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# LES SOCIÉTÉS CONTEMPORAINES À L'ÉPREUVE DES TRANSITIONS ÉNERGÉTIQUES

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Dans l'UE, les enjeux des coûts énergétiques dans l'habitat et les transports sont toujours plus pressants. Parallèlement, dans plusieurs pays se pose la question du caractère abordable du logement. Cette communication porte sur les liens entre dépenses pour le transport, pour le logement et dépenses énergétiques dans l'habitat. A l'aide d'une revue de la littérature en anglais, français et allemand, nous illustrons comment ces questions ont été mises en relation en France, en Allemagne et au Royaume-Uni.

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Le contexte britannique se caractérise par une forte tradition de recherche et d'action politique sur la pauvreté et l'exclusion sociale dans les trois secteurs, y compris dans les transports. Pourtant, alors que les problèmes d'accès aux services des ménages sans voiture ont attiré beaucoup l'attention, le stress économique des ménages motorisés et sa dimension territoriale ont été moins étudiés. De même, les arbitrages des ménages entre dépenses pour le transport et pour l'habitat face au choix résidentiel sont peu présents dans le débat. La notion de « fuel poverty » est bien établie au Royaume-Uni depuis vingt ans, mais elle n'inclut que les coûts énergétiques dans l'habitat et, en dépit des demandes de chercheurs et activistes, le concept de « transport poverty » a du mal à s'imposer. Il en résulte que les liens entre dépenses énergétiques pour le transport et dans l'habitat sont mal appréhendés.

Il n'en va pas de même en France, où l'Observatoire National de la Précarité Energétique (mis en place en 2011) est chargé d'étudier les phénomènes de « précarité énergétique » dans les deux secteurs. Ainsi, un nombre croissant d'études empiriques est consacré à la « double vulnérabilité énergétique des ménages », prenant en compte à la fois les dépenses dans l'habitat, dans les transports et leurs interactions. Dans ce contexte, la dimension territoriale de la vulnérabilité est mise en avant, ainsi que les choix résidentiels des ménages et leurs arbitrages entre dépenses de transport et logement. Cela résulte d'une longue tradition de recherche sur la forme urbaine, l'inégale distribution des groupes sociaux dans les métropoles et les problèmes sociaux et environnementaux des territoires périurbains.

En Allemagne, les enjeux de la « pauvreté énergétique » dans l'habitat (« Energiearmut ») et des inégalités sociales d'accès aux transports ont du mal à s'imposer à l'attention des décideurs publics. Dans les deux cas, l'une des raisons est le consensus autour du bon fonctionnement de l'État social Allemand, qui – à l'origine – est censé résoudre de tels problèmes. En résulte un manque d'études sur ces sujets et, par conséquence, sur les liens entre dépenses énergétiques dans l'habitat et dans les transports. Alors que la forte hausse du prix du carburant en 2008 a suscité une vague d'études sur les dépenses de transport et la vulnérabilité des ménages, celles-ci montrent surtout un intérêt pour le développement urbain durable et la ville compacte. Dans ce cadre, la « fin du pétrole à bon marché » a été quasiment présentée comme une chance de réorienter la planification territoriale et d'influencer les choix résidentiels des ménages, afin de renforcer la résilience face au renchérissement du coût de l'énergie. La rationalité limitée des ménages fait l'objet de beaucoup d'études, ce qui a engendré le développement d'outils en ligne pour informer les ménages sur les conséquences financières de leur choix de localisation résidentielle.

## ENERGY-RELATED ECONOMIC STRESS AT THE INTERFACE BETWEEN TRANSPORT, HOUSING AND FUEL POVERTY: A MULTINATIONAL STUDY

### DÉPENSES POUR L'ÉNERGIE ET STRESS ÉCONOMIQUE, AU CROISEMENT ENTRE LOGEMENT ET TRANSPORT : UNE ÉTUDE MULTINATIONALE

Over the last two decades carbon reduction policies, rapidly fluctuating fossil fuel prices and stagnating real incomes have drawn attention to questions of affordability in the transport and domestic energy sector. At the same time, for partly different reasons, housing affordability is of increasing concern in several EU countries<sup>1</sup>. Questions of costs and affordability in the transport, housing and domestic energy sector are generally the remit of different policy sectors and research literatures. There are however several reasons why they should be considered in conjunction. First, from the point of view of households, they are closely linked and traded off against each other e.g. in decisions about residential location. Second, households may cope with economic stress in transport, housing or domestic energy by curtailing spending in one of the other areas (spillover effects). Third, transport and domestic energy spending are exposed to similar processes – e.g. fluctuating global energy prices, energy transition, environmental taxes, etc. – although it should be kept in mind that energy use in the domestic and transport sector are conceptually different in many respects.

This short paper looks at how connections between questions of costs and affordability in the domains of transport, housing and domestic energy have (not) been made in research and policy in three major EU countries (UK, France and Germany), based on a multilingual literature review. The focus is primarily on transport costs, and their relationship with spending in the other two areas.

### UK

In the British context, there is strong policy and research attention for poverty, both in general and specifically in the domestic energy, transport and housing sectors. There is however an intriguing lack of interest for the relationships between issues of affordability in the different sectors.

The strong UK tradition of research and policy on transport and social exclusion, has worldwide resonance<sup>2</sup>. However, attention has generally been directed to low mobility and/or non-car owning individuals, perhaps reflecting the fact that the (by EU standards) high number of households without cars (25% in 2012) is particularly concentrated among the lowest income groups<sup>3</sup>. Research focused on the (actual and potential) economic stress associated with owning and operating a car is sparse and mostly qualitative<sup>4</sup>. A recent quantitative study mapping the vulnerability to transport fuel price increases in Yorkshire shows that it is higher in car dependent rural areas around cities with less coping capacity, in line with the international literature on oil vulnerability<sup>5</sup>. Despite this, British studies of transport affordability are remarkably disconnected from international debates on compact city policies.

With regard to domestic energy, the UK has long introduced and institutionalised the notion of 'fuel poverty' to refer to the lack of 'affordable warmth'. Indeed, for the last two decades, the British government official definitions of fuel poverty have been a point of reference for debates on domestic energy affordability worldwide. The prominence of the issue in Britain has to do with the comparatively low energy efficiency of the housing stock, for which there are historical reasons<sup>6</sup>. While the fuel poverty debate is mostly focused on the economic factors impacting on home heating, there have been recent calls to broaden the concept to include other forms of energy consumption and non-economic factors<sup>7</sup>. Intriguingly, however, even such pleas steer clear of including transport within the remit of 'energy vulnerability'.

In such a context, marked by the institutional recognition of (domestic) fuel poverty, researchers and NGOs have put forward the notion of 'transport poverty', building on an implicit analogy between (recognised) fuel poverty and (neglected) transport affordability issues<sup>8</sup>. The political expediency of this is also explained by the fact that the 'social exclusion' agenda collapsed after Labour was voted out in 2010<sup>9</sup>, while fuel poverty policy is still seen as sacrosanct. Arguably, the analogy is sometimes taken too far, e.g. when the same expenditure threshold (10% of income) typically used for fuel poverty is used for transport, even if this is clearly not

appropriate. Despite this, the conceptual commonalities and differences between 'fuel' and 'transport' poverty, as well as their actual interrelationships, remain largely unaddressed.

British research is very active on housing poverty, and there is a widespread perception of a housing affordability crisis. The solution is seen in increasing housing supply to keep pace with expected population increases<sup>10</sup>.

Current UK government policies have revived the idea of 'garden cities', and appear to acknowledge the need for local services and alternatives to car travel in the new developments<sup>11</sup>. However, there seems to be a lack of explicit consideration of the transport affordability of new housing supply. On the other hand, the Liberal-Conservative coalition has abolished the national targets for housing density and brownfield redevelopment introduced by Labour, on the basis that they were harming affordability<sup>12</sup>.

### France

In France, the relationship between housing and transport costs has drawn considerable attention since the 1990s<sup>13</sup>. The trade-offs that households make between the two, and the perverse effects of housing market mechanisms have been discussed in the context of a long-standing concern for the rise of periurban areas and their negative environmental and social impacts. Research has also focused on how the excessive cost burden of motoring can lead low-income households to 'escape car dependence' by relocating in more accessible areas –thus possibly contributing to reurbanisation trends<sup>14</sup>. More recently, the notion of 'coût résidentiel' –akin to the Housing and Transportation Index used in North America– has been proposed as a tool in research and policy making<sup>15</sup>. In this context, online tools have been developed to make households aware of the effects on transport costs of their residential location choices<sup>16</sup>. Studies focused on household vulnerability to transport fuel price increases in France have also highlighted that this is lower in compact and multipolar metropolitan areas (e.g. Lille)<sup>17</sup>.

With regard to domestic energy, an official government definition of 'précarité énergétique' (energy precarity) has been introduced in 2010, as part of an environmental policy package. While the government definition refers to domestic energy only, the remit of the National Observatory on Energy Precarity (ONPE) includes daily mobility<sup>18</sup>. Also, a number studies by academics and local authorities acknowledge the existence of two types of energy precarity, mapping the populations concerned and their overlap. The findings generally show that domestic and transport-related energy precarity generally affect different areas and/or different social groups. The relationships between the two phenomena at the household level has also been investigated, suggesting that high transport costs (for commuting) tend to result in (domestic) fuel poverty, more than the other way around<sup>19</sup>. Also, qualitative evidence suggests that in periurban areas households feel more in control of energy efficiency in the home than of the energy consumption resulting from their travel patterns. This leads them to invest in home improvements, which then make them more reluctant to relocate when transport fuel prices increase<sup>20</sup>.

### Germany

In Germany, domestic energy affordability is not currently a focus of government policy attention. This results from assumptions about a well-functioning welfare state in the German 'social market economy', whereby e.g. domestic energy costs are supposed to be entirely covered by welfare benefits<sup>21</sup>. There results a lack of official figures, which makes it hard even to quantify 'energy poverty' ('Energiearmut'). This is despite claims from academics, NGOs and the media that rapidly increasing electricity prices (as a result of the energy transition away from nuclear and fossil fuels) are causing hardship among poor households. In this context, it is not surprising that the relationships between transport- and domestic energy-related affordability issues have not drawn much attention.

German research on transport and social exclusion is still in its infancy, and this has also been attributed to assumptions about the efficiency of the welfare system<sup>22</sup>. Only in 2012 the government has commissioned a report on mobility, accessibility and social exclusion, mostly focused on rural areas<sup>23</sup>. This shows that 3% of households (8% in rural areas) are 'forced car owners', i.e. own a car despite low income because of lack of accessibility by alternative modes.

Most German research into transport costs, however, has been driven not so much by social, but rather by environmental (peak oil, resilience) and spatial development (sub- and reurbanisation) concerns. This explains the title of a government-commissioned report, published in the wake of the 2008 oil price spike: "Opportunities and risks of increasing transport costs for spatial development"<sup>24</sup>. The opportunity mentioned here is steering spatial development towards transport-energy efficiency and the compact city –a long-standing goal of

sustainable transport and urban planners. In this context, while the role and responsibility of the State is acknowledged, much emphasis is given to the residential location choices of households, and how these can be steered away from car dependent areas. This is linked to the long-standing interest of German transport research for the links between daily travel behaviour and residential mobility and self-selection.

This leads to highlight the trade-offs that households make between housing and transport costs and their (lack of) rationality. Empirical studies suggest that, while households are drawn to relocate in suburban areas by lower housing prices, they tend to underestimate the associated increase in transport costs<sup>25</sup>. This results in a suboptimal situation for both households (hardship) and, in the aggregate, for the cost and energy efficiency of spatial development<sup>26</sup>. In order to increase households' awareness of this, online 'housing and transport costs calculators' have been developed in Munich and Hamburg<sup>27</sup>.

As a whole, the body of knowledge on transport and energy-related economic stress in the three countries is substantial and diverse. There is much to be gained from greater cross-fertilization between English-, French- and German-speaking communities.

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