Changing lending patterns in Sub-Saharan Africa: Financial deepening or financialisation?

Dr Ewa Karwowski, Hertfordshire Business School, e.karwowski@herts.ac.uk

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I. Introduction

The question what role the financial sector plays in the process of development has been debated since the beginnings of development economics as an independent discipline. Mobilising savings – for example, through the creation and support of a capitalist class (Lewis, 1954) – was the original focus of academic debates and development policy. In this context, the financial sector was mostly perceived as passive intermediary channelling savings towards industrial investment. Given the scope of the task and low levels of household savings in most developing countries, government intervention – such as subsidies, interest rate caps and sectoral credit allocations – was widely used to get the industrialisation process started.

With the change of tone in the international debate during the 1980s away from government intervention as necessary policy tool to government interference and the dangers of rent seeking, corruption and resource misallocation, a more active role for the financial sector was advocated. Policy measures to influence credit allocation were denounced as 'financial repression' (McKinnon, 1973), which slowed down development due to their interference with the price mechanism and – so the argument goes – the resultant inefficient allocation of scarce financial funds. Strengthening of private-sector financial institutions and deepening of financial markets (including the integration of domestic developing country markets into the international financial system) became the prescribed policy, promising accelerated growth (see, for example, Levine and King, 1993 and Levine, 2005). In reply many developing economies have

liberalised their financial sectors since the 1990s in the hope that this will spur growth (Rashid, 2013).

The emerging market financial and economic crises of the late 1990s[1] provided a first setback to this optimism, which proclaimed the growth-enhancing effect of financial deepening. Not least since the financial crisis of 2008-2009 (which unlike previous crises mainly affected advanced economies) a consensus emerged that the interaction between financial sector deepening and development is complex and does not always support growth (Stiglitz and Ocampo, 2008). In fact, it was suggested that 'too much finance' (Arcand et al., 2012, p. 1) could be bad for growth, meaning that financial deepening after a certain threshold can slow down growth (Shen and Lee, 2006, Cecchetti and Kharroubi, 2012).

More recently a heterodox economic literature has been growing that attempts to shed light on the processes through which financial deepening can support or slow down growth (see Bezemer et al., 2014). This literature explicitly breaks with the implicit assumption in conventional economic thought that financial intermediation happens between household savings (the surplus sector) and corporate borrowing (the deficit sector, Mishkin and Eakins, 2012). In the conventional story, the implication is that improved financial intermediation and deeper financial markets allow for more borrowing by non-financial firms to finance investment, which in turn strengthens growth, job creation and consequently development. Heterodox economists have long been highlighting the fact that, since the 1990s, lending in advanced economies has mainly flown to households, reversing the roles of surplus and deficit sector. This observed reversal is part of the so-called 'financialisation' phenomenon, which encompasses the different dimensions of changing economic institutions given the rising importance of finance vis-à-vis the real economy and capital vis-à-vis labour. In this context, financial deepening is seen critically since increased private sector lending

[1] Starting in East Asia and affecting a rang of very diverse emerging markets across Asia, Latin America and Europe.

does not necessarily contribute to productive investment, but might equally be channelled into unproductive uses (such as consumption or mortgages) in the worst case resulting in asset price inflation (for instance, inflation of house prices, Bezemer et al., 2014).

While it is beyond the scope of this article to address the impact of financialisation onto emerging and developing economies, the following analysis contributes to our understanding of credit extension in Sub-Saharan Africa (SSA). For this purpose, we have painstakingly collected data on credit extension in twelve SSA countries, disaggregated by sector and credit purpose. This was not a small task since international data sources (such as the World Bank and the IMF) merely provide credit aggregates, which conceal valuable information on the purpose of borrowing and its potential impact on productive capacity as well as debt level sustainability.

All data were gathered from official government sources such as national statistics agencies and central banks. The twelve SSA countries that are in the focus of the analysis are Angola, Benin, Mali, Malawi, Niger, Nigeria, Sao Tome & Principle, Sierra Leone, Sudan, Swaziland, Tanzania and Uganda. These were selected because they have experienced an exceptionally strong increase in private-sector credit extension over the past decades (Griffith-Jones and Karwowski, 2013).

Careful disaggregation of credit data, by economic sector and credit purpose, shows that lending in the twelve SSA countries with fast credit expansion favour borrowing by the service industry at the expense of manufacturing investment. Given the importance of manufacturing for development and economic transformation (Hirschman, 1978[1958], Kaldor, 1961, Amsden, 2001, Rodrik, 2011, Page, 2012) this trend is alarming and suggests that private sector lending insufficiently supports economic transformation, which is the main feature of development. Hence, it is doubtful that financial deepening driven by private financial institutions and financial markets can facilitate development. In fact, in some SSA economies (namely Niger and Uganda) credit and mortgage extension is on the rise, which might contribute to the

unproductive use of financial funds thereby creating financial fragility and weakening future growth and development.

This piece of research is original because it brings together detailed and disaggregated credit data across SSA countries, improving our understanding of potential sources of financial fragility in developing economies. While detailed studies of credit extension and its impact on growth have been conducted for advanced economies (Bezemer et al., 2014), this paper makes an original contribution by assessing credit growth in developing countries. The paper is organised as follows: in part II conventional economic theory on the role of finance in development is reviewed. Subsequently (part III), this view is contrasted with the more critical heterodox approach that points out the shortcomings and risks of financial deepening in developing economies. Part IV provides a typology of credit inspired by Schumpeter's analysis, which is then (in part V) used to shed light onto the macroeconomic impact of rapidly growing credit extension onto economic development and financial stability in developing countries. Finally, part VI concludes.

II. The role of finance in development: The mainstream story

The question of financing investment has always been a central one in development economics. Arthur Lewis (Lewis, 1954), often perceived to be the founding father of the discipline, stressed the lack of savings as key obstacle to development. Even though Lewis claimed to break with both major economic paradigms of his days (neoclassical and Keynesian theory), his assumption that savings precede investment situates him closer to neoclassical theory.

The dictum that savings must be mobilised first and the implicit assumption that investment will follow automatically has been dominant in development thought. Lewis's and subsequent dual sector models embrace this view. Equally, the two-gap model, which in the past was highly influential among policy makers, stresses the need

for two resources to kick start and sustain the development process: domestic savings and foreign exchange.

Since the 1950s, neoclassical economists have been arguing that the reason why savings are feeble in developing countries and investment was not forthcoming were government distortions in financial markets. Government policies (for example, interest rate caps and regulations on sectoral credit allocation) would interfere with the market price for loanable funds, that is, the interest rate, resulting in low incentives to save and inefficient credit allocation. This situation was dubbed 'financial repression' (McKinnon, 1973).

McKinnon (McKinnon, 1973) argues that by allowing the financial sector to operate efficiently (that is, without government interference) accumulated savings for investment, thus, internal finance will increase, translating into higher growth. It is correct to stress the importance of internal financing for investment spending (see Corbett and Jenkinson, 1996). However, Lewis and McKinnon both overlooked the main source of internal funds (savings) for companies: retained profits. Due to the reflux principle, higher investment spending will leave firms with higher profits, resulting in a self-financing of investment according to Michał Kalecki (1993). Hence, the real challenge for developing economies is not the low saving rate but rather the low investment rate.

Thus, in Kalecki's view the role of finance in development is a passive one. The financial system provides the institutions, which enable the reflux mechanism to work. As the result of increased investment spending corporate bank balances will swell. If investment was credit financed these balances enable companies to repay their debt. Alternatively, it will increase firms' internal funds allowing for future investment. Kalecki's belief that the financial system would simply adjust to the necessities of real economic activity was shared by Joan Robinson who controversially stated that:

> 'It seems to be the case that where enterprise leads finance follows. The same impulses within an economy which set enterprise on foot make owners of wealth venturesome,

> and when a strong impulse to invest is fettered by lack of finance, devices are invented to release it…and habits and institutions are developed' (Robinson, 1952, p. 86-7).

Her statement ignited a heated discussion among development economists about demand-following versus supply-leading finance (see Patrick, 1966). The view that funds need to be accumulated first to enable investment spending is incompatible with Robinson's suggestion of demand-following finance.

Lifting repressive government policies and allowing market forces to mobilise and allocate credit efficiently would result in higher growth rates achieved through the capital accumulation channel and/or the total factor productivity channel (Ang, 2008). The former mechanism rests on Gurley's and Shaw's debt accumulation hypothesis, which postulates that an accurate interest rate, which reflects demand and supply in the loanable funds market, would generate more savings while extending more credit for investment (Gurley and Shaw, 1955). In this way, financial institutions – be they banks or financial markets – could support debt-financed capital accumulation, resulting in growth.

The total factor productivity channel stresses the increased efficiency of financial institutions without government repression. Reduced interference means that financial intermediaries can function better. In mainstream economic theory, financial institutions only exist to take care of information asymmetries and transaction costs (Ang, 2008).[2] Hence, a lifting of repressive financial regulation can improve the performance of financial markets, reducing transaction costs and asymmetric information and improving resource allocation. This in turn results in higher growth (Townsend, 1979, Greenwood and Jovanovic, 1990, Levine and King, 1993).

In the mainstream story is based on the implicit assumption that the direction of financial intermediation is from households to non-financial companies (Bezemer et al., 2014). In the standard textbook view, the household sector is the so-called surplus sector, which saves surplus funds in the attempt to optimise consumption across time

[2] Their role in the economy is mainly to allocate resources efficiently, mobilise saving, reduce risk, facilitate transactions, and exercise corporate control (Levine, 2005).

(see for example Mishkin and Eakins, 2012). The corporate sector is the deficit sector, which needs to borrow to finance additional investment. In this model, namely the loanable funds model, banks can only lend out funds that have been previously deposited with them. Hence, there is no money creation by commercial banks only by the central bank.

Hence, the resultant assumption is that the majority of credit extension promotes productive investment and is therefore 'productive' credit. This would be in line with Gurley and Shaw's debt accumulation hypothesis. It seems further confirmed by the fact that proponents of the 'financial repression' hypothesis identify with a Schumpeterian with of credit (Ang, 2008). Schumpeter argued that credit to entrepreneurs for innovation was the driving force behind economic development (Schumpeter, 1983). He explicitly excluded consumptive but also so-called consumptive-productive credit[3] (for current business operations) from his analysis.

In contrast to Schumpeter, mainstream analysis typically does not distinguish between different types of credit. This is visible in the empirical work conducted to support the 'financial repression' hypothesis. Levine's and King's work in the early 1990s (Levine and King, 1993) revived the decades of theoretical debate and pioneered a large empirical literature on the impact of financial development on growth. The policy recommendation was to liberalise financial markets as growth-enhancing policy. This was in line with the shift in development thinking towards neoliberal Washington Consensus policies of no state intervention during the 1980s.

The main variable used by Levine and King as measure of financial development was bank credit as share of GDP. This became a common way to account for financial deepening. Using such an aggregate measure, however, says little about type or purpose of credit, once again implying that credit in general is 'productive'.

The overall tenor of the empirical literature on financial deepening (at least up to the global financial crisis of 2008-09) implied that financial development is good for

[3] 'Betriebskredit' in German, which translates as working capital credit, meaning credit for the upkeep of current operations rather than for their extension or new innovative investment.

growth (Ang, 2008). Of course, there were some dissenters (see, for instance, Ram, 1999, Easterly et al., 2001, Arestis et al., 2002) and empirical work was admittedly plagued by endogeneity and other technical problems (Ang, 2008) but the view that financial development was good for growth was dominant. The frequent regional financial crises in emerging markets during the 1990s and early 2000s were not sufficient to change the debate's tone. It needed the global financial crisis for a major rethinking. After the crisis the consensus started emerging – endorsed by major international institutions such as the World Bank, the IMF and the Bank for International Settlement – that 'Too much finance' might become a problem (de la Torre and Ize, 2011, Arcand et al., 2012, Cecchetti and Kharroubi, 2012). This was not surprising given the role of household debt and leverage of financial companies had played in the outbreak and propagation of the 2008-09 financial crisis. But once again, when it came to analysing credit extension, not the type or purpose of credit was assessed but attempts were made to identify a numerical threshold above which credit extension might become damaging to growth. The threshold was put at around 80-100% of private credit to GDP.

Since most SSA economies have very small volumes of private-sector lending as share of GDP these thresholds hardly apply. Hence, there is a danger of complacency about financial stability and financial sector regulation in SSA countries. Africa has been hailed as a financially stable region with only one systemic banking crisis experienced during the noughties (Beck et al., 2011). However, as will be shown in section V the region has seen a phenomenal growth in borrowing in a dozen of SSA countries over the course of the last decade. The next section will discuss a more critical story of the role of finance in development. Its conclusion is that a closer and disaggregated look at credit is required in order to flag potential build-ups of financial fragility. This discussion will form the basis of a typology of credit suitable for developing countries, which will be put forward in section IV.

III. The role of finance in development: A heterodox story

While the heterodox story of credit extension and financial fragility has been written and rewritten many times for advanced economies (see Fisher, 1933, Keynes, 1936, Minsky, 1986), this is less so the case for developing economies. The financialisation debate illustrates the varying attention that financial institutions in advanced and developing countries receive among heterodox economists.

The financialisation debate emerged in the context of the United States where "financial motives, financial markets, financial actors and financial institutions" had visibly increased their importance – as Epstein's popular definition goes (2005, p. 3) – in the workings of the domestic economy by the 1990s. Phillips (1993, 1994) was one of the first to highlight these changes, coining the term financialization. Analyses of financialization in poorer countries only started gaining visibility once the wider financialization research agenda was in full swing. Frequently however, such studies merely replicated empirical work previously done for the United States. However, there is a long-standing tradition – in theory and policy – scrutinising the role of finance in development. The financialisation literature as it emerged within critical accounting, heterodox economics, cultural political economy and economic geography stresses the inherently instable nature of financial processes in capitalist economies. Thus, it is deeply suspicious of claims that finance, i.e. growth and innovation in the sector, will bring about economic prosperity or development. In this sense, the financial repression hypothesis – and the backlash it generated once it became the dominant doctrine – is the actual predecessor of debates on financialisation in the global South, and maybe even on financialisation more broadly.

According to the financial repression view interest rates needed to rise substantially in developing countries and, in fact, could not be too high since higher interest rates should result in even higher savings. Credit controls, i.e. governments favouring certain economic sectors to receive this subsidised credit over others, arguably led to inefficient allocation of scare capital resources. Financial liberalization was proclaimed

as cures since higher interest rates and credit allocation by market forces would incentivise household saving, allow for larger credit volumes and support more (and more efficient) private investment. Given the central role that high interest rates play in the financialization of developing countries (Karwowski & Centurion-Vicencio 2018), Shaw and McKinnon were early proponents of financialization as development strategy. Today, some international consultancies take this viewpoint, labelling financialization a "$9 trillion opportunity" for development in emerging economies (PwC 2014, p. 1).

Today, high interest rates in emerging economies, especially alongside a very easy monetary stance in rich countries, are seen as major driver of state financialization in the global South (see Karwowski & Centurion-Vicencio 2018 for an overview). On the one hand, they feed the international search for yield of (mostly rich-country) financial investors (Bonizzi 2017). On the other, they open up avenues for financial accumulation to domestic capital potentially at the expense of supporting productive enterprise (Gabor 2010). Thus, while state financialization happens at a national level since it affects firms' operations and citizens' lives domestically, financial liberalization and globalization – i.e. the international dimension of financialization – importantly shape this national dimension.

Frequent financial crises in emerging economies especially since the 1990s generated a backlash against financial liberalization and financial globalization, two dimensions of financialization. Open capital accounts allowed for increasing foreign inflows which were often short-term and easily reversible (such as in East Asia during the 1990s, see Corsetti, Pesenti, & Roubini 1998; Stiglitz 2000). Thus, especially heterodox economists viewed them with suspicion since they had the potential to generate Minsky-type asset price inflation, a symptom of financialization at the national level, plunging a country into financial and exchange rate crises once the unsustainable nature of price rises becomes apparent (Kregel 1998; Dymski 1999; and Arestis & Glickman 2002).

While not the first one, the East Asian crisis was crucial to illustrate the flaws in policies pushing for capital account openness. Economies that had accomplished the until

today very rare miracle of economic catching-up with the OECD world – Hong Kong, Singapore, South Korea and Taiwan had all become high-income countries in the late 1980s/early 1990s – faced severe currency and financial crises in 1997/8. Importantly, their fundamentals, i.e. growth performance, government deficits and debt levels alongside their export positions, were strong and backed by prudent policies. Thus, if financial globalization ended in tears for the Asian tigers (Arestis & Glickman 2002), financial liberalization was clearly a flawed policy, requiring substantial domestic regulation and supervision (Kawai et al. 2005).

Today financialization scholars warn of financial sector deregulation and, in the context of developing regions, especially of hastily opening up capital accounts. Crucially, not just short-term inflows are regarded with caution. Equally, the presence of foreign banks or companies, i.e. foreign direct investment, can introduce financialization since these corporations tend to transfer their financialized practices into the local economy (see Gabor 2012, dos Santos 2013 on banks and Fahari & Borghi 2009, Rossi 2013 on non-financial corporations). This insight creates the (relatively underexplored) link between financialization and global value chains/production networks (Coe et al. 2014). The latter examines how companies in the global South are integrated into international production, still mostly led by companies from the global North. The roots of value chain analysis can be traced back to research on global commodity chains (Newman 2012), which attempted to surmount the theoretical limitations of mainstream trade theory and the empirical focus on nation states (Gereffi & Korzeniewicz 1993). Arguably, the financialization of non-financial corporations (NFCs) in rich countries, where most multinationals are headquartered, is hard to grasp without accounting for the global nature of their production. Milberg (2008) argues that NFCs' outsourcing of operations to the global South where labour costs are lower crucially fuels their financial investment.

Concerns about NFCs' financialization emerged in the context of slowing down investment rates in Anglo-Saxon markets (Schaberg 1999, Stockhammer 2004). For instance, an excessively large capital market – a symptom of financialization in the

financial sector (Lapavitsas 2013) – was blamed for a lack of dynamism in UK industry in comparison to Germany or Japan (Carrington and Edwards 1979). Especially analysis by heterodox economists often takes the nation state (and aggregate data) as starting point. Given the deregulation of financial markets since the 1970s, pioneered in the US and UK, and the sector's subsequent growth (Philippon 2007) the importance of shareholder value increased dramatically (Lazonick & O'Sullivan 2000, Froud et al. 2000). This meant that financial investors substantially expanded their control over US- and UK-based corporations, forcing them to distribute profits at the expense of investment. The suspicion arose that listed companies might even be pressured to rack up leverage when other sources of dividends dry up to maintain high shareholder value (Crotty 2005, see Bayliss 2014a, 2014b for the documented case of privatised UK water companies). Equally, companies operating in poorer countries are likely to increasingly adopt financialized behaviour. Apart from competitive pressures, integration into global production network where leading firms are likely to be financialized might yield this outcome (see Baud & Durand 2011 on retail). The mining industry, one of the main export sectors in many emerging economies, has embraced financialized practices to surmount local embeddedness (Parker et al. 2018, Karwowski 2015).

The fourth macroeconomic aggregate typically examined for financialization – apart from the state, financial sector and NFCs – are households. This research agenda originated in rich countries, especially the US where unsustainable household debt and growing inequality have been flagged as socio-economic problems at least since the global financial crisis (Cynamon & Fazzari 2008, Kus 2012, Alvarez 2015, Stockhammer 2016). As mentioned above, mainstream economists tend to regard increasing household credit volumes in emerging and developing parts of the world uncritically. They are put down as financial deepening, i.e. a sign of financial development. This disregards difference in types of credit and considerations about debt sustainability. Especially household borrowing does not build up productive capacity, instead potentially raising financial fragility. Thus, recent expansion in

emerging economies' household debt is increasingly seen with caution even by the financial press (Wheatly 2018).

Distinguishing between types of credit becomes crucial with the realisation that growth and development are distinct phenomena. Schumpeter – a scholar often cited by financial deepening proponents – explains this distinction. Growth merely requires doing more of the same, whereas development poses a much more profound challenge to society: to innovate. Or, in Schumpeter's terminology finding 'new combinations'. This can be achieved by combining existing resources to generate new products or combining existing resources in new more efficient ways, thus, product and process innovation. Only few individuals in society, namely entrepreneurs, have the rare ability to finds these new combinations and they drive the development process.

The neoclassical financial deepening story à la Levine and King misses this point completely, arguing instead that financial development (rather than economic development) is good for growth. The Latin American structuralist around Raúl Prebisch would on the contrary suggest that, what developing economies actually need is finance for economic development and innovation, and not financial innovation for growth. The structuralist view was one of the earliest (if not *the* earliest, Hunt, 1989) development paradigms that unlike most of development economics in fact originated in the developing parts of the world economy. The structuralists argued that economic transformation is crucial for developing countries. Without a shift away from primary goods production and exports towards manufacturing with its higher value added, development could not be achieved. Economic policies like those later dubbed 'financial repression' were regarded as vital tools of development planning. In fact, the structuralist paradigm shares a common ground with Keynesian and Post-Keynesian thought due to its focus on domestic demand generation. Import-substituting industrialisation (ISI) aimed at creating industries to produce for domestic demand, which would be stimulated through the jobs created when setting up domestic production.

The need for economic transformation – rather than simple growth – was generally accepted in 'old' development thought. Dual sector models (pioneered by Lewis, 1954) emphasise the necessity for developing economies to set up and grow 'advanced' industrial sectors. In these models, developing societies are characterised by a large 'traditional' and a nucleus of a 'modern' sector. The former is simple in its use of technology and capital. It is often largely made up of agricultural activity but also includes simple service activities such as running messengers, cleaning and other household services. The modern sector consists mostly of manufacturing production. However, modern agriculture (for instance, capital-intense agro-processing) can be part of the modern sector. Hence, the divide along sectoral lines is not always that clear-cut. Nevertheless, there are structural reasons to believe that the potential of manufacturing production to contribute towards economic transformation towards a more advanced economy, generating higher value added, is larger.

For one, manufacturing (when compared to agriculture and services) has strong backward and forward linkages (Hirschman, 1978[1958]). This means the establishment of a domestic automobile industry can attract the emergence of supplier companies such as car part manufacturers. These linkages also support technological progress since manufacturing companies have an incentive to help learning within supplier firms (often through direct training) to improve the quality of the goods they purchase. The possibilities of such 'upgrading' at firm level are also extensively discussed in the recently fashionable literature on global value chains (Gereffi et al., 2001, see Butollo, 2014 for an interesting critique).

Also, production in the manufacturing sector is often subject to increasing returns to scale (Kaldor, 1961). This is the case because unlike in agricultural production inputs in manufacturing become more productive the more they are used. This is especially the case for (skilled) labour, which experiences learning effects on the job, illustrated by the so-called learning curve, first discussed by Wright (Wright, 1936). Therefore, Nicholas Kaldor (1961) argued that the manufacturing sector has the largest potential to generate productivity growth in an economy. Since productivity growth is the

equivalent of economic development in modern textbooks (Krugman and Wells, 2013) and manufacturing arguably strongly contributes to productivity gains, economic transformation towards manufacturing also seems to be the current view on development. This is further supported by the experience of the 'Asian miracle' economies, all of which (with the exception of the small city state of Hong Kong) developed following a manufacturing strategy (Amsden, 2001). Finally, manufactured goods account for the majority of internationally traded goods and services. Thus, to close the second gap in the two-gap model (the lack in foreign exchange) a dynamic manufacturing sector appears crucial, especially given the need to import manufacturing and other capital goods during the early stages of industrialisation.

Financial deepening and financialisation are sometimes used interchangeably (PwC, 2013; Tori & Onaran, 2017). Measures of financial sector growth (e.g. credit extension or private-sector outstanding credit) are used by both, proponents of financial deepening and critics of financialisation. However, the two phenomena need to be clearly distinguished, otherwise financialisation becomes in fact a vacuous concept (Christophers 2013). Much of financialisation theory that refers to corporate and financial sector changes imply a structural change while financial deepening tends to gloss over such change. The phenomenon of financialiation goes along with structural change that is potentially destabilising for poor countries, e.g. facilitating the build-up of household debt and asset price inflation. Credit – and here it is crucial to distinguish between different types of credit – can support structural transformation, either contributing to development a la Schumpeter and the old structuralists, supporting manufacturing and high-skill/high-tech activity or exaggerating financialisation.

IV. A typology of credit

For advanced economies the finance story had to be substantially rewritten since the 1980s when the phenomenon of financialisation increasingly started to shape economic activity. Since then consumption credit and mortgage loans grew substantially vis-à-vis firm loans, resulting in a reversal of the surplus and deficit

sectors, which in mainstream analysis are seen to be households and non-financial corporations, respectively. In the US and UK, non-financial firms have been running financial surpluses, becoming net lenders, since the 1990s while households turned into net borrowers, with increased debt-financing of consumption and real estate purchases. Similar trends have also been observed for some emerging economies (see Karwowski, 2012, discussing this phenomenon for South Africa).

It is important to disaggregate credit by borrower and purpose because it has been found that household borrowing (in contrast, to borrowing by businesses) can slow down growth (Jappelli and Pagano, n.d., Barba and Pivetti, 2008, OECD, 2012, Jappelli et al., 2013). Moreover, expanding credit to households might in fact induce financial fragility since countries with larger volumes of household borrowing exhibit higher crisis probability and weaker external positions (Büyükkarabacak and Krause, 2008, Büyükkarabacak and Valev, 2010).

Bezemer et al. (2014) go further classifying credit by purpose to distinguish between productive and unproductive credit. Unproductive credit includes mortgage finance borrowed by households as well as credit to financial companies, i.e. businesses which are part of the finance, insurance and real estate sector. This asset market credit is found to have an insignificant effect on growth while borrowing by non-financial firms has a growth-enhancing impact. A summary of these findings can be found in table 1 below.

In the context of developing countries, household credit typically plays a minor role since the majority of credit extension flows towards private businesses and the public sector.[4] As consequence, mortgage credit accounts for a relatively small share of total lending, making the issue of asset market inflation a less pressing concern. Residential real estate prices can certainly experience asset price inflation in developing countries

[4] This is different for many emerging markets where credit extension is often close to advanced country levels and household credit account for a large share of borrowing. In Sub-Saharan Africa such a situation can be observed in South Africa and Mauritius (Griffith-Jones and Karwowski, 2013).

but this is typically limited to large (capital) cities (see CAHF, 2012). Nevertheless, household credit could generate financial fragility in developing countries, namely when consumption credit mainly finances purchases of imported goods, weakening the external balance. This effect has been found in the case of advanced economies.

Table 1. Typology of credit impact for advanced and developing economies

BORROWER	ADVANCED ECONOMIES			DEVELOPING ECONOMIES	
	Borrower / credit purpose	**Macroeconomic impact**	**Productive potential**	**Borrower / credit purpose**	**Transformative potential**
Businesses	Non-financial	Growth	yes	Primary sector	Limited transformative potential
				Secondary sector	Highest transformative potential, especially in manufacturing
	Financial	Asset market inflation	no	Tertiary sector	Least transformative potential (with exception of few high-tech sectors)
Households	Consumption	Higher crisis probability and weak for external balance	no	Consumption	Demand generating, but potentially weakening for external balance
	Mortgage	Asset market inflation	no	Mortgage	Limited, with some potential to inflate capital city real estate prices

Endorsing the understanding of development as structural transformation of the economy, the important distinction for credit becomes the one between 'transformative' and 'non-transformative' credit rather than 'productive' and 'unproductive' credit (as suggested by Bezemer et al. for advanced economies). Table 1 contrast a suggested typology of credit for advanced and developing economies.

As argued above manufacturing, which is part of the secondary sector, has the largest potential to raise productivity, having the highest transformative power. While agricultural and other primary sector activity can also be operated in a modern and high-technology manner (as in agro-processing for example), the bulk of agriculture tends to be part of a traditional sector aimed at subsistence in many developing countries (and especially in Sub-Saharan Africa). The latter would have only limited

(if any) access to bank credit. More generally, the primary sector (including mining) tends to experience constant or decreasing returns to scale due to the limits of land productivity. Productivity might initially be increased in the sector through mechanisation (financed by credit) mainly because productivity levels will on average be very low to start with. However, the prospects for productivity growth in the medium to long run are limited due to the lack of increasing returns to scale in most branches of primary product production. Overall, the transformative potential of the sector is therefore limited.

Similarly, service activity in developing countries is often low-skill and low-technology with little scope for long-term productivity growth. In many developing countries, the tertiary sector contains many small-scale shop owners and transport businesses alongside a few large (and often foreign-owned) telecommunications and finance providers. With the exception of a few high-technology operations (in information technology for instance) this sector will have the least potential for structural transformation due its low productivity growth.

Overall, if commercial banks' credit extension was tangibly supporting structural transformation in developing regions such as Sub-Saharan Africa one would expect a large share of its credit extension to benefit the manufacturing sector. As the development process gains momentum one would hope that an increasing share of lending flowed into highly transformative sector.

V. Assessment of credit extension patterns in Sub-Saharan Africa

Since the 1990s many developing countries have liberalised their financial sectors in the hope that financial development would spur growth. Sub-Saharan Africa (SSA) is one of the most financially liberalised developing regions according to an IMF database on financial reforms (Abiad et al., 2008). Only Latin America is more financially open among the developing regions. Importantly, SSA countries have strongly opened up their financial sectors between the mid-1990s and 2005 (Rashid,

2013). Over the same period, SSA saw some expansion in bank credit as share of GDP, which is a sign of financial deepening (Griffith-Jones and Karwowski, 2013). On average bank credit to GDP in the region increased from 11% to almost 18% between 2000 and 2010 (see table 2).

At these low levels, this translates into credit growth of 60% over ten years. Generally, the volume of credit extension in SSA economies remains small. However, table 2 shows that a dozen SSA countries have experienced very rapid credit growth where credit volumes either doubled (in two countries), increased between three- and nine-fold (in nine countries) or grew more than ten-fold (in Angola) since the 1990s. If a simple upper threshold is applied to SSA countries above which credit extension might create financial fragility, these twelve countries remain under the radar. As argued elsewhere (Griffith-Jones and Karwowski, 2013), rapid credit expansion even at low levels might contribute to financial fragility. For instance, if it is mainly driven by household credit that contributes towards asset price inflation or finances imported consumer goods, weakening the external balance. As argued in the previous section, the borrower and purpose of credit matter. Therefore, data on credit by purpose and credit by sector have been gathered for the twelve SSA economies that have experienced rapid credit growth during the noughties. These are Angola, Benin, Malawi, Mali, Niger, Nigeria, São Tomé and Principe, Sierra Leone, Sudan, Swaziland, Tanzania and Uganda. All data have been sources from official entities such as central banks and statistical agencies. Compiling these disaggregated credit data by credit and purpose constitutes an original contribution of this paper.

Table 2. Bank credit as share of GDP in SSA countries, 1990-2010

Country	1990	2000	2010	Credit growth 2000-2010 (%)
SSA (developing)	9.2%	11.0%	17.5%	59.1%
Angola	n/a	1.1%	18.1%	1545.5%
Benin	n/a	11.1%	22.1%	99.1%
Botswana	7.8%	13.9%	22.3%	60.4%
Burkina Faso	16.2%	10.8%	16.5%	52.8%
Burundi	7.4%	17.3%	20.0%	15.6%
Cameroon	27.1%	7.7%	11.1%	44.2%
Cape Verde	4.0%	37.5%	59.2%	57.9%
Central African Republic	7.4%	4.4%	7.4%	68.2%
Chad*	6.5%	3.4%	5.0%	47.1%
Comoros*	n/a	8.3%	12.2%	47.0%
Congo, Rep.	n/a	5.7%	4.1%	-28.1%
Côte d'Ivoire	36.4%	15.2%	17.3%	13.8%
Ethiopia*	1.6%	18.2%	17.2%	-5.5%
Gabon	n/a	8.3%	8.1%	-2.4%
Gambia, The	10.0%	11.6%	17.7%	52.6%
Ghana	5.0%	11.7%	13.7%	17.1%
Guinea-Bissau*	13.0%	7.6%	5.8%	-23.7%
Kenya	17.7%	25.6%	30.6%	19.5%
Lesotho	13.8%	14.0%	12.6%	-10.0%
Liberia*	n/a	n/a	13.8%	n/a
Madagascar	14.5%	8.0%	11.1%	38.8%
Malawi	9.2%	4.5%	14.2%	215.6%
Mali	9.2%	4.5%	17.4%	286.7%
Mauritania	31.1%	n/a	n/a	n/a
Mauritius	30.1%	54.2%	82.3%	51.8%
Mozambique	n/a	15.4%	23.2%	50.6%
Namibia	n/a	39.1%	43.7%	11.8%
Niger	12.8%	4.3%	11.8%	174.4%
Nigeria	8.8%	11.1%	30.3%	173.0%
Rwanda	7.4%	9.5%	n/a	n/a
Sao Tome and Principe*	n/a	4.1%	33.2%	709.8%
Senegal	27.5%	16.5%	24.5%	48.5%
Seychelles	7.0%	15.2%	22.9%	50.7%
Sierra Leone	3.3%	1.9%	9.2%	384.2%
South Africa	49.1%	65.0%	71.7%	10.3%
Sudan	4.3%	1.8%	10.9%	505.6%
Swaziland	14.2%	12.6%	23.1%	83.3%
Tanzania	12.4%	3.9%	14.6%	274.4%
Togo	22.7%	15.7%	20.7%	31.8%
Uganda	2.5%	5.3%	13.4%	152.8%
Zambia	6.8%	6.7%	10.7%	59.7%
Zimbabwe	0.0%	0.8%	n/a	n/a

Source: Global Financial Development Database and World Development Indicators, World Bank.
* Where 1990 or 2010 data were unavailable 1991 or 2009 data were used if possible .

Countries where private credit extension has (almost) doubled between 2000 and 2010.

Countries where private credit extension has increased threefold or more (but less than tenfold).

Countries where private credit extension has increased tenfold or more.

Data on credit by purpose, providing information on whether bank borrowing was used for business activity, consumption or real estate purchases, are less frequently obtainable than information on the sectoral distribution of credit. For these twelve countries data on credit purpose is available for Benin, Malawi, Mali, Niger, and in a more limited sense also for Angola, São Tomé and Principe, and Uganda. Table 3 below shows the share of consumption credit and mortgages in total credit as well as business credit (and its main purpose) as percentage of total credit for the 2000s on average.[5] In Angola, Benin, Malawi and Mali household credit accounted on average for less than one fifth of overall credit extension during the 2000s, playing a minor role in total lending. Data for São Tomé and Principe is limited to four data points with household credit fluctuating closely around 20% of total lending.

Table 3. Credit extension by aggregate and purpose

CREDIT BY PURPOSE

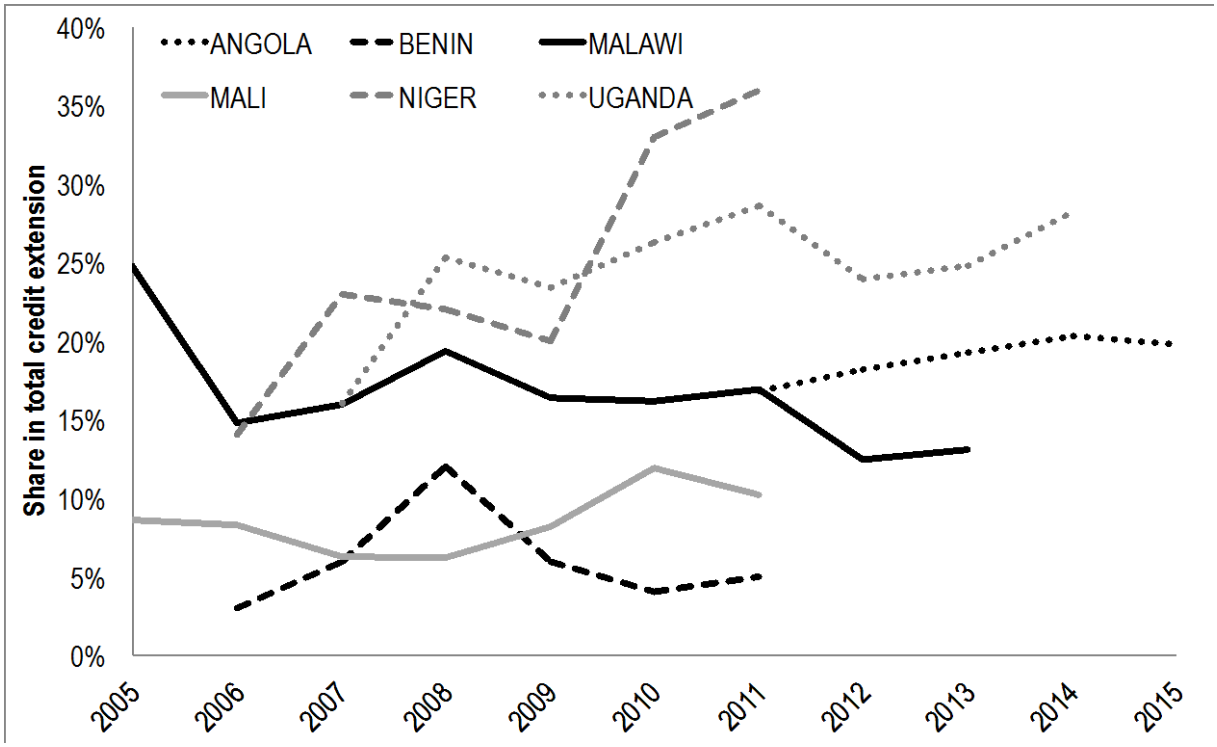
Country	Household credit		Business credit	
	Consumption credit	Mortgages		
	2000s	2000s	2000s	Main sector / purpose
ANGOLA	19%			
BENIN	6%	1%	53%	Overdraft facility
MALAWI	16%		<50%	Overdraft facility
MALI	11%	1%	67%	Overdraft facility
NIGER	20%	5%	64%	Overdraft facility
SAO TOME & PRINCIPE	21%			
UGANDA	18%	11%		

In contrast, household borrowing plays a more significant role in Niger and Uganda where is accounted for at least one quarter of total borrowing during the noughties. Household credit has grown markedly in these two economies since the mid-2000s. This is illustrated in figure 1. It shows that in the West African country the share of

[5] The period for which data are available varies by countries and spans the year 2000 to 2015. The longest period is available for Malawi (2000-2013) while the shortest period is available for São Tomé and Principe (2008-2012 with data for 2011 missing). On average, seven data points are available per country.

household credit in total lending steadily expanded from 14% in 2006 to 36% in recent years. This meant that the nominal value of outstanding household credit increased seven-fold in a five year period during which inflation remained moderate at 2.6% on average (BCEAO, 2013). Thus, household credit appears to be an important driver of credit growth in Niger during the noughties and might have contributed to a build-up of financial fragility in the country. The period of fast credit growth coincided with a substantial deterioration of the country's trade account from a deficit of 9% of GDP in 2006 to a deficit of 27% of GDP in 2011. The trade deficit is probably mostly caused by imports of capital goods which is the corollary of Niger's accelerating investment rate (increasing from 15% in 2002 to 38% of GDP by 2011, BCEAO, 2013). Nevertheless, increasing household credit can put additional pressure onto the external position, financing imports of (luxury) consumption good.

Figure 1. Household credit in selected SSA countries, 2005-2015



For Uganda, the expansion is somewhat more difficult to measure since earlier data (2007-2009) did not account for residential mortgages. Hence, only since 2010 data on consumption and households' real estate financing are available. Over the past four years household credit remained broadly stable at around 25-30% of total credit

extension. Nevertheless, given the strong growth in total credit volumes in Uganda (from 2.2 billion shilling in 2007 to 10 billion shilling by 2014, in nominal terms[6]), household credit has grown rapidly and could exert pressure onto the external balance and real estate prices in large cities.

With the exceptions of Niger and Uganda household credit has played a less pronounced role in credit growth in the SSA region. This finding has been expected. Nonetheless, the analysis flags a potential build-up of financial fragility in Niger and Uganda, originating from household borrowing. The sectoral analysis of credit will shed light on the question whether recent credit growth is potentially transformative and can contribute to economic development in SSA. Here data are also more widely available, as indicated in the last column of table 4 below.

Table 4. Sectoral analysis of credit expansion in selected SSA countries

	Sector receiving most credit	Share of manufacturing credit to total credit		Trend in manufacturing credit share	Data availability
		1990s	2000s		
ANGOLA	Tertiary	n/a	7.3%	-	2011-2015
BENIN	Tertiary	14.2%	11.0%	- -	1990-2012
MALAWI	Tertiary	23.5%	16.2%	- -	1990-2013
MALI	Tertiary	18.6%	8.8%	- -	1984-2013
NIGER	Tertiary	12.2%	4.5%	-	1980-2012
NIGERIA	Other	34.9%	17.5%	- -	1981-2013
SAO TOME & PRINCIPE	Secondary	n/a	n/a		2008-2012
SIERRA LEONE	Tertiary	n/a	9.8%	+/-	2002-2013
SUDAN	Tertiary, Other	17.5%	11.2%	-	1996-2009
SWAZILAND	Other	n/a	16.0%	+	2005-2013
TANZANIA	Tertiary	n/a	17.2%	- -	1993-2012
UGANDA	Tertiary	n/a	14.0%	-	2007-2014

Credit data for the francophone West African economies (such as Benin, Mali and Niger) are generally well documented since they are published in a standardised way by the Banque Centrale des Etats de l'Afrique de l'Ouest (the Central Bank of the West African Countries). For these economies, data reach back to the 1990s (and even to the 1980s for Mali, for instance). Similarly, the central banks of Malawi, Nigeria, Sudan

[6] Inflation was on average at 9.7% annually between 2007 and 2014 (Bank of Uganda, 2015).

and Tanzania provide data on credit extension at least since the 1990s. Shorter (and more recent) data series are available for Angola, São Tomé and Principe, Swaziland and Uganda. In the case of Angola, this is explained by the internal conflict that unsettled the country until recently.

For the sectoral analysis available data were grouped into five sectors. These include the three main economic sectors, namely the primary, secondary and tertiary industry as well as a category for unclassified borrowing ('other') and individual (or household) loans. The latter is often provided alongside the sectoral breakdown. Detailed annual data for the twelve countries in question is given in the appendix. Manufacturing credit data are not available for São Tomé and Principe where the lowest level of disaggregation only provides information on credit to the secondary sector (that is, manufacturing and construction combined).

Table 4 visualizes the results of the sectoral credit assessment. With few exceptions, the service industry (tertiary sector) demands the largest share of total credit. This is documented in the second column of the table. Columns three through five provide the results of the credit analysis for the manufacturing sector. Here, the striking finding is that manufacturing businesses have demanded a decreasing share of total credit in these twelve countries. Overall, the driving force behind recent credit expansion can mostly be found in the tertiary sector, that is the service industry. Given the suggested credit typology in section IV, this means that in SSA economies that have seen an intensified financial deepening over the past decade bank credit is mostly flowing into those sectors that have the least transformative potential.

Column five in table 4 illustrates the overall trend in manufacturing credit growth since 1990 or over the time period for which data are available. A declining trend is marked with a '-' in the table, while a strongly declining trend is identified by a '- -'. If the magnitude of the decline in credit share has been of 10 percentage points or more

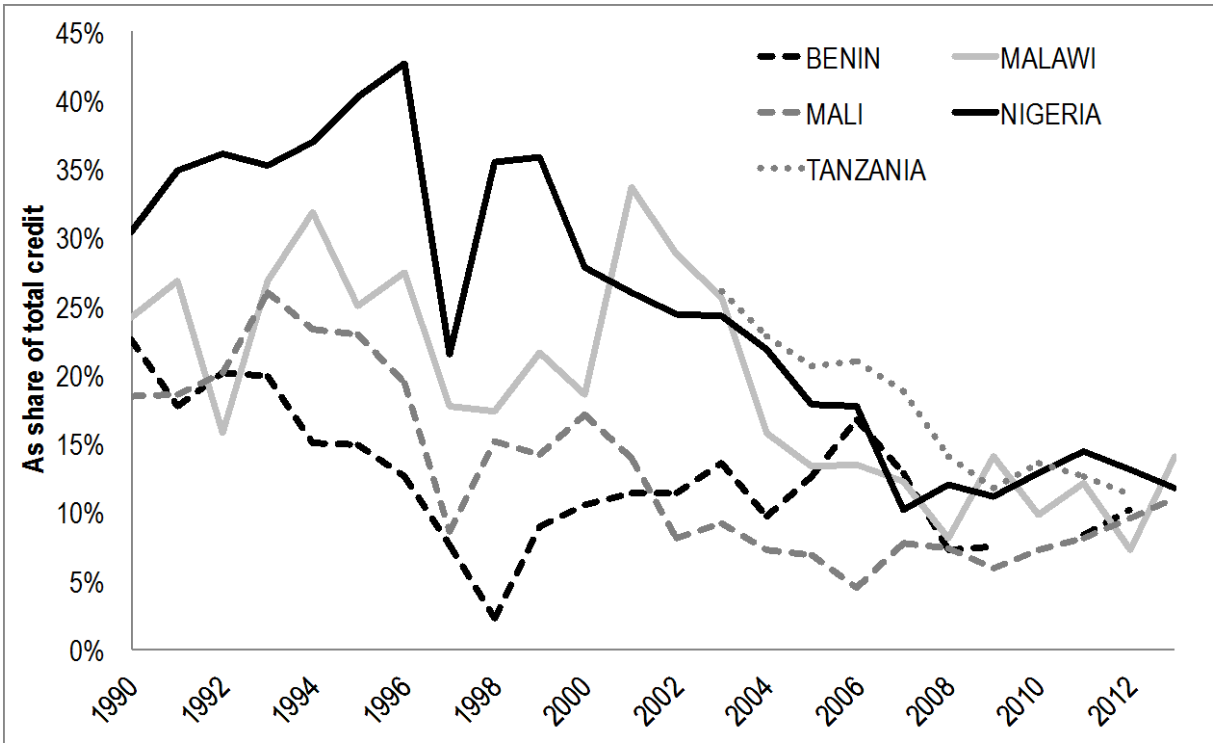
between the first[7] and the last data point available this is classified as a strongly declining trend. In contrast, if the decline was at least of the magnitude of two percentage points but below 10 percentage points, this counts simply as a decline. If the manufacturing share in total credit remained unchanged, this will come up as '+/-' whereas a positive trend where the share of manufacturing borrowing in total credit increased is marked with '+'.

In the sample only one country (Swaziland) experienced an increase in credit extension (as share of total credit) to manufacturers. Another economy (Sierra Leone) saw an unchanged share of credit flowing to the sector. In all other SSA countries analysed, that is Angola, Benin, Malawi, Mali, Niger, Nigeria, Sudan, Tanzania and Uganda, manufacturing has received a decreasing share of credit extended in the economy over time. In Benin, Malawi, Mali, Nigeria and Tanzania this trends was so strong that the manufacturing share in total borrowing shrank by more than 10 percentage points over the past two decades or so.[8] This strong decline in lending to manufacturing is illustrated in figure 2 below.

[7] However, not earlier than 1990 since 'financial repression' arguably prevailed during the 1980s and earlier.

[8] For Tanzania data on credit extension to the manufacturing sector are only available from 2003 onwards.

Figure 2. Manufacturing credit as share of total lending in selected SSA countries, 1990-2012



Thus, the presented analysis provides evidence that financial deepening in the form of credit expansion does not support structural transformation in SSA, which would be necessary for economic development. Given the claims that financial deepening is growth-enhancing and SSA countries' efforts to liberalise their financial sectors, this is disappointing. It appears to contradict the overarching policy recommendation in the financial development and growth literature à la Levine and King (Levine and King, 1993).

There are two possible interpretations for this finding: One, if the financial sector, in fact, plays a passive role in development (enterprise leads and finance follows à la Kalecki and Robinson) the observed shrinking share of manufacturing credit is another symptom of the de-industrialisation of SSA, prominently highlighted by Page (Page, 2011, Page, 2012). Two, if finance does play a more active role in development and does shape the industrial structure of an economy (as argued by Schumpeter and the financalisation literature), commercial banks and other financial intermediaries are contributing to the de-industrialisation of SSA economies that have experienced

successful financial deepening. If the latter suspicion is warranted then financial deepening in SSA is not only failing to contribute to structural transformation but also increasing economic fragility in the region since the manufacturing sector is an important source of employment and export diversification for African economies (Greenwald and Stiglitz, 2013). In any case, the transformative character of finance seems rather limited in SSA, calling the enthusiastic view on financial deepening as supporting growth and development into question.

VI. Conclusion

This paper has shed light on the question whether financial deepening in SSA has contributed to structural transformation or rather to financial and economic fragility. The preliminary evidence obtained from detailed disaggregated credit data suggest that finance is not supporting structural transformation in SSA economies. Manufacturing is the sector with the highest transformative potential due to its strong ability to generate productivity growth. Credit expansion in the sample of twelve SSA countries, which have experienced successful financial deepening over the past decade or so, has mainly benefitted the service sector. The declining share of manufacturing credit in total lending documents SSA's de-industrialisation. The question that remains to be answered is whether financial institutions (through their lending) have actively contributed to this de-industrialisation, creating economic fragility.

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