companies. The undoubted successes that were achieved suggest that such unorthodox policies must have played an important role.*

### **Introduction**

The basic elements of East Asia's success story are well known. At the outset of their respective take-offs (Japan in, say, 1950, South Korea, henceforth Korea, and Taiwan in about 1960, China around 1980), the four countries were relatively poor. Japan's per capita GDP in purchasing power parities stood in 1950 at barely 20 per cent of the US level. Korea and Taiwan in 1960 were barely at the level of Sub-Saharan Africa, while China was below that level in 1980. By 2021, Japan, Korea and Taiwan had reached 65 to 90 per cent of the US level, while China, after four decades of above 8 per cent annual growth, was at a 30 per cent level. Hardly any other country, bar the city states of Hong Kong and Singapore, can boast of similar achievements.

Equally well-known are many of the explanations that have been put forward for this exceptional experience. A major investigation by the World Bank stressed a number of features of the East Asian model which were conducive to growth: high rates of savings and investment in both physical and human capital, conservative macroeconomic policies, homogenous societies, competent bureaucracies, etc. (World Bank, 1993). That same investigation, however, attributed only a rather minor role at best to interventionist economic policies, as did a number of other works on this issue (e.g., Little, 1979; Calder, 1993; Little et al., 1994; Beason and Weinstein, 1996; Pack and Saggi, 2006).

This very brief paper takes a new look at the issue by examining not so much the overall growth record but the changes in the comparative advantage of the four countries over the 1950-2020 period. At the outset, these countries were seen as relatively labour abundant developing economies, fit no doubt for simple labour-intensive sectors such as textiles and clothing, but highly unlikely to prosper in advanced manufacturing industries. Today, Japan, Korea and Taiwan are considered high-tech powerhouses while China is close to becoming one. Section I looks at what happened to their comparative advantage in one particular advanced sector. Section II looks for explanations and a final paragraph concludes.

### ***East Asia's Revealed Comparative Advantage***

To illustrate the four countries' changes in comparative advantage over time use is made of the "Revealed comparative advantage" index first used by Balassa (1965). This measures the ratio between a country's

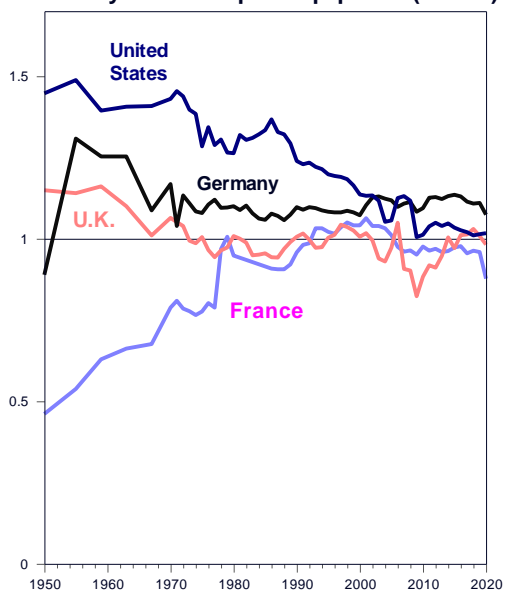
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share of world exports in a particular product and its share of total world exports. Any index value above unity suggests that the country in question enjoys an apparent advantage in the world market for that particular product since its presence in that market is above what would normally have been expected given its presence in the world economy. To keep matters simple, the investigation will limit itself to one product category: machinery and transport equipment (or SITC 7 in the standard international trade classification). Though this excludes some advanced chemical and pharmaceutical products, it still encompasses the bulk of high-tech production. Primary products are excluded throughout so that the two denominators in the ratio (a country's total exports as well as world total exports) only refer to manufactures.

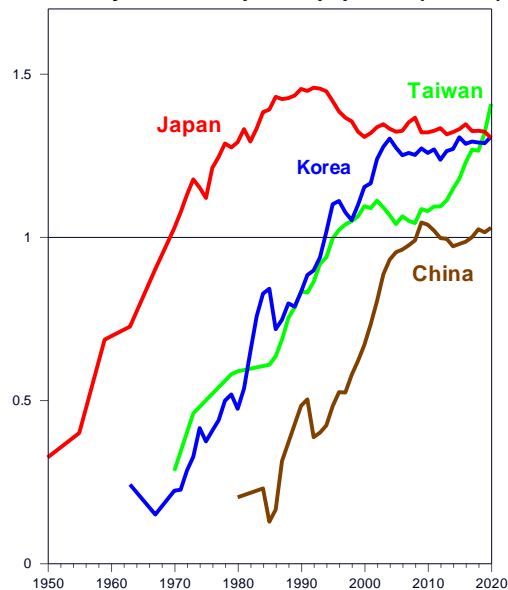
Results are shown in Figure 1 which plots the revealed comparative advantage indices for SITC 7 from 1950 onwards for four large Western countries and for the four East Asian economies here considered. Panel A shows how the United States, Germany and the United Kingdom gradually lost ground from their dominating positions in the 1950s and 1960s. Germany today still has indices above unity, but this is barely the case for the US, the UK let alone France. Panel B turns to East Asia. The results look striking: almost vertical and almost parallel soaring lines at three different points in time. In relatively short time spans, three out of the four countries moved from indices not much above zero at the outset to levels, four or more decades later, significantly above unity. And China has in recent years also moved above that threshold.

**Fig.1a REVEALED COMPARATIVE ADVANTAGE Machinery and Transport Equipment (SITC 7)**



Sources: Batchelor *et al.*, 1980; Maizels, 1970; OECD, Foreign Trade Statistics; UN Comtrade Database; WTO, Stats. on Merchandise Trade.

**Fig.1b REVEALED COMPARATIVE ADVANTAGE Machinery and Transport Equipment (SITC 7)**



Sources: Batchelor *et al.*, 1980; Maizels, 1970; OECD, Foreign Trade Statistics; UN Comtrade Database; WTO, Stats. on Merchandise Trade.

### *Why Did it Happen?*

The orthodox view of these successes is that they were primarily the happy result of market forces. Entrepreneurs, little hindered by intrusive government intervention or excessive regulation, spotted opportunities both at home and abroad in relatively capital-intensive or advanced technology activities,

invested on a large scale and reaped the ensuing benefits. The rapid growth of the world economy together with its opening to international trade was, of course, a further important facilitating factor as were relative permissive macro-economic policies both at home and abroad. In this view, the interventionist policies of, for instance, Japan's Ministry of International Trade and Industry (MITI) or of Korea's Economic Planning Board (EPB) were of limited importance (and not always necessarily welfare enhancing). In China's case central planning clearly played an important role, but even here export growth resulted mainly from a very dynamic private sector as it also did in Taiwan.

This view leaves something to be desired. To take Japan first, in the early 1950s this was a poor country still ravaged by the aftermath of a very destructive war, importing virtually all its sophisticated manufactured products and relying on labour-intensive clothing and semi-manufactures such as textiles or pottery for its exports. Most observers at the time thought that such a specialization pattern would continue for the foreseeable future. The Bank of Japan, for instance, favoured the development of light industry (Genther, 1990).<sup>1</sup> Others, however, thought that comparative advantage could be created strategically (Gao, 1997) and the country moved rapidly up the value-added scale in the 1950s in sectors which MITI had selected for development, e.g., motorcycles, machine tools, cars or plastic products such as polyethylene. This selection, of course, had nothing to do with "picking winners" which, it is usually (and plausibly) argued, can only be done by risk-taking entrepreneurs, not by bureaucrats. Japan was at the time a follower country and could see from what had happened in more advanced economies what the promising industries were.

An important feature which facilitated this process, more than MITI's direct intervention, was widespread protectionism.<sup>2</sup> Suffering from a significant balance of payments constraint in a fixed exchange rate world, Japan severely restricted manufactured imports by quotas and tariffs, of course, but more importantly through the allocation of foreign exchange (Takeda, 2000). It is this which allowed Japanese producers to spot opportunities and to massively invest, sure in the knowledge that they would not be priced out by more competitive foreign firms.<sup>3</sup> The investments, in turn, led to the achievement of scale economies and, eventually, to successful exports.

While such infant industry protection has often failed in many developing countries (e.g., Bell et al., 1984), it was successful in Japan for a further and very crucial policy reason. Competition at home was fierce as the major keiretsu conglomerates vied for market share. MITI positively encouraged this competition by, for instance, licensing foreign technology (over the imports of which it had a virtual monopoly) not to one favourite company, but to all or most major firms in each industry. This was true, for instance, for polyethylene (Peck, 1976), synthetic fibres (Ozawa, 1980), steel (Vestal, 1993), or television production (Lynn, 1994). Policy, in other words, fostered competition at home while, at the same time, ensuring protection from abroad. In the words of Krugman (1994) import-substitution generated successful export promotion.

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<sup>1</sup> An American advisor in the early 1950s apparently thought that Japan should base its economy "... on exports of textile products, raising chickens and exporting eggs, and developing tourism" (quoted in Gao, 1997, pp.209-10).

<sup>2</sup> Following its widespread adoption during the Great Depression, protectionism has, understandably, been widely condemned. At the time its impact was disastrous. But earlier episodes of protectionism suggest that it helped some countries develop successful industries. The best-known example is Britain's cotton manufacturing which grew very rapidly during the economy's industrial revolution thanks to initial tariffs on, and a later ban of, India's textile exports (O'Brien et al., 1991). And research has suggested a causal link between protectionism and growth in a number of countries in the 19th century (O'Rourke, 2000; Clemens and Williamson, 2004).

<sup>3</sup> As was argued in a book that is, otherwise, very sceptical about Japan's industrial policies: "It cannot be denied that in the 1950s and 1960s the government, with its heavy-handed protection of domestic industry through trade policy, played an important role in assisting the establishment of a number of industries" (Itoh et al., 1988, p.274).

Turning to Korea, the story is not dissimilar. This was also a poor, war-ravaged, country that outsiders saw as destined to export labour-intensive semi-manufactures and cheap consumer goods. The idea that the country could specialize in, say, steel or ship production seemed outrageous in the 1960s. The World Bank, for instance, was scathing in 1960, a time when Koreans were poorer than their contemporaries in, say, Cameroon, Madagascar or Nigeria, about the prospects of a steel industry (Redding, 1999). Yet, this notwithstanding, the Korean government created a new steel company, Posco, in 1973. By 1985, Posco had become one of the world's lowest cost producers (ibid.). Similarly, the government played an important direct and indirect role in the extremely rapid growth of the country's very successful shipbuilding industry (Lee, 1990), an initially infant industry which achieved maturity within only a few years after its inception (Bell et al., 1984).

In Korea too competition was seen as crucial for success. Encouraging it at home, as Japan had done, was, however, not really viable. Japan's large internal market could provide sufficient demand for several competing domestic firms. Korea was too small to offer similar opportunities. What the country did from the mid-1960s onwards was to push Korean companies to compete on the world market, helping them not by protectionism but by various forms of subsidies. These were granted to the larger chaebol conglomerates on condition, however, that they fulfil stringent export targets (Amsden, 1989). Here too, government intervention seems to have played an important role in creating successful exporters, often in machinery, transport equipment and, more recently, in advanced tech sectors.

Taiwan's economy has, from the outset, shown a higher degree of domestic competition than either Japan or Korea because of the presence of a very large number of small- and medium-sized firms. Government intervention was, however, pervasive here too. Significant support to the manufacturing sector came directly through large public investments, and indirectly via preferential treatment in public purchases, generous tax concessions and depreciation allowances as well as through interest rate subsidies (Rodrik, 1995). In one particular area government support was amazingly successful: semi-conductors. This sector was chosen in 1974 as a key industry and has since received significant R&D funding. One offshoot of this policy is Taiwan's Semi-conductor Manufacturing Company (TSMC) which benefited from a direct injection of capital from the government at the time of its creation in 1987 (National Research Council, 2003). TSMC had, by 2021, become (together with Samsung) the world's largest producer of advanced chips,

China was, of course, more interventionist than any of the three other countries. Deng Xiaoping's reforms did away with the rigid central planning of the Mao Zedong era, but the state retained vast powers of intervention. These were used in helping state enterprises in heavy industry and, increasingly, in high-tech sectors. Subsidized credit was one important instrument, protection against imports another. The success of these policies has become increasingly evident in recent years. China is now explicitly aiming to become a major technological power in areas such as robotics, new energy vehicles, aero-space and, especially, artificial intelligence.

It may be interesting to note that while China promotes national champions in some areas, it also encourages competition. This has been fierce in the very dynamic private sector; it is also present at the regional level with local authorities experimenting with different forms of intervention and deregulation (Bardhan, 2016), and it is not absent in the state sector where companies have been forced to merge or close down. The rapid opening of the economy to foreign trade has also raised the degree of competition. Admittedly however, Xi Jinping's recent shift towards asserting much greater state control over the economy could be curbing some of these competitive pressures. And this, in turn, would almost certainly reduce the economy's dynamism.



## ***Conclusions***

Summarising, the (admittedly partial and imperfect) evidence suggests that interventionist policies contributed to East Asia's successes, at least in the relatively advanced and sophisticated sectors here considered. Alternative explanations do not seem to be fully persuasive. No claim is made that this is a firm conclusion. Many other forces were also at work in promoting the export of the four countries, as indicated in the Introduction above. Attributing weights to the various arguments is not attempted and would almost certainly be impossible. But, contrary to received wisdom, industrial policy (widely defined) may, after all and despite many errors, have had welfare enhancing effects. This unorthodox conclusion is, however, tempered by one important consideration: East Asia's experience was no doubt exceptional in large measure because the area benefited from some exceptional features that are not often present in many other developing countries: high levels of human capital at the outset, relatively competent bureaucracies, less corruption than elsewhere (certainly in Japan and Taiwan, probably in Korea, at least in more recent years and, possibly, also in China), political stability throughout (other than in Korea at times). Protectionism, in other words, could well have led to semi-stagnation, while "picking winners" might have degenerated into rent-seeking had it not been for these crucial socio-economic pre-conditions.

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# Policy determinants of economic transformation in developing countries

by Mohamed Ali Marouani\*, Jala Youssef†, Chahir Zaki‡

*Not all developing countries were able to achieve structural change and successful transformation experiences remain confined to some countries (mainly Asian ones). As this article explains, there is still no consensus on underlying supportive policies for structural change in developing countries. Our findings show that structural policies improve structural change over the long run, yet their effect is mostly insignificant over the short run. Our results also point to deindustrialization trends since structural policies exert a positive and significant effect on services share in value added whereas their effect on manufacturing share is either insignificant or negative. As per macroeconomic policies, our results highlight the importance of countercyclical fiscal policies and undervalued currencies in enhancing structural change.*

## Introduction

Structural change tends to occur when resources from traditional and typically low productive activities shift to modern and more productive ones, with higher productivity growth (McMillan et al., 2016). Countries that have experienced such growth-enhancing productivity were more likely to witness sustained economic growth and economic development (Lopes et al., 2017). However, not all developing countries were able to achieve structural change. For instance, some Asian countries have experienced a successful structural change whereas the pace of the latter in other developing countries was slow which explain their prolonged periods of low and volatile economic growth (Diao et al., 2017). In this context, it is important to identify the drivers of successful structural change in developing countries.

There is still no consensus on underlying supportive policies for structural change in developing countries. Two types of policies can be considered to promote the movement of resources from low to high productive sectors. On the one hand, developing countries can adopt a developmental approach for macroeconomic stabilization policies to make them induce structural change. This entails going beyond the conventional concept of macroeconomic stability and undertaking countercyclical policies that help facing challenges related to external financing and fluctuations in commodity prices (Ocampo, 2011). On the other hand, structural policies can be adopted in order to correct market failures, improve inter and intra sectoral allocative efficiency (Kouamé and Tapsoba, 2019; Solow, 2004) and address shortcomings related to structural rigidities in the economy.

In this context, we attempt to distinguish between the impact of structural and macroeconomic policies on structural change in both the short and long runs. Indeed, while structural policies tend to induce

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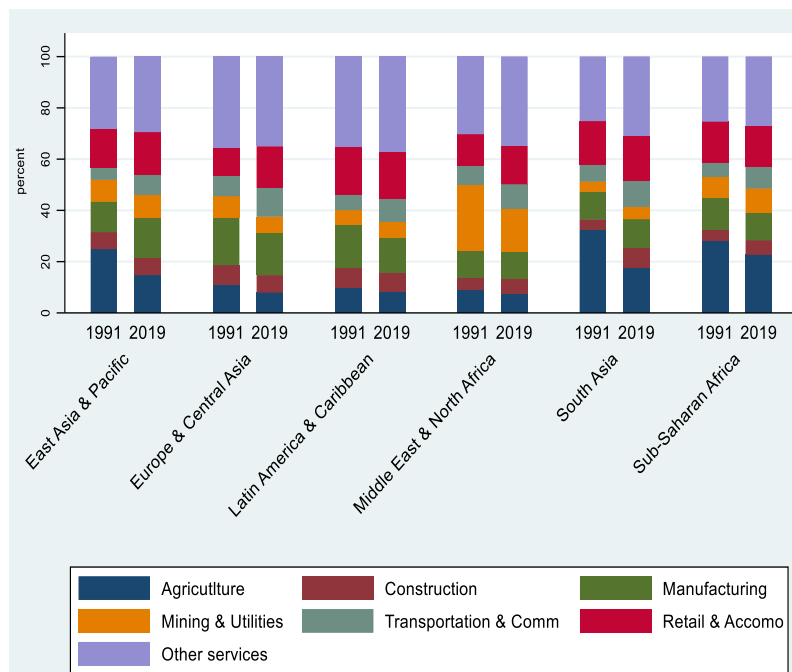
higher growth and productivity as well as better allocative efficiency in the long-term, their short run gains remain uncertain. The latter often hinged on business cycle or initial conditions. These gains are also slow to materialize and face policy implementation hurdles that entail short run costs (IMF, 2019; Hollweg et al., 2014). We show that the within-sector productivity improvements have been the main driver of productivity growth in East Asia and Sub-Saharan Africa. Furthermore, structural change has been growth reducing in Middle East and North Africa (MENA) and Latin America. More specifically, structural policies improve structural change over the long run, yet their effect is mostly insignificant over the short run. Our results also point to deindustrialization trends since structural policies exert a positive and significant effect on services share in value added whereas their effect on manufacturing share is either insignificant or negative. As per macroeconomic policies, our results highlight the importance of countercyclical fiscal policies and undervalued currencies in enhancing structural change.

### ***Patterns of structural change in developing countries***

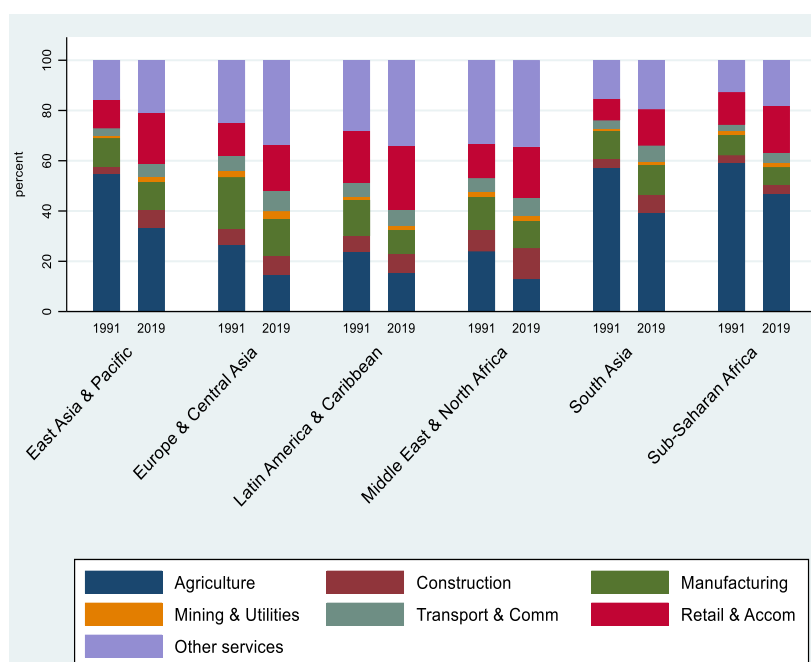
Sectoral value added and employment are the most common production related measures of structural transformation (Herrendorf et al., 2014). Figure 1 depicts average sectoral shares of real value added and employment in our group of developing countries (low- and middle-income countries in 1991 and 2019). The following conclusions can be drawn. First, structural transformation pace differs across regions. Yet, all regions witnessed resources reallocation away from agriculture and its share in value added and employment declined. With the development process, workers migrate to cities to find opportunities in the industry or services sectors instead of agriculture (Bustos et al., 2016). Second, the value-added share of agriculture is considerably lower than its respective employment share in all developing regions leading to a low level of productivity compared to developed countries. (Herrendorf et al., 2014; Caselli, 2005). Third, the typical structural change path entails a reallocation from agriculture to industry and subsequently to services. Yet, some developing countries followed a different path with a shift from agriculture directly to services without witnessing much industrialization. This seems to be the case in most regions where industry share in employment and value added remained somehow unchanged, despite the decline in the respective shares in agriculture. Structural change path of developing countries, with this leap of industrialization or manufacturing phase and whether services can substitute manufacturing, is debatable. On the one hand, manufacturing can be essential for inducing further structural change given its increasing returns to scale, tradability and linkages with agriculture and services. On the other hand, services still induce structural change, especially those related to innovation and knowledge (Martins, 2019).

**Figure 1: Sectoral shares of employment and value added in developing countries, 1991-2019  
(percent, averages by region)**

**1a. Sectoral shares of value added**



**1b. Sectoral shares of employment**

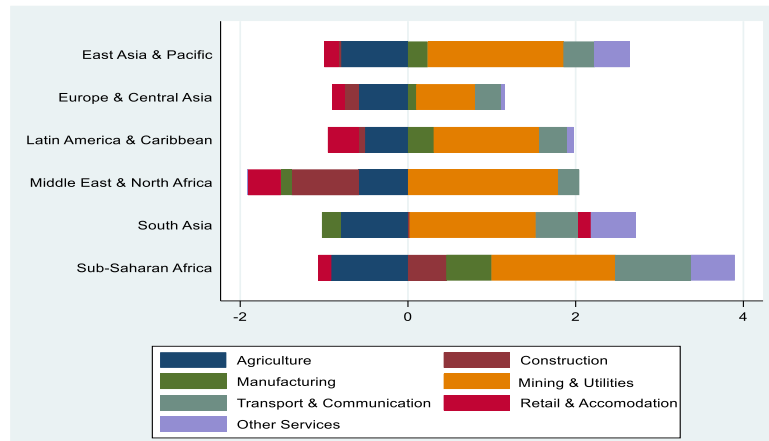


*Source: Authors' calculations based on UN Statistics National Accounts data and ILO data*

Ideally, the labor moving out of agriculture should be directed to sectors with productivity levels above the average. Sectors with rising employment shares are expected to be those with a relative labor productivity above zero. This does not seem to be the case in several regions (Figure 2). Labor moved to the retail and accommodation sector in all regions, while the sector has a lower productivity level than the economy wide average. The same applies to the construction sector in East Asia, MENA and South

Asia. In addition, labor moved to “Other services”, yet this sector productivity level is only marginally higher than the economy wide average (especially in Europe and Latin America).

**Figure 2: Relative sectoral labor productivity (2019)**



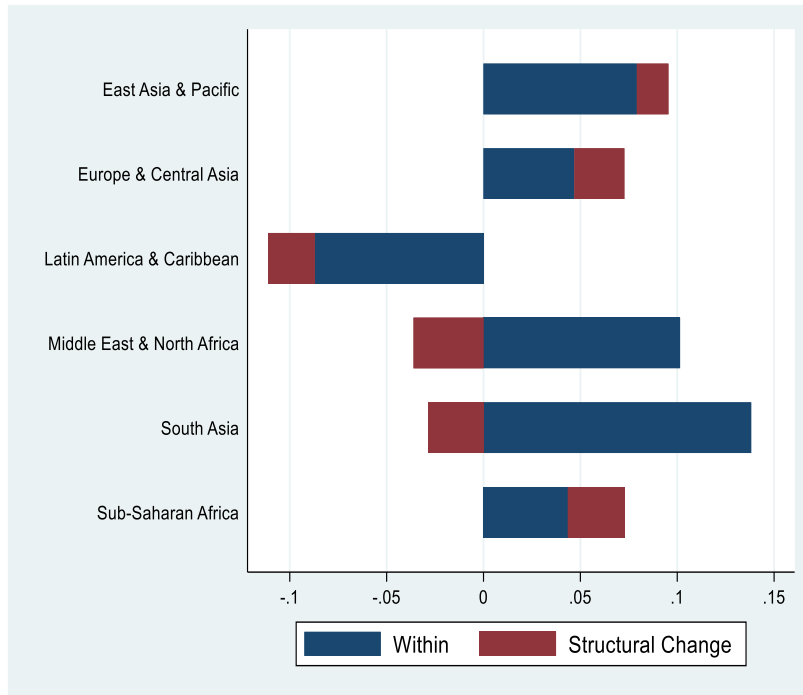
Source: Authors' calculations based on UN Statistics National Accounts and ILO data

Note: Relative sectoral labor productivity is calculated as the logarithm base 10 of the ratio of sectoral productivity to the economy wide productivity (Martins, 2019). If the bar measures 1, then the sector's productivity is 10 times higher than the average (economy wide productivity). If the bar measures -1, then the sector's productivity is a tenth of the average.

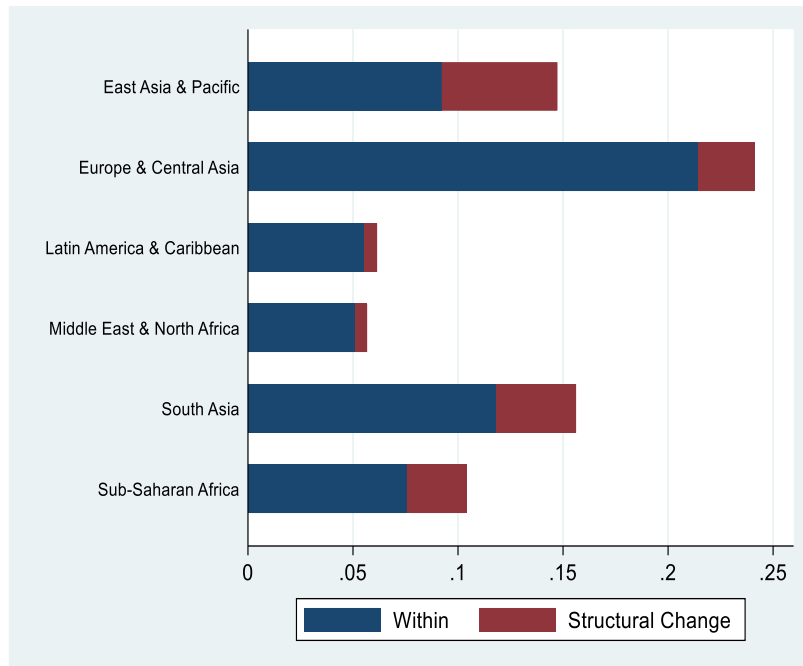
In order to examine the structural change patterns, a productivity growth decomposition exercise is undertaken following McMillan et al. (2014) and McMillan and Rodrik (2011) methodology. Figure 3 reveals the following conclusions on the reallocation process in different regions. The figure refers to three periods on average: 1991-2000, 2001-2010, 2011-2019. First, productivity growth has been largely increasing on average in East Asia and to a lower extent in Sub-Saharan Africa across the three studied periods. In both cases, the within-sector productivity improvements have been the main driver of this performance. Second, the structural change component has been relatively important in driving productivity in East Asia compared to other regions. Third, in Sub-Saharan Africa, the structural change contribution has been increasing across the different periods. It is also coinciding with an increase in manufacturing productivity making these countries less vulnerable to commodity price shocks. Fourth, productivity growth declined in Europe in the most recent period (2011-2019), possibly due the global financial crisis. Fifth, the structural change contribution to productivity growth in MENA, Latin America and South Asia is negative in the 1991-2000 period. This could be related to the fact that displaced workers might have ended up moving to less productive activities on average (Martins, 2019; McMillan et al., 2014).

**Figure 3: Productivity growth decomposition (between t and t-5, average by region)**

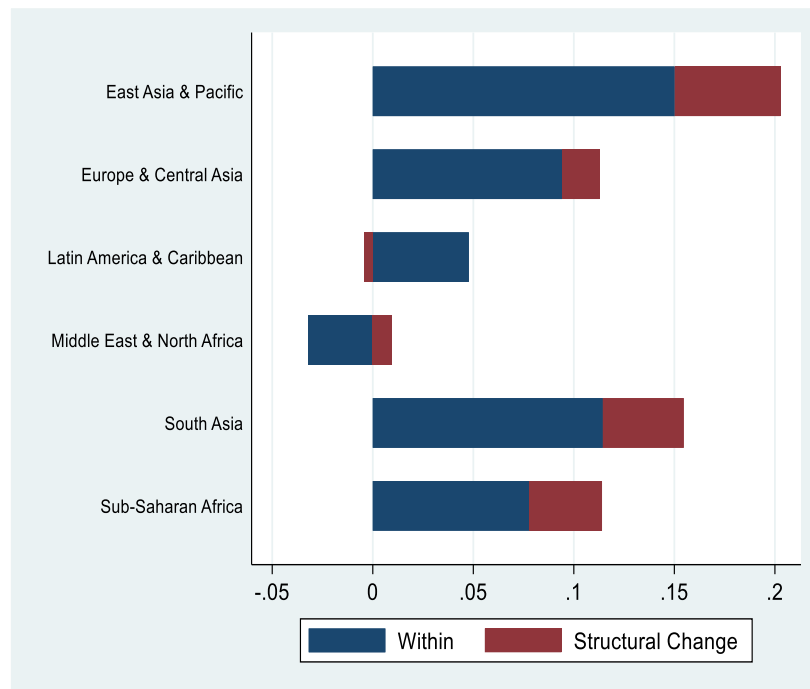
**1991-2000**



**2001-2010**



## 2011-2019



Source: Authors' calculations based on UN Statistics National Accounts data and ILO data

### ***Which policies induce structural change in developing countries?***

We study the policy determinants of structural change in developing countries, including macroeconomic stabilization and structural policies. We measure structural change using different approaches: the term resulting from the productivity growth decomposition (following the methodology of McMillan et al., 2014; McMillan and Rodrik, 2011)), the real value-added shares in manufacturing and services (Dabla Norris et al., 2013; Nickell et al., 2008) and exports diversification (Theil index, Rougier, 2016).

Structural policies are defined as follows: “Government policies aiming to address market failures and to reduce or remove impediments to the efficient allocation of resources” (following Kouamé and Tapsoba, 2019). We consider structural policies in seven areas: antimonopoly policy, financial policy, labor policy, trade policy, innovation policy, infrastructure and macroeconomic institutions. As per macroeconomic stabilization policies, they are analyzed in two different ways: macroeconomic outcomes (inflation, fiscal deficit and exchange rate misalignment) and fiscal policy cyclicality (the policy stance in relation to the growth of the economy).

Our econometric results are not presented here in detail but when structural change is measured using value added shares, they point to an important discussion on deindustrialization in developing countries. Our analysis starts in the 1990s when globalization was exerting a significant impact on all developing countries, and this has indeed affected structural change patterns in these countries. These results confirm the importance of structural policies that can lead to structural change since these policies exert a positive and pronounced effect on services shares whereas their effect on manufacturing share is either insignificant or negative. This can be also related to the fact that developing countries are mostly turning into services economies without going first through a proper experience of industrialization or eventually undergoing the so-called *premature deindustrialization* (Rodrik, 2016). The debate on whether advanced services can be a substitute for manufacturing has important implications for developing countries,



especially when it comes to the competitiveness of their industrial sector and the upgrading over different value-chains.

A cross-cutting conclusion across different structural policies is that they mostly affect structural change over the long run and not the short run. This is in line with the literature on structural policies suggesting that they usually take time to materialize and their impact over the short run is rather inconclusive. In addition, this confirms that a conventional framework exclusively focusing on macroeconomic stability is insufficient to accelerate the pace of structural change in developing countries as it is associated to a time inconsistency problem.

On the macroeconomic outcomes front, our results show that an active exchange rate can help foster structural change (exchange rate misalignment<sup>1</sup>). For instance, a competitive exchange rate can be viewed as a type of industrial policy, especially in the face of limited space for trade policies like exports subsidies under WTO rules (Ocampo, 2020 and Elbadawi and Zaki, 2021). Maintaining a competitive exchange rate can help fostering the diversification of the production sector (Ocampo, 2011).

The literature has highlighted the importance of countercyclical policies in enhancing structural transformation in developing countries. We tried to provide a quantification on that front to complement the literature argument. Our results show that the expenditures procyclicality index as well as the primary expenditures procyclicality index<sup>2</sup> exert a negative and significant effect on structural change. Countercyclical fiscal policies can help developing countries face the challenges resulting from swings of external financing cycles and fluctuations in commodity prices (Ocampo, 2011).

### *The way forward*

Industrialization-driven growth can be special due to several reasons, including its labor absorption capacity, tradability and the unconditional convergence to advanced technologies. Yet, our analysis emphasized the deindustrialization trends in developing countries. Acknowledging these trends implies thinking of new development strategies and asking whether it would be possible to replicate manufacturing capabilities in inducing structural change in other parts of the economy. Services sectors vary according to their productivity, tradability and skills and not all of them can act as growth poles, though the ones associated with knowledge and innovation can create structural change (Rodrik, 2022; Martins, 2019).

Developing countries were unfortunately prone to several recent global shocks, including climate related crises, the global crisis, the COVID-19 pandemic and more recently the Russia-Ukraine war. These shocks are hitting while developing countries are already suffering from common and longstanding structural challenges, including slow structural change. Consequently, and in such an exceptional context, macroeconomic stabilization is necessary for developing countries since it makes the domestic environment more predictable and improves resources allocation. However, this macroeconomic stability

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<sup>1</sup> The exchange rate misalignment is obtained from the EQCHANGE database of the Centre d'études prospectives et d'informations internationales (CEPII). Currency misalignments are deduced from the difference between real effective exchange rates and their equilibrium values (a calculated value of the REER that is consistent with the macroeconomic balances). A negative sign of the misalignment indicates an undervaluation whereas a positive sign indicates an overvaluation of the real effective exchange rate (Couharde et al., 2017).

<sup>2</sup> Following Frankel et al. (2013), cyclicity is the correlation between the cyclical components of real government expenditure or real government primary expenditure and real GDP on a 20-year rolling window. The cyclical components are estimated using the Hodrick–Prescott Filter. A positive (negative) correlation indicates procyclical (countercyclical) fiscal policy.

is not likely to be sufficient. This is why policy makers need to ensure that structural change and long run sustainable growth are not being sacrificed while facing these crises. Accordingly, a reasonable policy mix of structural and macro policies is needed to navigate a development path towards structural transformation. Structural policies and countercyclical fiscal policies can be difficult to implement but they ensure an efficient allocation of resources.

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## What determines tax revenues mobilization?

by Antonio Savoia\*

*Tax revenues and political institutions placing constraints on the executive power may reinforce each other over time and this may also bring a shift in the composition of revenues. To test these hypotheses, we use historical cross-country data covering 31 countries for 1800–2012. Results confirm that executive constraints and tax revenues tend to co-evolve in the long run, particularly when direct taxes and broad-based taxation are considered. Moreover long-run causality runs mostly from executive constraints to taxation. Findings link SDGs 17 (Target 1 strengthen domestic resource mobilization) with SDG 16 (promoting inclusive and accountable institutions), showing that they may work in synergy.*

Taxation is central to financing state activities. It is a fundamental part of how states provide crucial public goods and services, such as universal education, public health systems, and an effective administration of justice. Countries' ability of generating resources for development spending is now part of Sustainable Development Goal 17, where Target 17.1 requires *strengthening domestic resource mobilisation* (and its progress is measured using *Total government revenue as a proportion of GDP*). This choice was a timely one. The SDGs agenda is much more ambitious than that of the MDGs (Asadullah et al., 2016). Since foreign aid has been stagnant, pursuing this agenda will require genuine commitment from national elites (Dercon, 2022), as well as significant stepping up of governments' organizational efforts and, above all, it will require increased financial resources.

But how do states learn to tax? This requires understanding the process of transformation of public finance institutions. The formation and organizational performance of national revenue administrations depends on a number of structural factors, including the economic and historical conditions that help to consolidate taxation. Here we focus on the political motives for raising revenues.

Under which conditions elites will choose to develop tax systems? The presence of political institutions placing limits on the executive power provides stronger incentives for incumbent groups to invest in tax systems, because constraints on the executive will diminish the concern that the government is run in the interests of a narrow group. Such mechanisms may include various kinds of accountability mechanisms for the state leadership, including constitutional constraints on executive power, separation of powers, electoral rules, independent judiciary. For example, an effective parliament, that is independent from the executive, can regularly oversee the state's budget, including authority over taxation and the right to audit previous government spending. However, states that raise significant revenues may in turn face stronger demands for accountability and representation mechanisms that constrain the use of such resources. This is because citizens enter a *fiscal contract* with the state, which involves an exchange of tax revenues for goods and services as they have more control over its action. This implies that there may be a feedback effect from tax revenues to political institutions placing limits on the executive power. As an increase in the amount of revenues levied comes with greater demand for scrutiny over the government actions, one can hypothesize also that increased tax revenues could in turn reinforce executive constraints, as taxpayers will demand greater accountability from the ruler. Tax revenues and executive constraints may reinforce each other over time and so co-evolve in the long run.

Existing empirical literature has not investigated this yet. In a recent paper (Savoia et al., 2022), we use

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panel time series methods and recent historical cross-country data from the V-Dem project (Coppedge et al. 2020) and Andersson and Brambor (2019), covering 31 countries over the 1800-2012 period. Allowing for different forms of country specific heterogeneity and cross-sectional dependence, the analysis offers three main findings. First, we find that executive constraints, whether they are judicial or legislative, and tax revenues are cointegrated: there is a long-run relationship between the two. While in the short-run executive constraints or tax revenues can drift apart, this will be temporary because in the long run they tend to co-evolve. We also find that the existence and nature of a long run relationship may be mainly related to the emergence of broad-based taxation. Evidence of cointegration is strongest for variables capturing the share of revenues from direct taxes, such as the income tax, much weaker for indirect tax revenues, and absent for trade taxes. Moreover, we find evidence that long-run causality runs mainly (albeit not exclusively) from executive constraints to taxation. This is most evident for direct taxes.

These findings are policy relevant. With respect to SDG17 Target 1, our findings imply that institutions providing effective checks and balances on the executive power can be an important political condition for progress on this target. Much donor support for revenue administrations development tends to focus on technocratic solutions, such as upgrading the infrastructures or reforming recruitment practices in the public sector. While this is important, our findings suggest that a technical fix alone may not be enough, if political institutions providing the incentive to invest in fiscal capacity are missing. Our findings are also relevant to promoting “effective, accountable and transparent institutions at all levels”, as SDG16 Target 16.6 requires. The emergence of revenues from broad-based taxation reinforces institutions keeping state leadership accountable, contributing to their long-term consolidation. Hence, the effect of mobilising domestic revenues can have benefits that go beyond the immediate positive economic effect on public finance. If the intent of the Sustainable Development Goals was that different targets should work in synergy, this is one case where this may succeed.

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