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THE CHILEAN ECONOMY SINCE THE RETURN TO DEMOCRACY IN 1990. ON HOW TO GET AN EMERGING ECONOMY GROWING, AND THEN SINK SLOWLY INTO THE QUICKSAND OF A “MIDDLE-INCOME TRAP”

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The main hypothesis of this paper is that the Chilean economy's poor performance over the last two decades (e.g., average productivity growth collapsed by three quarters vis-à-vis the previous cycle) results from its development strategy having run its course —being now in desperate need of a full “upgrade” (one capable of generating new engines of productivity growth; e.g., the industrialisation of commodities, a “green new deal”, or the spread of the new technological paradigm to the four corners of the economy). The same can be said of the neo-liberal ideology at its foundations, as most of its “absolute certainties” are being shaken to the core. However, neither the (not so) invisible hand of distorted markets, nor centre-left or centre-right governments have had much of a clue as to how to bring this change about. There is also (unlike, say, in some Asian economies) a generalised lack of nerve to do anything about it. Consequently, the Chilean economy is now jammed in a rather transparent —and self-made— “middle-income trap”. In fact, change has come in the opposite direction: in order to reinforce the growingly fragile status quo, a new policy-straightjacket has been added in the form of the Transpacific Treaty, or TPP-11, which gives large corporations (foreign and domestic) a de facto veto against any change in policy. In turn, the advanced countries’ “reverse catching-up” isn’t helping either, as this also helps reinforce the convictions of those in Chile defending the status quo. We are all now indeed converging in the West, north and south, but towards Latin American features such as mobile élites creaming off the rewards of economic growth, and ‘magic realist’ politics that lack self-respect if not originality. In fact, it is now even tempting to say to those in the high-income OECD “Welcome to the Third World”.

The Chilean economy since the return to democracy in 1990. On how to get an emerging economy growing, and then sink slowly into the quicksand of a “middle-income trap”

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No un-thought thought allowed!²
(With apologies to) **Olafur Eliasson**

The general theorem for the second best optimum states that if ...a constraint ...prevents the attainment of *one* of the Paretian conditions, the other[s]..., although still attainable, are, in general, *no longer desirable*.
Lipsey and Lancaster

We are all just prisoners here, of our own device.
“Hotel California”

Today the appeal to newness,
of no matter what kind,
provided only that it is archaic enough,
has become universal.
Theodor Adorno

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(Available at <http://www.econ.cam.ac.uk/research-files/repec/cam/pdf/cwpe1991.pdf>)

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When writing this paper, I couldn’t help wondering what my school-friend Eugenio Ruiz-Tagle (1947-1973) would have made of where we are today. This paper is dedicated to him. (In Dante’s *Inferno*, there is a special circle of hell for people like those who inflicted such unimaginable cruelty on him –as well as for those who applauded it).

² It could be said that this became the *de facto* motto of the political front “The Concertación” after it won the 1988 Plebiscite, which marked the beginning of the return to democracy.

1.- Introduction

Chile's economy since the return to democracy in 1990 has followed two different cycles: a dynamic one (1990-98) —which had started in 1986—, then a poor one. In the first it grew at 7.2% per annum (p.a.), while in the other (1998-2018) —with "super-cycle" of commodities, easy borrowing and all— at half that figure (3.7%).³ The same is true for income per capita (pc): 5.5% vs. 2.6%.

The driver of growth also switched from productivity to employment: while the latter remained stable despite the GDP slowdown (2.5% and 2.3%), productivity collapsed from 4.6% to 1.3%. The key questions that emerge are the following:

i) What led to the dynamism of the 1990s?

ii) Why was the economy unable to sustain this drive, even though there was no change in policy or politics, and despite improving commodity prices and unprecedented easy access to cheap foreign finance?

iii) Why was employment growth the exception in the downturn?

iv) Why did productivity growth collapse? And

v) What can be done about it?

Although numbers and theory can only come to life symbiotically, I shall discuss first the former (in an historical perspective) in Section two, and then the latter in Section three —and always following Hobsbawm's advice: "The business of historians is to remember what others forget".⁴

2.- Numbers

2.1.- Any "catching-up" with the production frontier?

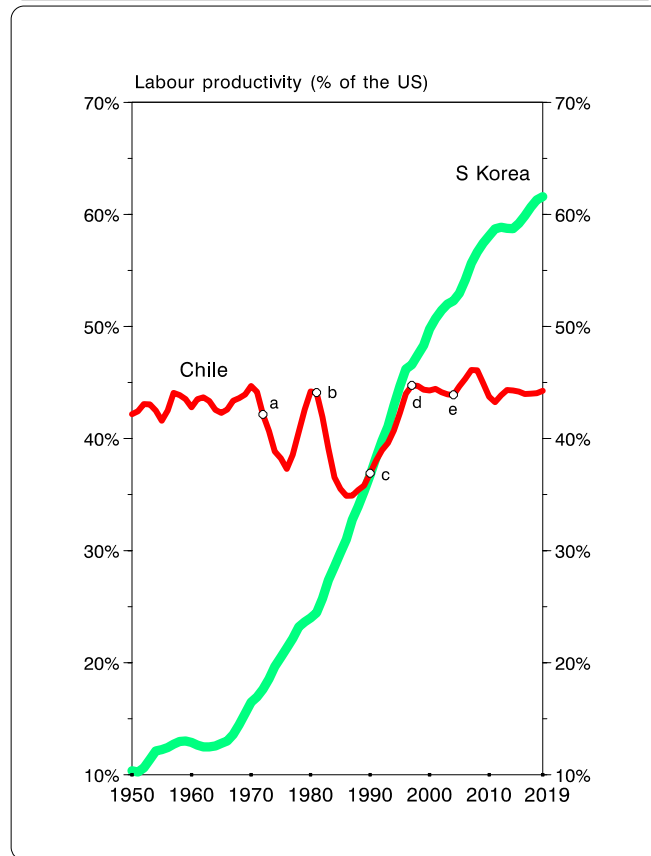
The most revealing indicator of long-term performance for a high middle-income country is whether it is closing the productivity gap vis-à-vis the frontier. Figure 1 shows the relative productivity of the *average* Chilean and South Korean worker vis-à-vis the United States.

³ GGDP (2019); WDI (2019).

⁴ Hobsbawm (1994).

FIGURE 1

Chile vs. S Korea: "catching-up" with the US, 1950-2019



- **a**=1972 (the year before the Coup d'état); **b**=1982 crisis; **c**=return to democracy; **d**=end of the 1986-1998 cycle; and **e**=beginning of the "super-cycle" of commodity prices. 3-year moving averages.
- Source: GGDC (2019; US\$2018, PPP).

What a contrast! And the same applies between other Latin American countries vis-à-vis emerging Asia (Figure 2). While in Chile, other than having more cycles post-1973, there is little difference between the two post-war development strategies in their inability for *sustainable* "catching-up" (first import-substitution, ISI, and then the post-1973 one), in South Korea export-led industrialisation thrived. In fact, Chile's relative productivity today –about 45% of the US's in PPP dollars– is *exactly the same* as well over half a century ago. And in non-PPP, the picture is the same, with Chile hovering around 30%, and its 2019 level also similar to the mid-1950s. This is a country caught in a true "middle-income trap" –as if there was a 'glass ceiling', which only emerging Asia knows how to break.

Figure 1 also shows the two post-1990 cycles –the 1990-98 dynamic one ("c" to "d"), and the post-1998 lacklustre one. And it shows the wasted opportunities of the so-called "super-cycle" of commodity prices and the unprecedented access to cheap finance, which left no permanent "catching-up" trace. However, they did leave another impact: during the "super-cycle", Latin America increased its relative number of millionaires, centimillionaires and

billionaires faster than any other region, with Chile at or near the top (according to the category of millionaire).⁵

Figure 1 also shows Chile's monumental post-1982 collapse—which brought the direct rule of the Chicago Boys to its ignominious end. As the private sector's *excess* expenditure (mostly consumption) approached nearly 20% of GDP on a quarterly basis, the following crash became Chile's worst *self-made* crisis.

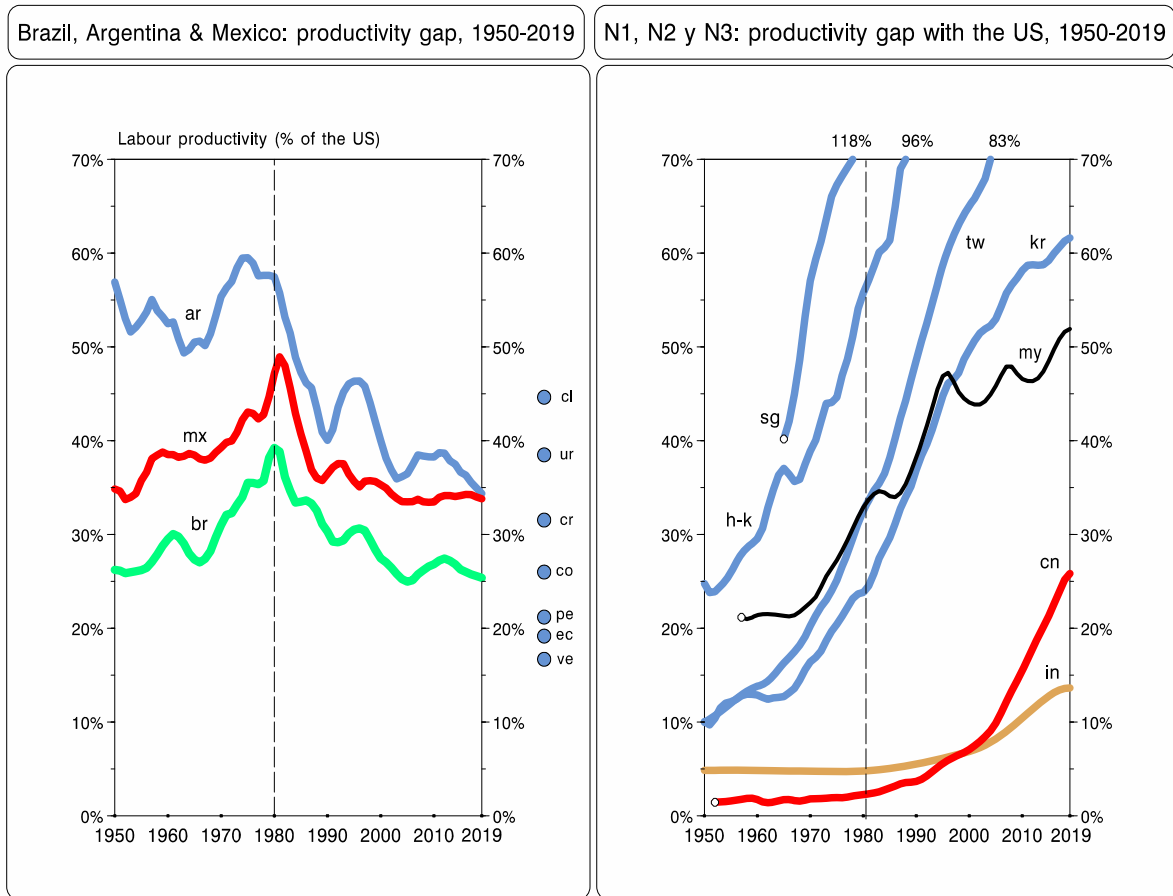
These abrupt cycles are not found in emerging Asia, even though they had to deal with the same unstable world economy and self-destructive international finance, and their own financial turbulence (1982 and 1997).⁶ Their Keynesian pro-growth and anti-cyclical macroeconomics helped, while Latin America's growing monotonic obsession with inflation targeting and pro-cyclical exchange rates, and Central Banks insisting that growth is someone else's job, didn't. For Keynes, policy making is precisely about the opposite: *the coordination* of all aspects of policy. Just imagine a car in which one person has the steering-wheel, another the clutch and the gear box, and yet another (an "independent" Central Bank) the accelerator and the brakes. Not precisely the best setting for a smooth—and efficient—ride.

Finally, Figure 1 shows how remarkable Chile's recovery from the 1982 collapse was—after the change of the economic guard at the palace, and in the capitalist élite (replacing those who'd gone bust due to astronomical debts). This is what sets Chile apart in the region; others are still trying to recover their pre-1982 relative productivity position vis-à-vis the US (Figure 2).

⁵ Wealth development Report (2014).

⁶ For South Korea's macroeconomic policies, see Chang (1993); for Chile, Ffrench-Davis (2018). For a comparison, Palma (2012). For the subject in general, Taylor (2010).

FIGURE 2



- **ar**=Argentina; **br**=Brazil; **mx**=Mexico; **N1**= emerging Asia’s first wave of industrialisation, Hong-Kong (**h-k**), Singapore (**sg**), South Korea (**kr**), and Taiwan (**tw**); **N2**=second wave, Malaysia (**my**); and **N3**=third wave, China (**cn**) and India (**in**). 3-year moving averages.
- Source: GGDC (2019; US\$2018, PPP). Due to problems with Mexico’s pre-1990s employment data, I use relative income pc.

Brazil and Mexico (like Chile) are today roughly as they were in the 1950s, having reversed all their 1960s and 1970s gains; while Gardel’s Argentina is still going downhill (“cuesta abajo en su rodada”). Mexico has at least stabilised its post-1982 fall.

There’s no such thing in emerging Asia as a middle-income trap (or artificially constructed “glass ceiling”, as in Chile), in any of its waves of industrialisation. When Singapore split from Malaysia (1965, two years after independence) for example, its relative productivity was just 40% –slightly below Chile’s 43%. Less than 20 years later, while Chile had gone backwards (39%), Singapore was already ahead of the US in PPP terms.

This comparison is relevant, as Singapore’s key driver of growth at the time was the rents from its main natural resource –its port, which, like the canal in Panama, was the very reason for its colonial existence.⁷ Singapore kept it in the public sector to be able to use its rents and profits to finance its ambitious industrial and trade policies, which brought it from low-middle income to a

⁷ Due to its geographical location and deep waters, the British East India Company invented Singapore as a trading post.

technological leader in one generation. For this, and to finance its thriving educational and health sectors, it also used the profits from its many public sector enterprises, and the rents of its other natural resource, land—in this free-market paradise, 87% of land is still owned by the government, and 85% of housing is supplied by the government housing board.⁸ In all, while Singapore increased its investment per worker by a factor of 11 during the three decades after independence, Chile did not even double this statistic during this period.

That is, in (highly) right-wing Singapore, private sector “fetishism” has never been part of its pragmatic hegemonic ideology. It simply made no sense to privatise its natural resources, as their rents and operating profits were needed to finance their huge investment drive. Perhaps that’s the difference between wanting to build a nation, or just a country ruled by natural-resource-grabbing “silly-billies” (as the *Financial Times* now calls Latin-style billionaires).

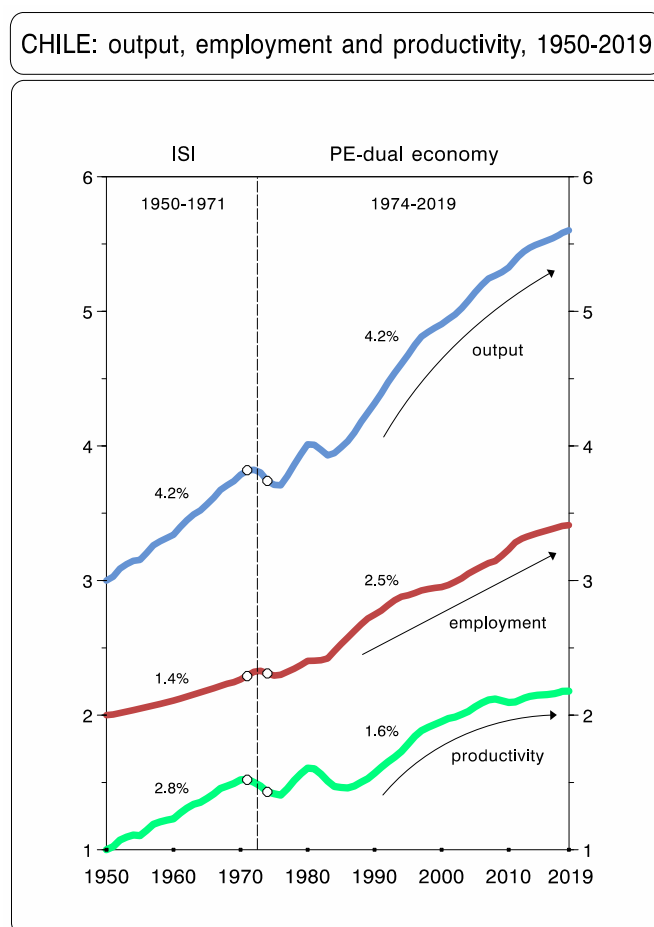
In fact, Singapore’s development strategy is similar to what President Balmaceda had tried in the 1880s with Chile’s rents from nitrates (see below). While the capitalist élite in Singapore supported this development strategy, most of Chile’s oligarchy opposed Balmaceda bitterly—as it would “shift gear” in this lethargic and mostly pre-capitalist economy and society. It created such institutional strains, that the country ended up in its first major civil war in over half a century—one in which the traditional oligarchy and its British allies (those at the receiving end of Balmaceda’s nitrate royalties) were destined to win after the forced conscription of the nitrate miners from the north. A mostly peasant army from the South was no match for them.

In Singapore, meanwhile, it made a lot of (capitalist) sense for its “market-friendly” political élite to use the rents of natural resources *productively*, and to give state-owned enterprises a substantial role—especially in its “catching-up” stage.

⁸ See Chang and Rowthorn (1995).

2.2.- Growth of GDP, employment and productivity

FIGURE 3



- Productivity=output per worker. 3-year moving averages.
- Source: GGDC (2019; US\$2018, PPP).

Figure 3 shows a (conveniently) oft-forgotten stylised fact: Chile's long-term GDP-performance was identical in its post-war ISI and its post-1973 periods, despite their hugely different natures (4.2% p.a.). It seems that the undercurrents that really matter for the growth performance of the Chilean economy are more complex than just policy prescriptions.

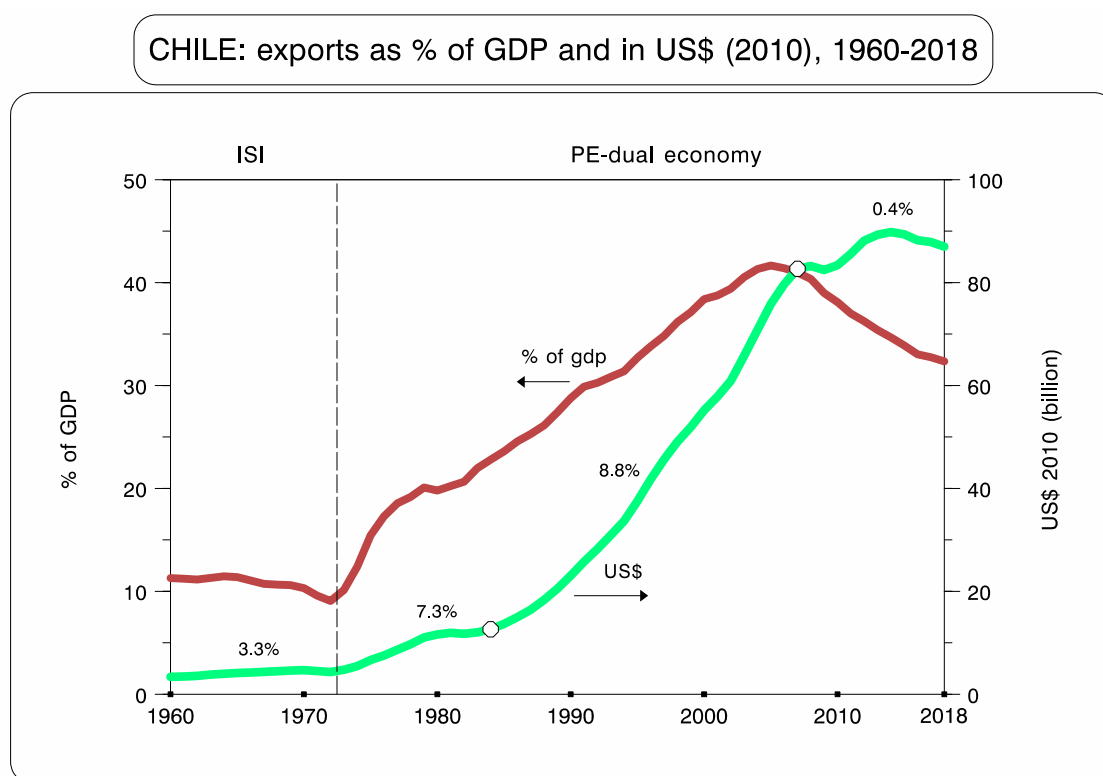
However, this similarity differed in its inputs (employment and productivity). During ISI, productivity grew twice as fast as employment (2.8% and 1.4%), but during the long post-1973 period the opposite is the case (2.5% vs. 1.6%). That is, while employment growth nearly doubled, productivity growth—despite its 1986-98 remarkable period—moved (cyclically) in the opposite direction. In all, between 1974 and 2018 employment generated about two-thirds of GDP-growth, but 80% of it ended up in low productivity (*and* low-productivity growth potential) services and construction—up from about half in the early 1970s. In turn, and despite the vibrant 1986-98 period, average productivity growth fell by nearly half, as during its first twelve years (1974-1986) productivity actually declined, and during the two post-1998 decades it grew by just 1.3% p.a. In fact, during 33 of the 45 years of the post 1973 development strategy (the 1974-1986 and 1998-2018 periods—i.e., excluding 1986-1998) productivity grew on average by less than 0.7% p.a. (or just 26% in

all). That is, as far as productivity growth, there was a highly-dynamic 12-year period (1986-1998), and two poor ones at each side of it—especially its first pitiful one.

The post-1998 productivity growth slowdown originated from the two key areas of the dual economy getting stuck in their respective middle-income traps—i.e., both were unable to “upgrade” (as South Korea and Singapore, among others in emerging Asia, had done). While the export sector proved unable to move on from its purely extractive activities, the non-tradable sector remained stuck in labour-intensive, but low-productivity growth potential activities. This is where the key problem of the current Chilean economy lies. Krugman is surely right: although “productivity isn't everything, ... in the long run it is almost everything”.⁹

Lack of “upgrade” meant that as its purely extractive cycle showed signs of reaching its full potential (especially in mining), Chile’s export growth collapsed despite the “super-cycle” of commodity prices and easy access to finance (Figure 4).

FIGURE 4



- 3-year moving averages.
- Source: WDI (2019; US\$2010).

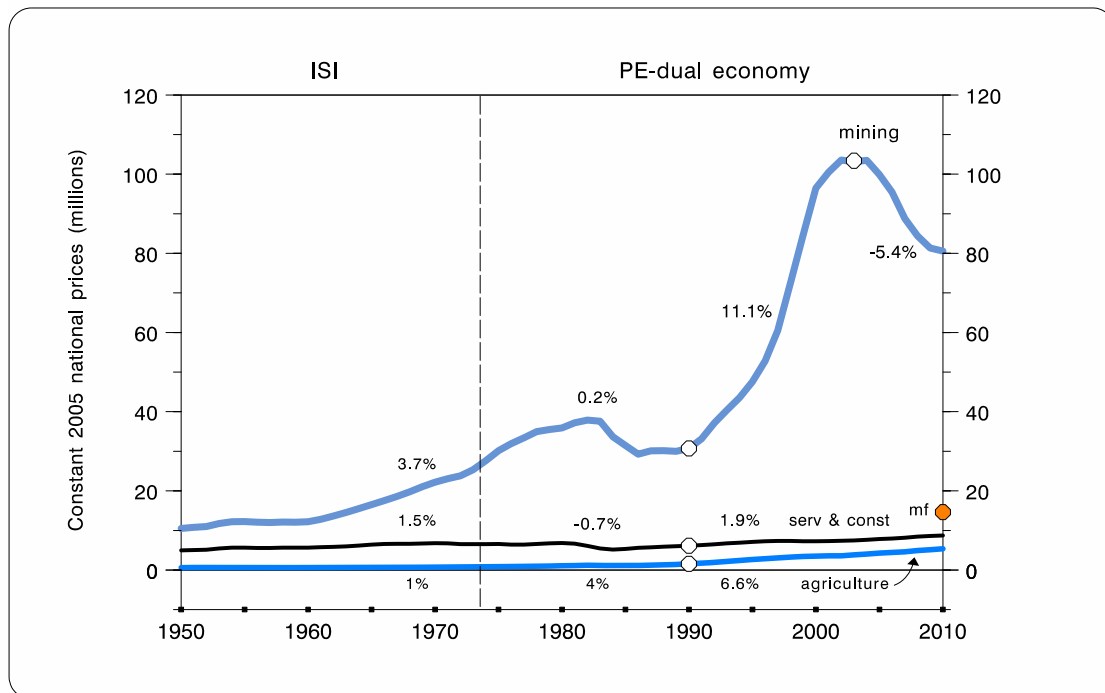
2.3.- The sectoral composition of output

Figure 5 highlights the growing “dual” nature of the economy since the 1970s’ neo-liberal reforms. In fact, sectors coexisted side-by-side that had labour productivity differentials of up to a factor of 30—even manufacturing, with its usually high relative levels of productivity, ends up just above services and construction, and as a fraction of mining.

⁹ Krugman (1994).

FIGURE 5

CHILE: labour productivity per sector in a "dual" economy, 1950-2010



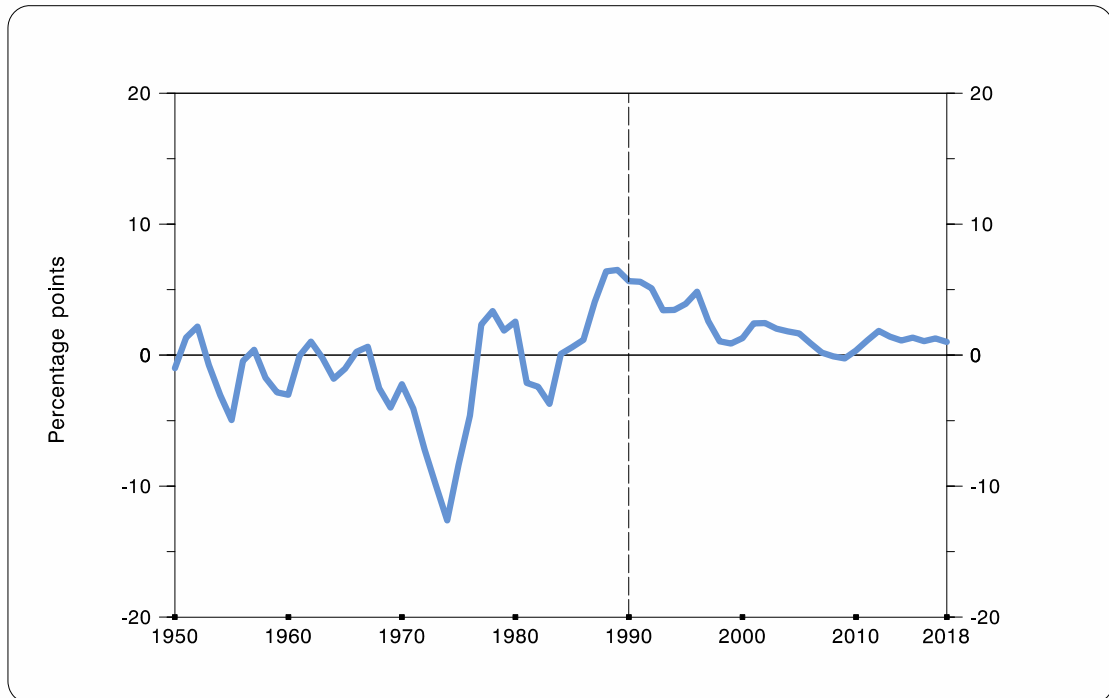
- **mf**=manufacturing; **serv&const**=services and construction. 3-year moving averages.
- Source: GGDC (2018). Comparable data only available until 2010. For manufacturing during the whole period, see below.

As the mineral extractive sector refused to industrialise, its productivity growth —after growing at 11% p.a.—, hit an “extractive ceiling”. Only agriculture, with its greater potential for horizontal export-diversification, could still deliver a healthy productivity growth post-1990s (6.6% p.a.). Meanwhile, services and construction continued their rapid employment expansion (3.5% p.a.), but could only deliver productivity growth at 1.9% p.a.

Consequently, Chile’s economy even began to lose its post-1986 “comparative advantage” within Latin America: how to extract more GDP growth from (what I shall call) its “purely-extractive dual-economy model”, or PE-DE. And this “convergence” (Figure 6) happened despite political instability and poor economic performance elsewhere.

FIGURE 6

Rate of growth of GDP in Chile minus that of the average of Latin America*, 1950-2018



- The rest of Latin America not only excludes Chile, but also Venezuela due to unreliable data.
- Source: GGDC (2019).

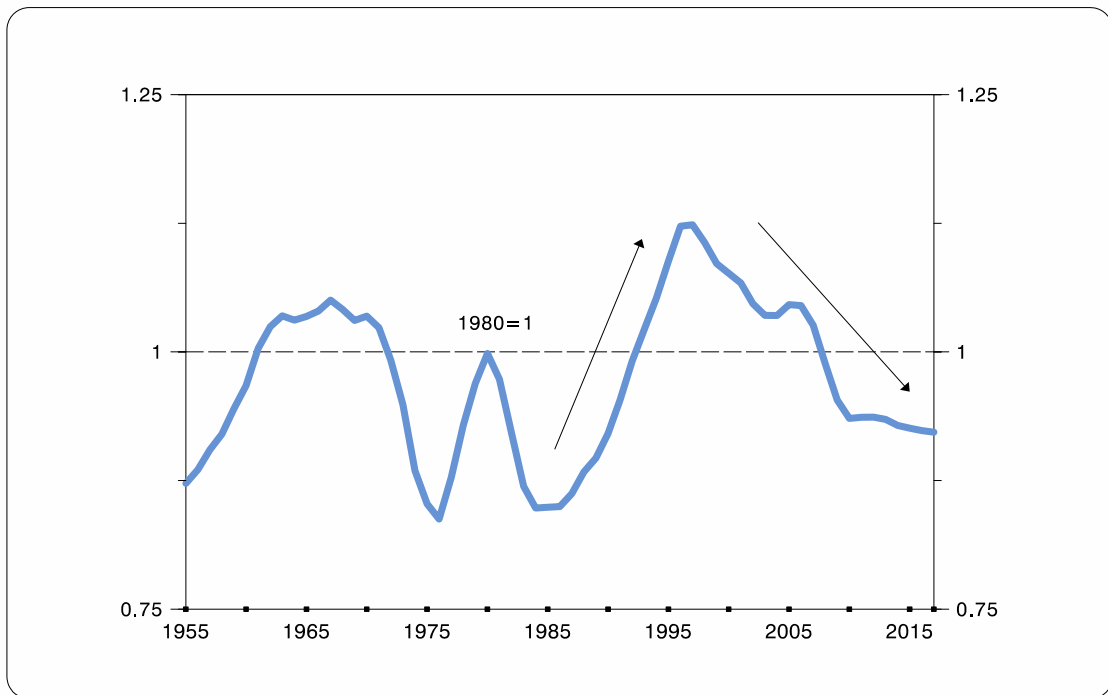
This would suggest that a self-satisfied élite that likes to believe that Chile is like a good house in a bad neighbourhood is suffering some delusional grandiosity.

2.4.- "Total factor productivity" (TFP) and the Chilean economy

Inevitably, some are wondering whether the (by now fairly obsolete) neo-classical concept of TFP indicates a similar up-and-down picture since the mid-1980s. And so it does (Figure 7), except that the downturn starts even earlier (mid-1990s). It also suggests that the "super-cycle" and the easy access to finance became wasted opportunities.

FIGURE 7

CHILE: TFP in a "purely extractive-dual economy", 1955-2017



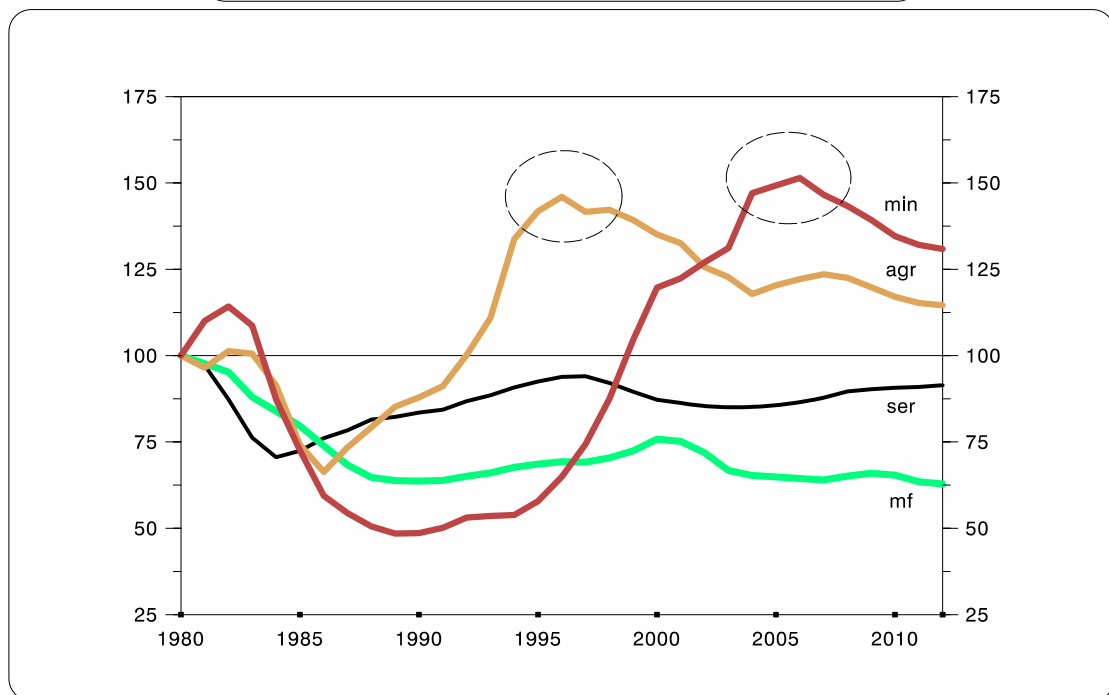
- 3-year moving averages.
- Source: FRED (2019).

2.5.- The potential and limitations of natural resources as engines of productivity growth if they get stuck in purely extractive activities. On "Aborted catching-ups"

Figure 8 shows the two facets of a purely extractive export sector. From the mid-1980s recovery onwards, it was agriculture (i.e., forestry, fish-farming, fruit and vegetables) that led the "catching-up". Mining did so only from the mid-1990s.

FIGURE 8

CHILE: productivity gaps with the US, 1980-2012



- **agr**=agriculture; **mf**=manufacturing; **min**=mining; and **ser**=services. Each line is an index number (1980=100) of the ratio of labour productivities between Chile and the US (each in real terms and domestic currencies). An increase implies that Chile is “catching up”, and a decline that it is falling behind. 3-year moving averages.
- Source: GGDC (2018; data available until 2012).

The key question here, of course, is why each process of rapid commodity-“catching-up” plateaued—and then even began to reverse. Part of the answer is relatively straightforward: when these activities had reached international levels of competitiveness, their demanding “catching-up” period, with their rapid productivity growth requirements, was basically over. From then onwards, these extractive sectors just aimed at increasing output while keeping competitive.¹⁰ Instead, what was necessary to sustain the productivity growth drive was to switch towards higher value-added activities, while fostering all the associated industries. However, this was clearly not the priority of the corporations (foreign or domestic) involved in the sector—and for reasons that had little to do with production efficiencies, and a lot with trade distortions, such as China’s trade policies incentivising imports of commodities as unrefined as possible.¹¹ And

¹⁰ According to Bloomberg, the salmon-farming industry, for example, has struggled to maintain quality while increasing quantity. While output doubled over the last decade (to US\$5 billion), it used 1,400 times more antibiotics than Norway for a similar output (<https://www.bloomberg.com/news/articles/2019-08-01/bain-capital-s-patagonia-fishery-rigs-data-and-sparks-a-crisis>). And one producer that claimed to buck this trend was doctoring its statistics (Ibid.). So, local salmon farmers gained a reputation of “...cowboys of sorts who play fast and loose with rules” (Ibid.). The problem is little fear of prosecution—if convicted, instead of going to prison one may just be sent back to university... A judge recently sent corporate executives convicted of a major tax fraud on a course in corporate ethics—on condition they got a passing grade!

¹¹ China is the only country that wants Chilean walnuts in their shell, Argentinean soya as

governments were not prepared to do anything about it—even if it was just to stop the unnecessary pollution created by transporting more bulky products.¹²

What is remarkable here is the contrast between how successive centre-left governments were quite happy to “interfere” in the market to help the early development of purely extractive activities (such as fish farming and forestry)—and with shamelessly “vertical” policies—, but were totally reluctant to do the same when it came to their industrial processing.¹³ As discussed below, it seems that the “new left” have never been able to unshackle itself from its ghosts from the past! Thus, when it comes to adding manufacturing value to commodities, or to regulate the huge environmental damage of extractive activities (e.g., forestry), or to control the basic quality of primary production (e.g., fish farming), they suddenly turn into strict “free-marketeters”.

The other related phenomenon in Figure 8 is the poor performance of manufacturing, the sector that fell further behind (even more vis-à-vis emerging Asia; Section 2.6 below)—something common to all Latin America (even NAFTA’s Mexico).

However, in Chile “aborted catching-ups” are not new. During ISI, manufacturing also reached a “catching-up plateau”, and got stuck there (Figure 9).

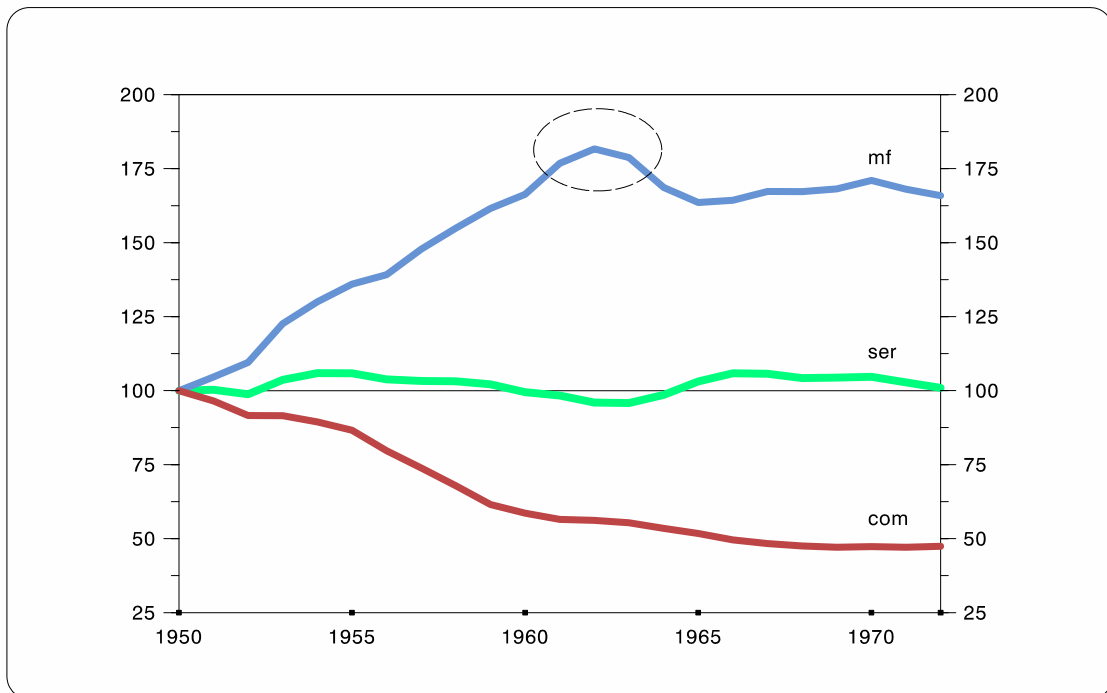
beans, heavy-oil unrefined, and so on.

¹² Over a thousand cargo ships sail each year from Chile with copper concentrates; but as this product only has about 30% of the mineral, the equivalent of at least 700 of those ships sail with just slag. In fact, by volume, this slag is Chile’s largest export product! And this bizarre pollution is Chile’s most easily avoidable contribution to climate change. All it would take to stop this would be a higher royalty for the exports of concentrates than for refined copper, forcing their smelting in Chile.

¹³ For an analysis of how successive governments became key actors in the early stages of some extractive activities, see Lebdioui (2019). The first “vertical” subsidy in the new PE-DE model was implemented by Pinochet’s last finance minister on forestry, but that was more an incentive for reforestation to stop soil erosion due to the indiscriminate cutting of native forests—some containing trees hundreds and thousands of years old (including alerce and araucaria).

FIGURE 9

CHILE: productivity gaps with the US, 1950-1972



- As Figure 8, and **com**=commodities. 3-year moving averages.
- Source: GGDC (2018).

Do these two events reflect similar dynamics, as opposed to mere coincidence? There is an underlying common phenomenon: the inability of (distorted) markets, (rentier) entrepreneurs and (captured) governments to force the “upgrade”. As the PE-DE model got stuck in its purely extractive activities, ISI also proved unable to move beyond its “close-economy” model into its next –more specialised and open– stage. Countries fall into this “middle-income trap” by thinking that the way to transit from middle to high-income status is by doing “more of the same”, hopefully better –or in neighbouring countries...

And the more advanced emerging Asia (e.g., South Korea, Singapore and Taiwan) was teaching us at the time how to avoid this “ISI-catching-up trap”: target subsidies to specific sectors *in a performance-related way* (including export targets); start opening up manufacturing; and rationalise state-owned corporations.¹⁴ However, the perpetual “neophobia” of the Latin American oligarchies –i.e., their fear of anything new, including that of a break from routine– prevailed. And this fear-of-the-new led to a similar type of policy-rigidity afterwards, as it was then also transmitted to the “new-left” ideology.

2.6.- Manufacturing: the elephant in the room. The “non-creative destruction” of a former engine of growth.

Perhaps nothing reveals the “reverse-gear” attitude of neo-liberal reforms in Latin America better than what happened in manufacturing. This is best summarised by the President of Brazil’s Central Bank: when asked about the purpose of

¹⁴ Pérez (2002).

Cardoso's neo-liberal reforms, he replied: "to undo forty years of stupidity". (Veja 15/11/96). In Chile, an identical attitude is found earlier in "The Brick", a Chicago Boys' publication calling for exactly the same: the complete reversal of ISI –i.e., to multiply all policies by minus-1.¹⁵ Hardly likely that the most appropriate development strategy, and related economic policies, could have had as simple guiding principles; also, only pretty unimaginative ideologies need to demonise everything that has happened before in order to romanticise its propositions!

This unsophisticated ideological discourse neatly reflects the rigidity with which the reforms were implemented in the region, and their poor outcome –in terms of productivity growth, for example, the average for Latin America (even excluding Venezuela) collapse from 2.8% p.a. between 1950 and 1980, to just 0.2% between then and 2018. In fact, in countries such as Brazil and Mexico ISI had delivered some of the fastest growth-rates in the world –in Brazil, 6.8% p.a. for 1950-80, multiplying its GDP by more than seven-fold (and Costa Rica by 6.6, Mexico by 6.4, the Dominican Republic by 5.6, and Ecuador by 5.2).¹⁶ Only a Latin-version of a Taliban could have labelled these years as "years of stupidity"; of course as Brazil failed to "upgrade" its ISI in the 1970s, this development strategy then became counterproductive, but that is another matter.¹⁷

And the Dark-Ages-style attitude to "undo forty years of stupidity" hit manufacturing particularly badly; Brazil's manufacturing growth-rate decelerated faster *than in any other country in the world* –from 8.2% (1950-80, when output increased ten-fold), to less than 1% since. How different from emerging Asia, where early reforms were implemented not to mechanically reverse but *to strengthen* existing ambitious industrialisation strategies, and to help them adapt to the new technological paradigm and world order. In Latin America, instead, the not very original "reverse-gear"-style neo-liberal discourse resembled a compass whose "magnetic north" had simply switched to the South Pole –leading to a "non-creative destruction" of the ISI manufacturing. Meanwhile, emerging Asia forged ahead.

This new Latin American development strategy also delivered odd political settlements, characterised by a combination of an insatiable capitalist élite, a captured progressive intelligentsia, passive citizens, and a stalled social imagination (spellbound with the "absolute certainties" of the new hegemonic ideology).

As suggested, some deep re-engineering of ISI was of course essential, as many of its policies had run their course –and a new technological paradigm and world economy were creating totally new challenges. But it was pretty unlikely that such a crude guiding principle as that in Chicago Boys' Chile could be the answer: what was "virtue" suddenly became "vice", and "vice" became "virtue". Furthermore, it is even less likely that what was supposedly appropriate for Chile in the 1970s would be still so nearly half a century afterwards, when almost everything has changed in the world economy.

As in Brazil, the consequences in Chile of this rigid ideology are nowhere more obvious than in what happened to manufacturing (Figure 10).

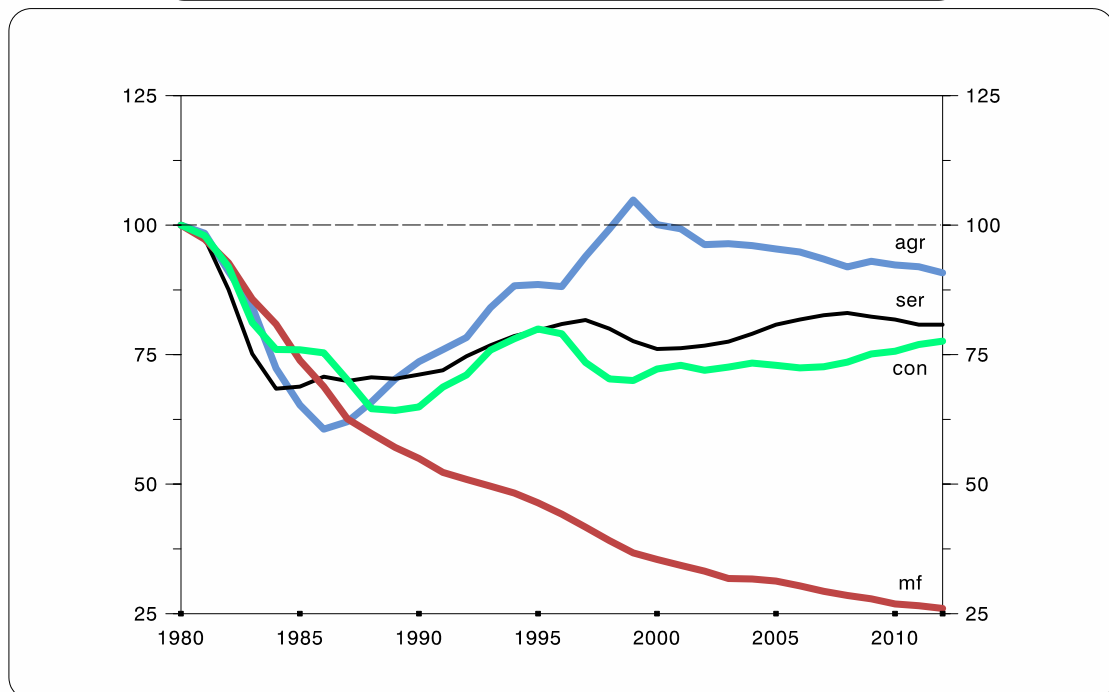
¹⁵ CEP (1992).

¹⁶ GGDC (2019).

¹⁷ The average for non-Brazil Latin America was also much faster between 1950 and 1980 than since then –5% p.a. vs. 2.6%.

FIGURE 10

CHILE: productivity gaps with South Korea, 1980-2012



- As Figure 9. Mining is not included as there is little of it in South Korea. 3-year moving averages.
- Source: GGDC (2018).

Figure 10 helps unravel the puzzle shown in Figure 1: Chile and South Korea's contrasting "catching-ups". Other than in manufacturing —where Chile falls as in a roller-coaster (South Korea's productivity growth trebles Chile's)— their sectoral performances have not been as strikingly different. This neglect of manufacturing is the key retarding factor in Chile's "catching-up" —as well as of its lack of economic diversification towards more knowledge-intensive activities. South Korea not only grew faster (6% vs. 4.2% for 1980-2018), but also more than two-thirds of that (faster) growth was due to increase in productivity; in Chile it was the other way round, with about two-thirds due to employment and only one-third to productivity. The new PE-DE development strategy had no manufacturing agenda —mostly due to its reluctance to industrialise commodities. Hence my labelling in 2005 to what happened to manufacturing as "premature de-industrialisation": one that obstructed its transition towards a more mature and self-sustained stage in a Kaldorian sense —i.e., able to trigger processes of cumulative causation, characterized by their positive feedback 'loops' into the system, capable of self-perpetuating growth.¹⁸

A recent study by McKinsey (2019a and b) examined 71 developing economies and singled out 18 of them for consistently posting robust GDP growth —and not one of them came from Latin America—, with all "long-term outperformers" located in emerging-Asia. And in outperforming countries,

¹⁸ See, in particular, Kaldor (1967). For "premature de-industrialisation", see Palma (2005), and (2008). For an equivalent concept, developed a decade later, see Rodrik (2015).

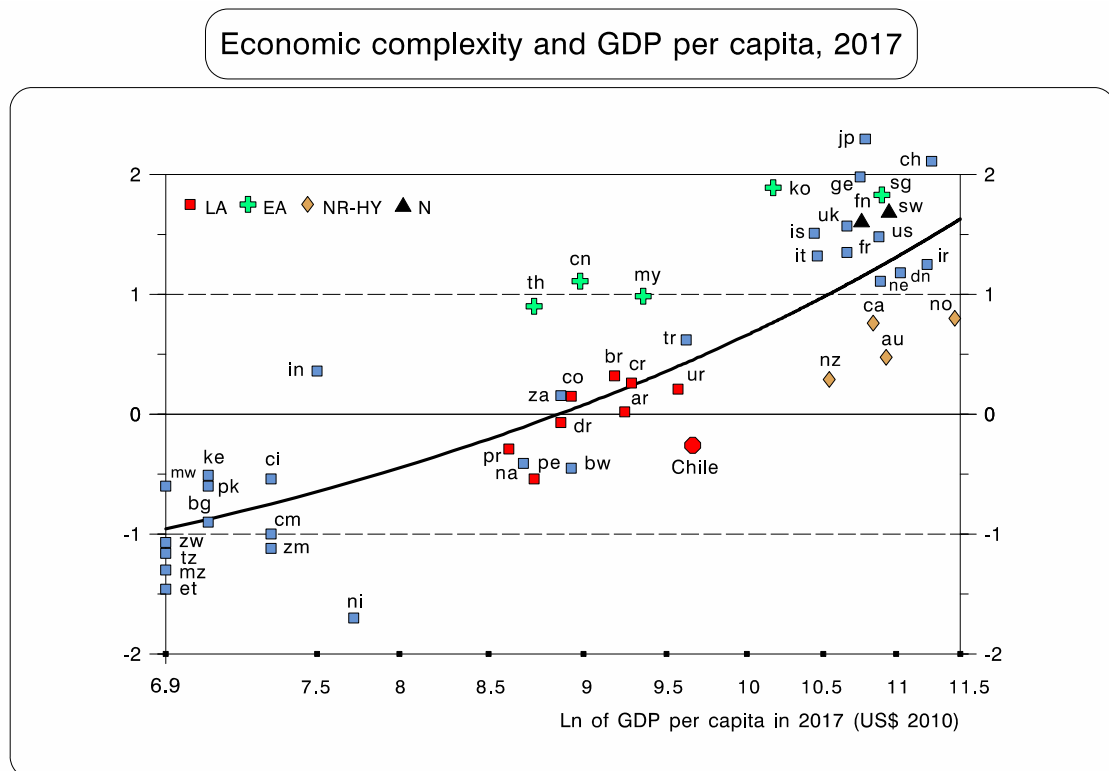
more than two-thirds of the GDP growth over the past 30 years is attributable to a rapid rise in productivity correlated with industrialization: an annual average productivity gain of 4.1 percent versus 0.8 percent for the other developing economies. (Ibid.)

Ever since the industrial revolution, manufacturing has been the path from poverty to plenty; neo-liberals tried to reinvent the wheel, but to no avail. In Chile, everyone gets excited every time someone succeeds in developing a new “empresimientamiento” in the service sector, but no country has broken the “middle-income trap” by having someone else do the shopping for them.¹⁹

2.7.- The Economic Complexity Index (ECI) and Chile’s lack of economic diversification

The ECI, elaborated by The Observatory of Economic Complexity at the MIT Media Lab, contains information about the diversity of a country's exports and their sophistication.²⁰ This index measures the *knowledge intensity* of an economy by measuring that of its exports. A low value relative to GDP pc, as in Chile, indicates that exports are not very sophisticated –i.e., they lack knowledge intensity. This index shows how Chile’s purely extractive export sector is limited even by unimpressive Latin American standards (Figure 11).

FIGURE 11



• **LA**=Latin America; **EA**=Emerging Asia; **NR-HY**=natural resource high-income; and **N**=Finland and Sweden. **au**=Australia; **bg**=Bangladesh; **bw**=Botswana; **ca**=Canada; **ch**=Switzerland; **ci**= Côte d’Ivoire; **cm**=Cameroon; **co**=Colombia; **cr**=Costa Rica; **dr**=Dominican Republic; **et**=Ethiopia; **fn**=Finland; **fr**=France; **ge**=Germany; **ir**=Ireland;

¹⁹ C. Palma (2019).

²⁰ See ECI (2019).

is=Israel; it=Italy; jp=Japan; ke=Kenya; mw=Malawi; mz=Mozambique; na= Namibia; ne=Netherlands, ni=Nigeria; no=Norway; nz=New Zealand; pe=Peru; pk=Pakistan; pr=Paraguay; sw=Sweden; th=Thailand; tr=Turkey; tz=Tanzania; uk=United Kingdom; us=United States; ur=Uruguay; za=South Africa; zm=Zambia; and zw=Zimbabwe. Otherwise, as above. The R^2 of the regression is 58%, and all the parameters are significant at the 1% level.²¹

• Source: ECI (2019).

The paradox of Chile's better regional performance post-1982 is that it took place despite exporting less sophisticated products given its GDP pc. Perhaps this can have a double-edged effect on growth, which may well be associated with Chile's two cycles since the mid-1980s. The relative simplicity of its exports (given its GDP pc) may have well helped its post-1986 recovery, but after achieving international competitiveness in purely extractive activities their lack of knowledge intensity became a drag for further productivity growth.

At the same time, this is associated with the embarrassing levels of expenditure on R&D: just 0.36% of GDP—and only about one-third of that is done by the private sector!²² In South Korea and Israel the figure is 4.3%, and about 80% of that is done by the private sector—i.e., 0.1% of GDP vs. 3.3%. In fact, Chile's R&D-GDP ratio today is similar to 1960s' South Korea—i.e., before its industrialisation.²³ And in dollar terms, Chile spends today *less than 2%* of what South Korea does in this respect: US\$1.4 billions vs. US\$84 billions.²⁴ Chile also spends well below its peers—the average for R&D among upper middle income countries is 1.8% of GDP. It actually spends less than half the not very impressive Latin American average (0.9%), and (again, relative to its GDP) even less than Ethiopia (0.6%) or Sub-Saharan Africa (0.5% on average). And as the poverty of the current neo-liberal ideology seems to know no bounds, all what the current government can think of about R&D is to give more tax "incentives".²⁵

Basically, and contrary to what our hegemonic economic ideology preaches, expenditure on R&D does not follow "opportunities", but "necessities". That is, given its unambitious development strategy, Chile's actual R&D *requirements* may well be not that far from its current bizarre levels of R&D. And this, of course, leads to a vicious circle, as the only way to learn how to innovate is by innovating...

2.8.- The uneven performance of investment

In Chile, investment has followed four distinct cycles since the beginning of the neo-liberal reforms (Figure 12).

²¹ It is important to emphasise that this regression is simply a cross-sectional *description* of cross-country differences in economic complexity, categorised by GDP pc. That is, it should not be interpreted in a "predicting" sense, because there are a number of difficulties with a curve estimated from a single cross-section—especially regarding the homogeneity restrictions that are required to hold (see Pesaran et al., 2000).

²² OECD (2019).

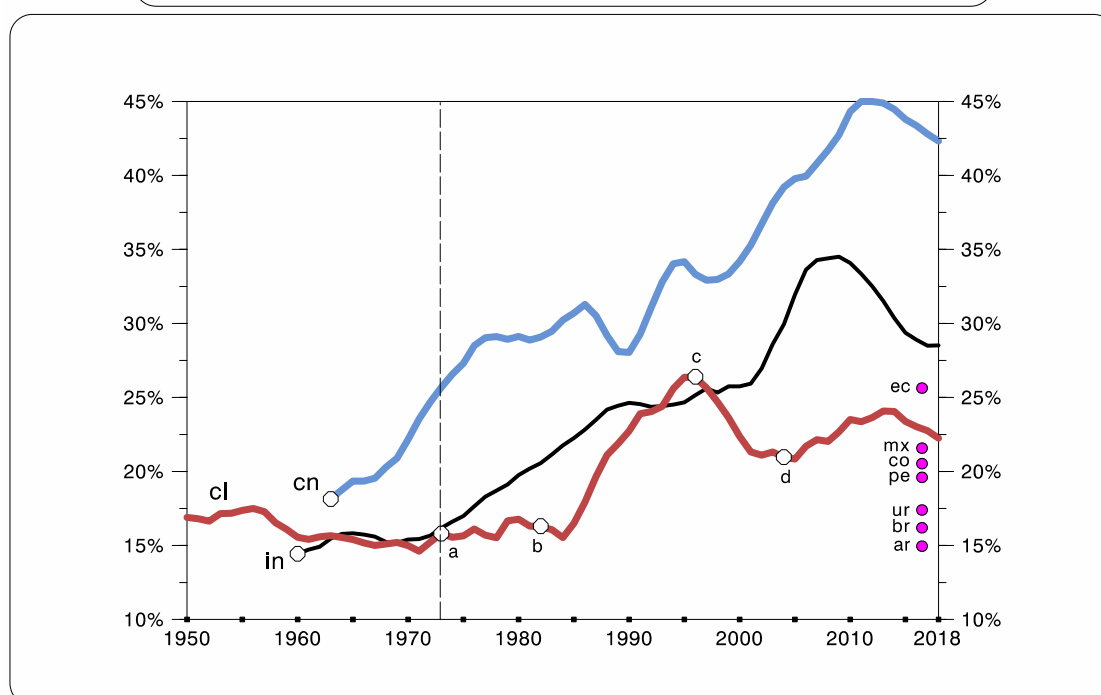
²³ WDI (2019).

²⁴ Ibid.; and OECD (2019).

²⁵ See https://www.df.cl/noticias/economia-y-politica/pais/fontaine-en-innovacion-estamos-revisando-el-incentivo-tributario-a-i-d-a-las-empresas/2019-09-12/190843.html?utm_source=email&utm_medium=email&utm_campaign=Titulares_13092019&utm_content=Link_Nota&utm_mc=e7f7c38ea7ecaecdef811445f9116dab.

FIGURE 12

Chile, China & India: investment as a % of GDP, 1950-2018



- Acronyms as above, and ec=Ecuador. For Chile, a=1973 Coup d'état, b=1982-crisis; c=end of the 1986-1998 growth-cycle; and d=beginning of the "super-cycle" of commodity prices. 5-year moving averages.
- Source: WDI (2019).

The first cycle –from "a" to "b"– took place during the initial decade of the reforms, when investment continued with its previous mediocre performance. Then, after the 1982 collapse and the change of actors both in policymaking and in the capitalist élite, investment surged from "b" to "c". This second cycle was also associated with the rapid "catching-up" of commodity-extractive exports (Figure 8).

And as Díaz-Alejandro suggested, the success of *any* given set of policies also depends on their degree of support –often this can be more relevant than their internal logic!²⁶ In this case, the decision of the democratic opposition to Pinochet not to challenge the PE-DE development strategy during the 1988 plebiscite (so as to transform it into a plebiscite about democracy and human rights, rather than about the economic model, as Pinochet had wanted), not only helped them win the plebiscite but also helped push the rate of investment towards unprecedented heights. However, as often happens with ideologies, although this improvised support for the model was a matter of "urgent necessities" (to win this most important of plebiscites), in no time it got transformed into policy, then into strategy, and finally into ideology.

Although this growing support of successive centre-left governments for the PE-DE model did help sustain the investment drive until the mid-1990s, it increasingly also removed their capacity for critical thinking as the "new left" –by still fighting its ghosts from the past– was particularly vulnerable to

²⁶ See Diaz-Alejandro (1989).

“neophobia”.²⁷ This growing fear of breaking from routine was a crucial factor in the 1990s’ “catching-up” coming to an end at the end of that decade, leading to the third cycle of investment (from “c” to “d”). Finally, investment did recover during the “super-cycle” of commodity prices (especially in extractive mining), but this new lease of life proved short-lived and investment ended this period on a new declining path. In the meantime, consumption grew from 65% of GDP in 2006/7, to 76% at the end of the “super-cycle” (2014) –populism in motion, particularly during the 2010-2014 presidential term.²⁸

A more positive picture for the period of the “super-cycle” of commodity prices emerges when investment is measured “per worker” (as opposed to as share of GDP; Figure 13).

FIGURE 13



- Acronyms as above.
- Source: WDI (2019), and GGDC (2019).

This statistic helps us understand the reluctance of Chile’s oligarchy to get involved in the processing of commodities. Even though investment *per worker* increased during the first extractive cycle, and then again with commodity prices, and Chile ended up in 2018 ahead of the region –at about US\$7,000 per worker–, the figure indicates how far this level still is from countries that have embarked on these activities successfully (top right-hand side of the figure). In fact, these countries have increased their investment per worker to a level three to four times higher than Chile –in one case, more than five times. And these levels are even higher than those of advanced emerging Asian countries, such as South Korea, Taiwan or Singapore, which concentrated their industrialisation on knowledge-intensive –and “knowledge-spillover”-intensive– products.

²⁷ In politics, as in the Hotel California, “some dance to remember, some dance to forget”.

²⁸ WDI (2019). See also BC (2019).

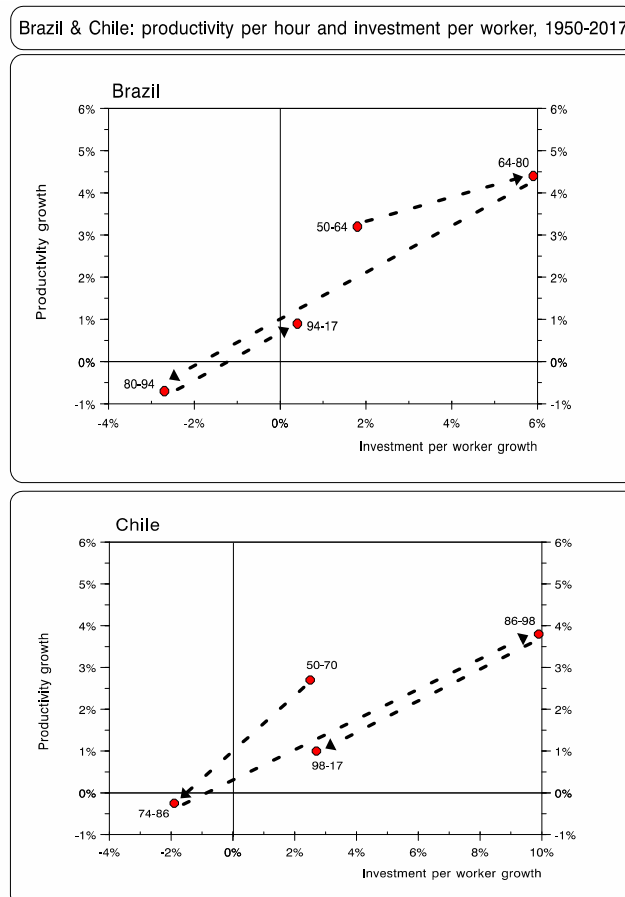
The industrialisation of commodities may not be the most sophisticated form of manufacturing, but it seems to be one of the most capital-intensive. And as all the rents of natural resources are captured at the extractive side of the business, and since markets for industrialised commodities tend to be more competitive than for other manufacturing activities (their output tends to be more homogenous), there are few rents to be captured there either. So, other than operating profits, rents associated to innovation seem to be the only ones on offer –not Chile’s *forte*.

Figure 13 also shows the poor investment performance of Latin America, with the current level of investment per worker in Brazil, Mexico and Argentina even below than that of 1980 (as it has been *throughout* the post-reform period). Perhaps Chile’s better GDP performance since the mid-1980s should not come as a surprise –except that Chile’s post-1998 “growth-convergence” (Figure 6 above) indicates some eventual “diminishing returns” on investment in its purely extractive cycle.

And while on average Latin America’s post-1980 investment per worker remained stagnant, South Korea’s increased by a factor of 5 –and India by 8, and China by above 20 (and according to some sources by nearly 30) –perhaps one can have too much of a good thing!

Finally, Figure 14 reminds us that the two main (although aborted) growth experiences in Latin America since the end of the Second World War –Brazil pre-1980, and Chile post-1986– were precisely characterised by their capacity to increase their levels of investment per worker significantly. However, both were also characterised by an inability to sustain these investment drives –leading to a collapse in productivity growth.

FIGURE 14



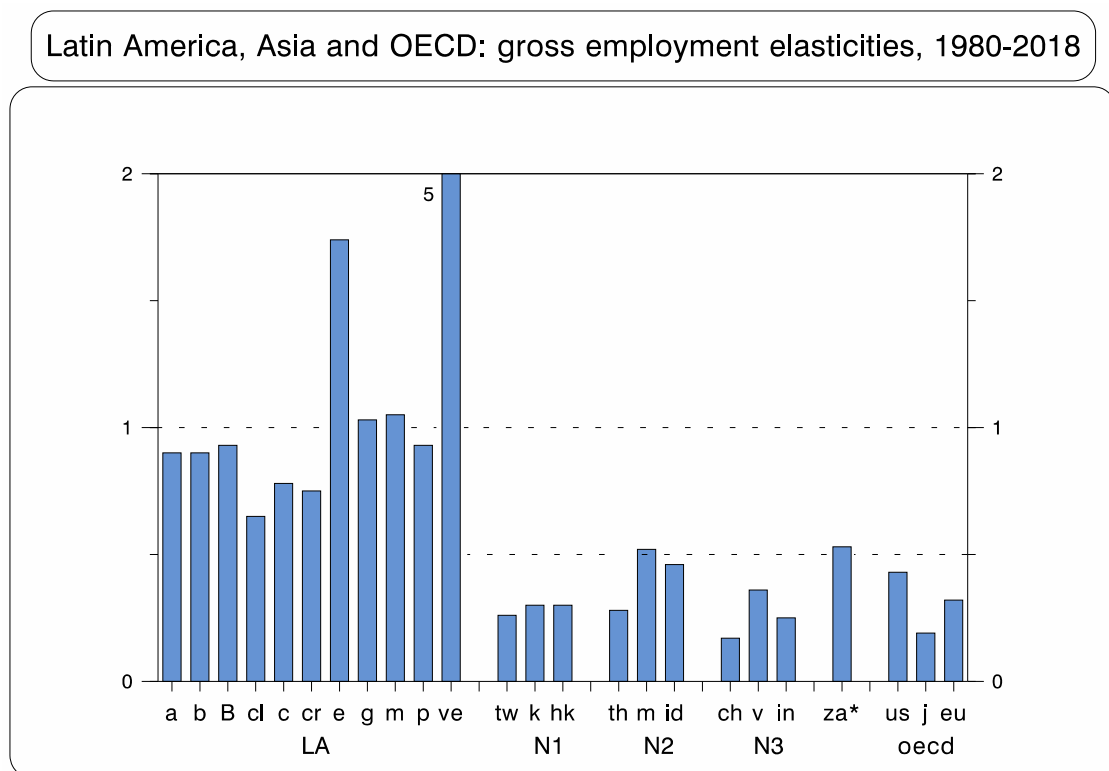
- Sources: for productivity and employment, GGDC (2019); for investment, WDI (2019).

Another issue that emerges from this figure is that the last period in each country has a similar rate of growth of investment per worker than the first one, but this is associated with a much lower rate of productivity growth. There are of course many issues involved in this contrast (including the fact that they take place within different technological paradigms and world order), but one of them is the composition of output: a significant amount of that earlier investment took place in manufacturing.

2.9.- The growth of employment –and the uncomfortable role of inequality.

As already suggested, one of the key characteristics of Latin American economies since 1980 is their remarkable capacity to generate employment –Figure 15 shows this “per unit of GDP growth” (what could be loosely called their “gross employment elasticity”).

FIGURE 15



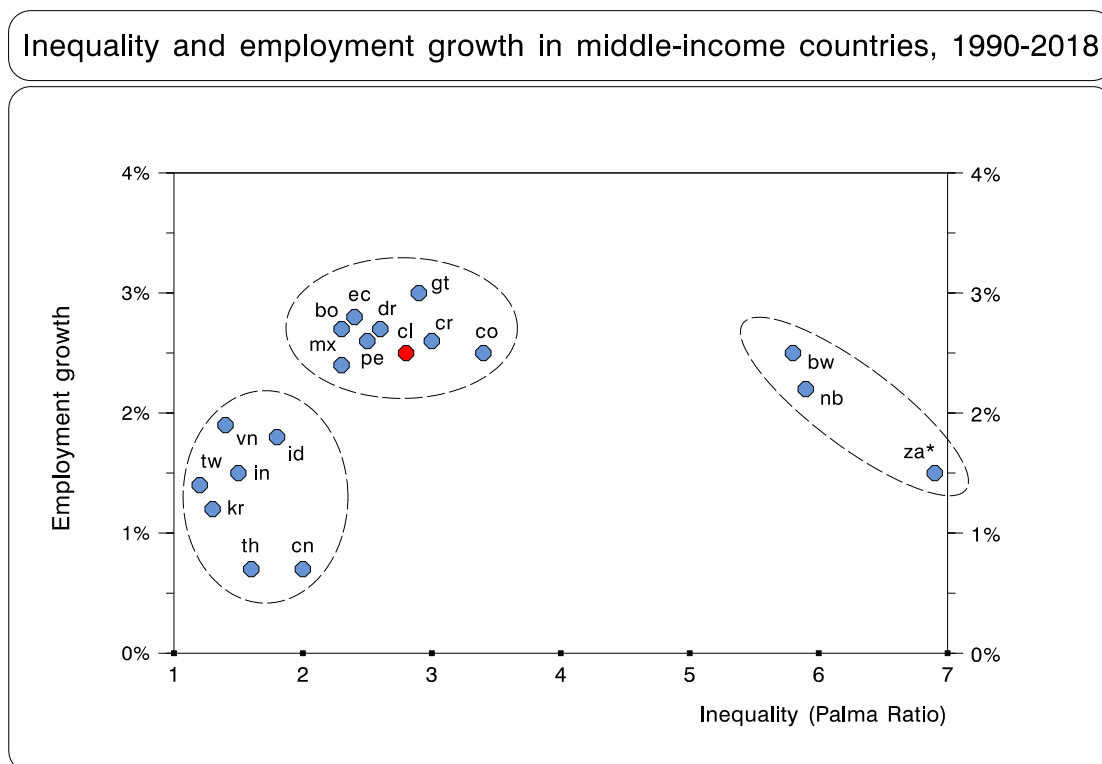
- Gross employment elasticity=ratio of employment to GDP growth. In this figure some acronyms are different due to space constraints on the horizontal axis. **a**=Argentina; **b**=Bolivia; **B**=Brazil; **c**=Colombia; **d**=Dominican Republic; **e**=Ecuador; **g**=Guatemala; **h**=Hong-Kong; **j**=Japan; **k**=South Korea; **m**=México; **p**=Peru; **t**=Thailand; **u**=Uruguay; and **v**=Vietnam. Otherwise, as above; and **eu**=European Union; and **ve**=Venezuela.

- Sources: For growth, WDI (2019); for Taiwan (Taiwan, 2019). For employment, GGDC (2019), and ILO (2019).

While in the rest of the world countries struggle to attain a “gross” employment elasticity of 0.5, the Latin American average is close to 1. As suggested above, in Chile this results from the huge capacity of services and construction to generate

employment—sectors with a rate of employment growth three times faster than population growth.²⁹ The rest of the region presents a relatively similar picture. Figure 16 helps understand this Latin American phenomenon, indicating an “inverted-U”-type relationship between inequality and employment growth across middle-income countries.

FIGURE 16



- Acronyms as above, and **id**=Indonesia.
- Sources: For employment, GGDC (2019); and for inequality, WDI (2019), and Palma (2019a).

In employment creation there seems to be a rather perverse “optimal” level of inequality in middle-income countries. And Latin America seems to be right on that spot—one in which high inequality provides the necessary supply of cheap labour, and middle levels of income the demand for services and construction.³⁰ Meanwhile, in middle-income Southern Africa, although inequality is much higher and cheap labour is more abundant, obscene inequality means that its squeezed middle and upper-middle don’t have enough income to buy services or a place to live—no matter how relatively cheap those may be (thanks to the overabundance of cheap labour). In these countries, only high-income groups can afford services, so that now in South Africa there are more people employed in security alone than in the whole of manufacturing.³¹

In turn, in high-GDP-growth/ lower-inequality emerging Asia, average employment growth is only about half that of Latin America—although, obviously, this is so for more reasons than lower inequality. In fact, in Asia productivity growth between 2000 and 2015 was responsible for 86% of (a rather fast rate of)

²⁹ On employment, see INE (2019); on cheap labour, Durán and Kremmerman (2018).

³⁰ Palma (2019a).

³¹ Ibid.

GDP growth, while in Latin America it accounts for just 22% (of its fairly mediocre GDP growth) –with its employment growth contributing the other 78%.³²

The problem with this Latin American capacity to create a lot of (low-productivity, and low productivity growth potential) employment, as happened in Chile at the turn of the millennium, is *what do you do when you begin to run out of cheap labour?* As services and construction were creating employment at more than twice the rate of population growth, it was only a matter of time before these sectors began to encounter an increasing scarcity of its main input: cheap labour. And when this happened at the start of the new millennium, the labour market began to change from the old-fashion institution in which low-wage workers have to compete desperately for employers, into a new one in which employers have to start competing for cheap labour! And higher-income households as well as producers were not used to this –and they didn't like it at all!

In this new (and more civilised) labour market, there was not only an inevitable –and “market-led”– upward pressure on wages and improved working conditions, but it also created “necessities” (or compulsions) for productivity growth and investment. So, some of the well-established foundations of Latin-style economics and politics began to be shaken. And, predictably, it was a “new-left” government that began to take action to reverse these progressive transformations (see below).

Michael Kalecki (1943) had warned us about capitalism struggling politically with a sustained period of full employment –i.e., with no “reserve army” of unemployed as its safety net. This is even truer in unequal middle-income countries, as full-employment could trigger transformations with which rigid institutions and “neophobic” rent-seeking oligarchies would struggle to cope. Capitalism could then resemble an overheating power plant whose usual “escape valves” have been disconnected...

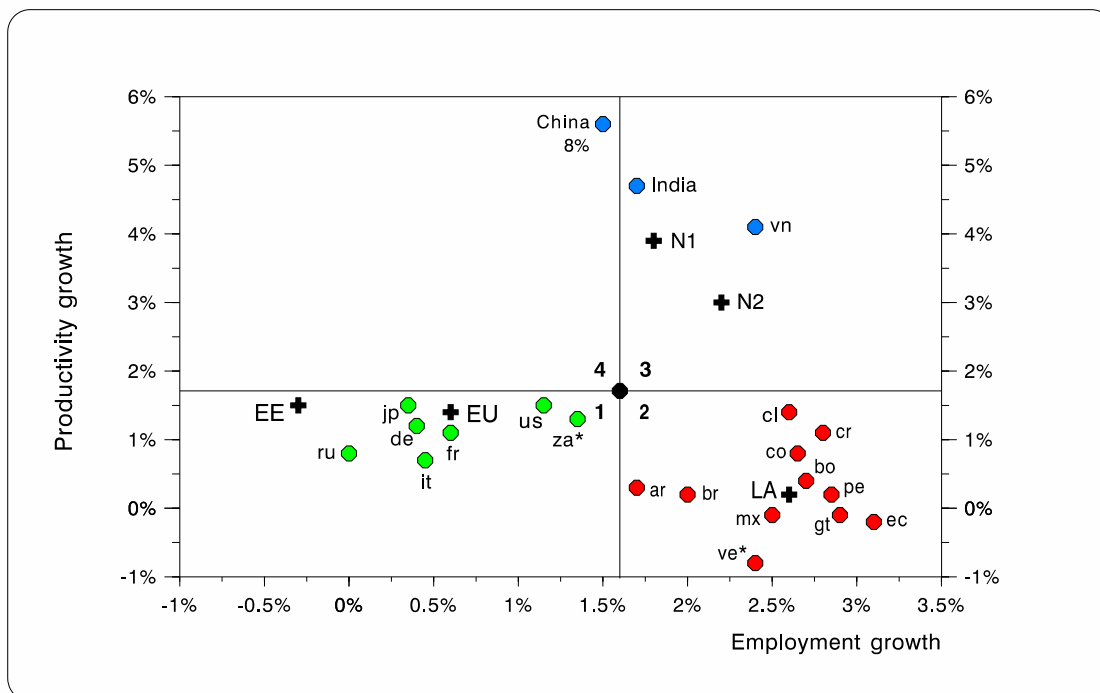
2.10.- Chile's (and Latin America's) neo-liberal development strategy from the perspective of the world economy

Figure 17 organises countries according to productivity and employment growth.

³² See McKinsey (2019b).

FIGURE 17

All countries: rates of growth of productivity and employment, 1980-2018



- Acronyms as above, and **EE**=Eastern Europe; **N1**=South Korea, Singapore and Taiwan; **N2**=Indonesia, Malaysia and Thailand; **ru**=Russia; **ve***=Venezuela (average productivity growth=-2.3).

- Source: GGDC (2019). Sub-Saharan Africa is excluded, as their employment statistics are just econometric guesstimates from population data.

From this perspective, the global average (black circle in the figure) identifies four quadrants. In “1” are those countries whose productivity and employment growth since 1980 are below average –and almost all of them are so-called developed (geriatric?) countries. In turn, quadrant “2” is populated entirely by Latin America, countries able to generate employment growth well above the world average, but little or no productivity growth. In fact, on average a Latin American worker produces today almost the same output as he or she did in 1980 (just 8% more in all) –equivalent to an average annual rate of growth of 0.2%!³³ It is difficult to imagine a more unsuccessful development strategy than the post-1980s neo-liberal one, especially in the rigid and corrupt way it was implemented in Latin America. One of my hypotheses is that despite appearances, it never really got over its “original sin”: the way in which it was brought about by its “Magnificent Seven”, the visionary leaders who selflessly pioneered them. Ever since, most business practices are like Salinas’s, their aesthetics like Menem’s, attachments to democracy like Fujimori’s, ideological sophistication like Collor’s, fiscal earnestness (with few exceptions) like Pérez’s, mental health like Bucaram’s, and respect for human rights (although in a more disguised way) often resembling Pinochet’s. Perhaps what characterises neo-liberal Chile is the contrast between its dark-ages beginnings and its more civilised post-1990 –although surely the gap between the degree of “self-

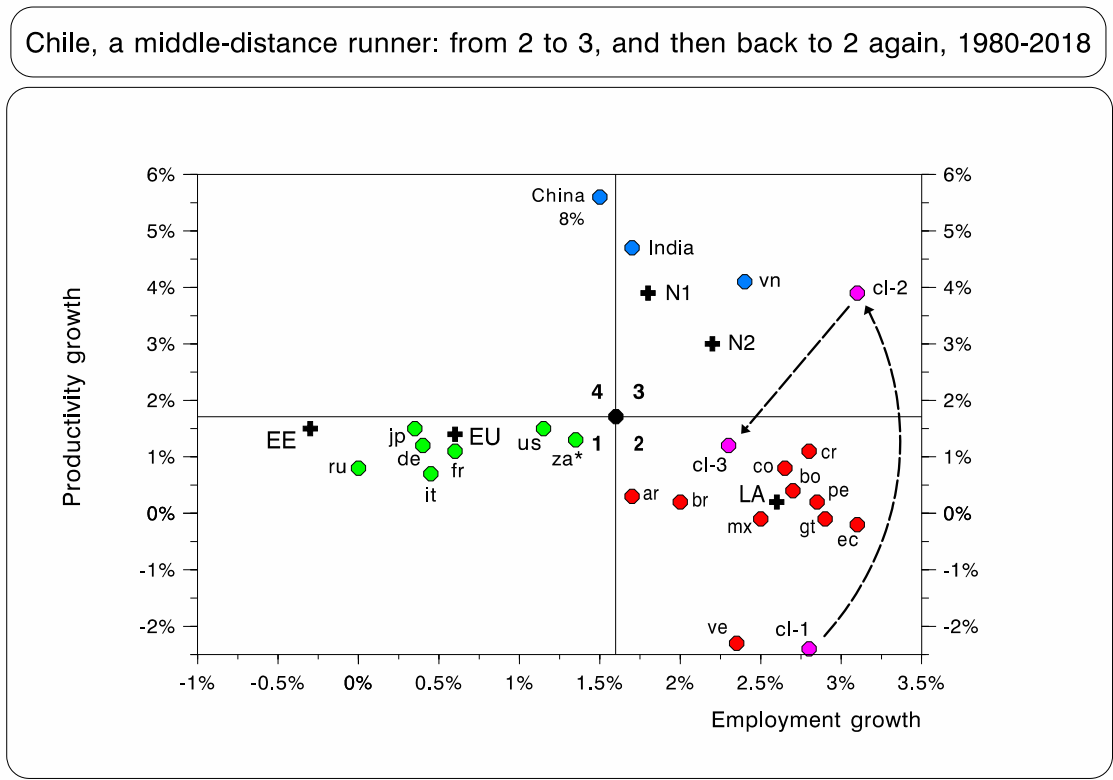
³³ GGDC (2019).

satisfaction” of its economic and political élites and reality is the greatest in the region.

In terms of Figure 17, although Chile’s employment growth is similar to the region’s average, its productivity growth is higher —but still below the global average. In turn, emerging Asian countries monopolise quadrant “3”, with China at its edge in employment creation, including those from its first wave of industrialisation (N1: South Korea, Taiwan and Singapore), its second (N2: Indonesia, Malaysia and Thailand), and its third (China, India and Vietnam). In fact, these are the only countries in the world able to generate simultaneously high levels of productivity *and* employment growth —walking and chewing gum at the same time.

Finally, Figure 18 shows what I like to call “the Latin American syndrome”: whenever a country like Chile does eventually manage to move from quadrant “2” to “3”, this turns out to be a temporary state of affairs. That’s the real difference between Latin America and emerging Asia: although both are able to achieve high rates of productivity growth, only emerging Asia knows how *to sustain* them long-term. That’s the difference between middle-distance runners and marathon ones!

FIGURE 18



- For Chile, **cl1**=1980-1986; **ch2**=1986-1998; and **ch3**=1998-2018. Acronyms as above.
- Source: GGDC (2019).

The key message of Figure 18 is that Latin America seems to be cursed with a particularly strong “gravitational pull” towards quadrant “2”. Every time a country manages to shift gear and move from quadrant “2” to “3”, sooner rather than later it returns home to “2”. Whereas, when an emerging Asian country moves to “3”, it remains there. In Latin America one finds middle-distance runners at best, like Chile between 1986 and 1998 —i.e., countries that speed up,

but before long, they run out of oxygen and have to slow down again productivity-wise.

Emerging Asia's capacity to "upgrade" when a development strategy has run its course has a lot to do with that stamina. For example, South Korea opened up early its ISI to transform it in an export-oriented industrialisation; Taiwan "governed the markets" for this; and China quickly turned the tables on the European Union and the US.³⁴ An essential component of this is the capacity to confront "sell-by dates" properly. Trying artificially to extend the "shelf-life" of a development strategy—as Chile did with ISI in the 1960s, and as it is trying to do again now (diversifying horizontally abroad, and bringing in immigrant cheap labour) is a recipe for remaining in quadrant "2".

As is well known, Korea received strong advice against its new industrialising project from the Washington Consensus—as a Governor of the Bank of Korea reminds us, when they wanted to industrialise, they said: "you don't have the comparative advantage for that".³⁵ In fact, several World Bank documents wondered what the point was of transforming first-rate iron into second-rate steel, or (even worse) this into third-rate cars. However, it was not long before Korean cars (like their Japanese counterparts) became as common in world markets as Scottish whiskey, Norwegian salmon, or French wine.³⁶ In fact, as the above-quoted South Korean official said, their real comparative advantage was that "...we did everything we wanted but whatever we did, we did it well".

Also, as new income distribution theory teaches us, low levels of inequality are only sustainable when they are anchored in productive structures—such as those of Korea and Taiwan—, while those that rely increasingly on taxes and transfers, as in Europe (East and West), are increasingly like a boat taking on water.³⁷

Foucault's (1979) understanding of the relationship between power and knowledge, in particular the role of the economic "discipline" in democracy—as a form of "disciplinary" power via the production of particular kinds of knowledge—, could be of great help in this area. From his standpoint, what we really need in Latin America is a more critical perspective within economics on the range of our options for participation.

Saint Augustine argued that our free will has been weakened but not destroyed by original sin. Perhaps in Latin America it had a more devastating effect.

3.- Theory

Following Section 2, and as already suggested, the main hypothesis informing the answer to the questions set in the Introduction is that by the turn of the millennium the development strategy implemented after the 1973 Coup d'état (and redefined after the 1982 financial crisis, and then again, but minimally, in 1990 with the return to democracy), had run its course—i.e., their productivity

³⁴ On Taiwan, see Wade (2002). According to a *Financial Times* columnist, "Germany once saw China as an export market for machinery with which China would develop its industrial base. Today, China is becoming the senior partner in the relationship. [Germany's] biggest problem is falling behind in the technological race. ... [This] is symptomatic of a fundamental European problem. ... [Now there] are signs that complacency is about to turn into panic". (Münchau, 2018)

³⁵ Quoted in Wade (1992).

³⁶ Chang (2002).

³⁷ Palma (2019a).

drives had fizzled out—, and it was in desperate need of a full “upgrade”. The same can be said of the neo-liberal ideology at its foundations.

By this “upgrade” I mean one capable of generating *new* engines of productivity growth —e.g., the industrialisation of commodities, a “green new deal”, or the spread of the new technological paradigm into the whole economy—, characterized by their positive feedback loops into the system, and capable of generating a “cumulative causation-type momentum” of change, which could become self-perpetuating —in the Veblen/Myrdal or the Smith/Young/Kaldor perspective. It would still be capitalism, warts and all, but at least a capitalism capable of developing the productive forces of society in a *sustainable* way.

However, neither highly distorted “markets” nor centre-left or right-wing governments have had much of a clue as to how to bring this about —let alone the nerve to do it.

In the initial period (1974-82), the government pursued a simple dual path. First, as the Latin American élite has always believed that it has some sort of divine right over natural resources (a modern version of the *Droit du seigneur*, as it were), the government hosted a rough and ready “piñata” of natural resources. Then it tried to fuel demand in the domestic economy encouraging a credit-led consumption and speculative drive, while simultaneously having another “piñata”-style privatisation of the large state-owned corporate sector.³⁸

However, by the early 1980s the latter had had little impact on investment or productivity growth, and the runaway consumption and asset-price booms had created such indebtedness and excess private expenditure that Chile became the most exposed economy *in the whole of Latin America* to a sudden halt of inflows.³⁹ When Mexico defaulted in mid-1982, Chile’s GDP crashed by more than 20% between its pre-crisis peak and the third quarter of 1983; unemployment jumped to over 30%, and more than half of the population ended up below the poverty line.⁴⁰ The direct fiscal cost of this *self-made* mess alone was equivalent to more than 40% of GDP.

In fact, Chile’s income per capita the year after Sergio de Castro received his dishonourable discharge as Pinochet’s Finance Minister was actually lower than the year before he started his seven-year period as economic tsar —proving once again that arrogance is no substitute for knowledge.

However, the recovery following the change of guard in the economic team and in the capitalist élite, and the radical change of policy that followed (including a huge devaluation, a new pro-growth macro that included a Kaldorian pro-investment component,⁴¹ and the above mentioned (vertical) interventions in some extractive export activities) was also the most dynamic. Furthermore, helped in part by an unusual transition to democracy, the economy managed to sustain the speed gathered from this recovery for most of the 1990s.

But towards the turn of the millennium, the two key growth-drivers of this 1986-1998 dynamic cycle —the extraction of natural resources and the recovery from the 1982 crash— began to lose their momentum. In exports, as extractive activities had become internationally competitive, their demanding “catching-up” period, with its rapid productivity growth requirements, was basically over. Afterwards, it was all about increasing output while trying to sustain already

³⁸ On this ransacking of the Chilean State during the early years of the neo-liberal reforms, see especially Mönckeberg (2015). See also Gárate (2012), and Palma (2013).

³⁹ Palma (2012).

⁴⁰ See Bértola and Ocampo (2012); Bulmer-Thomas (2014); and Palma (2012).

⁴¹ See Marcel and Palma (1989); see also <https://ciperchile.cl/2014/05/19/%c2%bfto-fut-or-not-to-fut/>.

achieved levels of competitiveness. And in the domestic economy as well, little had been done to generate new engines of productivity growth after the drive from the post-1982 recovery began to lose its momentum.

It seems that when things are going well, some policy-makers rediscover Newton's first law of motion –i.e., with some wishful thinking, they assume that as long as the macro-balances are all right, an economy would tend to continue in its state of uniform motion simply because it is in motion already.

Instead, what was needed to sustain the 1990s momentum was to start diversifying the economy into more knowledge-intensive activities. As suggested, in exports, this meant moving forward into higher value-added “downstream” and “upstream” activities. However, markets are unlikely to be able to guide resource allocation effectively in a dynamic sense in a world so full of distortions and market failures –i.e., when they can be manipulated so easily by large players (domestic and foreign). So, what was required was a bit of Asian-style government “disciplining” of the capitalist elite –and this does not come naturally in Latin America, where “disciplining” goes the other way round.

Another engine of productivity growth could have been a local version of a “green new deal”. Chile is full of potential for renewable energies, and its agriculture could be transformed into a profitable (and environmentally-friendly) organic industry. As a recent Bloomberg (2019) reports emphasises, “Turns out it's not just easy being green—it's also profitable”. But for this it is necessary to rationalise the use of scarce resources, such as water for irrigation –one of the many resources looted at the time of the neo-liberal reforms by the courtiers of the military regime, including top government officials.⁴² And a third front could have been helping the spread of the new technological paradigm to the four corners of the economy.⁴³

However, on exports corporations were only interested on extraction, and successive governments lacked the imagination and will to do anything about it. So, commodity exports began the struggle to maintain their productivity growth momentum, as further horizontal diversification had its natural limits.

On the second and third, although there were some improvements in environmental regulation, some belated movement towards renewable energies (thermal energy still provides 60% of the country's electricity, with two-thirds of that done using coal), and some minimal attention to technological innovation, neither governments nor the private sector ever understood the potential of a new green drive or of technological upgrading as new drivers of productivity growth.⁴⁴ In fact, expenditure on R&D still remains at ludicrous levels –as mentioned above, in dollar terms South Korea spends 60 times more than Chile in this respect (or about 25 times more in per capita terms). As “catching-up” is also about closing the gap in knowledge, the contrasting fortunes of Chile and South Korea in Figure 1 should not come as a surprise.

As little diversification took place, knowledge-intensity of Chilean exports ended up poor even by Latin American standards. In sum, when the original development strategy had lost its thrust the economy was destined for a new

⁴² See footnote 38 above. On Chile's growing scarcity of water, see WRI (2019).

⁴³ See Pérez (2015).

⁴⁴ A recent report from the main Chilean business association (The Sociedad de Fomento Fabril) even calls for environmental *deregulation* in several fronts; for example, the protection of glaciers is labelled ‘a main drag on mining’ (https://www.df.cl/noticias/economia-y-politica/laboral-personas/sofofa-identifica-23-piedras-en-el-zapato-para-el-crecimiento-del-pais/2019-10-03/194933.html?utm_source=email&utm_medium=email&utm_campaign=Lo+Leido_04102019&utm_content=Link_Nota&utm_mc=QvKhKAquPdnpYCEE2N_zoQ).

pedestrian cycle; one that could still deliver similarly high employment growth, but productivity growth collapsed by three-fourth. Not even stimuli of the commodity-price "super-cycle" magnitude, or from the easy access to cheap domestic and foreign finance, were able to inject some productivity dynamism into this lethargic economy.⁴⁵

What comes to mind here is the (often conveniently forgotten) key neo-classical theorem of policy-making, that of Lipsey and Lancaster (1957). In essence, an economy is not like a jigsaw puzzle, where if one piece is missing the others remain intact. In the real world, they change as a result, interacting with each other differently. One might find the missing piece, but it will no longer fit. To go back to basics, this piece needs to be redesigned, along with all the others!

So all that is necessary for having to rethink *the whole* preferred neo-classical policy package, built on the assumption of an imaginary world free of distortions and market failures, is just *one* missing "Paretian optimal condition" —just one distortion, or one market failure is all it takes. And as we operate in a world that is littered with them, an efficient "second-best" policy-package may well look *radically different* from the one instinctively preferred by neo-classical economists. The 1990s French-Davis/ Zhaler capital controls is a paradigmatic case of a move in this direction.⁴⁶

In Lipsey and Lancaster's words (see epigraph):

The general theorem for the second best optimum states that if ...a constraint ...prevents the attainment of *one* of the Paretian conditions, the other Paretian conditions, although still attainable, are, in general, *no longer desirable*. ...In other words, given that one of the Paretian optimum conditions cannot be fulfilled, then an optimum situation can be achieved only by departing from *all* the other Paretian conditions. (Emphasis added)

It couldn't be clearer: even from a proper neo-classical point of view, pragmatism is what should rule in policy-making. But in the "Washington Consensus" ideology trumped efficiency: if there is a problem, fix it by applying the corresponding "first-best" policy. And as Lipsey (2007) emphasised (when reflecting on his theorem fifty years later), this type of policy prescription is "...welfare-improving only in the imaginary one-distortion world".

The dismay for fundamentalists is that the most efficient "second-best" policy package is bound to look starkly different from ideological preferences. Ideal governments do not exist either, of course, but this is hardly a reason to stick with supposedly "first-best" policies preached by intransigent theorists who want to illuminate the real world by inventing false ones. If imaginative piecemeal "second-best" policy advising is an art, neo-liberal first-best ones are a soap opera.

In fact, when (long ago) I was a student of the Chicago Boys, not only was the Lipsey and Lancaster neo-classical theorem *never* mentioned (as the whole ideological policy-apparatus would have collapsed), but the very way in which they taught us the neo-classical "first-best" policy package reminded me of that old-fashioned "ontological argument" for the existence of God: "that than which nothing greater can be thought".

⁴⁵ Abundant domestic finance was provided mainly by the privatised pension system; while delivering meagre pensions (half of all retirees receiving an old-age pension now get less than half a minimum wage), it provides massive amounts of finance to the private sector. Why workers have to subsidise this through their pension contributions is a different matter (see CENDA, 2019; and Gálvez and Kremerman, 2019).

⁴⁶ See Palma (2012).

The core problem of neo-liberal policy-making is that its ideology has transformed “means” (i.e., mere economic policies) into “ends”.⁴⁷ Never mind that the resulting (“first-best”) policy package is likely to be utterly inefficient *on its own terms*. But in an ideology built on “purity of beliefs” pragmatism is heresy. Here the English Puritans come to mind, as they sought to purify the Church of England of Roman Catholic practices in the 16th and 17th centuries. In the same mindset (especially in Chile’s version of the Massachusetts Bay Colony), early neo-liberals sought to purify economics and policy-making from Keynesianism and Lipsey and Lancaster-style neo-classical economics (and also form structuralism) —doctrines that had immersed themselves too much in the complexities of the real world. Neo-liberals (including those in the early Washington Consensus) were convinced that if one gives too much emphasis to earthly matters, confusion threatens and moral certainty is lost. As the primal split between good and bad had disappeared from economics, the discipline had to be saved by enshrining the notion of one by segregating it from the other. Their call to arms: no more “second bests”!⁴⁸ Also, manufacturing, the illegitimate offspring of state intervention and protectionism, had to be mistrusted.

In fact, it wouldn’t surprise me if they had even convinced themselves that their sense of urgency for grabbing all natural resources and state owned enterprises was a necessary step to save these resources and assets from those public sector loving renegades in the mould of Keynes, Lipsey and Lancaster, or President Balmaceda.

And in Chile, as the neo-liberal ideology is still overflowing with “absolute certainties” (no matter how obvious it may be that they are passé), the economy sinks ever deeper in the quicksand of inertia. If change comes, it is to reinforce the “rent-seeking guarantees for the few, capitalism for the rest” type of status-quo. For example, a new policy-straightjacket is about to be added in the form of the Transpacific Treaty, or TPP-11, where lawyers and lobbyists of multinationals were welcome to write the draft of its key chapters.⁴⁹ They not only made sure to deny any future government the policy-space required to move in a “second-best” direction, but also —together with strengthening the current inefficient system of intellectual property rights⁵⁰— they even gave themselves a new (and not-very-capitalist) property right over “claimed future profits” —no matter how socially-inefficient they may be.⁵¹

⁴⁷ The current debate on tax reforms is a good example. A government which is desperate for additional fiscal revenues to fulfil its very *minimal* obligations, is happy to fight for a more “integrated” tax system even if that would mean a *major* reduction in its tax collection (as the very rich and large corporations would pay even less taxes than they do now). Purity of belief on the “means” (tax-integration) makes “the end” redundant... (See Lambeth, Otero and Vergara, 2019; Huenchumilla, 2019; and Grau, 2019). On how the welfare state has been transformed into something resembling a post-modern Robin Hood —one that ‘robs’ the rich to give to the very rich—, see Palma (2019a).

⁴⁸ Such as progressive taxation; so the rich and large corporations were welcome to rewrite legislation so that what was before considered tax evasion could now become mere avoidance.

⁴⁹ See Akram (2019), reporting evidence gathered by Senator Latorre’s team.

⁵⁰ Intellectual property rights, as currently implemented, are counterproductive as they tend to slow down (rather than the speed up) the pace of innovation. As Knowledge is a (global) public good, with no marginal costs associated with its use, restricting its access would *necessarily* cause market inefficiency. Furthermore, as knowledge is the main input for the creation of further knowledge, restricting its use inevitably leads to an oligopolistic market for knowledge. The need to provide incentives to innovate is one thing; artificially restricting access to knowledge is quite another (Stiglitz, 2007; and Palma, 2019a).

⁵¹ See, for example, <https://www.elmostrador.cl/destacado/2019/06/03/jose-gabriel->

Furthermore, large corporations also wanted this new “property right” to be protected by a new supra-national court, explicitly designed to overrule the national court systems —courts that will have more than a passing resemblance to those of the Inquisition, as their key role is to become the new “Defenders of the Faith”. And who better than lawyers in the payroll of multinationals acting as judges in these new courts!

Basically, what the TPP-11 shows (yet again) is that big corporations (and their multiple allies, including some new-left converts) haven’t got a clue anymore as to what capitalism is really about. I would argue that this phenomenon ended up being the trade-mark of the metamorphosis of the neo-liberal ideology: from early puritanical beliefs, to a crude recipe for market-manipulation.

And this being today’s Chile, the TPP-11 could only be approved in Parliament by the support of sections of the “new-left”. That is (borrowing from psychoanalytical ideas), it could only be approved with the help from those that find it impossible —due to previous ideological traumas— to think for themselves and to be themselves at the same time, as if the two were now incompatible. Sequential, logical, thought seems to come now from a different place internally from where sensations, assumptions, desires and fears come.⁵² Thinking, in fact, is now couched in terms of what should be thought; belief is a matter of adherence to new dogmas and not arising from inner convictions; action is not prompted by desire but by obedience.

There are other beliefs, of course; and as long as they do not relate to purely economic matters they are allowed to be more than just silent assumptions embedded in the imagery of day-dreams or instinctual action. For example, the new left has fought effectively against social conservatism in issues such as legalising divorce, legalising abortion in specific circumstances, and then some gay rights —despite massive opposition from all the usual suspects.⁵³ But in their economic agenda, they were unable to go beyond the Neolithic neo-liberal one: for capitalism to work, one has to keep the rich and large corporations sweet (as opposed to “on their toes”, with market compulsions). Keynes (and President Balmaceda) must be spinning in their graves! In the meantime, emerging Asia cannot believe its luck, as this opens innumerable productive opportunities for them.

Another part of the problem is that in the Ibero-American tradition, societies are often run by huge state apparatuses of faceless bureaucrats prepared to follow passively whatever ideology is the order of the day —no matter how economically inefficient these ideologies may be. No South Korean, Taiwanese or Singaporean (Weberian-type) civil-service here! In fact, a paradigmatic example in Chile of this Ibero-American “faceless bureaucrat compliance syndrome” is the way in which the TPP-11 treaty was negotiated by the relevant bureaucrats.

palma-la-ganancia-comercial-de-chile-en-el-tp-11-es-irrelevante-es-mucho-mas-lo-que-perdemos/; and
<http://www.elmercurio.com/Inversiones/Noticias/Columnas/2019/06/04/El-TPP11-garantias-para-mi-capitalismo-para-los-demas.aspx>,

⁵² On these issues, see Britton (1998).

⁵³ President Bachelet had a stroke of genius when she presented to parliament the law legalising abortion at the same time than a major tax reform, as right-wing parties were prepared to look the other way with the former as long as the government made significant concessions with the latter. Thus, she got through the law on abortion, which was much closer to her heart than mere mundane economic matters.

In Chile's version of *Animal Farm*, these faceless bureaucrats play the role of the sheep in Orwell's book. As Primo Levi emphasises, the truly dangerous people are "...the functionaries ready to believe and to act without asking questions".⁵⁴

A related theoretical point here comes from Douglas North's concept of "limited access order".⁵⁵ Neo-liberal reforms have consolidated a scenario in which élites (domestic and foreign) divide up the control of rents and block the access of others. Now, after the TPP-11, it will be next to impossible to challenge these highly inefficient—and pseudo-capitalist—rent-seeking modes of accumulation. In fact, the TPP-11 promises to be as effective as Pinochet's "leyes de amarres" (or "tying-up laws"), implemented after he lost his 1988 plebiscite, which have strangled any attempt of real change since.

Another highly-relevant theoretical point is provided by Hirschman (1982). If Chile got stuck in its PE-DE model when it had become counterproductive, it is not an uncommon phenomenon as people do tend to stick with policies well after their shelf-life. This also happened in its previous ISI-development strategy. Hirschman's syndrome—the reluctance to confront the "best before" phenomenon—is particularly true when policies had been able to deliver dynamic growth at some point in the past (as in Chile 1986-98), as memories of past glories tend to stick for much longer than those of downturns.

One of the by-products of the Hirschman syndrome is the "rebound effect": how sticking with a development strategy well after they had become counterproductive leads to such frustration and disappointment with existing policies and institutions that is not uncommon to experience a "bounce-back". A good example is the neo-liberal one in the 1970s in Chile (and late 1970s and early 1980s in the advanced countries, and afterwards in the rest of Latin America), where the core of its discourse was simply to reverse as many aspects of the post-war development strategy as possible. I have extended this Hirschmanian analysis to explain why inequality moves "in waves".⁵⁶

Why emerging Asia became the exception to Hirschman's syndrome, able to deal with the issue of the "shelf life" of a development strategy in a more imaginative way thanks to its "upgrade" flexibilities, remains a great analytical challenge in the study of ideology—as "Confucian revival"-style explanations are surely not sufficient. In Latin America, instead, ideological and institutional rigidities, leading to "reverse-gear" reforms, may well have helped create an excess supply of "silly-billies", but this has not helped its catching-up—as paradise for them has become a purgatory for the real economy. Some of these "silly-billies" may well have become successful players in 'spot-markets' (which is not a minor achievement), but when it comes to compete with Asian or other producers in the industrial processing of commodities (or any other form of industrialisation), they throw in the towel before they're even into the ring. In fact, with the sole (and only partial) exception of wine, it is difficult to find a commodity that is not exported in its most primitive state possible—and this in a development strategy that is not far from its 50th anniversary! By now, it has actually become a *phobia* of doing anything over and above that.

There is no better example of this than what has happened with copper in Chile. What should have been done with its rents, especially during the price-bonanza from 2002 to 2014, is what President Balmaceda did with nitrates in the late 1880s. First, continuing President Santa María's policy, his royalty reached

⁵⁴ <https://newrepublic.com/article/119959/interview-primo-levi-survival-auschwitz>.

⁵⁵ North et al., 2007.

⁵⁶ See Palma (2019a).

about one-third of the value of nitrate exports. No fake royalty then like the Lagos and Eyzaguirre one now, which is only equivalent to about 1% of copper exports!⁵⁷ Furthermore, as copper corporations were given tax concessions to help them swallow such a supposedly “draconian” measure, the *net* contribution to public finances is even lower.

Balmaceda’s government then used these resources to quadruple (in real terms) public investment in physical capital, as well as to increase expenditure in education eight-fold, which resulted in almost half of public expenditure going into these two productivity-enhancing areas.⁵⁸ His government also created the Ministry of Public Works and Industry in 1887, endowing it with a rapidly expanded budget that was used in part to foster manufacturing.⁵⁹

In essence, Balmaceda’s economic policy consisted in capturing the rents of natural resources in order to invest them in creating new productive capacities, aiming at being able to replace the contribution made by nitrates to the economy if either its prices came down, deposits were diminished, or synthetic alternatives became commercially viable (as their main constraint was the high cost of energy, it was only a matter of time for this to happen).⁶⁰ Also, substitutes (such as ammonium sulphate) could become more popular. In turn, the investment of the royalty’s fiscal contribution was meant to force the economy to change gear and help bring Chile out of its sluggish pre-capitalist era.⁶¹

What a contrast with what happened with the processing of natural resources—and the use of their rents—since the beginning of the neo-liberal era. On the former, Chile is actually going backwards: exports of refined or blister copper as a percentage of all copper exports have actually declined since the neo-liberal reforms, from close to 100% to just 44% in 2018.⁶² And in terms of the waste of their rents, according to one study, between 2005 and 2014 alone, the equivalent of US\$120 billions (in US\$2016; the equivalent to almost half its GDP) were appropriated—*just in terms of rents*, or as the study’s authors call them, “gratuitous rents”—by the top 10 private copper corporations.⁶³ To give an idea of this amount, at today’s prices they are equivalent to more than the whole cost of the Marshall Plan to rebuild Europe after the Second World War.⁶⁴ The irony is that even according to Chile’s Constitution, “The State has the absolute,

⁵⁷ https://www.dipres.gob.cl/598/articles-195184_Informe_PDF (Table R.1.1). Moreover, the key opposition to a proper royalty comes from the Consejo Minero, an association of large producers which includes CODELCO. That is, in a true ‘magical realist’ spirit, a state-owned corporation helps finance the anti-royalty lobby. Latin America at its finest! García Márquez must be smiling in his grave.

⁵⁸ When he came to power in 1886, there were about 80,000 pupils at primary and secondary level; by the time of the oligarchic revolt, there were twice as many (Blackmore, 1974).

⁵⁹ *Ibid.*, and Palma (2000).

⁶⁰ The Haber-Bosch process to make fertilisers is so energy-intensive that today it is responsible for 1% of energy consumption worldwide (<https://www.bbc.co.uk/programmes/p04f77rg>). So, in the fight against global warming Chilean nitrates could well have a stage revival.

⁶¹ For example, a huge programme of railway construction forced landowners needing to retain workers to start paying them at least part of their wages in cash—and they didn’t like it at all! This was the beginning of the end of the peonage system (or involuntary servitude), and the dawn of a capitalist labour market in agriculture. On this initial transformation of “peons” into “proletarian”—as well as what happened with public expenditure after Balmaceda—see Palma (2000).

⁶² <http://www.cochilco.cl:4040/boletin-web/pages/index/index.jsf>; and Palma (2009).

⁶³ See Zerene et al. (2018).

⁶⁴ The Marshall Plan cost US\$14 billion; adjusting for inflation, this would be equal to about US\$110 billion today.

exclusive, inalienable and imprescriptible domain of all mines” —a statement not worth the paper it was written on.⁶⁵

Foreign corporations operating in the copper sector may have had to pay significant royalties for similar operations in their home country (e.g. Australia), but not in Chile. Here, five so-called progressive governments since the return to democracy have not even attempted to get back the rents from other natural resources either, like water, from forestry, and from other many mining rights —not even in order to compensate for the huge environmental damage of some of these industries. And the fact that those natural resources were corruptly given away for free (like water rights), or nearly for free to the flatterers of the military regime, became irrelevant, since the well-known agreement at the time of the transition to democracy between the military regime, the Chilean capitalist élite and the leadership of the “Concertación” dictated that there would never be an investigation of the multiple economic crimes committed during the dictatorship.⁶⁶

In fact (other than the negligible revenues from the existing royalty), the only copper-rents appropriated by the Chilean state come from the state-owned CODELCO; but due to a draconian law left by the Pinochet regime —which forces CODELCO to give the equivalent of 10% of its sales to the armed forces— little is left for building productive capacities (Balmaceda-style).⁶⁷

As suggested, there are two main reasons why those involved in the Chilean (and Latin American) natural resource sector have been unwilling to industrialise. One is that the rents of natural resources are fully captured in the extractive side of the business; from then onwards, any further value added consists of industrial processes, often highly capital-intensive and with fairly ordinary rates of returns —except for rents from innovation. So, those who are only interested in acquiring easy rents from “low-hanging-fruit” activities prefer to seek further horizontal diversification into new natural resource-extraction (at home and abroad). But this has its natural limits, especially at home. The other is that in the industrial processes that add value to commodities, one inevitably has to compete with emerging Asian producers and other successful actors in this industry (e.g., the Nordic countries, Australia, Canada and New Zealand). Life in highly rent-rewarding purely extractive activities, “protected” by rich resource endowments and tamed states is one thing; having to survive in highly capital-intensive and competitive industrial activities, with Asian rivals often helped and subsidised by industrial and trade policies —but also hard-pressed by them, as government support is routinely tied to performance goals—, is quite another.⁶⁸

In this context, perhaps it is not by chance that post-Mao China has been entirely run by engineers (with their “let’s get it done” mindset). In fact, during the 1990s and most of the 2000s, eight of the nine top Communist Party leaders were engineers or natural scientists, and all of the top leaders on the Standing Committee shared an engineering background —no economist or lawyer need apply! (If they did, perhaps its top leadership would still be wondering where does China’s true comparative advantage lay, and whether one should create

⁶⁵ https://www.oas.org/dil/esp/Constitucion_Chile.pdf.

⁶⁶ For a study of this period, see Huneus (2014).

⁶⁷ Between 2014 and 2018, three quarters of CODELCO’s operating surplus went to the armed forces through this mechanism; and some serious incidents of corruption associated with these funds among top-ranking officers came to light recently as well (<https://www.latercera.com/pulso/noticia/75-los-excedentes-generados-codelco-los-ultimos-cinco-anos-fueron-las-ffaa/712691/>).

⁶⁸ On Asia’s industrial policies, see Andreoni and Chang (2019); Khan (2015); and Wood (2002). Even the IMF is now rethinking its attitude towards industrial policies (see Cherif and Hasanov, 2019).

“opportunities” or tax incentives to get there). And until very recently, the same engineering “bias” is found among top government officials. And across the country the most sought-after majors were engineering and natural sciences. In this tradition, China’s current president is a chemical engineer; his predecessor a hydraulic engineer, and the one before him an electrical one.

No wonder Asia is on track to account for 50% of global GDP and 40% of global consumption. As McKinsey (2019a) states, there has already been

a real shift in the world’s centre of economic gravity, ... [as] the future [has] arrived even faster than expected. ... The question is no longer how quickly Asia will rise; it is how Asia will lead.

In Latin America, meanwhile, orthodox economists and lawyers rule in politics and policy-making —and they have also become the perfect “faceless bureaucrats” of our huge and timid state apparatuses, ready to argue that the best way to solve a problem is by creating yet another government commission. And these two professions compete to see which provides more practitioners of the fine ideological art of boring everybody into submission with debates such as whether subsidies should be allocated horizontally or vertically. Surely Freud had economists in mind when he developed his concept of the “narcissism of the small differences”.⁶⁹

It is not by chance that ‘the Iberian tradition’ has been far more creative in painting, sculpture, music, theatre, literature and film than in its contributions to the social sciences. This lack of “enlightenment” beyond the arts and letters is likely to be associated with the lack of sophistication in the exercise of power by the State. Foucault’s proposition that knowledge and power are interrelated, one presupposing the other, comes to mind. His idea is that the development of social sciences has been interrelated with the deployment of ‘modern’ forms of power. These needed to be exercised with a much more fine-grained knowledge of society and of forms of domination. The modern State required the development of the social sciences to find more sophisticated forms of ‘disciplining’ individuals and groups; that is, more sophisticated forms of knowledge were required for more sophisticated technologies of power.⁷⁰

In the Iberian world, instead, since states have often governed through remarkably “un-modern” means, and at times via crudely mediated forms, they have required a much lower level of development of the social knowledge, and less sophistication in their forms of control. Lacking the objective incentives, this tradition has not generated in their social sciences the remarkable creativity found (in its past and present) in the arts and letters. Basically, where is the Picasso of Ibero-American economics? Or the Neruda of its political sciences or sociology?

And while Asia forges ahead, Latin America (where wishful-thinking has become pure self-deception) still deludes itself into believing they have finally created something resembling a “perpetual motion” machine —one which doesn’t require much re-engineering or the injection of new energy (net productive investment) to keep producing all-time record profits. But here Latin America is not alone; if the US, for example, had the same income and inequality as now but its share of investment to GDP were as it was pre-Reagan, over US\$1 trillion more would be being invested per year. In fact, net private investment has all

⁶⁹ As evidence for vertical policies comes from the real world, and those with the “purity of the neo-liberal beliefs” have only been able to counterattack with algebra based on odd assumptions, this debate has become yet another dialogue of the deaf among economists.

⁷⁰ For an analysis of these issues, see Palma (2014).

but disappeared!⁷¹ In turn, if it had the same level of national income, but the level of inequality when Reagan was elected, the top 1% would today be earning about US\$2 trillion less than it actually does.⁷² And in terms of wealth distribution, if wealth inequality in the US was the same as when Reagan was elected, the top 1% would today own only half of its current wealth—and the top 0.1% just one third, and the top 0.01% a mere one fifth.⁷³ This should come as no surprise: while the S&P 500 soared by more than 320% between 2009 and mid-2018, the longest bull market on record (feeding on what the chief economist of the Bank of England now calls corporate “self-cannibalism”), creating more than US\$18 trillion of (virtual) wealth along the way, the median household wealth was actually falling!⁷⁴

At the same time, the ratio of private investment vis-à-vis the income share of the top 10% has fallen by half since Reagan was elected—from over half to about one-quarter; that is, what we find is a clear “reverse catching-up” in motion with countries at the other side of the Rio Grande, as this new ratio is even below Chile’s and Brazil’s, and is now marching towards South Africa’s level.⁷⁵ It almost puts Chile’s *status quo* look in a different light—a phenomenon that can only reinforce the political and ideological convictions of those wanting to prolong it.

What has happened to taxation among the OECD neo-liberal élite is yet another example of this “reverse catching-up”; for them, paying their taxes (i.e., paying for the many free public goods they get) is now the equivalent to tipping in a restaurant—at their discretion, and only if they feel they’ve got good service. For example, a recent IMF study reports that “nearly 40% of worldwide foreign direct investment passes through empty corporate shells ...with no real business activities”. That is, “Some US\$12 trillion worldwide is just phantom corporate investments ...designed to minimise companies’ tax liabilities”.⁷⁶ So, the current Chilean government (in its search for ways of giving new impetus to its current exhausted development strategy) now wants to cash in on this growing business by transforming Chile into a tax haven—or what today is euphemistically called “a financial centre”.⁷⁷ And Chile has a good starting point, as it has already

⁷¹ BEA (2019).

⁷² Palma (2019a).

⁷³ On wealth inequality, see Saez and Zucman (2016).

⁷⁴ Palma (2019a).

⁷⁵ The contrast between Apple and Samsung is revealing in this in terms of the contrast between US and emerging Asia’s corporations. Following Trump’s tax cuts, Apple announced buybacks and dividends of another US\$100 billion on top of the US\$ 210 billion it had already committed since 2012—a sum greater than the market value of all but 20 of the US’s biggest listed companies. At the same time, Samsung announced a US\$160 billion three-year investment plan (from artificial intelligence to biopharmaceuticals), which for the Financial Times, “[it could] be regarded as the world’s biggest [corporate] investment.” (<https://www.ft.com/content/85fca3dc-9b90-11e8-9702-5946bae86e6d>).

⁷⁶ <https://www.imf.org/external/pubs/ft/fandd/2018/06/inside-the-world-of-global-tax-havens-and-offshore-banking/damgaard.htm>. See also <https://www.ft.com/content/37aa9d06-d0c8-11e9-99a4-b5ded7a7fe3f>; see also Cobham and Janský (2017). For the Danske mega-scandal, see Palma (2019a). Even the FED now provides a helping hand to money laundering and tax evasion; while the EU took its largest-denomination bill out of circulation to combat money laundering, the FED has doubled the number of hundred-dollar bills in circulation since 2008 (to US\$1.3 trillion). That is, in a supposed ‘digital era’, now there are 13 billion hundred-dollar bills stuffed into wallets, safes and suitcases globally, helping to hide transactions (www.ft.com/content/4caa021c-3f9d-11e9-9bee-efab61506f44).

⁷⁷ See, for example,

<https://www.emol.com/noticias/Economia/2019/09/10/960826/ChileDay-londres->

accumulated a lot of expertise in the fiscal paradise business –from the President down. (I wonder what new craze will come next).⁷⁸

In essence, this is what the neo-liberal mode of accumulation is all about: setting in motion a process that is both highly inequalising, *and* highly unproductive.⁷⁹ And when people lose their patience, and things starts to become politically unsustainable, one can always blame China... (Or invent Brexit, or revive neo-fascist movements, or stoke up xenophobia, or religious fundamentalism –there’s ample choice).

And it is unlikely that this will ever change unless governments start doing something about it. In fact, as already mentioned, in copper, instead of an export’s “upgrade”, what we find is the opposite: a collapse in the share of refined and blister copper in copper exports. As Keynesians, Post Keynesians, structuralists, some Schumpeterians and many others argue, and emerging Asia confirms, *what* one exports can be as relevant for economic growth as to how much one exports.⁸⁰ In short, *sustainable* growth is product-specific.⁸¹

One of the many lessons from the resource-intensive emerging Asian countries is that in order to force the “upgrade”, some direct discouraging of exports of unprocessed commodity is essential.⁸² In copper this could be done by a royalty that is much higher for the exports of copper concentrates, and then decreases proportionally to the degree of domestic refining. The same in the forestry industry: higher for wood-chips, and lower for MDF and other higher value-added products of the industry.

If producers insist on exporting unprocessed commodities, then at least the royalty could capture their rents and help finance public health and education, R&D, or other complementary capital –and fund remedial action for the huge environmental damage of some of the extractive industries.⁸³

This discouraging of the exports of unprocessed commodities would be similar to having opened ISI to international competition in the 1960s. And those who oppose this “upgrade” now do so for the same reasons than they did before during ISI: in order to continue with easier forms of rent-seeking accumulation. If for the South Korean capitalist élite (as quoted) its comparative advantage was doing what they wanted, but doing it well, for the Chilean one it is how to use widely different institutions and development strategies effectively to achieve their fairly immutable rent-seeking goals.⁸⁴

Unless some actions to force the “upgrade” is taken, Chile –and the rest of Latin America– seems condemned to be stuck in their new role in the world

santiago-centro-financiero.html. Long gone are the days when transforming Chile into a high-tech-service exporting economy was the fad of the day.

⁷⁸ For a hint of the pathetic lack of new ideas among the capitalist élite, see https://www.cnnchile.com/economia/sofofa-proyectos-impacto-crecimiento-economico_20191004/.

⁷⁹ Palma (2019a).

⁸⁰ Hausmann, Hwang and Rodrik (2006).

⁸¹ Palma (2005; 2008; and 2019b).

⁸² For example, in the 1970s, Malaysia banned the exports of unprocessed timber; and in 2014, Indonesia did the same with a range of commodities.

⁸³ On the Chilean educational system, see Meller (2019); and Fundación SOL (2019). On health, see Unger et al. (2008). And on environment, see for example, <https://www.theguardian.com/global-development/2013/apr/24/mining-logging-chile-without-water>.

⁸⁴ For an analysis (using simple game-theory language) of the changing strategies followed by the Chilean élite to accomplish this in terms of inequality, see Palma (2011, Appendix 1).

economy as “double-periphery”. To its traditional periphery status vis-à-vis industrialised countries, it has now added a new one vis-à-vis emerging Asia. And everything seems to indicate that for a “double-periphery”, the middle-income trap—or “glass ceiling”—gets ever more difficult to break.

And the Chilean economy eventually got to a crossroads: it either had to force the “upgrade” in both components of its dual economy, or it had to engineer ways of providing more oxygen to its fairly exhausted development strategy—one (as suggested) that was already gasping for air. Perhaps not surprisingly, so far it has chosen the latter: in the same way that it tried to give a momentum to its extractive sectors by expanding the horizontal diversification of its resource economy to neighbouring countries (as well as some of other activities of its economy), it also tried to do the same with that other component of its dual economy—the one that was running out of cheap labour—by following an *active* policy of mass immigration.

On the horizontal diversification abroad, and according to balance of payment statistics, the assets of the “international investment position” of the financial and non-financial private sector (not counting pension funds) reached US\$383 billion—about 30% larger than that year’s GDP. And a great deal of it was financed by acquiring foreign debt, leaving Chile as the country with the largest corporate debt as a share of GDP *in the whole emerging world*—and with very little to show for it at home.⁸⁵

However, on the positive side, this has at least helped the Chilean oligarchy to become a bit more democratic, as easy access to *mobile* assets has provided them with an expedient “exit strategy”. That is, they no longer have to be so geographically tied to their “fixed” investments. Although the purely extractive side of commodities in their home country will always be the core of their accumulation (where else can they hope for this kind of returns?), the investment of their surplus—plus additional debt—can be now done conveniently in a geographically wide portfolio.⁸⁶

And on the need to replenish the labour market with low-wage workers, as shortages of cheap labour began to threaten to change Chile’s labour market into a less asymmetric one, the capitalist élite and “new-left” governments panicked. What followed was a deliberate policy of labour market manipulation via opening borders, which brought in more than one and a half million people between the Lagos administration and the time of writing this paper. This is an injection of more than 10% to Chile’s labour force—and 7% to the total population.⁸⁷ And like most immigrant communities, their labour participation is over 80%, and many (not surprisingly) are underpaid relative to their skills.

Here it is important to emphasise that this influx of immigrants was generated by a Chilean “pull”, not by an external “push”—i.e., it started with *deliberate* changes in immigration policy, not with political disturbances in neighbouring countries. This only happened at a much later stage with the

⁸⁵ The Economist (2018). For Chilean FDI, see ECLAC (2019). One entrepreneur declares no intention to invest in Chile again—except in mineral-extraction, of course (<http://www.latercera.com/noticia/luksic-el-tamano-que-tenemos-ya-es-importante-para-este-pais/>). But he was happy to bid for petrol stations in Argentina; buy a large shareholding in a busted Spanish bank; buy a large property in Washington that ends up being “rented” to Trump’s daughter; and pay a large sum for one of the largest chains of truck’s service stations in the US—when the days of diesel engines are already numbered. Anything would do, except invest in Chile’s “upgrade”—not even in processing the minerals of his own large copper mines.

⁸⁶ On this issue, see Boix (2003); and Palma (2019a).

⁸⁷ Rojas and Vicuña (2019).

economic collapse of Venezuela. And a large percentage of immigrants came legally, by plane, into Santiago's main airport (no visa requirements), in a way that ended up being a paradise for human trafficking gangs, who organised the logistics, the transport, and then profited from the horrific conditions in which many of these immigrants ended up living in Chile.

Also, did anyone pushing for the new immigration policy worry about the lack of spare capacity in housing, health service, education, transport, and all those basic services desperately needed by immigrants?⁸⁸

This huge process of immigration may have had many highly positive impacts on Chilean society in terms of a much-needed cultural diversity, and many immigrants did have difficult life stories, but as far as the PE-DE model is concerned it was a matter of *policy*, and not of a newly discovered feeling of human solidarity—as the official discourse may have wanted us to believe *ex-post*. Had this been the case, what about starting by eliminating poverty at home? Or by not sabotaging the only hope of those living on the edge for an increased wage (which was the scarcity of cheap labour)? In fact, in the last quarter of 2018 the *median* net wage (400 thousand pesos) was not high enough even to bring a family of four above the poverty line (423 thousand pesos)—and this in a country that likes to think of itself *ad portas* of becoming a developed country (a good example of wishful thinking becoming delusional).⁸⁹ In fact, another source reports that 60% of workers with a full-time job earned less than that.⁹⁰ Does anyone really believe that those meagre wages really reflect the value of their marginal productivity?

And if they wanted to cool the labour market, what about helping repatriate those thousand of Chileans, and their families, who had to leave the country as political refugees during the dictatorship—and now would like to come back home with their extended families, but haven't the means to do so? (Does anyone still remember, or care, about their existence?).

Although immigration is unquestionably a very positive development from many points of view, what has happened in Chile shows that one can have too much of a good thing, and at the wrong time, and for the wrong reasons. And thanks to capital flight and indiscriminate immigration, the traditional dual-economy model has artificially extended its "sell-by date" by a considerable amount of time. In turn, far-right parties also got a new lease of life with rising xenophobia.

The Scandinavian and higher middle-income emerging Asian models are mainly about being less tolerant with low-end businesses that require low-end labour. The Chilean policy of "pulling" a wave of immigration to give oxygen to the low-productivity sectors that refuse to modernise aims at exactly the opposite. And as Churchill emphasised, all such low wages do is subsidise inefficient producers,

It is a serious national evil that any class of His Majesty's subjects should receive less than a living wage in return for their utmost exertions. ... [W]here you have what we call sweated trades, ... the good employer is undercut by the bad, and the bad employer is undercut by the worst. ... [W]here those conditions prevail you have not a condition of progress, but a condition of progressive degeneration" (<https://api.parliament.uk/historic-hansard/commons/1909/apr/28/trade-boards-bill>).

⁸⁸ Rojas and Vicuña (2019).

⁸⁹ And (not surprisingly) the median hides a huge gender gap. See INE (2019); and MDS (2018).

⁹⁰ Durán and Kremerman (2019).

The irony is that when Chile got nearer a unique position in which market forces (for once) began to threaten to transform its labour market into a more efficient (and civilised) one—one with more parity of bargaining—, as well as *forcing* a faster pace of productivity growth—including creating *the necessity* for a much faster absorption of robotics and artificial intelligence—, there came a “progressive” government, full of born-again “neo-phobics”, happy to stop such audacity *by sheer labour-market manipulation*. From a Foucauldian perspective, it was all about putting life back in order.⁹¹

Conclusion

Latin America is a region whose critical social imagination has stalled since the 1982 debt crisis and the fall of the Berlin Wall. Although this has happened in most of the world, in Latin America both the process of re-legitimation of capital, and the downswing of critical thinking have been particularly pronounced as neo-liberalism—with its sophisticated technologies of power and its unsophisticated economic policies— has conquered the region, including most of its progressive intelligentsia, just as completely (and just as fiercely) as the Holy Inquisition conquered Spain.⁹²

For Ortega y Gasset (1918), the main obstacle to Latin America’s progress was the overabundance of “self-satisfied individuals”, who show “...a narcissistic tendency to use reality as a mirror for self-contemplation”. Something that is even more pervasive today, as it now involves individuals from both sides of the political spectrum. For him, this self-satisfaction could become a major barrier for change as it limits “...critical analysis and progress”. This is precisely the point I am trying to make in this paper: a “self-satisfied” capitalist élite, interacting with a similarly natured political class and a tamed bureaucracy, does not just benefit objectively from narcissistic ideologies full of “absolute certainties”, but is also subjectively prone to “neo-phobia” (i.e., it is intrinsically averse to breaks from routine). This is the antithesis of what is needed for the passage from middle to high-income status, as this is all about having the “upgrade flexibilities” in entrepreneurship and policy which are necessary to diversify the economy towards more knowledge-intensive activities (characterised by higher potentials for sustainable productivity growth).

That is, “self-satisfaction” becomes a serious evolutionary hindrance, as for Ortega y Gasset “...human history is the product of discontent”—including, of course, with the *status-quo*. In other words (and in a Gramscian sense), the “middle-income trap” is essentially an ideological one. As in the “Hotel California” line in my epigraph, “We are all just prisoners here, of our own device”.

In neo-liberal Latin America arrogance still trumps knowledge and reason. As its *status-quo* is full of “absolute certainties”, there are few, if any, far more creative “uncomfortable uncertainties” in sight.⁹³ And these rigidities are proven to be a major obstacle for progress because, as Darwin’s worldview teaches us, the species that survive are those most responsive to a changing environment. However, as evolution inevitably generates uncertainty among dominant agents, the pre-Darwinian rigidities built at the core of the model aim at avoiding that. The TPP-11, for example, is just a vain attempt at securing “a regulatory and policy freeze”—vain in its two meanings: egocentric and futile (the latter because change can’t be stopped—it can be distorted, though).

⁹¹ Foucault (1994).

⁹² Palma (2014).

⁹³ See Palma (2014). The Governor of Argentina’s Salta province famously said: “I am a man of few but fixed ideas”.

Perhaps this is what differentiates us most from emerging Asia, where tensions in their development strategies are usually unravelled by “moving forward”. In Latin America, instead, as a great deal of energy is wasted trying “to stop time”, there is not much left for progress. Such mediocre social imagination corrodes not only our economy, but also our democracy.

Following this perspective, I would argue that the illiterate of the 21st century are not those who cannot read and write, nor those who cannot learn, but those who cannot unlearn and relearn in order to be responsive to change.

The relentless pragmatism of emerging Asia helps them differentiate between “means” and “ends”. In essence, their policymaking is based on the assumption that no set of economic policies has an intrinsic value *in itself*. They are just mere means to an end, which is the rapid “catching-up” with the production frontier—and then, how to push it forward—in a world market full of distortions and uncertainties. In Latin America, meanwhile, the “fetishism of means” leads to a systematic confusion between them and ends. This is one key characteristic of the neo-liberal ideology (especially in its “Anglo-Iberian” variety): to give some kind of metaphysical dimension to mere economic policies, transforming them into the exactly the opposite of what the Lipsey and Lancaster theorem—and Keynes’ General Theory (especially Book 1 and Chapter 12)—teach us.⁹⁴

And nowhere is this confusion of means and ends—of “the secular with the sacred”—more evident than in the Chicago version of neo-liberalism, where there is no room whatsoever for the neo-classical theorem of the “second-best”.

Another lesson from the economic and political history of the South is that the success of ambitious development strategies needs those at the top to be able to muster a large degree of support. And although this happened in Lula’s Brazil and 1990s’ Chile (and Mandela’s South Africa at about the same time), there was then no ambitious development strategy in sight. Neo-liberalism, as an ideology, proved such an effective technology of power that it paralysed critical thinking in most of its opposition. In fact, it went even further because as Žižek (2008) says, the ultimate ideological defeat is when one starts telling stories of others as if they were one’s own.

And as Walter Benjamin remarked, behind every rise of fascism lies the failure of a major political project: in Latin America (but not only there), it is the failure of the so-called ‘Third Way’. Its very dullness seems to have caused such a failure of the collective social imagination that otherwise unthinkable options have now become possible.

There is nothing new in oligarchies preferring a “low-hanging fruit” existence by emasculating the state and manipulating markets;⁹⁵ what is novel is how easily they are now able to get away with it. From this perspective, the so-called “curse of natural resources” (a now fashionable concept in some neo-institutional publications that seek to explain the development failure of many

⁹⁴ Book 1 is essentially about the possibility of a general shortfall in demand; and Chapter 12 about how investment decisions are inevitably made under radical uncertainty, to which there is no rational answer (these, therefore, not only tend to lead to sub-optimal levels of investment, but also to occasional drastic revisions, giving rise to economic instability—for an analysis of similar issues, but from a different perspective, see Caballero and Engel, 1999). On how Keynesians could be divided between “Chapter 12ers and Book 1ers”, see Krugman (2011).

⁹⁵ Even Adam Smith (1776) warns us: “People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices.”

resource-rich countries) is clearly not about natural resources *per se*.⁹⁶ Instead, what has been cursed is a particular type of rentier ideology, not a particular type of asset.

And now, with such abundance of cheap labour and horizontal diversification abroad, the contrast between South Korea and Chile can continue unaltered: if in the former one finds among the top 0.01% entrepreneurs producing some of the best cars in the world, in Chile some get there (top 0.01%) by filling the tank of those cars with petrol.⁹⁷ And in Chile to get to the 0.01% means earning a share of national income about six times larger than in South Korea—even though in the latter country this group includes some of the most successful entrepreneurs in the history of capitalism. Surely we can't blame the "invisible hand" for that—it is all about sheer market manipulation and feeble governments!⁹⁸ Paradoxically, what seems to be alien to the neo-liberal paradigm is what capitalism is really about.

Instead, some trade and industrial policies mixed with some Asian-style capital controls and shortages of cheap labour might have given domestic capital little option but to invest locally in more productivity-enhancing activities. What the neo-liberal paradigm seems unable to grasp is that it is one thing to create market *opportunities*, quite another to ensure that there are sufficient market *compulsions* to guarantee that these opportunities are taken up.

It is often acknowledged that the only historical legitimacy of capitalism—that is, the legitimacy of small élites to appropriate such a large proportion of the social product—rests on those élites' capacity to use it productively, and to develop the productive forces along the way. And it can only do this by reinvesting most of that huge share. Keynes (1919), for example, explains the contrast at the end of the 19th Century between 'emerging' Germany and the US vs. 'mature' Britain during the (investment-intensive) Third Technological Revolution, or third great surge of industrialization⁹⁹—that of the 'Age of Steel, Electricity and Heavy Engineering':

The new rich of the nineteenth century ...preferred the power which investment gave them to the pleasures of immediate consumption.... Herein lay, in fact, the main justification of the capitalist system. If the rich had spent their new wealth on their own enjoyments, the world would long ago have found such a régime intolerable.

There is not much danger of finding these enlightened attributes in the newly rich anymore, as the "discreet charm" of the Latin American-style bourgeoisie has now spread throughout the Western World. We are all now indeed converging, but we are doing so towards features typical of Latin-style middle-income countries, such as mobile élites creaming off the rewards of economic growth, and "magic realist" politics that lack self-respect if not originality. Given this "reverse catching-up" of advanced countries, perhaps we should be saying to them: "Welcome to the Third World!"

⁹⁶ DiJohn (2010).

⁹⁷ Palma (2019a).

⁹⁸ A good example is what happens with pensions: while all workers (except for the armed forces) are forced to pay all their pension contributions to the private pension system (AFPs), the state ends up paying four-fifth of all pensions anyway—including one-third of those paid by AFPs (which is supposed to be a subsidy to pensioners, when in actual fact is just a subsidy to AFPs—so they can continue doing more of the same) (<http://publicaciones.manuelriesco.cl/2019/05/son-las-cotizaciones-estupido.html>). It's no wonder that Chile has such a capacity to generate "silly-billies"!

⁹⁹ For a comprehensive analysis of this period, see Pérez (2002).

I sometimes wonder whether the unique brand of neo-liberalism bought by so many Latin Americans is just shorthand for “nothing left to decide” —and in the case of the new-left, of course, “nothing left to think about critically”.¹⁰⁰ Indeed, in the West (north and south) the attitude today towards policy-making resembles that of the great physicist Lord Kelvin at the beginning of the 20th century. Then, he famously declared (while Einstein was finishing primary school) that in physics “there is nothing new to be discovered [...] All that remains is more and more precise measurement”.¹⁰¹

Apparently Latin American élites today would settle for nothing less than a political class that lets them have complete freedom to manipulate markets and to free-ride on public goods paid by others, and to have Stepford Wives-style bureaucracies.¹⁰² So, life is now not as easy as a high middle-income status might suggest, as one has not only a family but also an oligarchy and a huge faceless bureaucracy to support.

From the perspective of its development *potential* (and borrowing from psychoanalysis), perhaps what most characterises Chile (and Latin America) in this respect —especially its main actors (both private and public)— seems to be an addiction to an impoverished life.

¹⁰⁰ See Palma (2014).

¹⁰¹ Kelvin (1900).

¹⁰² Some examples in CIPER (2017).

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