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Variegated financialisation and pension fund asset demand

The case of Colombia and Peru

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Abstract

This paper seeks to explain concretely how one 'variegation' of financialisation in the

emerging economy setting is being shaped by the growth of domestic pension funds.

Taking Colombia and Perú as case studies, we explore the evolution of pension fund

demand subsequent to substantial pension policy reforms in the 1990s. Drawing on

comparative political economy and the recent literature on subordinate financialisation in

emerging economies, we present a three-tiered conjecture regarding what is shaping

pension fund demand: 1) the particular institutional context of 'hierarchical market

economies' and neoliberal market reforms, 2) the 'extraverted' growth regime and 3)

subordinate financial integration. The resulting demand calls forth financial innovation

and movement towards market-based financial mechanisms as seen with financialisation

elsewhere, yet in this instance occurring largely outside of domestic capital markets.

Keywords: financialization, developing countries, dependency, financial institutions,

Latin America

JEL Classification: O16, G23, F63

1

1. Introduction

This paper seeks to add to the literature on financialisation, which we loosely define as the modern era of growth in the overall size and significance of financial markets (Fernandez and Aalbers, 2016; Ward et al., 2019). The rise of pension funds has been theorised as an important characteristic of the financialisation process in the developed country setting (Engelen, 2003). Across several countries there has been growth in the pre-funded elements within pension systems, enabled by reductions in the provision of Pay-As-You-Go (PAYG) state pensions and/or through laws and regulations encouraging/enforcing coverage of funded pension schemesⁱ. This has resulted in a growing inflow into financial markets, and has created a large demand for financial assets. This inflow has been identified as a crucial determinant of financialisation, driving the growth of capital markets and financial sector more generally (Hassel et al., 2019; Toporowski, 2000), and shaping innovations in financial instruments (Fernandez and Aalbers, 2016; Bonizzi and Churchill, 2017).

Across Latin America there have been profound changes in the systems of retirement income provision since the 1980s (to be detailed below) and growing pools of cash for institutional investors. Yet in the small – but growing – literature on financialisation in EEs, little attention is given to pension funds (Bonizzi, 2013; Karwowski and Stockhammer, 2017). Existing studies linking pension funds and financialisation tend to focus on the case of OECD countries (Hassel et al., 2019), with few exceptions (Giraldo, 2007; Rethel, 2010; Lavinas, 2017; Saritas, 2019). This is likely due to the limited evidence of the processes commonly associated with financialisation and pension funds in advanced economies, such as booming domestic equity markets (Engelen, 2003; Toporowski, 2000). Indeed, empirical studies outside of the financialisation literature suggest that institutional investors have failed to develop long-

term domestic capital markets in EEs, despite prior predictions that this would be one consequence of pension reform (Opazo et al., 2015; Raddatz, 2014).

However, given the historical and geographical specificity of institutions and the hierarchy of power between countries, we cannot expect a uniform process of financialisation playing out across time and space. A literature has emerged highlighting the common tendencies of financialisation, while recognising the diversity of its forms (Engelen et al., 2010; Dixon and Sorsa, 2009; Lapavitsas and Powell, 2013; Dixon, 2014; van der Zwan, 2014). This literature conceptualises financialisation as a systemic development, whereby finance becomes increasingly central to contemporary economic dynamics, but with multiple specific forms and manifestations. This has induced some to call for the notion of "variegated" or "varied" financialisation (Lapavitsas and Powell, 2013; Brown et al., 2017; Karwowski et al., 2017; Lai and Daniels, 2017; Ward et al., 2019). Therefore, the role of pension funds in EEs needs to be analysed with reference to a variegated financialisation process rather than in the context of advanced economies.

Based on this concept, the central argument of this paper is that the distinct determinants of pension fund demand for assets in different countries shape different forms of financialisation. The lack of convergence in development in domestic capital markets should not exclude EEs from the study of pension funds in shaping financialisation, but inspire analysis of those factors that have determined different dynamics in pension fund asset demand (PFAD), which fostered distinct developments in financial markets.

In line with existing literature (Naczyk, 2013; McCarthy et al., 2016) we find that institutional factors are important determinants of the process generating PFAD. Their role manifests particularly through the power of key economic groups and through atomistic labour markets, both characteristics of 'hierarchical market economies' – the

Latin American variety of capitalismii (Schneider, 2009). The historical context of neoliberal reform is also causally significant. However, our article shows that *structural* economic factors, and their impact on the availability of financial assets, are crucial in understanding the formation of PFAD in EEs. We focus in particular on two structural factors emerging from the more recent literature on subordinate financialisation. The first is the high degree of outward orientation or 'extraversion' of the productive structure, which leaves capital markets peripheral to financing domestic companies and limits public sector borrowing (Correa et al., 2012; Levy-Orlik and Ortiz, 2016; Stockhammer, 2016; Guevara et al., 2018; Botta, 2017). The second is the process of subordinate financial integration, leading to a growing presence of foreign investors in domestic financial markets (Alami, 2018; Kaltenbrunner and Painceira, 2018; Bortz and Kaltenbrunner, 2018). Under such conditions PFAD shapes a particular path of financialisation. This occurs beyond domestic capital markets - because domestic capital market growth is inhibited. The mounting pressure surfaces instead through a growth in *foreign* financial investments and in the creation of new asset classes.

Our country case studies, Colombia and Perú, are paradigmatic cases of the EE situation discussed above. These are two important EEs countries with similar characteristics such as income per capita levels (World Bank, 2019a), a similar economic structure orientated towards (commodity) exports, and growing but unstable financial integration, which is typical of most Latin American EEs. They represent interesting case studies because they share a particular history of pension reform, and so have a similar current pension system structure. Both countries introduced private funded schemes (Perú in 1992 and Colombia in 1993) as part of the package of 'Washington Consensus' reforms characterising regional policy in Latin America, but in both countries the PAYG public system and private pension funds operate in parallel, competing against each other.

Additionally, Colombia and Perú are the two countries in Latin America where pension fund assets have grown the most over the past 25 years, reaching 20.3 GDP in both countries (OECD, 2020a), and are now the third and fourth largest after Mexico - a much larger economy - and Chile - which has a much longer history of private pensions. These similar characteristics allow us to work with Colombia and Perú under the same framework, but also highlight their importance as case studies of two typical Latin American EEs, with a particularly notable private pension fund system. Despite their clear interest as case studies, limited research has been made on this topic: the closest research is the study by Giraldo (2007) for Colombia, where private pension funds are analysed as an instrument of financialisation. However, the focus is on the political significance of pension funds holdings of public debt, not covering the more recent developments related with pension funds diversifying into more complex assets. For the Peruvian case as far as we know there are no studies in this area.

The paper is divided into a further six sections, after this introduction. Section two presents our conceptual framework in more detail. Section three provides a discussion of the historical context of pension reforms and the establishment of private pensions in Colombia and Perú in the 1990s. Section four discusses the first phase of pension fund development in the 1990s. Section five provides an analysis of the export-oriented growth regime and financial integration of Colombia and Perú since the turn of the century, and their consequences on the availability of assets for pension funds. Section six shows how pension funds have reacted to this situation, shaping the development of domestic financialisation through their asset demand. The final section concludes.

2. Pension funds and variegated financialisation in Latin America

Existing comparative political economy literature places limited significance on the rise of private pension funds in Latin America. Standard views, originating in the Variety of Capitalism approach and the notion of pension fund capitalism, see pension funds as a defining characteristic of liberal market economies, where institutional investors populate a market-based financial system, controlling the financing channels of firms and national infrastructure (Clark, 2000; Vitols, 2003). This would exclude any substantial role for pension funds in other institutional contexts, where financial systems are based on banks. Indeed, in Latin America's variety of capitalism, dubbed 'hierarchical market economy' (HME), financial markets have no important role to play (Schneider, 2009; Schneider, 2013). Similarly, according to World Bank scholars pension funds have not contributed to deepening and increasing the liquidity of domestic capital markets and promoting regional financial integration (Raddatz, 2014; Opazo et al., 2015).

While pension funds in Latin America do not conform to the standards of liberal market economies, such views risk downplaying their dynamic role in a changing economic and financial landscape. In particular, they may underestimate the role that PFAD has in shaping new developments in financial markets, outside the traditional structures of the particular capitalist variety. The creation of large pools of wealth has made institutional investors pivotal actors in providing the demand supporting the development of financial markets, fuelling the boom of existing markets and the creation of new asset classes, steering the move towards a market-based financial system and the capitalisation of income flows into new tradable securities, across different capitalist varieties (Fernandez and Aalbers, 2016; Hassel et al., 2019; Engelen et al., 2010; Dixon, 2008; Dixon and Sorsa, 2009; Datz, 2014; McCarthy et al., 2016; Hassel et al., 2019). The rise and diffusion of private pension funds in different contexts can therefore be more clearly situated within a variegated financialisation perspective, whereby the diverse institutional and structural factors act as distinct determinants of PFAD shaping different forms of financialisation.

Recent comparative political economy literature highlights institutional factors, most notably the competing influences of different institutional actors involved in the creation and management of pension funds, as key determinants of PFAD (Engelen et al., 2010; Naczyk, 2013; Naczyk, 2016; McCarthy et al., 2016; Hassel et al., 2019). Notwithstanding its lack of consideration for pension funds, in the case of Latin America, the HME model provides important guidance for investigating how the institutional structure of the Latin American economies can affect PFAD (Schneider, 2009; Schneider, 2013). These economies are characterised by oligopolistic markets, with a few large powerful (domestic and foreign) firms, and a largely unstructured atomistic labour market. Pension funds emerging in this institutional context are likely to reflect such hierarchical relations, in terms of their design and conflict (or lack thereof) between stakeholders: they are likely implemented and reformed through top-down decision processes, under the pressure of powerful domestic conglomerates, or foreign multinational financial companies, and managed through business and market logics, rather than being the product of a negotiated settlement between workers and employers. Furthermore, as mentioned, HMEs are characterised by small domestic capital markets, which remain peripheral to financing. This can act as a constraint on the availability of investable assets, which can have profound consequences for PFAD, forcing pension funds to look into assets beyond domestic capital markets (Lysandrou, 2018; Sweeney, 2017; Bonizzi and Churchill, 2017; Bonizzi and Kaltenbrunner, 2019; Fernandez and Aalbers, 2016). It is also important to consider how all these institutional factors, and particularly the interests and influence of the actors involved, as dynamic and contingent on the evolving historical context (McCarthy et al., 2016). In the case of Latin America, the climate of the Washington Consensus policy era in the early 1990s is crucial to

understand the combination of these factors and their implications for the evolution of PFAD.

However, when assessing the context of Latin American EEs, it becomes clear that institutional characteristics and dynamics are insufficient to explain their form of PFAD-driven financialisation. This is because, as highlighted by the literature on financialisation in EEs, it is not possible to fully understand financialisation without reference to the context of *structural* economic subordination (Becker et al., 2010; Bonizzi et al., 2019). While not applying these concepts directly to PFAD, the literature on financialisation in EEs can highlight two crucial structural factors, which have profound consequences on their financial markets.

First, a key structural dimension of EEs is their high degree of outward orientation or 'extraversion' (Aboites et al., 2002; Becker et al., 2010; Bonizzi et al., 2019; Guevara et al., 2018): production is highly dependent on exports ('active' extraversion) – for many countries mainly in the form of commodity exports – while at the same time countries rely on imports for consumption and capital goods ('passive' extraversion). While extraversion in other developing regions has generated an explicitly 'exportist' growth model (Jessop and Sum, 2006), Latin American countries have been unable to produce consistent trade surpluses, moving cyclically between phases where 'active' and 'passive' extraversion are dominant. Such extraversion is also often combined with a 'prudent' fiscal policy, with the intent of ensuring that domestic expenditures remain constrained to avoid excessive need for foreign currency financing, as well as remaining attractive to foreign business (Levy-Orlik and Ortiz, 2016).

This extraverted growth regime can have significant consequences for domestic financial markets, and therefore PFAD. An outward-oriented productive sector primarily receives its financing from abroad, in the form of export proceeds and foreign direct

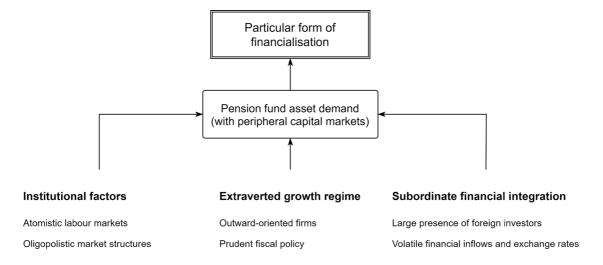
investment. This reduces the scope for domestic capital market issuances and thus the availability of assets for pension funds, where regulations restrict investments in foreign assets. 'Prudent' fiscal policy has a similar effect in constraining domestic public-sector borrowing. On the other hand, import dependence may induce government and private borrowing surges to pay for imports, thus potentially increasing the domestic financing needs – perhaps beyond the willing capacity of the banking sector. The balance between these two factors is an important factor to consider when looking at PFAD and how it shapes financialisation: phases where "active extraversion" dominates, due for example to a commodity export boom, will see Latin American EEs financialisation patterns that echo those of export-led EEs, such as those following East Asian 'exportist' model, with limited domestic borrowing and accumulation of foreign assets. Phases where "passive extraversion" dominates will conversely see an accumulation of debt and therefore potential development of domestic financial markets.

A second key factor, put forward by a strand of Post-Keynesian monetary economists, is the hierarchical nature of the global monetary and financial system. EEs, including Latin American countries, have become over time more open to international financial flows from international portfolio investors. This growing financial integration however takes a subordinate form: based on Keynes' theory of liquidity preference, these authors argue that EEs currencies' are less able to perform the functions of money in international markets, and thus occupy a lower rank in a global currency hierarchy (Kaltenbrunner, 2015; Andrade and Prates, 2013; Ramos, 2019). As a consequence, EEs are forced to remain attractive to foreign capital to maintain sufficient demand for their currency in an attempt to stabilise the exchange rate and financial flows, whose volatility depends on forces largely beyond their control (Bortz and Kaltenbrunner, 2018; Kaltenbrunner and Painceira, 2018; Levy-Orlik and Ortiz, 2016; Alami, 2018).

Subordinate financial integration, insofar as it determines cyclical inflows from foreign financial investors, can have a substantial impact on the demand and supply of financial assets in domestic markets. It leads to a larger but volatile presence of foreign investors, and therefore affects the availability of investable domestic assets for domestic pension funds. Pension funds might find themselves periodically crowded out of domestic financial markets, and forced to look elsewhere for sufficiently high-yielding investments. Similarly, the volatility of financial flows generates uncertainty for pension funds, pushing them to look for diversification alternatives as well as ways to hedge their portfolios.

Figure 1 shows a scheme of our analytical framework. PFAD stimulates a particular form of financialisation in Peru and Colombia, determined by a particular institutional and structural economic context. The hierarchical institutions, extraverted growth regime and subordinate financial integration are the key factors determining PFAD in Colombia and Perú, as they define the peripherality of capital markets and the institutional characteristics of pension fund decisions. In the rest of the paper we explore the historical experience of these two countries to fully evaluate the role of these factors.

Figure 1. Analytical framework



Source: Authors' elaboration

3. Pension fund reforms

3.1 The pension reform context

Global interest in expanding the role of private funded pensions was ignited by the actions of Chile in the 1980s. In 1981 José Piñera, a Chilean politician educated in the US (Harvard), led Chile through radical pension reform, closing its PAYG state pension system to new entrants and mandating citizen participation into funded individual private schemes (*Ahorro Individual*) managed by *Administradoras de Fondos de Pensiones* (AFP – Pension Fund Administrators), with pension benefits calculated on a "defined contribution" (DC) basis, as opposed to being "defined benefit" (DB)ⁱⁱⁱ. The radical Chilean reforms were initially deemed successful (although not always with clarity regarding the measures of success) by powerful actors in global policy debates, and other countries were encouraged to follow the *Piñera Model*. Several Latin American countries followed the prescription in full (Bolivia, Dominican Republic, El Salvador).

Others, such as Costa Rica, Panama and Uruguay, adopted the model in a less extreme form, adding funded DC schemes as one pillar of their wider pension system, as did countries outside of Latin American, notably Australia^{iv}. This latter approach was supported by the World Bank, which articulated the need for pension reform across the world in its *Averting the Old Age Crisis* report (World Bank, 1994). The Report's authors argued that sustainable pension systems should be based on three pillars. The first pillar of a pension system should be state provision, usually financed on a PAYG basis. This pillar should offer something close to a flat rate pension for all who contributed throughout working life, with the purpose of eradicating old-age poverty, rather than "earnings based" pensions, where larger earners qualify for larger pensions. Second-pillar schemes, which *would* try to replace earnings, could be occupational pensions, organised through employers or industrial groups, where employers and employees make

contributions, set in proportion to wage/salary into a fund. Ideally, participation should be mandatory, making this a second complementary pillar to state provision. Third-pillar schemes could again be funded individual accounts, but would be voluntary, for those who wanted to achieve additional retirement income.

The World Bank argued that a significant reduction in reliance on the state was urgent in countries with large welfare states and growing life expectancy. The Bank argued also however that the same or similar pension reforms would benefit all countries. The Report captured the growing consensus view that there were additional benefits to be had from increasing the size of the funded sector. Boosting second and third pillar pension schemes would push up savings in absolute terms (World Bank 1994: 23) and change the composition of savings towards longer-term assets (Davis, 1998). Channelling a proportion of people's income into the financial sector would increase the depth of capital markets and reduce price volatility of key assets (World Bank 1994: 213). In this way the debate regarding the merits of pension funds was interwoven with the debate regarding the merits of domestic bond market development. Pension funds were seen as key drivers of such development, sought as an alternative to bank finance (particularly during banking crises), for the discovery of the yield curve, and for the creation of hedging opportunities. Over time growth in pension funds would lead to greater diversification in instruments (Clowes, 2000), and these new instruments would increase the efficiency of risk management. In summary, capital would be easier and cheaper to come by, resulting in higher levels of investment by corporations.

Notable pressure was put on the transition countries of Central and Eastern Europe to reform their pension systems by the World Bank and the European Commission. Some

countries (Poland and Hungary for example) chose in fact to move closer to the original Piñera model in the late 1990s, before a policy reversal ten years later (Churchill, 2013).

Even outside of such clear examples of World Bank intervention, funded pensions have grown through a variety of measures. In Japan, generous public schemes remain organised on a PAYG basis, but since 1961 significant surpluses to this scheme have been invested, with assets under management valued at ¥159,000billion (\$1.43trillion) in 2018 (GPIF, 2018). OECD countries with long-established occupational pensions have found ways to grow their funded schemes; in the UK for example, the Pensions Act 2008 enforced employers to automatically enrol qualifying workers into occupational schemes — a halfway step towards making these mandatory. In other countries growth in pension funds was in the form of third-pillar pensions, such as the rapid expansion of 401k accounts in the US or the Riester pension in Germany (Holzmann, 2013). Overall, the global growth of pension funds has been a remarkable characteristic of the past two decades: from just under \$7.7 trillion in 1995 (Ryan, 2003), global pension assets have increased to \$44.1 trillion in 2018 (OECD, 2019).

3.2 Pension reform in Colombia and Perú

Public pension provision has a reasonably long history in Colombia and Perú. The Colombian pension system had its origins in 1967, when ISS (*Instituto de Seguros Sociales*) was established, as a mandatory PAYG scheme with support from the national government and employers. In Perú, a public contributory pension established in 1936 was reformed in 1973 as a PAYG system under the name of DL 1990 regime (Carranza and Moron, 2003). The PAYG systems in both countries were politically promoted as "contributional", so when pension contribution inflows were absorbed in current expenditures amidst the debt crisis in the 1980s, confidence in the system was diminished and there were accusations of mismanagement (Espitia and Betancourt, 2001; Carranza

and Moron, 2003). Reforms led to the emergence of private pension schemes in the early 1990s, run on a DC basis. The reform in Perú was implemented at the end of 1992 under the DL25897, while in Colombia the reform was implemented in 1993 under the famous Law 100, which established private pension schemes, administered by AFP.

The political space for reform was opened by concerns regarding fiscal constraints and the management of public pension systems (Carranza and Moron, 2003). However, the driving force behind the reforms was a broader neoliberal policy-turn amounting to a marketisation of social provision, in the hope of structurally lowering public expenditures, and fostering the development of financial markets with clear interest from local economic groups and neoliberal policy proponents. For both countries the pension reform was influenced by technocrats and economists through pro-market think-tanks. This notable influence was both ideological and direct, with the relationship between think-tanks, economic groups and government officials serving as a clear example of a "revolving doors" logic.

In Colombia, pension reforms were promoted by think-tanks financed by the financial sector in the early 1990's. One clear example was ANIF (Asociación Nacional de Instituciones Financieras), a think-tank funded by AVAL Group (banking and pension group Holding). In a publication promoted before the reform entitled "The pension economics, the right to the future" (ANIF, 1992), they argued in favour of the AFP, justifying it on the grounds of sustainability, specifically in terms of balanced-budget government finance. Similarly, Fedesarrollo, formally a non-profit organization but led by economists close to the government and the financial sector, was influential in establishing the arguments behind the 1993 reform. Miguel Urrutia, a Colombian economist educated in Harvard, who was planning minister before the reform and, after 1993, Central Bank president, is an interesting example of an individual moving between

influential institutions. In one of his works sponsored by Fedesarrollo, he argued that an AFP scheme should exist for pensions over minimum wage and that the public system should be just a first-pillar mandatory minimum pension (Urruia, 1991). There was a similar situation in the Peruvian case: Carlos Bologna, an Oxford-educated economist who also worked in the World Bank as a consultant, was the Peruvian finance minister between 1991 and 1993 and one of the main promoters for the pension reform and neoliberal turnover in Perú. After 1993, he was executive president of Horizonte, one of the new AFPs in Perú after the reform. It is also important to mention that the law DL25897, which created the private pension fund system, was forced through during the "law monopoly", a period of parliamentary shutdown, when the government assumed full legislative function (Angulo, 2010).

Beside the direct influence of key groups, the design and structure of the new pension systems broadly reflect the institutional characteristics of the HME model. First, reflecting the atomistic nature of labour markets, the AFP system in Colombia and Perú has the characteristic of a market for individual financial products: AFP are private forprofit companies, which provide customers with personal funded defined-contribution plans. Rather than trust-based arrangements between workers and employers - as is typical of traditional corporate and public-sector funded schemes in Europe and the US - AFP are effectively corporate entities responding to market pressures, making their asset allocation choices in order to offer attractive saving products, with no minimum-income guarantee^v (Rudolph et al., 2007). Unlike the newer individualised private pensions in Europe and the US, much less emphasis was initially put on individual choice; AFP members initially had effectively no control over the asset allocation of their contributions.

Secondly, the AFP system reflects the oligopolistic market structures of the HME model. The AFP sector in Colombia and Perú has become progressively more concentrated: in 1993 there were 14 AFP in Colombia, which reduced to 8 in 1999, with 3 actors (Porvenir, Protección and Colfondos) having around 60% of the market share; similarly, the number of AFP in Perú declined from 8 in 1993 to 4 in 2000, with the largest two providers also holding around 60% of the market share. This concentration process has continued in the 2000s. After two important mergers in 2014, where local actors bought the pension business from international groups (Porvenir bought BBVA – Spain and Protección bought ING – Netherlands), there are just 4 AFP in Colombia. Today Porvenir and Proteccion run over 80% of the assets and members of the pension market (see table below), and they are owned by two of the biggest economic conglomerates in Colombia (AVAL group and GEA group), which also own part of the banking system, media and infrastructure industries. In Perú, after a decade of mergers and acquisitions, there are now 4 AFP, with the two largest ones (Prima and Integra) covering over 70% of total pension assets, and being owned respectively by Grupo Sura (a major Colombian financial conglomerate) and Credicorp (the largest financial group in Perú). In addition to high levels of concentration, AFP have been blamed for potentially destabilising practices, such as herding behaviour and portfolio homogeneity (OECD, 2000), as well as achieving low value-added: AFP in Perú and Colombia charge very high fees vi, despite providing rates of return to beneficiaries smaller than the average lending rate^{vii}, and mimic each other's portfolio to meet the system-wide return targets.

While reflective of the general HME features and the influence of key business groups, the overall design of the AFP system represented nonetheless a compromise in regards to the needs of different actors, in a way that continues to shape AFP behaviour. Unlike in other countries, pension privatisation was only partial in Colombia and Perú,

as the PAYG system remained in both countries as an alternative to AFP. Even today more than 25 years after the private system was introduced, citizens can choose to contribute to the private funded system, or the public PAYG system, but they cannot contribute to both systems at the same time and there are restrictions regarding moving between systems: in the Colombian case contributors need to stay at least five years in each scheme before switching; in Perú, until 2007 moving from the private system (SPP) to the public one (SNP) was not allowed, although this regulation was subsequently relaxed (Angulo,2010).

The retention of the public system alongside the AFP was conceived as a compromise solution in the face of public opposition to pension privatisation, including from trade unions, but was also justified on the grounds that it would generate competition within the pension system as a whole (Kleinjans, 2003; Carranza and Moron, 2003). The PAYG system remains attractive as it promises a defined benefit (DB) arrangement, with a minimum guaranteed pension in Perú and a final-10-years average pension in Colombia. The private pension system in Colombia and Perú is therefore peculiar, in that PAYG pensions represent a competitive benchmark for AFP, which, in the absence of hard liabilities or return guarantees, need to target returns high enough to compete with the benefits of the public system.

4. The beginning: debt-led growth in the 1990s

In the initial years after its establishment, the private system was perceived to be attractive and many migrated from the PAYG system to AFP. These small but growing inflows generated a demand for financial assets which, in line with our analytical framework, can be explained with reference to the extraverted growth regime and emerging financial integration of Colombia and Perú in the 1990s. In that period, as mentioned, Perú and Colombia undertook structural reforms inspired by the Washington

Consensus discourse promoting labour, financial and trade liberalisation. These reforms had a profound impact on the economy and the society of these countries viii. Crucially, increasing trade openness was considered essential to boost economic growth, as countries would be able to increase their exports (Williamson, 1990). In this phase the 'extraversion' of the countries' growth regime substantially increased. The export growth process, however, failed to materialise, and, as a result of trade liberalisation, passive extraversion dominated the growth regime in the 1990s. With imports growing faster than exports, both Colombia and Perú experienced large and growing trade deficits (Figure 2 and 3).

With a newly open capital account, domestic corporations and banks - and to a smaller extent the government - borrowed heavily from abroad, predominantly short-term and in foreign currency, and were able to attract foreign direct investments. At the same time, financial liberalisation led to domestic credit expansion in both foreign and local currency. Economic growth in the mid-1990s did occur, but was reliant on domestic expenditure financed by borrowing, rather than exports (Villar and Rincón, 2000; Dancourt, 1999). The first phase of financial integration made growth possible, as foreign lenders were attracted by a rapidly opening economy, as well as high interest rates.

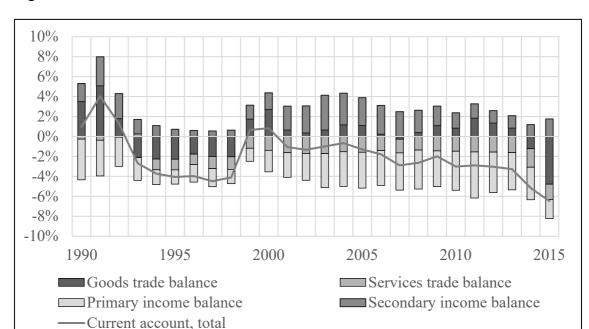


Figure 2. Colombia, current account balance, % GDP

Source: IMF (2020)

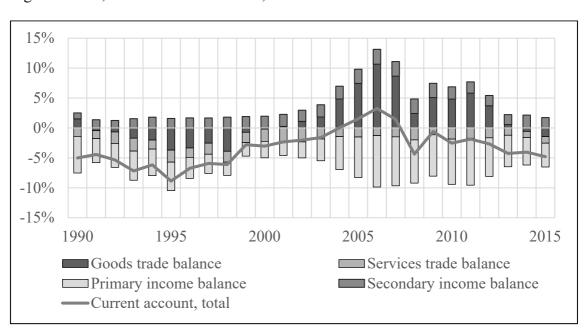


Figure 3. Perú, current account balance, % GDP

Source: IMF (2020)

This debt-led growth dynamic created ample space for AFP to find domestic financial assets suitable to their needs. The infant AFP sector could allocate a large portion of its growing inflow of contributions to financial sector bonds and fixed-term

deposits, as banks refinanced their lending. By the late 1990s, as the government started to borrow more extensively, AFP could increase their investment into good-yielding safe government bonds. Therefore, in the 1990s asset allocation remained conservative, and allocation to high-risk and foreign assets remained severely restricted by regulation (see Appendix for more details). As shown in Table 1, AFP in Perú and Colombia presented high allocations to financial sector fixed-income assets, as well as growing allocation towards government bonds. Despite these conservative allocations, AFP return rates averaged about 31% in Colombia and 17% in Perú during the 1995-2000 period^{ix}.

Table 1. AFP portfolio allocation during the 1990s

		1996	1997	1998	1999	2000
Public Sector	Colombia	19.7%	18.5%	27.5%	43.7%	50.1%
	Perú	2.1%	1.5%	4.9%	7.3%	9.0%
Private Non- Financial	Colombia	10.5%	16.3%	9.2%	14.8%	14.5%
	Perú	53.4%	55.6%	50.7%	46.0%	44.2%
Private Financial	Colombia	61.6%	36.3%	50.2%	36.1%	38.6%
	Perú	43.7%	41.4%	41.2%	46.7%	40.0%
Foreign	Colombia	-	-	-	-	-
	Perú	-	-	-	-	6.7%

Source: Authors' elaboration based on FIAP

This phase ended in the late 1990s, when both countries suffered from the decline in foreign financing in the wake of the East Asian crisis. Like many other EEs, in Colombia and Perú the sudden decline in foreign capital inflows generated exchange rate and balance of payment problems, forcing the countries to seek the assistance of the IMF. Domestically, this resulted in a sharp decline in private borrowing and a marked slowdown in economic growth. This initially contributed to government borrowing,

which acted to contain the crisis and support their financial sector. Both governments eventually turned to policies of public austerity and further liberalisation, including the exchange rate regimes which turned to a 'pure float' (1990 in Colombia and 2002 in Perú). The financial sector in both countries experienced a consolidation and further privatisation, due to a combination of declining foreign investment and balance sheet problems originating from the crisis.

At the turn of the millennium, therefore, it would therefore be hard to argue that AFP in Colombia and Perú had actively and substantially contributed to the process of financialisation. Thanks to the ample availability of financial assets issued by the financial sector and the government amidst the rise and fall of a debt-led growth period, the infant and increasingly concentrated AFP sector faced no pressure to move beyond existing regulation and fixed-income assets. As a result, the financial system remained structurally anchored around banks – the real pillar of the boom-bust cycle – with very limited developments in financial markets, let alone in the creation of new marketable securities.

5. AFP in the export-oriented growth regime and subordinate financial integration

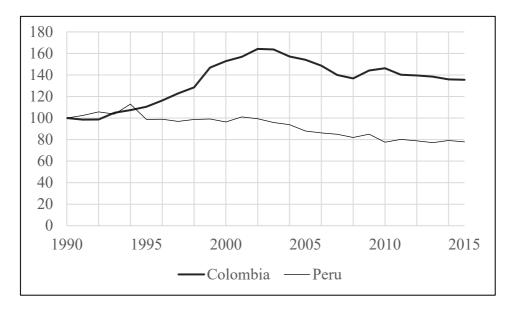
In the following decade the AFP sector kept growing. As of the end of 2015, they covered about 13.3 million and 6 million members in Colombia and Perú respectively, amounting to 52% and 35% of the workforce, up from 21% and 19% in 2000^x. The size of assets under management increased from between 1% and 2% of GDP to about 20.3% of GDP in both countries (OECD, 2020a).

However, as they channelled these increasing contributions into financial markets, AFP faced a changed economic and financial environment. In the 2000s, the Colombian and Peruvian growth regime moved markedly in the direction of active

extraversion, i.e. export-oriented growth^{xi}. The average share of exports to GDP increased substantially in both countries in the 2003-2015 period compared to 1990-2002^{xii}. Importantly, as shown in Figure 2 and 3, both countries were able to reverse their deficits in their goods trade balance. On the back of these rising exports, fixed capital investment increased, and the countries experienced solid rates of economic growth (4.5% and 5.5% on average in the 2003-2015 (UNCTAD, 2019).

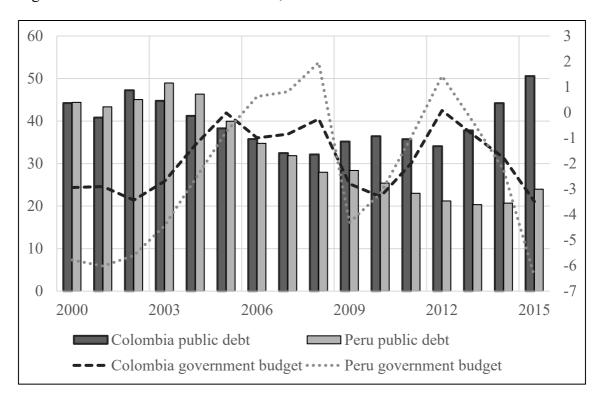
Exports in Colombia and Perú benefitted from the commodity price boom in the 2000s. In both countries exports of primary commodities accounted for over 75% of total exports as of the end of 2015 (UNCTAD, 2019), above the two-thirds threshold used by UNCTAD to define a country as 'commodity dependent'. Indeed the whole economy became skewed towards commodity extraction: the primary sector constitutes about 15% of GDP in Colombia and 18% of GDP in Perú (World Bank, 2019a), oil revenues account for about 15.5% of total fiscal revenues in Colombia (IMF, 2016), and resource-related revenues account for about 13% of total fiscal revenues in Perú (IMF, 2015). Beside commodity prices, export competitiveness was also promoted by limited growth of labour costs, which, as shown in Figure 4, have been falling during the 2000s in both countries, testifying how real wages have failed to keep with productivity growth. In Perú, in particular, real wages have stagnated, remaining roughly at the same level between 1990 and 2008 (Paz and Urrutia, 2015). Over the 1990-2014 period the share of wages to total GDP declined respectively from 69.1% to 62.1% in Colombia and from 45% to 30% of GDP in Perúxiii. Equally, the continued commitment to 'prudent' fiscal policy combined with the growing receipts from the export boom, markedly improved government budgets (Figure 5) and kept imports in check, favouring the rise of trade surpluses.

Figure 4. Real unit labour cost. 1990=100



Source: Authors' calculations based on Ministerio del Trabajo y Promocion de l'Empleo, Banco de la Republica, ILO and World Bank, (2020). Unit labour cost are calculated as the ratio between average real wages and labour productivity (Real GDP per capita in local currency divided by total employment).

Figure 5. Government accounts and debt, % GDP



Source: IMF (2019)

Colombia and Perú's export-oriented growth regime was however only partially successful. A crucial element of 'exportist' growth models is the reliance on net exports as a key driver of aggregate demand (Stockhammer, 2016; Jessop and Sum, 2006). However, as Figures 2 and 3 show, despite the trade surplus in goods, the total current account remained in a deficit position – except a small surplus in Perú in 2005-2007. While partly the result of a deficit in the service trade accounts, this was mostly driven by deficits in the primary income account, i.e. in interest and dividend payments to foreigners. In other words, while trade openness facilitated export surpluses, the accumulation of FDI and portfolio liabilities generated substantial payment outflows^{xiv}. Such a situation is in fact common across Latin American countries, which while pursuing export-oriented strategies, have been unsuccessful in achieving the 'neo-mercantilist' policy goal of a current account surplus (Levy-Orlik, 2014; Levy-Orlik and Ortiz, 2016; Guevara et al., 2018).

These high outward payments are reflective of the asymmetric and subordinate character of financial integration of EEs such as Colombia and Perú. As discussed in section two, EEs issue currencies with limited capability to settle international transactions, and thus remain in a subordinate position in a global currency hierarchy (Andrade and Prates, 2013; Kaltenbrunner and Painceira, 2018). This forces them to create an attractive environment to elicit sufficient foreign investor interest and confidence in their domestic assets. This includes committing to "prudent" fiscal policy, large foreign exchange reserves, and most importantly attractive interest rates, which lead to EEs paying a premium on their foreign liabilities. These foreign payments can be so high that they outpace any trade surplus, forcing a current account deficit. In these conditions, the imperative to remain an attractive destination for foreign investors becomes even more pressing, in order to attract sufficient foreign currency to pay for

imports and payments on foreign liabilities, and ensure the sustainability of external debts.

This process characterised Colombia and Perú over the 2002-2015 period. Beside economic growth on the back of rising commodity exports, foreign investors could count on rising foreign exchange reserves levels^{xv}, declining public debt to GDP and fiscal restraint (Figure 5), and a positive interest rate spread vis-à-vis US bonds (Figure 6). Given these local conditions, and the low yields globally, Colombia and Perú were able to attract substantial financial flows. FDI inflows averaged around 3.9% and 4.4% of GDP in Colombia and Perú respectively over the 2003-2015 period, up from 1.9% and 3%. Much of these targeted the extraction sector, accounting for approximately 50% FDI flows to Colombia and 22% of FDI stocks to Perú^{xvi}. The countries also enjoyed renewed interest from foreign portfolio investors, with about 50% and 70% of government bonds issued (including a growing proportion of local currency bonds) being owned by foreigners (Arslanalp and Tsuda, 2014).

The active extraversion and financial integration had the side effect of reducing the domestic financial space for AFP. Most directly, the large presence of foreign investors in domestic markets pushed bond yields down, reducing the spread to US government bond yields below 200 basis points, where it remains to date (Figure 6). While these yields remained attractive to foreign investors, especially in the global climate of near-zero interest rates, it damaged the return of what had been one of the main sources of financial income for AFP. Demand for domestic fixed-income securities by foreigners generated a crowded market with declining yields, as well as booming stock prices reducing the affordability of stocks, a common dynamic across EEs.

1,200
1,000
800
400
200
1997 1999 2001 2003 2005 2007 2009 2011 2013 2015 2017

Figure 6. EMBI Spread to US bond yield. Basis points

Source: Banco Central de Reserva del Perù

More broadly, export growth did not result in a larger role for capital markets in financing, and in fact contributed to limiting the effective need to issue domestic financial assets. As discussed, borrowing by governments was moderate, limiting the issuance of public-sector bonds. The decline in private borrowing, compared to the 1990s, reduced the needs of financial institutions to fund themselves domestically to support credit growth, therefore limiting the supply of time-deposits and financial sector bonds, which had been a crucial source of income for AFP. Furthermore, export orientation and the consolidation of financial institutions after the crisis in the late 1990s, reinforced the characteristics of the HME model, with the productive structure of economy further concentrating around the export sectors and a few financial conglomerates. Such a structure is mirrored in the capital markets, with over half of the stock market capitalisation in both countries being represented by extractive and financial sector companies as of 2017xvii. Both sectors have however relatively limited needs to finance themselves domestically, given their access to global capital markets, as well as extractive

sectors enjoying high export earnings and high FDI. In sum, capital markets in the 2000s remained a peripheral source of funding for productive capital^{xviii}.

The supply of new financial assets by both the private and public sector was therefore limited, compared to the growing demand of AFP. This can be seen empirically in Figure 7 and 8: while capital markets issuances have grown, they have not kept up the pace of increasing investment needs of AFP. Scaled by total assets, the difference between issuances of new assets and net contributions to be allocated by AFP has decreased over-time, even turning negative in some years in Perú: on average in the 2006-2015 period this ratio was about 6% in both countries^{xix}. As a result, over-time, AFP's real rates of return declined (Figure 9).

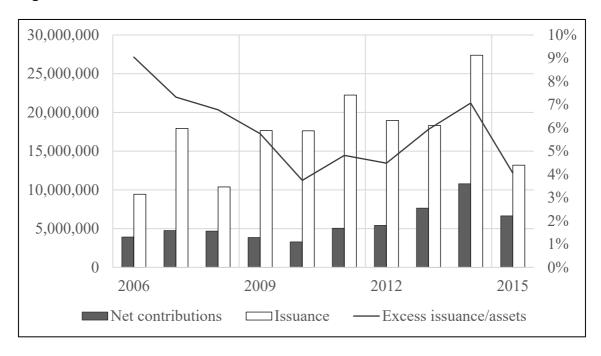


Figure 7. AFP Net cash flows and issuance. Colombia.

Source: Banco de la Republica, BVC, Superintendencia Financiera, data in millions of Colombian Peso. Net contributions are calculated as contributions minus pensions paid. Issuances include both public and private sector. Excess issuance is the difference between issuance and net contributions. In the figure it is presented as a ratio of total end-of-period AFP assets

30,000,000 100% 25,000,000 80% 20,000,000 60% 15,000,000 40% 10,000,000 20% 5,000,000 0% 2010 2007 1998 2004 1995 2001 -5,000,000 -20% Net contributions □ Issuance Excess issuance/assets

Figure 8. AFP Net Cash Flows and Issuance, Perú

Source: Authors' calculations based on SBS, SMV, data in thousands of Soles. Net contributions are calculated as contributions minus benefits and other cash flow expenses. Excess issuance is the difference between issuance and net contributions. In the figure it is presented as a ratio of total end-of-period AFP assets.

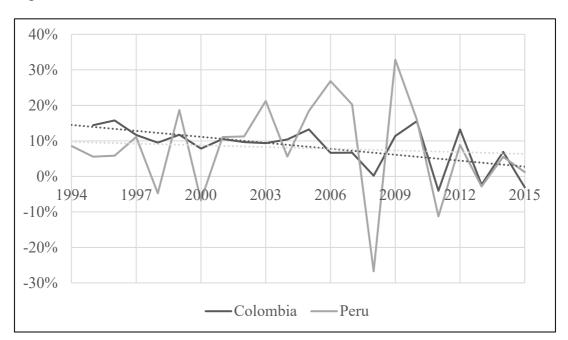


Figure 9. Pension funds real rate of return.

Source: FIAP. Note: For Perú, this corresponds to the real rate of return of the type 2 (balanced) fund. For Colombia, from 2010 this corresponds to the real rate of return of the Moderate fund.

6. AFP pressures and financialisation

AFP since the early 2000s have therefore come under pressure to find financial assets that can promise sufficient returns to their members. With the threat of potentially losing their customers to the public PAYG DB scheme, AFP have adapted and modified their strategies, but faced the direct constraint of investment regulation: as previously mentioned, foreign investment was not initially allowed in Colombia and was restricted to 5% of the investment portfolio in Perú, and detailed restrictions existed for all asset classes (See Appendix for more details), justified on the grounds of limiting the risk exposure of AFPs. However, several studies emerged in the 2000s, blaming the inefficiency and declining returns of the AFP systems on the regulatory restrictions on asset allocations, which forced allocations to scarce and risky local instruments, and putting forward a case for investment restrictions to be removed as well as for the establishment of a multi-fund structure for AFPs (León et al., 2008; Muñoz, 1999; Rivas-Llosa and Camargo, 2002). Once again, the links between the financial industry and the government helped in bringing these concerns to the fore. In Perú, the report "10 years of the private pension system" (Carranza and Moron, 2003), which forcefully made the case for liberalisation of foreign investment, was co-written by Eduardo Moron, former and then current economic adviser and subsequent Vice-minister for the Economy, and current President of the Peruvian Association of Insurers (APESEG). In Colombia, the University of Illinois-educated executive director of ANIF and former Deputy Minister of Finance Sergio Clavijo argued (Clavijo, 2009, p. 10):

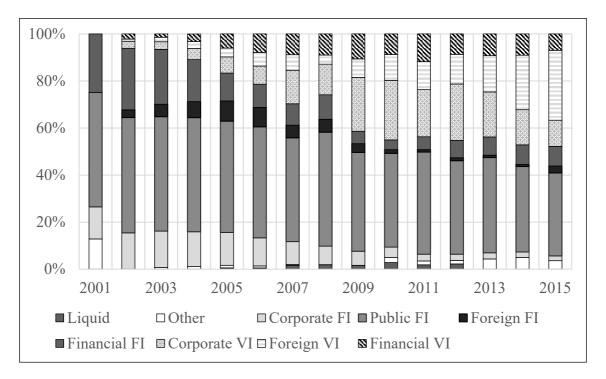
"In this light, the rate of return on the private accounts of the AFPs needs to be improved in order to reduce the risk of reversals toward the public paygo system.... The approval of the financial reform (currently under discussion in the Colombian Congress), proposing "multifunds" or generational portfolios, is key to improving long-term returns. ... these generational portfolios have the potential of

improving the return/risk ratios and avoiding artificial investment "ceilings" that can lead to sub-optimal allocation of portfolio assets."

With these pressures, and falling returns, the multi-fund structure was established in 2005 in Perú and 2009 in Colombia, dividing existing pension funds into three different new risk profiles: Conservative (Profile 1), Moderate (Profile 2) and Risky (Profile 3). Investment regulations have been relaxed along the three profiles, and liberalisation has been particularly strong for the Risky fund^{xx}.

These liberalisations were accompanied by a structural change in asset allocations over the over the past 15 years, towards increasing diversification as well as increasing investment risk, as shown in Figure 10 and 11. A first key trend has been a substantial increase in allocations to foreign assets, which made full use of the progressive liberalisation on foreign investments^{xxi}. These were non-existent at the turn of the century in both Colombia and Perú, but increased to 13% and 9% in 2006, to 33% and 40% in 2015. The second key trend has been a shift in allocations from fixed income towards variable income assets, the most important of which are equities. Variable income assets were non-existent in Colombia and about 30% in Perú in 2001, and increased respectively to 48% and 55% in 2015. This was mainly at the expense of private-sector bonds in both countries, which fell from 39% to 10% in Colombia and 56% to 24%. Government bonds allocations also fell in Colombia, but they still represent the single largest asset class at about 35% in 2016, while they actually increased in Perú from 13% to 18%.

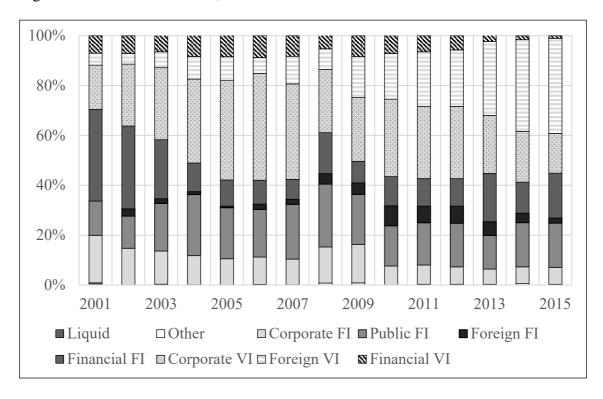
Figure 10. Colombia Pension Funds, Asset Allocation %



Source: FIAP

Note: FI and VI stand for Fixed-Income and Variable Income respectively.

Figure 11. Perú Pension Funds, Asset Allocation %



Source: FIAP

Note: FI and VI stand for Fixed-Income and Variable Income respectively.

Secondly, beside investing in a larger range of existing – and to a large extent foreign – asset categories, AFP have led on the creation of new asset classes and financial practices. AFP are involved in an increasingly complex range of investment practices, such as direct participation in companies' IPOs, as well as direct and indirect investment in derivatives, generating a demand for a derivatives market (Gestión, 2015). Most importantly, AFP have been crucial in developing the demand for an 'alternative' asset class, a phenomenon common to pension funds in advanced economies (Bonizzi and Churchill, 2017). These assets comprise mainly private equity and infrastructure funds, and to a smaller extent hedge funds. As figure 12 shows, although still small these have been rapidly growing in recent years, and recent regulations specifically regarding investments in alternatives has relaxed xxii. Much of the current domestic narrative on AFP investments in alternatives sees the generation of these new financial assets as fundamental to solving the low return problem of AFP (Gestión, 2016; FIAP, 2016). Mesa-Lago, (2016) for example proposes the securitisation of SMEs loans and infrastructure in order to generate attractive returns for AFP.

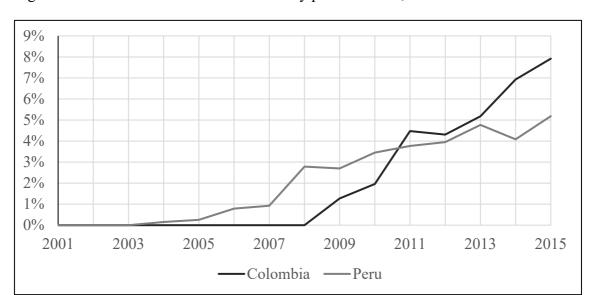


Figure 12. Allocations to alternative assets by pension funds, % of total assets

Source: Authors' calculations based on (OECD, 2020b). Notes: Alternatives are calculated as the sum of Private Equity, Hedge Funds and Structured Products, with the addition of mutual funds 'other' investments in the case of Perú. For Colombia, the latter is omitted, due to data consistency issues.

The rising PFAD for alternatives and foreign assets has been matched by international efforts from the financial industry to develop these new markets segments and tap into AFPs' portfolio. Private equity in Latin America has been heavily promoted by LAVCA (The Association for Private Capital Investment in Latin America), whose key members are all international private equity firms, and include The Carlyle Group, the world's second biggest. The importance afforded to private equity as a way of bypassing underdeveloped capital markets is evident in the LAVCA president's account: "until recently, Latin American businesses have been starved for capital, with bank credit tight and access to public markets limited to only the largest firms" (Ambrose, 2012, p. 145). Equally, AFPs have been a key target of asset management firms: almost the totality of foreign investment by Peruvian AFP are mutual funds, predominantly ETF (exchange traded funds) (Caycho Arce, 2016) and it is reported that out of global leading asset manager Blackrock's \$100 billion asset under management in Latin America, two thirds are AFP assets (Rashmi, 2016). Colombian and Peruvian AFPs diversification into

international assets and alternatives was made possible by the support of global financial players, who were more than willing to supply these new assets.

It is through these processes that PFAD promotes financial innovations and regulatory changes, which in turn foster a particular form of financialisation, which unfolds beyond domestic capital markets. The growing demand for foreign assets by Colombian and Peruvian AFP has been a key source to the development of FX derivative markets to hedge these foreign currency positions (Alvarado et al., 2014; Magallanes Reyes, 2016) and has established links between them and global asset management firms. Similarly, the rising demand for alternatives has been key in developing tighter links between financial securities and markets and real assets, and in particular to incorporate infrastructure and real-estate income flows into investable financial assets. AFP are important investors in several privately financed projects in both countries: AFP in Perú had 13 billion Soles - about \$5 billion – invested in infrastructure as of 2016, 20% of which through private equity funds; AFP in Colombia are the largest contributors to private capital funds, the great majority of which (over 80%) are infrastructure and real-estate funds (EY and ColCapital, 2017).

7. Conclusions

The rise of pension funds in Colombia and Perú has been important in shaping the form of their financialisation: the evolution of PFAD has been a key force behind the establishment of market-based financial practices, financial liberalisation and the development of new financial asset classes, largely beyond domestic capital markets. Such processes are partly determined by the institutional characteristics of the private pension fund sectors in Colombia and Perú: a highly concentrated market structure in competition with the public pension system and with little influence from workers, reflecting the characteristics of HMEs. However, these have also been shaped by their

extraverted growth regime and subordinate form of financial integration since the turn of the century, which constrain the growth of domestic capital markets and thus limit the supply of financial assets for domestic pension funds. Our conclusions complement the finding that pension privatisation has had limited beneficial economic effects, especially in Latin America (Arenas De Mesa and Mesa-Lago, 2006; Altiparmakov, 2018). The promises from the Washington consensus and the World Bank in terms of increasing rates of capital accumulation through the AFP mechanism have not been fulfilled. Funded pensions were supposed to accelerate financial market development, savings and capital formation. However, saving rates in many EEs have not increased and in Latin America, where the pension system privatization was most intense, saving rates (Bonizzi and Guevara, 2019) and capital formation^{xxiii} remain lower than in other developing economies.

In this context, our article paper shows how, alongside institutional factors, structural economic factors are key explanatory factors behind a variegated process of financialisation. In EEs, this remains fundamentally constrained by these countries' uneven engagement with the global economy, exposed to the export dynamics and import dependence, and the hierarchy of the international financial system. To the extent that private pension funds – and other private financial investors – shape the evolution of financialisation, their role will necessarily interact with the domestic financial market consequences of such engagements.

More research is needed to study these interactions further, with more case studies, focussing on different aspects of financialisation, in order to uncover variegated processes of financialisation, and compare its diverse forms in different institutional and structural contexts. This is particularly important, at a time when pension systems are

being reformed across several EEs, and financialisation is increasingly been recognised as an important influence to their developmental prospects.

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Appendix

Table A1. Allowed investments for Colombian AFPs in the original regime

	Allowable investments	Maximum Global Investment		
		Limit		
1	Internal and External Public Debt	(1) and (2) \rightarrow 50%		
	Securities issued or guaranteed by the	Two (2) \rightarrow 20%		
	Nation.			

2	Other public debt securities (Dec.2681 /			
	93)			
3	Shares with high stock market liquidity,	$(3), (4) \text{ and } (5) \rightarrow 30\%$		
	acquired in processes of privatization or			
	capitalization of State companies	Five $(5) \rightarrow 3\%$		
4	Medium liquidity shares			
5	Shares of low and minimum stock market			
	liquidity			
6	issued securities by financial institutions	Six (6) → 30%		
7	Commercial papers and bonds	Seven (7) → 20%		
8	Securitizations of authorized assets in	Eight (8) → 20%		
	the investment regime			
9	Mortgage portfolio securitizations	Nine $(9) \rightarrow 30\%$		
10	Securitizations of unauthorized assets	(10) and (11) \rightarrow 30%		
	in the investment regime	$Ten (10) \rightarrow 10\%$		
11	Mixed or participation certificates			
	real estate fund securitizations			
12	Financial assets issued or accepted by	(12) , (13) and $(14) \rightarrow 10\%$		
	foreign banking entities, bonds issued by			
	multilateral organizations, governments or	Fourteen (14) \rightarrow 5%		
	foreign public entities.			
13	Holdings in international mutual funds			
	that invest exclusively in bonds			
14	Stock indices			

15	Participations in pension funds, common	Fifteen (15) \rightarrow 5%		
	ordinary and special common of fiduciary			
	companies.			
16	Discounts of minutes of state contracts	(16), (17) and (18) \rightarrow National		
17	Portfolio discounts	government		
18	Deposits in sight			
19	Repo operations	Nineteen (19) → 15%		
20	Securities issued or guaranteed by	Twenty (20) \rightarrow 10%		
	FOGAFIN			

Source: Basic Legal Circular. Adapted from Restrepo (2000).

Table A2 : Allowed investments for Peruvian AFPs in the original regime

	Allowable investments	Maximum Global Investment
		Limit
1	Securities issued by the Central	One (1) \rightarrow 40%
	Government	Two (2) → 25%
2	Securities issued by the Central Bank of	(1) and (2) \rightarrow 60%
	Peru	
3	certificate deposits and other securities	Three (3) \rightarrow 60%
	representing deposits by companies in the	Four $(4) \rightarrow 30\%$
	Financial Sector	(3) and (4) \rightarrow 70%
4	Bonds issued by companies of the Financial	
	System	

5	Bonds of private companies, with the	Five $(5) \rightarrow 15\%$			
	exception of those of the Financial System				
6	Shares representing the share capital	$Six (6) \rightarrow 4\%$			
7	Workers shares	Seven $(7) \rightarrow 4\%$			
8	Preferential Subscription Certificates	Eight (8) \rightarrow 3%			
9	Products derived from securities traded on	Nine $(9) \rightarrow 0.1\%$			
	Stock Exchange	Ten $(10) \rightarrow 0.1\%$			
10	Mutual Investment Fund Securities Quotas	Eleven (11) \rightarrow 0,1%			
11	Placement in Reporting Operations	$(6), (7), (8), (9), (10) \text{ and } (11) \rightarrow$			
		10%			
12	Financial instruments issued or guaranteed	Twelve (12) →5%			
	by States or Central Banks of foreign				
	countries, as well as shares and bonds				
	issued by foreign institutions				
13	Primary issues of shares or bonds, aimed at	Thirteen (13) \rightarrow 4%			
	financing the development of new projects				
14	Short-term financial instruments that confer	Fourteen (14) \rightarrow 5%			
	credit rights				

Source: Adapted from Pereda (2007).

Table A3. Balance of payment and national accounts statistics

	Colo	Colombia 1990-2002 2003-2015		Peru		
	1990-2002			2003-2015		
Exports	10.73%	14.62%	11.52%	22.46%		

Imports	11.68%	15.58%	13.27%	16.26%
FDI inflows	1.87%	3.91%	3.03%	4.41%
Portfolio inflows	0.94%	1.6%	1.12%	2.03%
Reserves accumulation	0.70%	1.17%	1.45%	3.2%
Real GDP growth	2.27%	4.5%	3.00%	5.51%
Investment growth	3.89%	9.51%	4.56%	11.52%
Investment to GDP	19.05%	22.91%	20.24%	22.02%

Source: Authors' calculation based on UNCTAD (2019) IMF(2019, 2020), and World Bank (2019a). All figures except growth rates are as a % of GDP

Table A4. Gross fixed capital formation to GDP ratio

	1970s	1980s	1990s	2000s	2000-2018
Colombia	16.04	17.63	19.82	19.02	21.80
Peru	20.74	22.47	20.29	18.85	23.10
Latin America & Caribbean	21.78	20.02	19.35	18.98	19.56
Middle income	23.64	25.45	25.59	27.42	29.80
World	25.29	24.69	23.82	23.88	23.51

Source: Authors' calculation based on World Bank (2019a). Figures are averages for the decade

Endnotes

¹ Sources of retirement income are categorised accorded to their organising institution from the perspective of the recipient (the state, an industrial group or firm, a privately accessed financial intermediary) and their mode of financing. Typically, state pension schemes have been funded on a Pay-As-You-Go (PAYG) basis; in this case, state pensions form part of state expenditure, financed out of current taxation. Occupational and private pensions on the other hand are pre-funded: contributions are pooled and invested in financial markets,

with the proceeds from the fund's assets used to finance pension benefits.

- iii Where pensions are defined benefit, the final pension pay-out is set in advance, and the risk of failing to have the funds to meet the pre-determined liabilities falls on the pension provider. In DC schemes, only contributions are determined thorough contract. Lower returns on assets result in lower benefits, shifting risk onto the individual.
- iv Australia introduced Mandatory funded schemes with contributions from employees and employers (the 'Superannuation' pillar) in 1992.
- AFP's minimum return requirements are based on combination of market benchmarks and the average return of the sector (Rudolph et al., 2007), without any nominal (or real) fixed income or return guarantee for members. They are in this sense pure DC arrangements, whereby the level of pension benefits is entirely dependent on the contributions and financial returns gained.
- vi According to FIAP (International Federation of Pension Fund Administrators) data (https://www.fiapinternacional.org/en/estadisticas/), pension fund managers commissions were 1.20% and 1.60% as a proportion of total wages in Colombia and Peru respectively in 2015. It is difficult to compare these to OECD countries, as these are normally paid as a percentage of assets under management. However, using the total received income from commission as proportion of contribution, both Colombia and Peru rank higher than Chile (Freudenberg and Toscani, 2019, table 5b), and have been criticised for being expensive (Mesa-Lago, 2016; Gill et al., 2011).

47

[&]quot;Hierarchical Market Economies" (HMEs) can be initially understood as the patronage relationship between the state and economic groups in these countries (Schneider, 2009)

vii The average real rate of return for the whole 1995-2015 period was 8.3% in both countries, which compares to an average real lending rate 10% and 19.5% in Colombia and Peru respectively. The stock market average annual return adjusted for inflation was about 8% and 11.3% in that same period (World Bank, 2019b)

viii See Lora and Panizza (2002) for an overview of these reforms.

ix Source: FIAP

- ^x Source: Authors' calculations based on the ratio between pension fund members figures from FIAP and labour force figures from World Bank (2020). It is important to note here that, like other emerging economies, Colombia and Peru have a large part of their population working (around 50% of the labour market) in the informal economy, who do not contribute to any pension system.
- xi A summary table of the macroeconomic data mentioned in this section can be found in Table A1 in the Appendix.
- xii According to UNCTAD (2019) data, from 10.73% to 14.62% Colombia, and 11.52% to 22.46% in Peru.
- xiii Source: Penn World Tables
- xiv This condition has been termed as "financial Dutch disease" (Botta, 2017).
- xv The average yearly accumulation in foreign exchange reserves as a percentage of GDP roughly doubled in both countries in the 2003-2015 compared to the 1990-2002 period.
- xvi Data for Colombia is from Banco de la República, for Peru is Proinversión
- xvii Source: Federación Iberoamericana de Bolsas and Bolsa de Valores de Colombia
- ^{xviii} Notably, by 2015 the private bond market capitalization to GDP was 6% in Peru, and only 0.5% in Colombia. This can be compared to close to 50% GDP in China, despite each country starting from a similar point two decades previously (Financial Structure Database 2019,The World Bank).
- xix As means of comparison the same ratio was 16% in the UK, based on calculations from Bank of England data for issuances, and ONS data for pension fund contributions.
- xx For example, for equities restrictions follow the fund types respectively 15%, 35% and 45% in Colombia and 10% 45% 80% in Peru.
- xxi In Peru the legal cap on foreign investments was lifted to 10% in 1995, 20% in 2003, 30% in 2008, 50% in 2011. In Colombia these have been raised to a maximum of 70%.
- xxii 15% for the Moderate fund and 20% the Risky fund in Peru (Mogrovejo González, 2016), and 20% in Colombia (Bocanegra, 2016).
- xxiii See Table A4 for details