

~~from the result of Auvray and Rabinovich, who obtain positive and significant results for all samples. Stock issue is only positive and significant for the large firms. We had problems with defining the variable Tobin's q, why the results are complete humbug. At least sales, profits and past investment are all positive and significant for all samples. LongDebtK is positive but non-significant for large firms and significant for the all and small sample, here the authors find negative and non-significant results for all samples. IntExpK is significant only for large firms with a negative elasticity of 0.06.~~

~~In summary, the results we obtained are quite disappointing because we were only able to replicate the baseline financialisation model and even here we did not really find support for the basic claim found in the literature that financialisation in the form of financial payouts has a negative impact on investment.~~

V. Critical assessment

This part contains three elements. First, I will critically examine the variables used by Auvray and Rabinovich, then I will comment on their offshore measure and finally try to assess the value of their exercise in the academic inquiry of understanding the specificities and workings of modern capitalism.

Quantification and Measurement

“If you think you know something about a subject, try to put a number on it. If you can, then maybe you know something about the subject. If you cannot then perhaps you should admit to yourself that your knowledge is of a meager and unsatisfactory kind.”

~ Lord Kelvin, 1893

If one wants to take a critical approach to the construction and use of statistics it is helpful to follow Alain Desrosières (2001; 2008b, 2008a; 2014). Desrosières is internationally known for his works on quantification and its relation to political economies. More recently Desrosières' strand of research on quantification has been continued especially by Salais (2012), Thévenot (2011) and Diaz-Bone (2016; 2016). His work stands in the tradition of the pragmatist and socio-economic institutional approach labelled 'convention theory' or the economics of conventions, which is part of the so-called new prag-

matist French social sciences and a main contribution of new economic sociology. The core assumption of this research is that economic value and worth have to be interpreted and constructed according to situations of economic coordination. Economic actors therefore rely on conventions as socio-cultural frames for mobilizing a shared interpretation of the objects, actions, goals, and collective intentions involved in situations of production, distribution, and consumption.

Concerning quantification Desrosières distinguishes between four approaches to reality, each having a different *reality test* – “that is, ways of verifying and articulating the substance of that reality and its independence from observation” (2001, p. 340). A conventionalist researcher approaches “reality” by emphasising the *conventional and social character of statistical variables* and in this differs from the more ‘realistic’ approaches. Statistical tools are seen to always develop in context, in order to answer a specific scientific question. Thus data and reality are fundamentally different things. Further, in this view computed moments do not simply reflect an underlying macrosocial reality, revealed by those computations. The presumably “external reality” of the objects is challenged. Objects do not exist independently of any judgment or measuring procedure and evidences of original coding act and remain visible and important throughout the process. In this light it is important to understand that the specific way that variables are constructed and how they are interpreted is not fixed or ‘real’ in any sense. I want to focus on two variables used by Auvray and Rabinovich: net financial payouts and capital expenditures.

The difference between quantification and measurement

Quantification is a certain way of thinking about/looking at something and finding an objective language to talk about it (e.g. climate change=CO₂ emissions). In doing so, the properties of an object or fact are reformulated into measurable quantities and numerical values. The prerequisite for this is the definition of a quantifiable variable and the specification of a quantification method. Comparability arises from the application of the same procedure to different things or situations. **Measurement** means to ascertain the quantity of a unit of material via calculated comparison with respect to a standard. It is about seeing more objectively what’s happening in “the world”.

Net Financial Payouts Variable

For figure 1 and figure 2 the authors calculate net financial payouts for US firms as follows: stock repurchases + dividends paid – stock issue. This variable excludes dividends received from affiliates and interest expenses. Interest expenses are however included

by Orhangazi (2008) amongst others. As it is a net variable the measure then also excludes income from interest and financial investment. It seems like the authors are solely focussing on payouts, probably so because they want to distinguish the two channels of financialisation of non-financial firms. It is important to distinguish between the different ways in which the financial payout measure is constructed in the literature. Durand and Gueuder (2018) for example include financial income and find diminishing or at least stable net payouts for most of the analysed countries. Moreover, it is important to acknowledge that the financial payout measure can mask important qualitative changes. Now we are in a phase marked by low interest rates, and the time period studied by the authors excludes the time around the 1990s, when the weight of interest payments relative to profits of non-financial corporations peaked. Instead their variable is rather marked by rising claims of shareholders, however, this relation is subject to change.

Capital Expenditure Variable

Another interesting variable to look at is capital expenditures, which is reflected by the variable ‘CAPX’ in Compustat. Compustat defines, CAPX as representing “the funds used for additions to property, plant, and equipment, excluding amounts arising from acquisitions (for example, fixed assets of purchased companies). This item includes property and equipment expenditures” (Compustat User’s Guide 2003, p. 212). This measure does not include intangible assets. The authors do not discuss what the implications of the exclusion of intangibles are for their results. The question for example in how far intangible investment has substituted physical investment is not assessed. The problem is that for many intangible investments there are still no valuation standards, as there is generally no market and no market prices for them. One particular difficulty with these assets is the way in which they have been traditionally treated under accounting rules:

“Internally generated intangibles—through R&D (patents and trademarks), marketing (brands, customer relations), development (business processes), or training (human resources)—are treated like regular expenses (charged immediately to income), whereas the same intangibles, if acquired, either directly, like patents or brands, or through corporate acquisitions (R&D-in-process, customers lists), are considered assets and capitalized and, then, some are amortized” (Lev & Gu, 2016, p. 83).

More recently, the role played by intangible investment and its relation both with financialisation and offshoring has been put in the spotlight by Durand and Milberg (2018) and Orhangazi (2019). While offshoring allows firms to increase production and de-

crease costs per unit of investment, intangible investment is usually associated to monopoly rents increasing therefore prices. The paper by Orhangazi focuses on the increasing importance of economic assets arising from a greater mastery of information and data as one possible explanation for the ‘profit without accumulation’ puzzle. For him intangible assets are important as they enable firms to increase market power and profitability without having to increase investment in fixed capital correspondingly (ibid., 27). Gutiérrez and Phillipon (2017) also find that industries with higher share of intangibles exhibit lower physical investment.

→ Question: do total assets include intangibles? Because if not then this would be a problem for the authors’ method of controlling for the size of the firms...

The offshoring measure

The hypothesis of Auvray and Rabinovich is that the ‘downsize and distribute’ strategy (low investment and high financial payouts) has been possible for firms belonging to industries highly involved in GVCs. The authors argue that comprehensive information on offshoring is not available for individual firms. Hence, rather than studying the offshoring of corporations, they consider the offshoring of their respective industry. This leads them to study how offshoring on an industry level affects capital expenditures on a firm level. In other words the focus is on capital accumulation behaviour of firms, conditional on the fact that firms belong to industries with various degrees of offshoring. Does this empirical strategy make sense? What are possible problems that emerge with it?

It seems to me as if the authors ignored the large literature on trade theory and its major developments within in the last years. The references they use concerning international trade and offshoring are from the 90s, however, since then trade theory changed in major ways. Most importantly firm-level theories and empirical investigations replaced country and industry level analysis. This recent literature shows that the international trade landscape is characterized by a significant rise of *intra-industry trade* (which would be core-offshoring in the authors framework) and *huge multinational firms* organizing global production networks along global supply chains (Melitz & Trefler, 2012; Yi, 2003). Various studies show that “only the most productive firms can benefit from enhanced opportunities for foreign sourcing and production” (Kim & Osgood,

2018). According to Bernard et al. (2009) US-based multinationals are mediating more than 90% of US trade. It seems to me that these insights have not really been considered by the authors who build their whole theoretical framework around the fact that offshoring is profitable for all firms (Auvray & Rabinovich, 2019, p. 11). However, the fact that the essential factor determining the results the authors seek is likely to be the size of firms is not stressed sufficiently in my opinion. Is it not a problem that the authors assume that all firms in a sector offshore to the same degree, i.e. to the degree their industry offshores? New trade theory explicitly stresses the heterogeneity of firms belonging to an industry with regard to offshoring (Melitz & Trefler, 2012). The differences in offshoring are not so much across industries but across firms.

Moreover, I see a problem with how they measure non-core and core offshoring. Originally the distinction between core and non-core activities is based on the competencies of a firm, rather than its products (Prahalad and Hamel, 1990). However, because the authors use industry-level data they define core (non-core) offshoring of a given industry by the import of inputs that belongs to the same (a different) two-digit Standard Industrial Classification industry. On this basis the authors also assume that non-core offshoring is basically inputs by foreign producers not affiliates. The measures the authors use for non-core and core offshoring are not able to distinguish between the production offshored to affiliates and that to other enterprises. This assumption is essential for it determines the expected effect on investment. But then I don't understand why the authors only use the primary SIC codes. This is the main code that categorizes the core industry of the business. Businesses can however also have up to five secondary SIC codes. Secondary SIC codes classify other industries the business is involved in but aren't the main focus. Wouldn't it have made sense to include these secondary codes in their analysis to control for affiliates?

Concerning the rise of intra-industry trade it might be questioned that the authors assume that non-core offshoring is the main source of declining domestic real investment and therefore the background to the 'downsize and distribute' strategy. Just because firms receive inputs from the same sector (i.e. what is considered to be core offshoring by the authors) does not have to mean that these are inputs by affiliates. Intra-industry trade has been rising significantly and thus only focusing on non-core offshoring might neglect important effects of what the authors understand as core offshoring on investment.