

The determinants of Latin American service sector employment share growth over the 1980-2014 period:

A summary of key results¹

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ABSTRACT

Unlike some advanced economies, major shifts in service sector employment were detected even before the Latin America (LA) region industrialized; therefore, service sector employment growth in developing LA countries is distinctive. Traditional theories partially account for the transition process in developed economies, but less so in the LA region. The current debate highlights the determinants and primary characteristics of service sector employment, as underpinned by the societal mutations and political-institutional configurations observed in the last few decades. This perspective better addresses cross-national differences in the share of service sector employment, and the distinct importance of various service subsectors in employment. However, recent and ongoing assessments only investigate the reasons behind different trajectories and characteristics of the development of service sector employment among developed economies. The determinants of LA tertiarization remain partially unanswered, so this study seeks to assess them by investigating 18 LA countries in the 1980–2014 timeframe. The results suggest that, although distributive subsector activities are the key basis of the service sector, some unique shifts took place. Regarding the specific period from 2000 to 2014, a distinct set of factors influenced the expansion in the service employment share—average years of schooling, GDP per capita, female labor force participation, and the degree of urbanization. In contrast, increases in wage inequality tended to inhibit service sector employment as a share of total employment. Furthermore, while service sector expansion started in LA at lower GDP per capita levels, empirical findings reveal that the turning point in the indicator of service sector employment share should be reached at lower GDP per capita levels. In contrast to advanced economies, the effect of services' productivity gap in relation to manufacturing was not statistically significant in the LA region. An analysis by service subsector highlights the varied effects of the determinant factors on each of the four subsectors under analysis. The productivity gap in services in relation to manufacturing inhibits employment share in the most productive

service subsectors, without a corresponding growth of employment share in the least productive subsectors. Furthermore, the results for the financing, insurance, real estate, and business services subsectors indicate the existence of a complementary relationship between the service and industrial sectors. One of the results of late twentieth-century structural reforms—more flexible labor markets—influenced only the relative expansion of the financial subsector.

Keywords: Service sector; Latin America; Economic Development

1. Presentation and theoretical approaches

Since the last three decades of the 20th century, the service sector has gained ground in developed countries, in terms of either its participation in GDP or employment. In the realm of developed economies, this trend has been identified as the result of the structural change process; that is, as part of the long-term trajectory of economic development.

Against this backdrop, assessments regarding the process of structural change have hinged on both positive and negative aspects of the phenomenon under analysis. More optimistic views (Rowthorn and Coutts, 2004; Rowthorn and Ramaswamy, 1997) have regarded the process of structural change as the natural result of the long-term path of economic development. On the other hand, more pessimistic assessments, based on Nicholas Kaldor's propositions (Kaldor, 1960), have advocated that guarantees of higher levels of productivity and economic growth hinge on a higher share of total employment in the industrial sector.

Regarding Latin American economies, although the first shifts in service sector employment were noted in the second half of the 20th century, it was only in the 1980s and onwards that the process coincided with a fall in the share of industry in total employment. In contrast to the advanced countries scenario, in Latin American economies the ongoing tertiarization was not perceived as bearing the same virtues—in the LA region, the process of tertiarization is viewed as being premature. This characterization hinged on some key points: in LA, in comparison with developed economies, major shifts were partially detected at lower levels of GDP per capita. At first, this shift occurred even before industrialization was fully implemented, prior to LA countries having reached the full development of their productive structures. Based on

this evidence, service sector employment growth in developing LA countries has usually been identified as distinctive.

Regardless of the characterization, positive or negative, attributed to the path of structural change, services command a great and growing proportion of employment in contemporary economies, highlighting the expectation that the greatest proportion of employment will develop within this sector (Bosch and Lehndorff, 2005).

Three main theoretical propositions are commonly referred to in explaining the transition to a service sector economy. The first is attributed to Fisher (1935) and Clark (1940). The second is based on Baumol (1967, 2007, 2012) and Baumol *et al.* (1985). The third hinges on Fourastié (1949). Hereafter, these theoretical perspectives will be called *predominantly demand-driven emphasis*, in reference to Allan Fisher and Colin Clark's theories, and *predominantly supply-driven emphasis*, referring to Baumol's proposition. Fourastié's thesis will be named *supply-demand joint emphasis*. As a common feature, all three emphases (jointly called the *traditional approach*) hinge on the concept that the transition to service sector employment is a final stage in the process of economic development. The following paragraphs present the main theoretical points regarding employment growth in services, according to these theories.

Concerning the predominantly demand-driven emphasis, according to Fisher (1935) and Clark (1940), commodities may be classified by their "urgency order¹." In this regard, items such as food, fuel, or renting represent more urgent needs than spending on furniture or clothing, for instance, which represent less urgent or more postponable needs. Given this categorization, the core proposition portrays that as income² grows, the consumption spectrum varies. That is, there is a decrease in the proportion of income spent with the most urgent items, and an increase in the proportion of income spent with

less imperious items. Demand for these items tends to increase at a higher rate than the income-augmented ones. In Engel's (1857) terms, they are equivalent to "luxury goods."

This general trend can be observed at the country, individual, or income group levels. At the country level, the general statement presupposes that countries with lower real average income have a higher proportion of their population occupied in first sector activities (mainly agriculture), whereas countries with higher real average income tend to displace a higher proportion of the working population to secondary (mainly industry) and tertiary activities (mainly services), in that order. This specific trend may be better addressed as an answer to the new needs, which are partially composed of services. This thesis is generally referred to as the "Fisher-Clark thesis." One may note that this multi-stage trend (Furtado, 1977) is one-sided—from agriculture to industry, and from industry to trade and services. Furthermore, it implicates a straightforward association between distinct levels of development and various ways of allocating the working population.

With regard to the predominantly supply driven emphasis, Baumol argues that activities can be classified according to the role played by labor in their technological structure. Some services—highly labor-intensive services based on face-to-face relationships—would be classified as a segment of the "non-progressive" (Baumol, 1967) or "stagnant sector" (Baumol *et al.*, 1985). That is, their relational nature does not allow them to embody continuous productivity increases, at least not without it, resulting in quality loss issues. Contrarily, activities that can cumulatively embody productivity gains may be described as composing the "progressive sector" (Baumol, 1967). Industrial activities are generally classified as part of the latter.

Therefore, Baumol's theory strongly assumes a productivity gap between the two sectors: technologically progressive and stagnant. This premise, aligned to some simplifying assumptions, establishes a general law: In an unbalanced way, workers tend

to move from the most progressive sector—in which they are (increasingly) less required due to its productivity gains—to the stagnant sector (by a labor-intensive nature). This general law is commonly referred to as the “cost disease.”

Fourastié’s supply-demand joint emphasis is based on the influence of technical progress on production. Technical progress is heterogeneously allocated throughout the three distinct economic sectors (primary, secondary, and tertiary). The first embodies activities of medium technical progress; the second, activities of high technical progress; and the third is mainly composed of services and activities not sensitive or minimally sensitive to technical progress.

As technical progress in the first two sectors grows, the consumption possibilities also tend to augment due to a real increase in workers’ income and the greater abundance of items produced in those two sectors. Nevertheless, a change in consumption volume results in a new consumption structure. That is, individuals start consuming items other than their usual ones as old ones become more easily available. Hence, the new structure begins to hinge heavily on tertiary items and less on items produced within the primary and secondary sectors. The latter two have been in surplus since then, and so have become less desirable as well. Regarding the sectoral employment transition, workers tend to be *necessarily* displaced from the sectors that embody technical progress gains to the less progressive sector, the tertiary one.

Relying heavily on the economic categories of demand and supply as the main explanatory factors for service sector employment growth, these three emphases presuppose some form of automatism in the sectorial transition (Bosch and Lehndorff, 2005). Having reached certain conditions, such as a higher per capita income, productivity increases in the progressive sector, or higher levels of technological progress in the first

two sectors allied to consumer saturation, it would, ineluctably, lead to a higher proportion of the working population commanded by service sector activities.

Further, it is assumed that the driven variables are universal explanatory factors³. That is, they are indicated as determinants of the entire transition process. At the same time, this perception neglects the distinct logic attributable to the array of service sector activities (Gadrey, 2001). Nevertheless, beyond the settled order in the development process, the synergic relationship among the sectors is not accounted for once the interaction among the economic branches is limited to the displacement of the working population from one sector to another. Hence an intersectoral nexus, such as the usage of business activities in the industrial sector, is a blind spot.

In searching for explanations for service sector employment share growth, the traditional approach accounts for part of the development processes, as in European countries (Singelman, 1978). This result has been at least partially confirmed by some empirical studies (D'Agostino *et al.*, 2006; Messina, 2004; OECD, 2000; Wren *et al.*, 2013). However, these theoretical approaches do not address the whole picture, particularly those regarding developing countries⁴. The most recent and ongoing debate highlights the determinants and key characteristics of service sector employment, as underpinned by political-institutional configurations and societal mutations observed throughout the last few decades.

Commentators on the two complementary theoretical strands, hereafter labeled the *socioeconomic strand* and the *political-institutional strand*—jointly called the *alternative approach*—have advocated that the growth in service sector employment share can be better explained by incorporating the socioeconomic and political-institutional mutations that have gained ground in recent decades into the analysis (Gadrey, 2003, 2005; Wren, 2013, 2017; Kerstenetzky and Machado, 2018; Nelson and

Stephens, 2013). Moreover, this new reading of the same phenomenon would address cross-national differences in the growth rates of service sector employment, or the distinct importance of the various service subsectors to employment, better. From this perspective, it is possible to identify distinct worlds or configurations in service sector development, as in Gadrey (2003, 2005), Wren (2013), and Kerstenetzky and Machado (2018). For instance, one can consider the liberal track versus the Nordic one. Although both tracks have high levels of service sector employment, the first is based on private service employment, while the second underpins a strong public sphere.

In this alternative perspective, among the factors that one must consider when searching for explanations for the tertiarization process are: changes in the demographic structure of the population and in its way of life, increasing female labor force participation, increasing average years of schooling, employment protection legislation, wage-setting policies, the degree of unionization, wage inequality, international trade, public consumption, and public social expenditure.

Although the most recent service employment literature has investigated the explanations for the different trajectories and characteristics of service sector development in developed economies, the characteristics of LA tertiarization remain partially unexplored. This leads to the following questions: has service sector employment simply unfolded in a delayed fashion in LA countries, or does it have its own contours? Moreover, which factors account for the expansion of service sector employment within LA countries? This study seeks to address these questions by investigating 18 LA countries over the 1980–2014 timeframe.

The following three sections tackle the questions highlighted in this introduction. Section 2 addresses how traditional theories conform to the reality of LA tertiarization. Section 3 describes the long-term LA service sector transition through a descriptive

analysis. In Section 4, we depict the determinants of LA service sector employment share growth via a panel data model analysis.

The main results suggest that, although the LA service sector is distributive-based *par excellence*, some distinct long-term moves occurred. It is remarkable that greater variations were observed in the producer subsector and, within the social subsector, in health activities. During the period from 2000 to 2014, a distinct set of factors influenced the expansion in the service sector employment share—the average number of years of schooling, GDP per capita, female labor force participation, and the degree of urbanization. In contrast, increased wage inequality tended to inhibit the growth of the service sector as a share of total employment.

Furthermore, the service sector expansion in LA started at lower GDP per capita levels, and the empirical findings reveal that the turning point for the proportion of the service sector in total employment must arrive at lower GDP per capita levels than in advanced economies. In contrast with developed economies, the effect of the productivity gap of services in relation to manufacturing was not statistically significant in LA countries. The analysis by service subsector highlights the distinct effects of the determinant factors on each of the four subsectors under analysis⁵. The effect of the productivity gap of services in relation to manufacturing represents the inhibition, in terms of employment share, of the most productive service subsectors, without a corresponding growth in the employment share of less productive service subsectors. The findings in the financing, insurance, real estate, and business services subsectors indicate the existence of a complementary relationship between the service and industrial sectors. Finally, one of the achievements of late twentieth-century structural reforms—more flexible labor markets—proved only to influence the relative expansion of the financial subsector.

The next section probes further to discuss the feasibility of the traditional approach to LA experience. Is the traditional approach a reality for LA countries?

2. Going deeper into Latin American tertiarization

Although instructive and applicable to certain development experiences, particularly the European ones, as indicated by Singelmann's (1978) results, the traditional approach's propositions were not exempt from criticism, such as the fact that they do not consider the heterogeneity of the service sector (Gadrey, 2001), the contentiousness of services not being true luxury goods (Fuchs, 1968; apud Kon, 2016; Bauer and Yamey, 1951), the straightforward relationship between per capita income and the share of service sector employment (Salverda and Schettkat, 2007), the one-sidedness of the development trajectory (Storrie, 2002), how realistic the idea of low productivity in service sector activities is, or the challenges in measuring service sector productivity (Elfring, 1989; OECD, 2000; Storrie, 2002; Rubalcaba, 2007; Wren, 2013; Djellal and Gallouj, 2013). This section investigates the specificities of LA service sector employment expansion.

It seems that in developing economies, the theoretical propositions concerning the one-sidedness of the sectoral transformation must be regarded against their historical background. This is particularly so, considering that these propositions concern nations where tertiary employment (not the subsequent increase in industrial employment) surpassed the declining agrarian employment. That is, it is not as expected by the supply and demand theories (Section 1), and as observed in some European countries.

In the LA case, the declining share of agrarian employment and the increasing share of service sector employment were highly intense and almost simultaneous shifts.

Further, this movement was observed in countries of distinct sizes and characteristics (Pinto, 1984). Illustratively, 41.3% of the labor force was occupied in agriculture-related activities in 1970, while in 1950, 54.0% was (Katzman, 1983). In contrast, in the 1980s, the participation of the service sector employment in LA total employment was very similar to the one reached by advanced economies in 1960. Moreover, in countries such as Venezuela, Colombia, Chile, Argentina, and Uruguay, tertiary employment in the 1980s was equal to or had surpassed that of developed economies in that decade (Pinto, 1984).

This phenomenon must be analyzed against the backdrop of the intense demographic growth and urbanization of the post-World War II decades, mainly 1950-1980. During this period, the population doubled in this group of countries, while the urban population underwent more than threefold growth (Ramos, 1984). In contrast with rapid population growth, agriculture presented a minimal absorptive capacity due to its concentrated land structure⁶(Ramos, 1984). Hence, the displacement of the rural population to urban areas is generally described as a reaction to the accelerated demographic growth not matched by the labor opportunities in the countryside.

As in prior LA development phases such as primary exporter, rapid population growth over the 1950-1980 period was not accommodated by agrarian activities, due to their low absorption capacity (Ramos, 1984). Treated as an alternative channel, the industrial sector lacked a reasonable assimilation capacity throughout this period due to its less flexible (labor saving) technology in adjusting to the increasing labor supply. Given this broad picture, by default or as an unintended consequence, services would have become the main source of labor market entrance in urban areas.

Based on this evidence, some subsequent analyses have privileged the structural imbalances perspective. According to that perspective, the transition to a service sector

economy does not hinge on a natural process, as in the traditional view, but on a hypertrophy derived from an underdeveloped industrial base (Jany-Catrice, 1993⁷). Thus, due to the weak industrial sector, the service sector became the only alternative that could absorb the populational contingents generated by the rural exodus.

The expansion of LA service sector employment was initially characterized as a spurious tertiarization process (Pinto, 1984; Carneiro, 1994) as opposed to the genuine tertiarization process regarding advanced economies. From this view, the LA service sector employment growth would be the result of the low absorptive capacity and low dynamism of the industrial sector, and not of an evolutionary process of the productive apparatus or of society's increasing standard of living (Weller, 2004). Applied to the logic of advanced economies, the transition to service sector employment was analyzed by seminal theorists as a sign of social and economic progress. Applied to developing countries, particularly LA ones, the same transition was analyzed as a reinforcement of their underdevelopment (Archibugi, 1994).

From this approach, the populational contingent not absorbed by the industry (the economy's dynamic core) would have found a getaway in the tertiary sector. It would have been understood as the less dynamic sector and generator of poor-quality occupations. Moreover, this sector's physical and technological low entry barriers would be an additional appeal, especially if it is considered that part of the activities generated belonged to the informal sphere (Carneiro, 1994; Weller, 2004), acting as a mask for the real unemployment condition (Ramos, 1984). This big picture becomes even more complex if one considers the lax social protection schemes of the period. For instance, Klein and Tokman (2000) call attention to the almost non-existence of unemployment insurance schemes in the region, which used to make the immediate labor market participation an imperious need⁸.

The claim of a spurious LA tertiarization has been subject to considerable criticism on two main points: (i) the notion of a spurious tertiarization hinges on the idea that the track taken by advanced economies is the ideal one; and (ii) the thought of a low dynamic service sector masks the myriad of service subsectors and activities (highly heterogeneous).

From the first position, Oliveira (2003) pointed out one of the main implications of the spurious versus genuine tertiarization theorization: the existence of a hypertrophied tertiary sector having dimensions it should not have is based on the straightforward application of Clark's theory to developing countries. Having the Brazilian experience as a case study, the author highlights that the hypertrophied tertiary sector view is conjunctural, underpinned by the slowdown in industrial growth over the 1950-1960 period. This movement was not observed throughout the two subsequent decades. In this regard, the service expansion, from which urban centers were not previously endowed, would be better addressed as an answer to the needs of the industrial sector.

Ramos (1984) and García (1983) endorsed this finding; Ramos refuted the over-tertiarization hypothesis by analyzing the relationship between tertiary and secondary employment in a group of LA countries over the 1950-1980 period. The results of this study highlighted a positive relationship between these two sectors. García (1983), using data for the same period, questioned the low industrial absorption rates of the LA region. Secondary to this study, the industrial sector's inducer effects would have contributed indirectly to the generation of other employment activities.

From the second position, by highlighting the service sector-recognized heterogeneity, the tertiary expansion in LA countries would be better addressed as a process of labor inclusion and exclusion (Weller, 2004). The first case describes a better quality and systemic competitive employment (labor inclusion), while the second one

results from the labor force surplus, with dissimilar demand growth (labor exclusion). This last scenario generates low-productivity and low-quality occupations.

Some conclusions may be drawn from the LA tertiary expansion analysis carried out throughout this section. Although illustrative, the traditional approach does not explain the variety of sectoral transitions, such as LA's transition. Therefore, the LA tertiarization seems to be a Gordian knot of the traditional approach, as its path does not corroborate the one-sidedness of the sectoral transformation—from agriculture to industry, and from industry to services as a final development stage. The major shifts in LA countries were partially detected even before industrialization was in full swing. Further, the spurious tertiarization approach—an alternative reading of LA's distinct tertiarization—does not seem to respond properly to the LA path. As indicated in this section, it is possible to fall back on a myriad of factors, such as the sector's high heterogeneity. Given this broad picture, the rest of the analysis tracks the long-term development of service sectors in a selected group of 18 LA countries over the 1980-2014 period. It is noteworthy that, within this period, the tertiarization process coincided with a fall in the share of industrial employment.

3. The Latin American service sector employment transition at a first glance

This section focuses on investigating the long-term tertiarization path for 18 LA countries⁹ within three country groups¹⁰. The analysis' timeframe ranged from 1980 to 2014, supported by data availability. We aspire to answer the following: (i) has the growth in services employment since the 1980s been characteristic of the sector as a whole, or did it privilege particular activities or subsectors? (ii) Is there a pattern to the development of service sector employment in LA countries?

This timeframe coincides with great social, political, and economic transformations in the region—structural reforms, paradigm shifts, economic turmoil, and flexibilization of labor markets, to mention a few—often invested in some sort of economic experimentalism. The first years of the millennium brought a brand-new scenario to the region, a period usually described as economically prosperous, and reintroduced a plethora of institutional measures that had been abolished by the reforms of the previous century, underpinned by a climactic change in the state’s role. This does not even mention the reduction in income inequality—an old LA label. The following analysis tracks the service sector employment’s evolution throughout this period of upheaval.

Figure 1 displays the service sector employment in each of the 18 countries for the last year of the analysis, 2014. Over this period, the service sector employment share is highly varied among the LA countries, even when comparing countries with similar per capita incomes such as Uruguay and Panama. The indicator ranged from 38.2% in Nicaragua to 75.3% in Peru, since Nicaragua was still heavily dependent on agrarian employment, although its service sector employment share was growing.

Figure 1 –Service sector employment, 2014* (as % of total employment)



Source: ILO, Author's elaboration.

Note: *or the last year for which information is available: Venezuela (2013), El Salvador (2011), Bolivia (2007), and Nicaragua (2001).

One immediate conclusion of this analysis is the great heterogeneity within the regional service sector. The evidence indicates that some LA countries were more effective than others at creating service employment after the decline in employment in the other two sectors, as noted by Wren (2013) for advanced economies. Although they vary, services generally have the highest relative employment weight in all 18 countries. As in advanced economies (Wren, 2013), the service sector in LA is the current economic backbone for employment creation.

Although this snapshot view is useful, it is still a crude measure. A long-term analysis may depict some peculiar trends, particularly in comparison with the other two sectors.

The long-term perspective portrays the declining share of the first two sectors as a common feature, as noted in the de-industrialization literature (Palma, 2005; Oreiro and Feijó, 2010; Tregenna, 2009), even when preceded by short increases, and the tertiary's increasing share of employment. The primary sector underwent a declining trend, although it continues to be well-represented in countries like Nicaragua, Bolivia, Guatemala, Honduras, and Ecuador. Over the last period of analysis, in all these countries, agriculture represents over 25.0% of the total employment. The industrial sector's share has fallen, with Mexico being an outlier. Mexico has a higher industrial sector share in the last interval of analysis (24.6%). Comparatively, the remaining countries generally did not surpass the 20.0% mark.

Some of these moves may not be completely due to endogenous labor market characteristics. The Argentinean and Uruguayan cases are illustrative, since shifts in their sectoral employment also relate to political and other institutional factors, either explicitly or implicitly.

Returning to the service sector analysis, some countries under investigation, such as Argentina, Chile, Uruguay, and Venezuela, have had high service sector employment shares since the 1980s. Within the medium and large country groups, Peru and Venezuela were the most service-based countries. In the small countries group, the departure of Costa Rica, Panama, and the Dominican Republic from the others is noteworthy. These countries had the largest service sector employment shares within the least service-based group. In South Cone, Argentina had the greatest tertiary sector, although Chile and Uruguay also had historically great tertiary sectors.

Some questions may still be raised: Was the service sector increase since the 1980s a strong feature of every service subsector, or was it more specifically observed in a certain group of activities? If the latter, in which of the activities was it observed?

Moreover, was there a development pattern for service sector employment within LA countries?

As discussed in the service sector literature, one of the most striking features of service activities is their high heterogeneity (Elfring, 1988; Gadrey, 2001; Weller, 2004; SELA, 2012). That is, it concerns activities delivered to different societies and that respond to distinct logic and policies. Based on this assumption, this analysis becomes a more detailed investigation and accounts for service subsectors and activities. The activities are grouped into four service subsectors (distributive, social, personal, and producer) based on Elfring's (1988) classification.

According to Elfring (1988), service activities may be classified into four broad subsectors: personal, producer, distributive, and social. The personal subsector includes activities such as hotels and restaurants, beauty services, and domestic services. That is, activities generally influenced by consumer demand. Producer activities are defined as activities mainly required by enterprises, whose purchasing decisions are driven by output and investment (exemplified by business and professional services and financial intermediation). Distributive services concern activities oriented towards the distribution of commodities and information, and the transportation of individuals (retail and wholesale trade). Non-market oriented activities, primarily delivered or subsidized by governments (health, education), better define the social subsector.

A notable feature of LA's service sector is the great weight of the distributive subsector—a result that contrasts with advanced countries (Kerstenetzky and Machado, 2018). The weight of the region's distributive subsectors may be attributed to a myriad of the region's specificities, such as: (i), the historical role played by these subsectors, such as transportation, in an agrarian export-oriented region like LA; (ii), the growing demand for distributive activities— such as communication—since the 1990s; (iii), structural

heterogeneity's effects on regional employment, resulting in labor surpluses generally allocated to this subsector's low-entry barrier activities; and (iv), the effects of consumption booms (for example, since 2004) on this subsector.

The distributive subsector contains some of the most trade- and technology-based activities (transport and communications) as well as some of the less developed and low-entry barrier activities (wholesale and retail trade). Delving further into this indicator, it turns out that the less technologically related activities have greater weight than the more technological ones within the distributive services. This is particularly true in the cases of wholesale and retail trade, including the repair of motor vehicles and motorcycle activity.

The social subsector, which encompasses activities like health and education, turns out to be the second most representative subsector. It is most representative of South Cone countries. As part of the group, Argentina and Chile are countries mostly described as hinging on high investments in human capital, and countries that have been experiencing a more advanced demographic transition (Franzoni, 2007). One can expect these features to influence employment data; more specifically, the service activities they mostly command.

The personal services subsector follows the social subsector, and the producer subsector lags behind. This result is not neutral, since the producer subsector is generally the most technology-embodied of the four subsectors.

Nonetheless, long-term assessment depicts some peculiar tracks. In particular, an overall increasing trend in the producer subsector's share of total employment—especially in the small countries group—and an increase in the share of health activities within the social subsector. A general explanation for these breaks from the overall trends resides on two key points. The first point is that the producer subsector's results are

aligned with the “turned to the outside” development strategy adopted by the small country group after their core reform decades. The second point is that, when it comes to the social subsector, the results may relate to the expansion in health coverage and the increase in public social expenditure on health in the twenty-first century in a large number of LA countries (Kerstenetzky and Guedes, 2019). These factors seem to have affected employment figures somehow.

Table 1 depicts some general trends concerning the three country groups under analysis. The medium and large countries group does not display a clear transition strategy. Brazil and Venezuela increased their employment shares in every subsector, except for personal; Colombia and Peru had falls in their distributive subsectors’ shares, and Mexico’s social subsector declined. The track taken by the small countries group seems clearer: an overall increase in service subsectors, with the exceptions of Costa Rica, Ecuador, El Salvador, and Bolivia. This is not surprising if one considers those countries to still be shaping their service sectors. Hence, variations within those countries tend to be greater. In South Cone, all three countries reduced their distributive subsectors’ employment shares (Table 1).

Table 1 – Variation in service subsectors' shares of total employment, by country and country group (1980/2014)*

Countries/Subsectors	Distributive Services Subsector	Social Services Subsector	Personal Services Subsector	Producer Services Subsector
Medium and large countries				
Brazil	+	+	-	+
Colombia	-	+	+	+
Mexico	+	-	+	+
Peru	-	+	+	+
Venezuela	+	+	-	+
Small countries				
Bolivia	-	+	+	+
Costa Rica	+	-	+	+
Ecuador	-	-	-	+
El Salvador	..	+	-	+
Guatemala	..	+	..	+
Honduras	+	+	+	+
Nicaragua
Panama	+	+	+	+
Paraguay
Dominican Republic	+	+	+	+
South Cone				
Argentina	-	+	+	+
Chile	-	+	-	+
Uruguay	-	-	+	+

Source: Employment distribution by economic activity (by sex) (%), Author's elaboration.

Note: *Or latest years for which information is available.

Legend: +: Positive variation in percentage points.; -: Negative variation in p.p.; n/a: Information not available

This empirical analysis provides us with better tools to answer the questions raised earlier. (i) Was the growth of services employment since the 1980s characteristic of the sector as a whole, or did it privilege a particular group of activities or subsector? (ii) Is there a development pattern for service sector employment in LA?

The service sector includes activities and subsectors that are very diversified and respond to distinct logic and demands. In terms of employment composition, the distributive subsector has one of the greatest weights over the data period. At first, this may characterize LA tertiarization as having a homogeneous pattern, based chiefly on distributive activities, some of which have low entry barriers. However, this characterization loses its appeal with a non-static approach. That is, the long-term assessment depicts an ongoing expansion into other non-traditional service branches, such as producer activities.

This analysis did not allow considerations regarding the virtues of expansion into non-traditional service activities—for example, the quality of the employment the subsector created. However, from a normative perspective, it's desirable to adopt a high-road (Bosch and Lehndorff, 2005) occupational expansion as a societal development strategy, which is based on employment that conveys higher wages, quality, and social protection coverage to individuals (Bosch and Lehndorff, 2005). These are generally created within the producer and social subsectors (Kerstenetzky and Machado, 2018; Bosch and Wagner, 2004; Weller, 2017).

This general analysis provides insight, but it cannot assert causal relations. Section 4 fills this lacuna. The next section investigates the factors underpinning the service

sector's employment expansion by using panel data model analysis throughout the 2000-2014 timespan.

4. The determinants of service sector employment share growth in Latin American countries

Previous sections showcased the LA trajectory for service sector employment during the 1980-2014 period. Here, we consider an earlier question raised in Section 1: What factors underpin LA's share growth in service sector employment? Moreover, which factors caused the observed cross-national differences?

Based on a panel data model (random effects estimator)¹¹, this section probes the factors that triggered the growth in the service sector employment share within LA over the 2000-2014 period. This empirical investigation elaborates on the service sector and the four services subsectors in the CEPALSTAT database: (i) wholesale and retail trade, and restaurants and hotels; (ii) transport, storage, and communication; (iii) financing, insurance, real estate, and business services; and (iv) community, social, and personal services. A comparative exercise also investigated the industrial sector.

The dependent variables were service employment share, industry employment share, and employment share in each of the four service subsectors. There were 16 independent variables, identified based on the theoretical research carried out in Section 1. The selected independent variables relate to explanatory factors advocated by the traditional approach (GDP per capita, GDP per capita squared, and the productivity gap between services and manufacturing) and the alternative approach [percentage of the total population over 65, female labor force participation, average years of schooling, international trade (% of GDP), international services trade (% of GDP), wage inequality

(P50/P10), flexibilization of employment protection legislation, government final consumption expenditure (% of GDP), and public social expenditure (% of GDP)]. Furthermore, the analysis included a set of variables related to LA specificities, such as the degree of urbanization, natural resource exports (% of GDP), and foreign direct investment (% of GDP), to compose a broader and more reliable LA scenario. Lastly, adding the “investment” variable follows the previous literature (Messina, 2004), due to the nexus between variable and employment growth, as presented in authors as Rowthorn and Coutts (2004) and Rowthorn and Ramaswamy (1997).

The empirical model confirms the positive influence of GDP per capita on service sector employment shares in LA (first quadrant in Figure 1). Thus, there is no tradeoff between growth and employment expansion in services. Considering that, throughout the 1990s, the regional map was split into “jobless growth” and “growthless jobs” countries (Pagés *et al.*, 2009), this finding is unexpected¹², and corresponds with results found in advanced economies (D’Agostino *et al.*, 2006; Messina, 2004; OECD, 2000).

However, this positive association between GDP per capita and service sector employment share is non-linear. That is, it holds for LA countries until GDP per capita reaches \$17,701. Despite no country under investigation reaching this amount during the 2000-2014 period, it corresponds to a lower amount than Messina (2004) discovered for a group of 27 OECD countries. Consequently, LA tertiarization started at lower levels of GDP per capita than in developed economies, and this indicates that its maximum will also be reached at lower levels of GDP per capita. This result is valid for the wholesale and retail trade, restaurants and hotels, and the financing, insurance, real estate, and business services subsectors. In comparison to the financing, insurance, real estate, and business services subsector, there is more room for expansion in the share of the wholesale and retail trade, and restaurants and hotels subsector.

Regarding the “cost disease” effect on the service sector employment share advocated by Baumol (Section 1), productivity gap between services and manufacturing was not statistically significant in LA, diverging from Messina (2004) and D’Agostino *et al.*’s (2006) results from a group of developed economies¹³. Part of the theory was corroborated empirically; that is, the larger intersectoral productivity gaps represented a relative fall in the industrial sector employment share of the two most productive LA service subsectors: transport, storage, and communication, and financing, insurance, real estate, and business services¹⁴. However, the empirical model did not corroborate a subsequent aspect of the Baumol thesis regarding a relative increase in the least productive service subsectors—in the LA case, wholesale and retail trade, restaurants and hotels, and the community, social, and personal services subsectors.

Besides GDP per capita, the model also confirmed that socioeconomic and political-institutional variables were determinant growth factors for the service sector employment share. From 2000 to 2014, the higher the average years of schooling, the higher the female labor force participation, and the higher the degree of urbanization¹⁵, the greater the proportion of the population employed in service sector activities (first quadrant in Figure 1). On the other hand, the higher the wage inequality (measured by the P50/P10 indicator), the lower the proportion of the population employed in service sector activities (third quadrant in Figure 1). This result aligns with the economic growth model adopted throughout the period. The model relied on an increase in household consumption through augmenting incomes at the bottom of the income distribution, and lower income inequality. So far, no dilemma exists between GDP growth and income equality when it comes to growth in service sector employment share. In contrast, reference studies that assessed the relationship between those two variables in advanced economies (Messina, 2004; OECD, 2000) did not obtain statistically significant results.

It is worth pointing out the positive and statistically significant effect of female labor force participation on the employment share expansion of the wholesale and retail trade and restaurants and hotels subsector. This finding corroborates the nexus between the outsourcing of household activities (a rough equivalent for this subsector activity) and increases in female labor force participation (Fuchs, 1980; Gadrey, 2003; Esping-Andersen, 1999; Freeman, 2007). Moreover, Wren (2013) linked higher female labor force participation to increases in demand for store operations and other commercial activities at alternative hours.

A plethora of explanatory factors influenced the financial subsector, among them the elderly proportion of the total population. This result may be associated with alterations in social protection provisions within the LA region during reforms. The well-known Chilean pension reform is the classic example, which numerous LA countries imitated after the 1980s (Silva, 2008). This overall path does not seem neutral if one considers that, since then, the demand for some social subsector activities has depended on financial subsector activities. Another result that seems aligned to this matter is that public social expenditure exercises a negative and statistically significant effect on the financial subsector's employment share. This indicates that public social provisions rebalance government and market forces.

The panel data model results indicate the investment variable's positive and statistically significant effect on the financial subsector's employment share. This result hinges on two key aspects: (i) the existence of synergies or complementarities between industrial and service employment within LA, as some have advocated (Jany-Catrice, 1993; Miroudot and Cadestin, 2017; Rubalcaba, 2007 and Santos, 2018); and (ii), the degree of outsourcing in some of the activities that compose this subsector such as business-related activities. Outsourcing was a path specially observed in the small

countries group. This hypothesis is reinforced when considering that it is only in this subsector that flexibilization of employment protection legislation measures have an influence, according to the model's results.

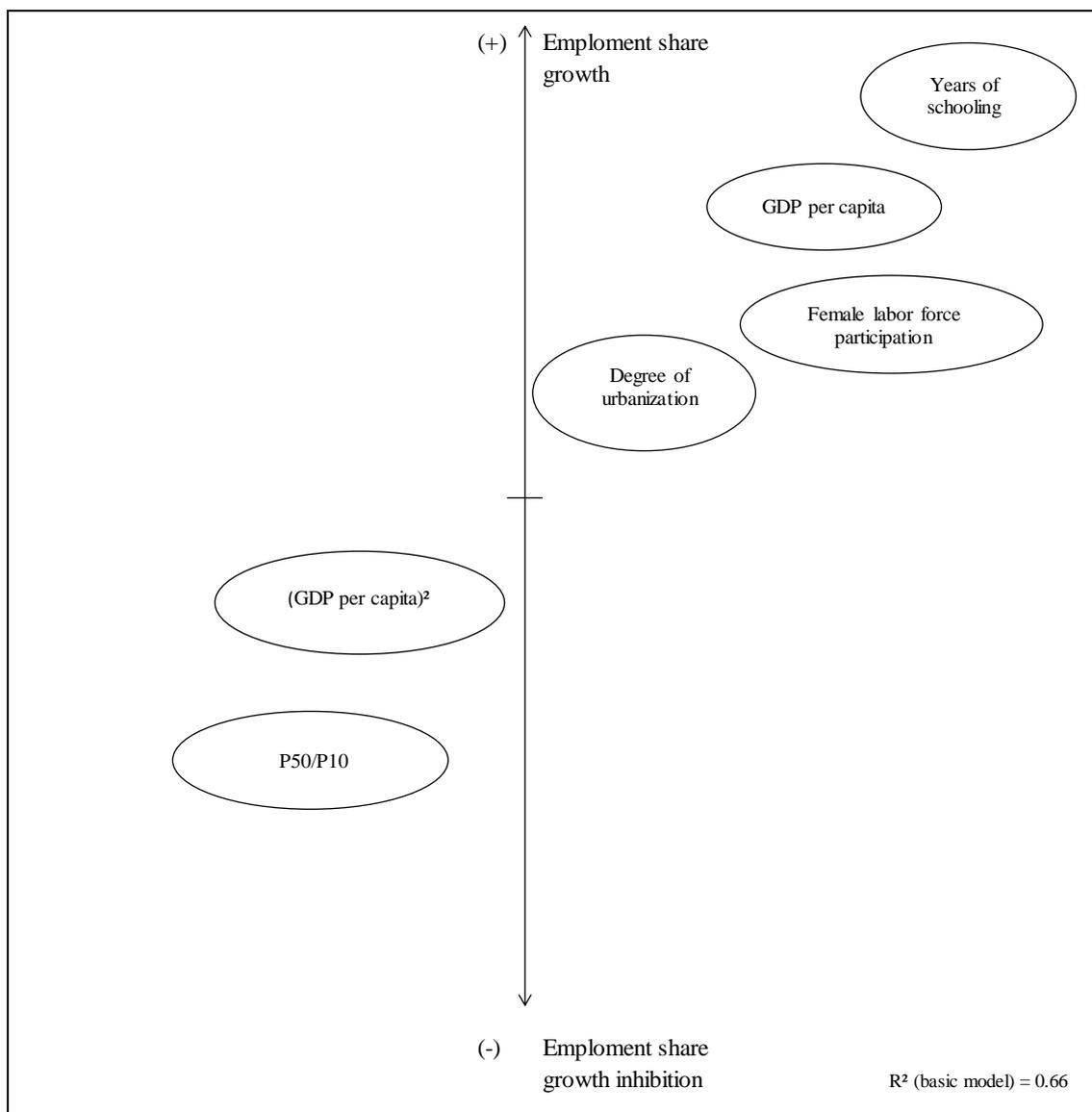
When it comes to the transport, storage, and communication subsector, the average years of schooling is the primary explanatory factor for this subsector's share growth. This result may be due to the association between an increasingly educated population and demand for services with greater technological content, which is greater within this subsector (Wren *et al.*, 2013). Moreover, variables related to LA's external insertion are also associated with this subsector's expansion. For example, international trade in services has a positive and statistically significant effect on this subsector's employment share.

Lastly, regarding community, social, and personal services, the average years of schooling and public social spending were the two main variables explaining the subsector's employment share expansion. Schooling may be associated with its effect on a segment of this subsector's activity, such as entertainment. Public social spending relates to the effect public social expenditure has on activities such as health and education, which belong to this subsector.

We can draw some conclusions from this empirical investigation: socioeconomic and political-institutional variables contribute to the analysis, as revealed by the model's results and advocated by the alternative approach. Moreover, the tertiarization phenomenon is not a natural process. Depending on the political-institutional and socioeconomic environments in which tertiarization takes place, employment losses observed within the industrial sector may echo unemployment or labor discouragement.

The next section summarizes the main results found in this paper, and analyzes the Brazilian case based on this section's results.

Figure 1 - Determinants of the growth or decline of service sector employment shares in Latin American employment



Source: Author's calculations.

Concluding Remarks

The above examination provides us with better tools to answer the questions raised in the introduction. We observed a remarkable shift to service-related activities, defying the traditional analytical tools used to explain this phenomenon's driving forces and implications. In the traditional approach, higher levels of per capita income and

intersectoral productivity gaps are the most relevant explanatory factors in the (ineluctable) sectoral transitional process.

A myriad of investigations followed these emphases, which found adverse and favorable evidence for the traditional approach—but, thus far, no conclusive assessments. The results depend largely on the period and countries under analysis. In particular, the LA trend differs from what's observed in advanced economies. The first interpretations of this evidence fell back on the idea of “spurious” tertiarization, as opposed to the advanced economies’ “genuine” path.

Considering the inconclusive aspects of the analysis thus far, we opted to include an alternative approach, where socioeconomic and political-institutional factors addressed the service sector transition and cross-national differences better.

Currently, the service sector has the highest relative weight among the three main economic sectors. Concerning the subsector and activity levels, a strong feature is how LA countries hinge on distributive activities. Nevertheless, even within the very distributive subsector-based LA service employment, the empirical analysis allows us to mention some notable movements. Among them was an overall increase in the share of producer subsector employment, and the increasing importance of healthcare activity within the social subsector. This analysis does not allow us to comment on how virtuous this tertiarization process was, as we did not consider certain aspects, such as the quality of the occupations involved. However, the overall trend mischaracterizes the region as being based on activities belonging only to the distributive service subsector.

Concerning the panel data model investigation, we concluded that, during 2000-2014, higher GDP per capita was one factor accounting for the growth in service sector employment share. This nexus is non-linear; that is, it is noteworthy until the region achieves a per capita income of \$17,701—a lower turning point than in advanced

economies. A straightforward conclusion is that, LA's tertiarization process started at lower GDP per capita levels, and its turning points will also be reached at lower levels than in advanced economies.

On the other hand, the data analysis does not corroborate Baumol's thesis for aggregate service sectors in LA economies during the 2000-2014 period. Declines in the employment share, due to higher productivity gaps between the overall industry and service sectors in LA, were a feature of the industrial sector and the two most productive service subsectors, which did not result in expansions in the shares of the least productive service subsectors.

To test the study's hypothesis that socioeconomic and political-institutional factors may contribute to the understanding of service sector employment share growth, we investigated certain variables identified with the alternative approach. Through this analysis, we discovered a peculiar characteristic of LA service sector expansion during the period under investigation, namely, a negative association between wage inequality and service sector employment share. Consequently, the phenomenon Kerstenetzky (2014) entitled "redistributive growth" in the Brazilian case seems equally applicable to the LA scenario, with the addition of a service sector employment axis.

Besides GDP per capita, the forces behind the growth in service sector employment share were: growing female labor force participation, a more educated population, and increased urbanization. The results varied by service subsector, an anticipated finding considering the distinct logic attributable to the array of service sector activities.

We can highlight some results the subsectors achieved. First, a positive association between a higher proportion of elderly people in the total population and an expansion in the financial subsector's employment share. As argued in Section 4, the

structural reforms undertaken by an array of LA countries at the end of the twentieth century may underpin this finding and the consequent increased importance of financial activities. On the other hand, higher levels of public social expenditure had a negative association with the dependent variable, which indicates that public social expenditure tends to rebalance welfare provisions between state and market forces. Furthermore, the results do not corroborate the idea of a conflicting relationship between industry and services activities, as indicated by the magnitude and statistical significance of the investment variable.

More flexible forms of employment are not a *lettre morte*, and continue to be very influential in public debate. However, their effects were positive and statistically significant only in the financial subsector, in which some service activities are outsourced as business services.

We can draw some aspects into consideration. According to the expectations from Section 1, one possible conclusion is that the driving forces of service sector employment expansion may be clarified by incorporating socioeconomic and political-institutional readings into the analysis. Although GDP per capita and productivity are not neglected as classical economic variables, analyses that boil down to them may omit factors that contribute to composing a broader picture of the phenomenon, as verified in the econometrics exercise.

In this regard, the trend under investigation does not seem to be a purely natural phenomenon; it is also the result of social and political-institutional constructions. Otherwise, relative share losses in the other two sectors would imply scenarios of unemployment, underemployment, or labor discouragement.

This analytical-empirical exercise seems to demonstrate the existence of possibilities. That is, even in the realm of developing LA countries, it is possible to seek

development strategies based on employment expansion, lower wage inequality, and social progress indicators. These were not irreconcilable factors during the 2000-2014 period.

Concerning the factors driving the service sector's expansion—GDP per capita, average years of schooling, female labor force participation, and degree of urbanization—it is possible to create a set of policies that boost their effects. For example, elderly-care and childcare policies have been shown to be effective at increasing female labor force participation (Esping-Andersen, 1999; Morel *et al.*, 2012). Furthermore, higher education levels were found in countries that expanded their education systems' coverage in tandem with increasing their public social expenditures in education.

As a final exercise, one may use this broad LA picture as a reference for analyzing the perspective of the Brazilian case. Using this frame of reference, the current direction of Brazil's national economic policy, based on a new array of reforms and placing a ceiling on real primary expenditures, seems to counteract—or reduce—the effect of variables that are the primary drivers of service sector expansion (Section 4). It is noteworthy that that sector currently commands the largest employment share in both LA and Brazil. In this sense, the path taken does not seem prudent if expanding jobs remains a desired objective of economic policy.

The assertion that this new direction of economic policy is opposed to the factors that obtained positive results in the first decade-and-a-half of the twenty-first century does not imply simply mimicking a successful past experience. In fact, the context has changed after the period analyzed in this study. However, changes have occurred only in the environment, and not in the effectiveness of the factors involved. Thus, an assertive bet would be to continue investing in promising factors in order to circumvent an adverse

environment's effects, especially if we consider that, for now, economic growth—one of the driving variables—has had its effect reduced.

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¹ An expression used by Clark (1951) in reference to the study of Allen and Bowley (1935).

² Or, more precisely, the average real income.

³ Except in Fourastié.

⁴ Nor, as pointed out by Wren *et al.* (2013), were they intended to.

⁵ See Section 3 for details regarding the four subsectors under analysis.

⁶ A significant part of the land was underutilized. As a direct consequence, expressive amounts of the labor force occupied less productive activities in the remaining lands (Ramos, 1984).

⁷ In reference to an array of developing countries.

⁸ At the end of the 1960s, in a group of 22 LA countries, only Brazil, Chile, Ecuador, and Uruguay counted on unemployment insurance schemes (Kerstenetzky, 2012). For an analysis of the social protection schemes in Latin America, please refer to Chapter 7 in Kerstenetzky (2012).

⁹ Except for service subsectors and activity analysis, for which Paraguay and Nicaragua lack data.

¹⁰ The selection list is: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. They are split into three groups: medium and large countries (Brazil, Colombia, Mexico, Peru, and Venezuela), small countries (Bolivia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Paraguay, and the Dominican Republic), and the South Cone (Argentina, Chile and Uruguay).

¹¹ Mundlak's (1978) specification results (not shown here) confirm many of the model's results.

¹² It is worth highlighting that, in the LA scenario, the relationship between employment levels and economic growth was not as narrow as in advanced economies. In LA, it is common to observe the maintenance of employment levels during recessions through informal employment expansion.

¹³ In fact, Weller (2017) and Infante (2016) observed a reduction in LA's structural heterogeneity since the 2000s.

¹⁴ This classification of service subsectors according to their productivity in LA cases is based on Infante (2016).

¹⁵ In fact, this variable proved influential in every subsector except the wholesale and retail trades. This result is interesting if we consider the first moment of expansion in service sector employment in LA, as discussed in Section 2.