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Catch-up and Leapfrog Strategies for Developing Countries: Making a Case for a Social Spring

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I. General Context: The 4th Industrial Revolution as a Window of Opportunity

There is an ongoing consensus that we are on the brink, if not already started, of a major technological revolution. The Fourth Industrial Revolution has a wider and deeper transformative power. It could be considered a major paradigm shift of our time. Its importance is characterized by a wave of innovation in many fields, yet it is not compartmentalized in silos of technological advancements and product innovation. Each of those breakthroughs ripples in many other spheres as productive, labor, social, economic, health, etc. And in every transition, every transformation, new opportunity arrives. In paradigm shifts like these, 'Windows of Opportunity' are opened. Perez and Soete (1988) studied the entry phase, which developing countries should use in their development strategies to catch-up with industrialized countries, arguing that from time to time, the entry barriers recede, creating a window of opportunity for those developing countries.

Taking advantage of these windows of opportunity is fundamentally conditioned to the 'social capability' of these lagging countries (Abramovitz 1995). There is because, in the moments in which the edge based in tech experience is not a determinant factor and the entry barriers recede, latecomers have a better chance in catching-up. But, they will only be able to compete with the leading economies if certain social conditions are met.

And here lies the central argument of this piece. Most of the developmental literature dedicated to developing countries tend to

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overly focus on industrial policies, macroeconomics and firms. Even when they look for success stories, such as the South Korean (SK), the dominant literature emphasizes basically these 'productive' experiences. But these productive strategies alone would not be enough to sustain the developmental strategies from the developing countries. There is a need of a social component to give support to the traditional industrial policies.

Nevertheless, the bulk of the economic theory regarding development defends the idea of a 'trade-off' between economic growth and social development, arguing that we can either focus on efficiency or equity, not both (Mkandawire 2014; Lee 2014). This widespread perception led to the 'subordination thesis' that argues that social welfare objectives should be subordinated to economic goals – under the guise of "growth first, distribute later" logic.

This narrative, naturally, was not born out of thin air. Indeed, South Korea has consistently displayed one of the lowest investments in social policies, as a share of the GDP, among OECD countries (OECD in Lee 2014). Notwithstanding, one of the key arguments from this piece relies on critiques raised by Chung (2014), Cocoman (2011), Mkandawire (2014) and others, that there might be a misconception, or better yet, a narrow view of what constitutes a social policy, coming from the American and European literature, that tends to disregard a number of actions from the government. According to Mkandawire, "The Eurocentric view of social policy has led to a privileging set of social policies prevalent in developed countries, while obscuring the many other social policy initiatives in developing countries." This perception comes from the acknowledgement that a given social policy could take many forms and be provided by different players, but with similar outcomes and/or objectives.

With that perspective in mind, and aware of the need to advance further in the research of a working concept of social policy, we aim to focus in a set of policies that are 'functionally equivalent' (Chung 2014), in other words, polices that can positively impact both industrialization efforts, while enhancing social welfare. And that might be the case of South Korea. Despite its traditional (though increasing) low levels of investment in social policies, most the literature tends to turn a blind eye to a set of functionally equivalent polices and several government-led actions that set the conditions to sustain the country's industrialization process.

II. Developmental Paths: Beyond Economics

South Korea often is depicted as a role model of the Asian Development Model of rapid industrialization, based on low social spending and focus on productive policies. In fact, the literature that covers the South Korean experience on industrial, macroeconomic policies and firms' strategies is considerably vast, and quite often compares the SK developmental trajectory with other developing countries

(Neves 2020). Conversely, the Korean developmental experience could also be seen from a different perspective, one that was labeled by White and Goodman (1998) and colleagues as 'developmental welfare systems.' The key point here is that those East Asian countries were indeed low spenders in social welfare, but that does not mean that it was not provided. Instead, in the SK case, the country frequently acted as regulator, transferring (both forcibly and through incentives) the responsibility to provide welfare to the private sector and families (to a smaller extent), who played a key role in financing social welfare (Lee 2014).

The SK social policy experience is rather complex and took different forms, throughout the decades, matching their different historical moments, such as the post-war period, the developmental years (1960's to the 1980's), democratic regimes and the current industrialized high-income position. Here we shall briefly list here six clusters of SK social policies that represented a major contribution to the SK developmental trajectory. The initiatives identified took place in the developmental years and that were 'functionally equivalent' – meaning, that had a positive impact both on social welfare and economic growth.

Land Reform and Agricultural Policies: Land reforms of 1947 and 1949; Grain Management Fund, Fertilizer Account; the development of high- yielding varieties (HYVs) of rice; and the well-known New Community Movement (Saemaul Undong).

Human Capital: The highlight of the SK development model is characterized by heavy investment of public funds in education, ensured universal enrollment in primary and secondary education, achievement of one of the world's higher levels of share of population with tertiary education; government control and coordination of the vocational education and training system and transferring (by either encouraging or forcing) to the private sector the task of establishing internal training programs; fostering of skill promotion key initiatives, such as the Vocational Training Law, Basic Law of Vocational Training, and Korea Vocational Training Corporation (currently the Human Resource Development Center of Korea).

Tax Incentives: Tax reforms enacted in the 1970's created exemptions and reduced the tax burden over the lower income strata of the society. By late 1977 the government also introduced tax exemptions over a number of basic necessities goods (food, water, heath, education and public transportation).

Financial Capital: The high-employment growth model (which widened the income tax base); wage compression (that served multiples purposes, from support high profit schemes from corporations to cope with inequality); and control over pension funds. The government exerted control over most savings schemes in the country, from pension funds to corporate profit, enabling it to prioritize the required infrastructure and the recipient sectors (such as heavy and chemical industry).

Social Protection Policies: An interesting case point of a consistent evolutionary upward trajectory. As the economy grew, the government has expanded the scope of its social programs and widened its coverage.[1] On the other hand, the government transferred a significant part of the social welfare to the private sector (and to a certain extent to families), reducing its direct expenditures on social policies.

III. Catching Up and Leapfrogging: The Role of the Social Spring

The process of catching up with and, eventually, leapfrogging leader economies is not a minor feat. It has to rely on long-term careful planning, with government-business-labor cohesion, a set of enabling policies, window of opportunities and a number of social conditions to give sustainability and the initial push to the economic growth. That assessment is supported by a growing literature (Rodrik 2004; Stiglitz and Greenwald 2014; Chung 2014; Mkandawire 2014 and the others) which posit that sustainable economic growth depends on the development and implementation of a set of social policies and institutional arrangements.

The correlation of economic growth and human development has been tested in many different forms, in order to assess their mutual benefit and correlations. An interesting exercise was conducted by Ranis, Stewart and Ramirez (2000). First, the authors identified a dual correlation, in which "on the one hand, economic growth provides the resources to permit sustained improvements in human development. On the other, improvements in the quality of the labor force are an important contributor to economic growth." Then, they discovered an interesting relationship between economic growth and human development preferences in the formative developmental cycles. While analyzing the developmental strategies preferences from 67 developing countries and observing their changes throughout three periods (1960's, 1970's and 1980's), they realized that those countries that have emphasized economic growth over human development in the first periods, end up presenting a vicious development cycle in the last period.[2]

To illustrate these findings, Brazil is a good case point. While it had performed well, displaying relatively accelerated growth during its first developmental phases, Brazil's lack of investment in human development led to a failure to sustain its economic growth. Ranis, Stewart and Ramirez (2000) called attention to the fact that the Brazilian high inequality levels (consistently one of the worst levels in the world) became a formidable obstacle, which hindered the ability of the country to move to a virtuous cycle.

The Brazilian experience offers an interesting contrast to the South Korean case, in regards to social policies. Despite the fact that one can

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1 Check Appendix 1 for further reference regarding the evolution of the major social protection programs.

2 Refer to Ranis, Stewart and Ramirez (2000) for the full table. Available at: http://www.econ.yale.edu/~granis/papers/cp0546.pdf

make an argument that the SK developmental model indeed follows the 'economic growth first' logic, it is also necessary to point it out that as its economy grew, the human development investments followed. That could be attested by the continuous evolution of the SK social programs through its developmental period. That argument may gain strong contours if we apply a broader understanding of social policies, as discussed above, and the country's unique historical context that allows it to begin its developmental trajectory with one of the most equal and educated societies in the developing world.

In that sense, the first key argument here is: yes, the relevance and need to focus on economic growth is undeniable, but its implementation requires also to focus on certain human development areas, since its inception. Otherwise, the economic growth will not be sustained. And even while we follow the approach of 'economic growth first,' it is necessary that the government take a leading role in managing the following distributive policies, as the market alone has not a good record in managing 'trickle down' effects.

The second key argument in this piece is the introduction of the concept of 'Social Spring.' While in the first argument we called for a need of investment in human development to follow (closely) every step of the economic growth trajectory, the second argument makes a case for several social policies that should be implemented beforehand and during the process of economic growth, for their implementation has significant collateral benefit for the economy.

The rationale behind the concept of Social Spring relates to the idea of functional equivalent policies from Chung (2014). They are policies that should be implemented during the process of industrialization, as they provide not only social benefits, but also positive impacts in factors of production. In that fashion, policies regarded as Social Springs are those that, despite their primary focus, if carefully designed, they could generate positive externalities in different segments (both social and economic). One interesting illustration of a Social Spring type of policy would be investments in infrastructure, such as sanitation. Investment in sanitation has the direct effect of improving health-related quality of life of the population affected. From it we can draw benefits in terms of reduction of infectious disease, infant mortality, malnutrition; increase in life expectancy, school attendance, among others. In the economic realm, it can provide positive impacts in terms of: increases in labor productivity (studies point to an increase of 4% productivity), labor intensiveness (rapidly creating new formal jobs), increased value of real estate in surrounding areas, potential tourism gains and conservation of money from future health expenditures (according to the WHO, each dollar spent in sanitation saves US$ 5,5 in health costs).[3]

3 Executive Insights. Available at: https://www.lek.com/sites/default/files/insights/pdf-attachments/2018-What-Must-Done-Improve-Brazil-Water-Sewage-Infrastructure.pdf, and WHO online Sanitation Factsheet. Available at: https://www.who.int/news-room/fact-sheets/detail/sanitation

Other examples of Social Spring policies could be found in other infrastructure initiatives (public transportation, housing, irrigation and communications), vocational training (as it unlocks the social conditions in terms of human capabilities to foster innovation and absorb foreign technology in both the productive sector and services), tax reform (progressive systems have the ability to reduce inequality, boost consumption, increase nutrition levels and diminish social discontent), land reform (reduces inequality and poverty, decrease imbalance between rural and urban workers, boost production by weakening land speculation, reduce the obstacles to industrial policies by diminishing the influence of large land owners), among others.

This set of initiatives are distinctive of the 'classic' group of social policies that are characterized by their continuous nature, that is, education, health, protective policies (pensions and insurances), among others. Those classic policies should constitute the 'floor' of the social conditions in which any developmental strategy should be built upon. Notwithstanding, given their permanency in time and (ideally) universal coverage, they usually rely on a certain level of economic growth to be proper implemented.

IV. Closing Thoughts and Future Research

As the Fourth Industrial Revolution advances, developing countries need to adjust their strategies if they aim to take advantage from this significant window of opportunity. The task is not a trivial one – as Wade (2003) pointed out, the number of strategies available for developing countries are being significantly reduced by a set of international agreements and regulations implemented in the last couple of decades. The path taken by Western, and later, by East Asian countries are nearly 'off limits' (Chang 2002; Lee 2021). With fewer development policy options, these countries will have to go beyond the classic developmental approach to succeed in leapfrogging and take the lead.

For that, developing countries should take notice of at least two major issues. First, following the leaders' footsteps is not enough. Mimicking past developmental experiences incurs several formidable obstacles: the emulation of initial conditions in another country, discounting political social context of past experiences, following strategies that were outlawed by international agreements and to avoid the 'catch-up paradox.' To escape some of those obstacles, interesting alternatives to the traditional literature have been discussed, such as the 'three detours' model proposed by Lee (2019).

The second issue also relies in breaking-up with the bulk of the economic development literature, in regards of the role of the social policies in development strategies. The reason relies on the contemporary understanding that not only economic growth should precede human development, but that there is a trade-off between social and economic policies, thus they could not co-exist in a broader developmental strategy (Mkandawire 2014). And here lies the core argument of this piece. This trade-off led us to a false or incomplete assumption.

The role of social policies in the developmental process, while counting with some major contributions, is still undertheorized. As we try to present in this paper, there is a need for future research on: first, a deeper reconceptualization of the social policy concept. As discussed before, the dominant understanding rests in a narrow view of permanent expenditures used to mitigate negative social effects of the economy or market failure. As the South Korean example showed us, there are a number of ‘one-time-off’ social initiatives that also should be taken into consideration, such as tax reforms, land reform, investment in certain infrastructure and projects such as the Saemaul Undong. Second is there a need to foster studies on the (positive) economic impacts of this set of social policies. As argued, a number of policies, illustrated here as Social Springs, carry within them a number of collateral benefits, which not only generates positive impact on other social areas, but also in economic indicators. A glaring case is the investment in sanitation.

Thus, while forging their path towards development, developing countries should try to take their own past experience and reassess it from a different perspective. Even the South Korean trajectory, regarded as a role model of the ‘subordination theory’ should be reviewed, for many key aspects of its journey were, to a certain extent, under valuated or even disregarded by much of the dominant economic narratives. The present moment does indeed offer an important window of opportunity, being that for the Fourth Tech Revolution or under the guise of the green development and the new sustainable practices, which opens a new set of opportunities for all those countries that manage to build their own social conditions.KIEP

References

Abramoviz, Moses. 1995. “The Elements of Social Capability.” In Perkins, D. H. and B. Koo. (eds.) *Social Capability and Long-term Growth*. Basingstoke: Palgrave Macmillan

Adelman, Irma. 1997. “Chapter 12. Social Development in Korea, 1953-1993.” In Cha, Dong-se, Kwang Suk Kim and Dwight H. Perkins. (eds.)

Chang, Ha-Joon. 2002. *Kicking Away the Ladder—Development Strategy in Historical Perspective*. London: Anthem Press.

Chung, Moo-Kwon. 2014. “The Development of Transformative Social Policy in South Korea: Lessons from the Korean Experience. In Yi, Ilcheong and Thandika Mkandawire. (eds.) *Learning from the South Korean Developmental Success Effective Developmental Cooperation and Synergistic Institutions and Policies*. London: Palgrave MacMillan. pp. 108-135.

Cocoman, Olive. 2011. “Learning from South Korea’s development experience: Report on the UNRISD-KOICA methodology workshop for the project ‘Making Development Cooperation Effective’ leading to the HLF-4 in Busan.” Journal of International Development Cooperation, vol. 6, no. 3, pp. 207-217. https://doi.org/10.34225/jidc.2011.3.207

Cornia, G. A. 1995. “Food Subsidies: Two errors of targeting.” In Stewart, F. (ed.) *Adjustment and poverty: options and choices*. London: Routledge. pp. 82-107.

Giddens, A. 2000. *The Third Way and its Critics*. Cambridge: Polity Press.

Lee, Keun. 2019. *The Art of Economic Catch-up: Barriers, Detours and Leapfrogging in Innovation Systems*. Cambridge: University Press.

———. 2021. “Chapter 5. Economics of Technological Leapfrogging.” In Lee, Jeong-Dong, Keun Lee, Dirk Meissner, Slavo Radosevic and Nicholas Vonortas. (eds.) *The Challenges of Technology and Economic Catch-up in Emerging Economies*. Oxford: Oxford University Press: 123-159.

Lee, Jooha. 2014. “Institutional Linkages between Social Protection Measures and Industrialization in South Korea.” In Yi, Ilcheong and Thandika Mkandawire. (eds.) *Learning from the South Korean Developmental Success: Effective Developmental Cooperation and Synergistic Institutions and Policies*. London: Palgrave MacMillan. pp. 91-107.

Mathews, J. and Keun Lee. 2018. “How Emerging Economies Can Take Advantage of the Fourth Industrial Revolution.” Jan 11, World Economic Forum. https://www.weforum.org/agenda/2018/01/the-4th-industrial-revolution-is-a-window-of-opportunity-for-emerging-economies-to-advance-by-leapfrogging/

Mkandawire, Thandika. 2014. “Lessons from the Social Policy and Development of South Korea: An Interrogation” In Yi, Ilcheong and Thandika Mkandawire. (eds.) *Learning from the South Korean Developmental Success Effective Developmental Cooperation and Synergistic Institutions and Policies*. London: Palgrave MacMillan. pp.11-30.

Neves, L. P. 2020. *Economic Development and Global Value Chain Insertion: A view from Brazilian and South Korean lenses.* Rio de Janeiro: FGV NPII. https://iiu.fgv.br/sites/iiu.fgv.br/files/papers/fgv_iiu_kf_paper_leonardo_paz_neves_0.pdf

OECD. 2011. “A framework for growth and social cohesion in Korea.” OECD Better Policies Series.

Perez, Carlota and Luc Soete. 1988. “Chapter 21. Catching up in Technology: Entry Barriers and Windows of Opportunity.” In Dosi, G., C. Freeman, R. Nelson, G. Silverberg and L. Soete. (eds.) *Technical Change and Economic Theory.* London: Pinter Publishers: pp. 458-479.

Ranis, Gustav, Frances Stewart and Alejandro Ramirez. 2000. “Economic Growth and Human Development.” *World Development*, 28(2), pp. 197-219.

Rodrik, Dani. 2004. “Industrial Policy for the Twenty-First Century.” Prepared for UNIDO.

https://drodrik.scholar.harvard.edu/files/dani-rodrik/files/industrial-policy-twenty-first-century.pdf

Stiglitz, J, E. and Bruce C. Greenwald. 2014. *Creating a Learning Society: A New Approach to Growth, Development, and Social Progress*. New York: Columbia University Press.

Wade, R. H. 2003. “What Strategies Are Viable for Developing Countries Today? The World Trade Organization and the Shrinking of 'Development Space'” *Review of International Political Economy*, 10(4), pp. 621-644.

White, Gordon and Roger Goodman. 1998. “Chapter 1. Welfare Orientalism and the Search for an East Asian Welfare Model.” In Goodman, R., H.-J. Kwon and G. White. (eds.) *The East Asian Welfare Model: Welfare Orientalism and the State*. London: Routledge.

Appendix

Social security system	First enactment	Coverage expansion/ reforms	Full coverage
Health insurance	1963 (not compulsory) 1975	• 1977: workplaces with 500+ employees • 1981: 100+ employees • 1988: 5+ employees • 1988: includes farmers/ fisheries 1989: self-employed in urban areas • 2001: comprehensive single fund	1989
Work injury insurance	1963	• 1964: 500+ employees • 1965– 73: 16+ employees • 1982: 10+ employees • 2000: 1+ employee	2000
Pension (old- age)	1973 (aborted) 1986 (revision)	• 1988: 10+ employees • 1992: 5+ employees • 1995: includes farmers/ fisheries 1999: includes self- employed 2003: 1+ employee	1999
Employment insurance	1993	• 1995 unemployment benefits: 10+ employees • training programs: 70+ employees • 1998: 1+ employee	1999
Old- age long- term care	2007	• Over 65 years old	
Public assistance	2000	• 2000: basic livelihood law	