

Sustainable housing in a post-growth Europe

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Abstract

Narratives & pathways are important for collective understanding of a topic as well as opening paths for alternative policies outside the growth paradigm. A methodology for identifying existing narratives and developing alternative pathways is applied to the case of housing. We identify two mainstream economic narratives on the housing sector: 1. Monetarist support of “Austerity”: repay debts and cut subsidies in the housing sector in order to rebuild the capacity for economic growth. 2. Keynesian support of “Stimulus”: public investments in housing in order to restart strong activity in the building sector.

However, a system mapping modelling exercise shows that vicious circles arise within these mainstream narratives. As a consequence we develop a different perspective: a degrowth pathway in a European context, in which growth of the housing sector is not an objective. The pathway involves measures such as the reuse & recycling of construction materials, strong regulation of changes in land use, “refurbishment” of the existing building stock, social rents, the development of frugal and convivial house-sharing.

The degrowth pathway involves equilibrium between individual and collective action and a circular chain of effects through different dimensions including lessened housing inequalities, sufficiency lifestyles in housing, the reduced demand for housing, the reduction of urbanisation, the prevention of housing speculation, the reduction of private and public debt. This virtuous circle of degrowth in housing leads to a reduction of ecological impacts, a reorganisation of work, fair access to housing and reduction of debts. The neoliberal narrative and the Keynesian narrative are put on the same system map enabling to compare them to the degrowth housing pathway.

Key words: housing sector, land use, debt, Keynesian policies, “austerity” policies, Degrowth, system mapping

1. INTRODUCTION

Realization that endless growth in a finite world is bound to fail appears in public spaces, publications and political speeches. Yet, the lack of storylines outside the growth paradigm impedes the possibility of alternative policies (Berg & Hukkinen 2011). Indeed growth narratives are omnipresent, and degrowth policies are discarded by default¹. In the present situation degrowth is a “non-story” that cannot act as a policy motivator. The colonization of the imaginary, as described by Latouche (2005) or the existing mental infrastructure as described by Welzer (2011) are blocking the entry of degrowth into the political and policy horizon. One way to break through is to understand current narratives and to identify other pathways. This is what we achieve in this paper for the housing sector. Housing satisfies several fundamental human needs, from shelter and security to sociability and social recognition. At the same time housing is a major sector of the economy and a driver of economic growth, generating 1.3 trillion euros of yearly turnover for Europe (E2B, 2012). Real estate provides a profit and debt guarantee, even during periods of stagnation (unless a housing bubble explodes). The sector is also considered key in terms of job creation. Millions of jobs in Europe are dependent on the housing sector and its adjacent fields. For a vast majority of European households, housing makes the biggest share of living costs and also of wealth (Angelini et al. 2010). From a biophysical perspective, the housing (and infrastructure) sector generates a gigantic flow of materials. As an illustration, stones, sand, gravel and other primary building materials represented 61% of all materials extracted in Europe in 2007 (Hass and Popescu, 2011). An extreme case is the peak in Spain in 2006, when extraction of construction materials reached about 13 tons per person per year (González et al., 2012). This was without accounting for other physical flows like energy (Economidou 2011), land, water, and waste disposal related to the total housing system. Over time the sector has managed to urbanize a large part of Europe, reaching around 600m² of built area per person (MOSUS, 2003). Apart from working and leisure spaces, living spaces for Europeans reached on average more than 40 m² per person (Kees & Haffner 2010). Further urbanisation would have dramatic consequences in terms of impacts. Given the availability of large areas of unused or barely used already built spaces, given also population trends, we argue that enough buildings have been constructed; and that Europe may thus undertake a degrowth pathway in housing. We will outline such a pathway.

The current article is built as follows. Section 2 provides the methodology used in the analysis, it introduces the concept of narratives, pathways, system maps, while describing the process undertaken for arriving at the results presented in the following sections. Section 3 describes the variables, used in the analysis. Section 4 presents the current narratives of the housing sector pointing at their weaknesses. Section 5 brings the degrowth narratives and the pathways associated with them. Section 6 concludes.

2. METHODOLOGY

1 Degrowth is defined here as a democratically led redistributive downscaling of production and consumption in industrialized countries as a means to achieve environmental sustainability, social justice and well-being (Demaria et al, 2013).

Analysis here starts from a literature review on housing and economic growth. The major analytic tool has been the development of system, or causal, maps at a series of experts meetings within a EU research project (RESPONDER), in Berlin² and Barcelona³. At these RESPONDER events experts were asked to identify so-called 'key variables' for housing sector analysis, as well as the causal links between them. The exercise has been followed by the identification of two narratives (neoliberal and Keynesian), followed up by cross-impact analysis and identification of pathways. The methodology used here is described in detail in Videira et al. (2014). Each of these elements of the process is briefly spelled out below.

1/ Identification of variables and causal links

The identification of causal links is obtained with Causal Loop Diagrams (CLD) which describe the relations between variables and the feedback structure of a system rather than the behaviour of specific variables (Videira et al. 2014). A positive sign (+) on a relation indicates that variables change in the same direction, *ceteris paribus*, and a negative one (-) that the connected variables change in opposite directions. If two or more variables support each other they create a positive feedback loop reinforcing the initial change. On the contrary when two or more variables counteract each other they create a negative feedback loop balancing the initial change. Reinforcing loops are sources of growth, and sometimes lead to system collapse, while balancing loops are self-correcting (Videira et al. 2014). CLDs have been increasingly used to promote participation in environmental decision-making processes (Antunes et al. 2006). In the RESPONDER project this modelling approach was used to generate insights among researchers and policy-makers on the contradictions between sustainable consumption and economic growth in various fields, including housing (Sedlacko et al. 2012). At the sessions on housing, experts were separated into three groups treating one key question each, starting with two variables identified by the authors of this paper. The three questions studied in the groups were (Schneider et al. 2012):

- What is the impact of growth of financial investment in housing?
- How have economic growth and lifestyles changes offset the housing energy efficiency and material efficiency improvements achieved during the last 20 years?
- What are the effects of social exclusion and mono-functional organization on urban growth?

The moderated analysis of these questions resulted in the development of the key variables and the causal links between them (presented in the next section).

2/ Identification of narratives, path dependencies and leverage points

2 http://www.scp-responder.eu/events/eu_dialogue

3 http://www.scp-responder.eu/events/kb_housing

While the above mentioned process is good for promoting participation, the resulting “spaghetti-like maps” were not so adequate for communication purposes. Presenting them in the form of narratives is the next step where key relations from the causal map are crystalized. Urhammer and Røpke (2013) define narratives as the result of discursive practices which organise elements of ensembles of ideas, concepts and categorisations, into comprehensible plots. Here we define narratives as common interpretations of the present situation. Practically this involves refinement of the links developed during the mapping sessions and the tracking of the common narratives in the causal map (Schneider et al. 2013)⁴. The narratives identified were named for convenience as:

- the “Neoliberal” one which corresponds to “Austerity” in times of downturn. It is developed on Fig. 1.
- “Keynesian” which corresponds to the support of “Stimulus” in times of downturn. It is developed on Fig. 2.

3/ Cross-impact analysis

Another element of the work involved identifying leverage points, or points which have a key role in terms of impacting the rest of the variables. Cross-impact analysis looks at the impact of all key variables on the impact of all remaining variables. This provides a means to systematize expert judgments and gain insights into interdependencies between system variables (Videira et al. 2014).

4/ Development of degrowth pathways

Stories are lines of thought that manage to link various issues in a coherent way, envisioning diversity of paths. Stories help people understand each other’s concerns and ways of thinking. Pathways then correspond to the construction of stories. While narratives are certainly not descriptions of the “truth”, pathways, are not descriptions of the future. Rather they are *hypotheses* of future paths, used for generating a societal debate. The pathways here presented are a result of the collective intelligence of members of academia, policy-makers, and civil society representatives. The combination of all degrowth proposals leads to coherent results and synergies between them, while the simultaneous development and implementation of degrowth and growth-based proposals creates a tension. The pathway is a good way to illustrate the links between the “bottom” and the “collective” levels (Fig. 5), as well as between different dimensions (and disciplines).

The following section provides an overview of the European housing situation as well as an introduction to the key concepts and variables used in the system maps.

4 <http://www.scp-responder.eu/pdf/knowledge/papers/Background%20paper%20on%20sustainable%20housing%20and%20growth.pdf>

3. Introducing key concepts and variables in the housing sector

We argue that today's housing sector in Europe fails to secure the needs and livelihood of present and future generations, as testified by the ecological, social and economic crises in the sector. Each of these problems is introduced below.

Ecological unsustainability (represented by the variable “Total material and energy consumption in housing” in Figures 1-2-4). In 2007 the housing sector (including furnishing and household appliances) generated in EU-27 42 % of GHG emissions, 30 % of acidifying emissions, 31 % of tropospheric ozone precursors and 38 % of material resource use. There is general consensus that housing is one of the most important EU contributors to global environmental impacts (EEA 2012) and even more so when we add the infrastructures developed for urban sprawl.

Over the period 1990-2009, energy efficiency in the household sector increased by 24% in EU-27 countries at an annual average rate of 1.4%/year, driven by the promotion of more efficient buildings, space heating technologies and electrical appliances. At the same time, final energy consumption of households increased by about 8%, at an annual average rate of 0.4%. Electricity consumption grew much faster, at an annual growth rate of 1.7%. Energy consumption in buildings (residential and services)— for space heating, water heating and use of electric appliances – represents approximately 41 % (27% for residential sector alone) of total final energy consumption (EEA 2012). This increase was related to the rising of personal incomes permitting higher standards of living and broader ownership of domestic appliances that are part of the so-called “ideal home” (more appliances: TV sets, dishwashers, consumer electronics and information and communication equipment — and a rising demand for air conditioning and cooling technologies, especially in the Mediterranean countries). Between 1997 and 2009 demand for electricity from appliances and lighting has increased from 11% to 15% of household energy consumption (Lapillone et al., 2012). Energy use in the residential sector grew in spite of (and to some extent because of) efficiency improvements in terms of kwh/m². A growing demand for single households resulting in an increasing number of dwellings and a decreasing occupancy rate per dwelling in EU-27 (Kees & Haffner, 2010) pushed-up demand for energy in the housing sector further. This level of consumption, however, would be very challenging, if not impossible, to sustain with renewable energy (Mediavilla et al. 2013).

The housing sector is also a large consumer of materials. Construction waste is increasingly recycled but this still remains marginally used in buildings (6 % of the materials used in new construction in the best European cases (EEA 2012)). House building (especially diffuse residential sprawling, vacation homes and related infrastructure) is occupying an increasing quantity of often fertile green land. Urban sprawl is particularly affecting the agricultural land in the peri-urban areas. Worldwide, urbanization leads to the loss of 1.6 to 3.3 million hectares of prime agriculture land per year (Lambin and Meyfroidt, 2011). In Europe, compared to emerging economies, the rural exodus to cities was completed long ago and there no pressure from population growth. Nevertheless, there is still loss of green land.

Social unsustainability (represented by the variable “Inequality in housing” in Figures 1-2-4)

The economic crisis has led to an increase in the number of homeless people. Some 30 million people, or 6 %, of the population in the EU 27 area were reported to suffer from severe housing deprivation in 2009. This is happening amidst a growing number of (often empty) dwellings and growing average floor-space per person (EEA 2012; Kees & Haffner 2010) as well as development of social closure with gated-communities (Grant & Mittlestead 2004).

More than 12 % of the population is highly affected by the increasing costs of housing (Eurostat, 2011). From 2002 to 2007 housing prices in Europe frequently rose above 6% per annum, which is considered an alarm threshold for bubbles. In Spain house prices increased by up to 250% (155% in real terms) between 1996 and 2007. Housing in Spain reached a peak of 760,000 new constructions in 2006 driven by rising demand from Spanish and EU nationals⁵. By the end of 2011, real house prices fell by about 41 % in Ireland, by 29 % in Iceland, by 23 % in Spain and the United States, and by 21 % in Denmark (IMF 2012).

Inequality in housing in Europe is tremendous, not only within each country but also between countries. In Latvia and Romania more than 50% of the population experience overcrowding⁶, while in Luxemburg new houses have an average surface of more than 100m² per person (Kees & Haffner 2010). When it comes to home ownership, it seems to be positively related to economic inequality. In the absence of redistributive programs, home ownership tends to prevail where state commitments to social livelihood and welfare programs are smallest (Conley and Gifford, 2006). On the other hand, post-war social housing areas, which gave shelter to millions of people, have now become some of the most unattractive city districts, most acute in the French “banlieues” even if situations differ from places to places (Rowland et al., 2009).

Economic unsustainability (represented by “GDP” and “debt” variables in Figures 1-2-4)

The monetary and financial flows associated with the housing sector have been enormous and some currents of thought expect them to remain high in the future with the increasing urban sprawl and new housing demands in Europe. In Fig 1-2 household indebtedness is seen as a result of rising housing demand, house construction and deregulation of the mortgage markets. Between 2000 and 2007 the household debt increased on average by almost 19% in Europe. The deregulation of the mortgage market, and more flexible conditions for granting loans and their repayment terms pushed people into careless borrowing. In fact, while some households managed to efficiently smooth their saving and consumption pattern, others have been

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http://www.standardandpoors.com/spf/upload/Ratings_EMEA/Jun2012_Spain.pdf?elq=429e3d5fd933

6 According to WHO norms, overcrowding occurs with less than 11m² for two persons or less than 8 m² for one person

introduced into a vicious cycle of debt accumulation, leading to what in the literature is regarded as over-indebtedness (Chmelar 2013). In 2008 loans for housing represented 21% of the national GDP in Italy, 37% in France and up to 60% in Spain (De Bandt, 2010). According to Eurostat, in 2011 35% of the households in EU-27 claimed to have a heavy financial burden due to housing costs. This eventually affected housing prices. When house prices declined, ushering in the global financial crisis, many households saw their wealth shrink relative to their debt, and, with less income and more unemployment, found it harder to meet mortgage payments. In some countries, there have been cruel episodes of massive evictions. There are different narratives on the relation between economic sustainability, indebtedness and the growth of the housing sector, which we shall explain at length in the next section.

The remaining variables, which we introduced in the system maps on housing are as follows:

Demand for housing. Demand for housing in Europe could be approximated by the number of square meters of houses that are owned, rented or shared. It is also reflected in the composition of household expenditures. Housing makes up to one quarter of household expenditures of Europeans, being by far the largest consumption item⁷.

Employment. The housing sector is generally considered an important source of employment (Strauss, 2013). This sector is, however, not the most labour-intensive when it is about new constructions. The share of employment in the housing sector is lower than its corresponding share in GDP (12% in France according to Bigot 2011). As visible in Fig 2-4, demand for housing, housing construction and household debt are causally linked to employment.

Investment in housing. Interest in housing investment has been increasing with the growing instability of investment in financial products and associated stock markets clashes. Household investment in financial products, for example, has decreased in Europe (from 13,6% to 7,3% in France) (Bigot, 2011) in the last 15 years. Excessive investment in houses has however also led to the creation of bubbles, which burst dragging the economy into a crisis (Claessens et al. 2008).

House-renting. The renting situation varies in different parts of Europe. Some countries are typical “owner countries” (especially Eastern and Southern Europe) while others have a higher renting share (North-West Europe), although in the last two decades there has been a general trend to increase house ownership. Renting is generally less regulated in countries with less renting. Rent control regimes have gradually been dismantled or softened since the mid-1990s, and removed in many Eastern and Central Europe countries (Houard 2011). Rent regulation is socially attractive for keeping prices low and affordable. One example of renting control is the German “mirror” system in which landlords can be sued if renting for more than 20% of the

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http://epp.eurostat.ec.europa.eu/statistics_explained/images/3/37/Overview_of_the_composition_of_EU27_expenditure_in_2011.png

average price in the area. The rent is also indexed to inflation and cannot be increased if conditions of the renting service do not improve. By the way, there are many arguments for a European Directive on Housing and Land Use Change Permits that would favour a more Central European pattern.

House construction, urbanization and building permits. In classical economics construction is perceived as one of the motors of economic growth and a source of employment opportunities. As Maurice Chevalier used to sing: *Quand le bâtiment va, tout va, tout va. Partout y a d'la joie quand le bâtiment va.* An important factor for house-construction is building permits. These are usually delivered by local administration. Change in permits can have an impact on the price of land, which then affects the profits that can be made by construction and new housing (Fijalkow 2011). Giving building permits represents a major form of political corruption in Europe, where in some countries political parties have been financed by charging commissions on permits.

Aspirations and comfort level. Demand for housing is very much driven by economic inequalities and the associated frustration from socio-economic comparison (Kasser 2002), pushing up the appropriate or dreamed level of comfort and aspirations. Houses (and kitchens and bathrooms) become "positional goods" with status value derived from social comparison which is stronger in an environment of higher inequality (Quitau & Røpke, 2008; Ward et al., 2009; Tunstall et al. 2013). The variables above can be analyzed in the context of two different narratives, which provide two different interpretations of the global economic crisis.

4. The typical narrative of the last housing crisis

A commonly accepted explanation of the recent housing crisis is that banks had the wrong information, were too deregulated and used their creativity in creating short-term profits. Tempted by low interest rates, people acquired property by paying mortgages rather than paying rents to landlords, keeping construction demand and housing prices on the rise. The self-fulfilling prophecies of constantly rising real estate value pushes supply up even after saturation of demand, both in terms of housing and in insolvent debt-based derivatives. With the development of the housing bubble, or with the overvalued prices of housing, defaults on mortgage payment, amplified by oil price rise until mid-2008 resulted in a financial crisis, with severe economic, social and environmental consequences. The scale of the banking collapse contagion initiated by Lehman Brothers, and continuing with the colossal banking bail-outs, which governments indulged into was unprecedented. Repayment of private debts allowed for markets to "adjust".

From this explanation of the crisis, two distinct paths for exiting the crisis arise: one based on austerity, and another on stimulus measures. Below we discuss these in turn.

The austerity⁸ narrative in the context of the housing sector (Figure 1)

In this narrative, recessions are perceived as periods of adjustment to change, which are needed to clear-off inefficiencies. Recessions need to be lived through, and the repayments of public and private debts are a short-term priority, until confidence in the credit system is regained so that firms recover and undertake new innovative investments. In line with an interpretation of the idea of creative destruction of Schumpeter (1942), some enterprises and activities need to disappear for new more efficient ones to enter and take over. The type of efficiency favoured in an “austerity” perspective is geared towards economic growth. From an “austerity” perspective private enterprises and private banks are the motor of growth and a key to its recovery. This view is often associated with theories on price distortions created by state interventions and the need for deregulation. Defenders of an austerity narrative pay attention to the weight of the public debt claiming that „Unless there are devaluation and defaults, a large debt prevents growth” (Reinhart and Rogoff 2010). Those authors defend a threshold on state indebtedness although in practice, it has been difficult to do the econometrics identifying a precise debt to GDP ratio that prevents crises. The underlying theory is the Expansionary Fiscal Contraction (EFC) hypothesis which predicts that the major reduction in government spending can be conducive to private investments and as a consequence lead to an overall economic expansion (Giavazzi and Pagano, 1990). Austerity defenders are certainly also concerned with private debts, especially when these are transferred to the state when risks of bank defaults and system collapse are high. We observed this process with the economic crises from 2008 in Spain, Ireland, UK or the US.

From an austerity perspective in the housing sector, repayment of debts implies reducing “non-efficient” housing activities (subsidized housing, or small-size, non-smart, low-return housing projects). A deregulation of renting is seen here as a means to motivate investment in housing for rental business, which increases efficiency in the sector. Housing regulations are a form of subsidy which distorts the market. For example, expectations of obtaining a rent subsidy bear the risk of it being incorporated in the final renting price, which could artificially push prices up (Fack 2011). Social housing is deemed to cause poverty traps and unfair competition through the dependency on subsidies. Moreover, investment in new construction (as common in the USA) is considered more productive than investment in old houses and refurbishment of old buildings (as to some extent happens in Europe). Land regulation is also seen as disturbing market truth, the regulation is expected to come the prices of land. In the long term, the increase of efficiency is expected to restore demand for housing, and increase household consumption in general, creating the conditions for another expansion of urbanization thanks to an increase in productivity. Once the economy has recovered demand can pick up again, either in terms of housing acquisitions or renting. Investments and employment in housing create revenues that can be invested in household consumption, generating economic growth.

8 The austerity described here has obviously nothing to do with the austerity as defined by Illich, 1973.

One distinct feature of the narrative is the importance of good information on the solvency of borrowers for loan availability and proper pricing. For the purpose effective rating agencies which identify the people, enterprises or states unfit for lending are needed. Bubbles occur due to the lack of proper information. The subprime crisis is deemed to have occurred only due to a fault in the rating agencies. Nonetheless the increase of housing prices and subsequent profits justifies further lending, provides employment and multiplies investment returns and potentials. High-comfort housing should however only be obtained by those who cannot afford going bust.

The idea of “natural capitalism” can be incorporated into austerity visions (Hawken et al. 1999). According to it crisis occur when there is a failure of taking social and green capitals into account, where the former correspond to human skills and social services and latter to the value of ecosystems and land destroyed by urbanization. Alternatively, assigning the wrong prices, known as the liberal criticism of GDP, is often considered a cause for the crisis. Stated differently, green growth should be promoted as a great transformation which could naturalize capitalism (Mathews 2011).

The stimulus narrative in the context of the housing sector (Figure 2).

The stimulus narrative finds several shortcomings in the austerity framework. Firstly, its defenders have an opposing view with regard to the action needed in times of crisis, namely – stimulus as a way to restart the economy. Second, the market is not perceived as “perfectly informed” as in the austerity narrative, especially in the housing sector (because houses are long-lived products and their prices are sticky downwards). The stimulus narrative starts with the idea that an economy in crisis lacks aggregate demand, a concept developed by John Maynard Keynes. The state’s role is hence to stimulate aggregate demand by increasing public spending and investments, which increases public debt. In the Keynesian world, state fiscal deficit could be partially paid in due course for by an increase of tax proceedings. Stimulus advocates perceive debt-repayment in times of crisis as having negative social repercussions. Debts should thus be repaid once days are more clement, when employment rises again and economy is moving upward again.

Stimulus policies to restart growth can be of purely monetary nature, pulling the rest of the economy and having spill-over effects in all sectors (Dietz, 2012). The discourse circulates around promoting the “right” kind of growth. For instance stimulus supporters would promote “Social” and/or “Green” growth, or a growth in social and green investment. The former supports affected individuals subsidizing their housing and the latter range from better insulation, to renewable energy, and refurbishment as promoted under the “Green New Deal”. From a social or green stimulus perspective, taxes could be directed towards the wealthy individuals or contaminating industries, as a way to reduce inequalities or pollution. This idea of

green stimulus emphasizes green technology as a growth engine, while criticizing GDP for not making the distinction between green/social investments and purely monetary ones⁹.

Housing is perceived here as a key sector to propel growth. Krugman, for example, advocates for investments in housing, and low interest rates (Smialek, 2013), as a tool for uplifting demand. Stiglitz, on the other hand, calls for a mass mortgage refinancing (Stiglitz and Zandi, 2012). In general, the “stimulus” interpretation involves regulation of rents, housing prices, and state banking with the idea of creating conditions for a strong economic growth in the housing sector and beyond.

“Stimulus” could be associated to social renting but also to house acquisition. As house acquisition is promoted by tax-breaks, such as mortgage deductions, renting comes at disadvantage. Direct building subsidies, that were prominent after World War II, have largely been replaced by supports geared towards providing financial assistance to people in the housing market. Homes of a high enough standard are thus made more accessible. This might create bubbles. However, availability of mortgages in a controlled environment and financial support by the states could keep housing prices low. A “stimulus” way to get out of the crisis is debt-moratorium and zero or low interest rates to promote ownership and energy efficient housing.

The increase in demand through stimulus should result in new housing developments and refurbishment, and higher rates of employment. The rise of employment fosters household consumption with a multiplier effect (the increase in investment and consumption by households contribute to economic growth and feeds tax proceedings, enabling the state to reimburse the public debt and close the loop).

The defaults of the austerity and stimulus narratives

Neither of the narratives above, however, takes environmental and social limits sufficiently into account, nor the fact that mature economies are entering a phase of post growth – in terms of demography, natural resources, toxic emissions and possibly incomes.

Post-growth in demography

Given the trends in population growth (with European population likely to peak very soon, (Scherbov et al., 2011), slight depopulation will become a permanent feature of many European

9 Following the 2008 crisis, housing has benefitted of green stimulus packages: the energy efficiency of buildings has received the most investment. At the end of 2009, approximately 16.3 per cent or USD 521 billion of all fiscal measures were allocated to green stimulus, i.e. policies seeking to reduce CO2 emissions and increase employment, Khatiwada, S., 2009. Stimulus Packages to Counter Global Economic Crisis: A review, Geneva: International Institute for Labour Studies (IILS).

regions, including urban areas, as it has happened in Japan¹⁰. Longer life expectancies will compensate only to some extent the under-replacement birth rates. How migration trends will evolve is difficult to predict. The European population peak implies that there is no need to expand more housing for a growing population in Europe. To preach demographic growth for economic growth and debt-repayment is a nonsensical idea.

Post growth in economic terms

Eternal growth fuelled by debt (involving mortgaged housing) is an illusion. In general, property speculation is not a viable option, neither for the long nor for the short term. Ecological economists doubt that further economic growth is at all possible in Western-developed countries. House purchases have lately declined in many countries and approvals are low in UK, Spain, and France (Pelissier, 2013; Eurostat, 2013). The current crisis shows that the use of houses as a financial investment is both increasing economic vulnerability and deepening social segregation. Both visions (“austerity”/“stimulus”) present the construction of buildings as a engine for economic growth. The high policy profile of housing as an engine of economic growth, however, still rests on a weak empirical foundation and is vulnerable to shifts in intellectual fashion (Harris and Arku, 2007). (See Fig. 3).

Physical post-growth

There is a physical limit to growth in terms of natural resources, energy and land, as well as in the resilience of natural systems to absorb waste (including greenhouse gases). As analysed in section 3, housing is an important direct and indirect consumer of material, energy and land, causing excessive pressure due to sprawling, the cement industry among others, and the related environmental conflicts connected to the extraction of materials. Civil engineering megaprojects did not undergo a consistent slow-down with the crisis, hence engendering increased resistance by social movements¹¹.

Given that both “stimulus” and “austerity” narratives favour a strong expansion of urbanisation, by lifting limits that prevent expansion, both are intertwined in a vicious circle where debts are generated and economic growth is needed to repay these. On one hand there is the austerity vicious circle: booms are created by high level of investments in the housing sector, at some point debt level becomes critical and neoliberal austerity is about forcing to pay debts. The next boom requires then an even higher level of investment in order to reach higher productivity, this, in fine, leads to even higher indebtedness. On the other hand there is the stimulus vicious circle, where strong investment of the state in civil engineering and subsidies in

10 <http://www.japantimes.co.jp/life/2014/11/15/environment/shrinking-well-depopulation-affecting-japans-energy-climate-goals/#.VI7EPskp5q0>

11 <http://forum-gpii-2012-ndl.blogspot.com/search/label/00-English>

housing is required creating high level of indebtedness (eventually producing a sovereign debt crisis). The indebtedness of the state creates the necessity of high economic outputs in housing in order to collect taxes to repay the state debts.

We usually see the two narratives as competing. One wishes to create the most efficient society with the least state influence so that market distortions are avoided while perfect information supplied. The other defends large-scale state investment in green and social growth. These can be considered as two components of capitalism, whose green version conjugates natural capitalism and a “Green New Deal”. The debate between austerity and stimulus is bogus. In reality the maintenance of the status quo (i.e. economic growth), requires stimulus policies which invest in new infrastructure without challenging the existing ones and austerity policies which optimize systems so that they fulfill their function (in general profit) more efficiently. The Keynesian stimulus is able to expand the limits of the urbanisable, often justified by green/social developments. The green/social first is not always as green and social as claimed and it does not replace the existing urbanisation. This is where the neoliberal austerity comes, it is able to optimize the expanded structure, privatizing social housing, developing urbanisation on newly converted lands etc. so that growth actually takes place. The argument that efficiency is ecological and social is wrong because efficiency is used for growth for transformation in a system with expanded limits.

In a nutshell, both the austerity and the stimulus approach focus on how to spur economic growth. “Stimulus”, at once, to pay off the debts. “Austerity” after paying off the debts, and restarting the credit machine. Nevertheless, the austerity approach optimizes systems but leads to a profound social crisis by cutting social support and by disregarding or furthering the problem of inequalities. The stimulus develops the social or environmental sphere (in its “green deal” variety), but outlines the path for another (debt) bubble and a deeper economic crisis. We refer to the work of Frederick Soddy (Martinez-Alier 1990) who forecast and analysed the contradiction between a real economy based on fossil fuels (non-renewable energy, increased entropy) and the financial illusion of debt-fuelled growth. It is easy for the financial system to increase the public (or private) debts, and to mistake the expansion of credit with the creation of real wealth. In fact, increases in fictitious wealth (the debt) will be used for more housing, resource extraction and energy use (as well as production of greenhouse gases). The current crisis is due to the overgrowth of financial assets relative to the growth of real wealth; there is too much liquidity, not too little in order to guarantee the over-inflated debts. Both “austerity” and “stimulus” believe in increased productivity in the housing sector. The “austerity” approach achieves it by eliminating economically inefficient activities and starting anew, it transforms systems that become more efficient creating a rebound effect and the “stimulus” perspective does so through public investments, expanding the limits of housing systems. The increase of productivity by the combination of both productivity policies allows an expansion of urbanisation though the so-called Jevons paradox, helped by advertising, permits to build, expansion of credit system etc. (Schneider, 2012).

In what follows we present some policy proposals related to the third approach, which brings other concerns than the purely economic one.

5. Towards a degrowth pathway

While the marriage between the individual and collective action is being applied in a direction towards more growth without much democratic debate, the needed mix could also be applied in another direction: for more simplicity, with the objective of degrowth, and post growth. See Fig 4 and 5.

The conceptual proposal of degrowth as applied to the housing sector

Here we take “beyond growth”, “prosperity without growth” (Jackson, 2009) or “degrowth” as more or less equivalent (compared to Austerity and Stimulus). Degrowth challenges the hegemony of growth and calls for a democratically led redistributive downscaling of production and consumption in industrialized countries as a means to achieve environmental sustainability, social justice and well-being (Demaria et al. 2013). In a consensus for degrowth, focus is set on ending the overexploitation of natural resources and humans, because the carrying capacity of the planet, the “planetary boundaries”, and the social limits to growth have been largely surpassed. Degrowth furthermore implies other types of institutions and ethics, and an efficiency, which is frugal or based on reducing inputs and outputs.

Degrowth advocates do not perceive housing as a financial investment, nor as a conspicuous good or status symbol, but rather as places that fulfil important social needs and basic human rights (as recognised by the UN¹²). Housing provides a public service, it can be seen as the health sector or the education sector, it can be provided by private owners, cooperatives, municipalities... It is understood as an element of social networking, conviviality, good universal accessibility and a synergy of satisfiers (using Max-Neef’s terminology), as it satisfies the need for shelter, while simultaneously contributing to the satisfaction of multiple human needs.

At social and political level, there are urban bottom up movements which in practice are already attuned to a post-growth society. We have mentioned the movement in Europe against “Grands Projets Inutiles Imposés” (GPPI), claiming that there is no need for further infrastructures duplicating existing ones. There are also movement for urban vacant lot food gardening (which do not see vacant lots of opportunities for monetary profit), and in Spain there has been a vigorous political movement, the PAH, against evictions of poor people who cannot afford to pay the mortgages they took at the peak of the housing bubble in 2007. There are countless movements against gentrification.

Avoiding growth in housing has nothing to do with creating a recession, which corresponds to particular phase of the short term cycle of economic growth. A degrowth perspective explores the option of reducing the very necessity to build as a way of responding to the needs for

12 <http://www.ohchr.org/en/issues/housing/pages/housingindex.aspx>

shelter, security, recognition in a socially equitable fashion. Degrowth and “post-growth” supporters would argue that the growth of housing capacity in absolute terms is socially unnecessary, since there is an excessive unused stock. Empirical data shows that there is more than 40m² of housing space per household in Europe¹³.

Two types of housing innovations are put forward in the context of degrowth: one related to giving new functions to the existing housing stock, and another to developing other types of urbanization. The former implies a better allocation and utilization of the available stock of houses (such as the large existing derelict urbanized and industrial areas, the so-called “brownfields”). This means keeping the structure of a city center “pieds à terre”¹⁴ or of empty factories, while changing their function. This involves also giving space to collective land planning, creating communal houses from today’s individualized housing. The latter means housing which integrates natural ecosystems and challenges urban sprawl. Some urban planning theorists such as Patrick Geddes and Lewis Mumford already guided the way forward, unlike Le Corbusier and his followers. Here housing efficiency is combined with frugality and conviviality. The risks of the back-to-the-land (and back-to-nature) movements which might result in further sprawl, urbanization and environmental damages are recognized (Xue 2014). Disinvestment from housing projects with a heavy environmental and social burden could liberate resources for creation of small-scale socio-ecological projects. Such practices could eliminate dependence on debts and economic growth in the sector, while generating meaningful jobs. Refurbishment could represent an important source of employment, in substitution to greenfield investment, while at the same time leading to energy efficiency and design improvements as well as local closed-loop businesses. In addition, reducing formal working hours and encouraging work sharing, which is at the core of degrowth, could result in a more active involvement in the personalisation of living spaces, neighbourhoods and general living environments, as a meaningful and fulfilling activity.

Proposals for the housing sector and their pathways from a degrowth perspective

In a nutshell, degrowth in housing implies refurbishment and use of old building and brownfields, rather than new developments, and supports in some cases ecological, reversible and recycled new construction, if needed. It involves co-housing, flat-sharing, reduced and optimized floor space per capita, improving integration between houses and their environments. Each of these is discussed below.

1) Reuse, recycle and refurbish

13 As an illustration, about 22% of the houses in Spain and 20% of those in Italy are empty, as shown by Kees & Haffner, 2010.

14 Empty apartments in cities especially for business people

Using each square meter of built space more efficiently and reusing urbanized land and construction waste is the first general proposal in the context of degrowth. The first path is refurbishment, which will also counteract speculation with empty houses. Refurbishment means renovating a building while keeping its main structure. Cuchi and Sweatman (2011) identify three objectives of refurbishments. One is increasing resource efficiency of homes through productive investments to reduce the environmental impact of buildings. Second is about improving the habitability and technical facilities of buildings, taking access to work, health, education, culture, sports, and leisure as part of the surroundings. Proper refurbishment policies could contemplate on the social, energy and environmental impacts of housing at a neighbourhood and urban level. The sustainability of the physical structure is targeted, as well as ensuring basic socially acceptable quality of life. Third is improving access to housing, defined as the right to a decent and adequate housing unit. Cuchi and Sweatman (2011) estimate that in Spain proper refurbishment policies can target the deep retrofit of 10 million of primary residences built before 2001. These houses can be transformed into low-energy, low emissions, modern housing delivering benefits to owners and occupants, and creating 110,000- 130,000 stable, long-term direct jobs from 2012 to 2050. Such an initiative could reduce energy needs by up to 80% and hot water energy requirements by 60% by 2050. Refurbishment is furthermore proposed as a form of collaborative design (Anguelovski, 2013) so that gentrification and “renoviction” (eviction through renovation) are avoided. A first step towards such a scheme, for example, would be to make an inventory of empty buildings and brownfields.

In 2012 by Cecodhas, Eurima, EuroACE and the European Builders Confederation issued a call to refurbish at least 10 million housing units in order to re-invigorate Europe's economy. In Germany, the building renovation programme for energy efficiency has mobilised €100 billion in investments, reducing energy bills, avoiding carbon dioxide emissions and creating around 300,000 direct jobs per year along the way, although there are “rebound effects” where improvements do not reach the expected levels.

Finally renting is an obvious way to reuse houses and utilize the existing housing capacity more efficiently. This implies having a tax system that penalises empty dwellings, and that favours renting over buying, as well as a rent-regulation, which ensures accessibility of housing. One aspect of the renting is to ease the possibility of subletting room. This is occurring with new renting rooms for tourists with Airbnb, which should be regulated and not be mistaken for social sharing¹⁵. A last and more controversial step is strengthening squatters' rights. This implies a prohibition of house evictions, as done in the French cities Grigny or Bobigny and state requisition of empty buildings (as timidly proposed by Cecile Duflot, minister of housing in France) (Beguin & Rollot 2012).

2) Limiting urban expansion

15 <http://www.thepressproject.net/article/68073/AirBnb-is-a-rental-economy-not-a-sharing-economy>

Urban areas can be limited and managed in different ways. One way is to re-concentrate and reverse the urbanisation of farming and wildlife zones that occurs with urban sprawl. In particular, it implies changing the status of land from urbanized (and “urbanizable”) to agricultural or natural area. This would support more compact ways of residing (which does not mean “mass-housing”) and sustainable transportation schemes. Land use planning or zoning can be used to restrict urbanisation outside public transport nodes, to bring back nature in the city and keep neighbourhoods compact (Register, 1987). Another approach involves avoiding the further extension of road, energy or water infrastructure. Sustainable housing needs to be situated in the context of a transition towards ecological and highly self-sufficient cities. This means converting car-based infrastructure into walking, cycling and open common spaces, relocating urban life and developing its multi-functionality and public spaces. Sustainable housing in a degrowth scenario also required fostering proximity relationships through urban redesign-reorganization, a smaller scale and distance, use of regional materials and bioclimatic design and, within technical limits, tending towards water and (solar) electricity self-provision. Ecological cities are furthermore understood as all-inclusive, rather than accommodating a gentrified minority.

Urban expansion can be restricted by limiting advertising in specific cities (city branding and competition) as well as ads targeting luxurious housing and mortgage schemes as items of conspicuous consumption that make these a norm for good life.

Also urban expansion can be stopped through a reform of the banking system, which goes in the direction of higher reserve rates in banking. Limiting the capacity of banks to create money (in the form of debts) is very likely to lower the burden on natural resources and nature’s sinks (Angelini et al., 2013), as well as the overall debt burden on households. Systems of mutual financial support and alternative banks and credit cooperatives could replace commercial ones when it comes to simple small-scale housing developments (like Cigales in France, or Fiare in Spain).

Finally, some structural measures targeting the creation of housing bubbles have also been suggested. In the context of degrowth, housing is perceived as fulfilling essential intrapersonal and social requirements, rather than as financial assets. A proposal in this respect is a tax that takes away unjustified added value on housing. Price hikes would then have to be justified by improvements in housing quality (McKim, 2012). Urban shrinkage is a new path that is spreading widely across the world although the ways of making socially sustainable shrinking cities needs to be carefully studied (Haase et al. 2012).

3) Accessibility in housing: small-scale, social and shared options

Making housing affordable can be done in multiple ways: by reducing average square meters per person (smaller homes), through social rent and encouraging house-sharing.

The idea of creating smaller, better optimized dwellings, or tiny-houses (Richardson, 2011), is interesting as innovation and design of ecological houses has mainly focused on large homes. In

the perfect case, these houses are primary housing and not secondary or vacation type. The idea of “light, reversible, renewable housing” simply revisits the idea of cabins, yurts, tents, tipis, caravans, etc. in an innovative way. The movement for small or tiny houses has been credited to Susanka and Obolensky (1998)¹⁶. The proposal however does not come without a risk of urbanizing wild areas (Xue, 2014) as it may expand the limit of what is urbanisable. Its contribution to sprawl can be avoided if it integrates aspects of compact urbanisation, combining innovations in terms of size with land planning that integrates natural ecosystems within the existing urban space.

Social housing is a type of rent in which the tenant does not pay more than 30% of the rent with a dignified quality of residential life, independent of whether the house is public, cooperative or private. Social rent bears the risk of being used for urban expansion and perverted with renting price increases. Social rent can be involved in post-growth when it is framed as a response to those problems, and becomes really social if it involves lower material and energy consumption, and ecological when it uses already existing housing infrastructure. The availability of social rent schemes at present is often too limited to satisfy all needs, as waiting lists may be very long. Some people would rather self-organise their housing in a social way. Although there is no single European model for social housing and diversity in this field is high (Houard et al., 2011), the stock of social housing in Europe tends to accommodate more and more vulnerable populations. It is furthermore seen as an increasingly left-out part of housing policies in most EU member states (Houard and Waine, 2012). In some countries like Spain or Greece, social housing is virtually non-existent, while in other countries such as the Netherlands, it is still quite considerable, notwithstanding recent cuts. Some countries focus more on housing affordability, while others see social housing as a safety net for the poorest populations¹⁷. In a degrowth scenario housing could also be granted as a form of a basic income.

House-sharing is another approach to better utilize the existing stock of buildings, which can take various forms. One is flat-sharing, which is most popular among students. Another is sharing a flat with a family-type-of community. The latter type of house-sharing is losing grounds in Europe, while the former seems to be on the rise as a strategy to reduce costs. Co-housing, which emerged in the Northern countries, and is slowly gaining ground in southern Europe is a third strategy. It implies designing buildings for communal use (Lietaert, 2010).

16 Sarah Susanka, Kira Obolensky *The Not So Big House: A Blueprint for the Way We Really Live* Taunton (1998), ISBN 1-60085-047-2

17 Alice Pittini, (2013). Social housing in the EU. Knowledge Unit – Responder Project - <http://www.scp-responder.eu/pdf/knowledge/units/housing/KU%20Pittini,%20Social%20housing%20in%20the%20EU.pdf>

Sharing within the family is the standard way of sharing a house, which is on the decrease with the reduction of the family size in all countries. Family house sharing has remained more widespread in Southern and Eastern Europe where young adults stay at their parents' home longer. Flat and house sharing takes place when household residents are not from the same family (Steinfuhrer and Haase, 2009). Typically, this housing arrangement consists of at least two young adults, often without children. Sharing a flat (house) and the associated costs is the basis of their relationship while living with others is an additional motivational factor to share the house. Flat-sharing challenges the idea of the individual home and rises with the economic crisis. The cost per person of maintaining the same standard of living has been evaluated to be at around 40% lower in a two-person household than in a one-person household (He et al., 2010). There are further economies of scale in larger flats with three or more people. House-sharing implies a reduced level of resource use. It creates positive spill-over effects, as it involves (and creates the habit of) sharing electro-domestic appliances, and various household tools. Unfortunately the practice is not given much support by tax legislation or current rental contract practices.

The next form of sharing, co-housing represent neighbourhood developments where private and common facilities are combined and a compromise is sought between the collective and private needs (Lietaert, 2010). Co-housing communities can gather on average between 15 and 35 families, or up to 50–100 people. Lietaert (2010) identifies six fundamental characteristics of co-housing: participatory process, intentional neighbourhood design, extensive common facilities, a complete resident management, the absence of hierarchy, and separation of incomes. Like flat sharing co-housing communities enable the spread of “efficient sharing” habits. Cars, tools, toys and clothes for children are reused several times and services are offered between the members of the cohousing community and its neighbours, and so on. The models are often set in an urban or semi-urban context. Its rural equivalent are eco-villages. Cohousing communities have shown a constructive alternative to the growing atomisation and loneliness of individuals in large cities.

Another type of house-sharing is the transitory or occasional sharing, associated with initiatives like couch surfing and house swaps, which are slowly spreading. These represent efficiency improvements of the use of the housing infrastructure while building conviviality and trust.

One of the difficulties of house-sharing is the lack of legislation that favours the communal ownership. Sharing shall be included within national and local jurisdictions. House sharing is not favoured by the tax system, nor by public policy in general. Taxing unused square metres, could be one approach. The tax can be progressive in terms of square meters per person used, or rented out (Trannoy & Schaff 2011). While laws usually specify the maximum rate of occupancy, the reverse (a minimum rate of occupancy) could also be envisioned. Another proposal is subsidies, or tax reductions, for house and goods sharing, or offering hospitality towards homeless people (Vestbro 2013).

6. A degrowth pathway for housing in a nutshell

This pathway or story line is the verbal representation of a system map, built upon a degrowth scenario (Fig. 4). It starts with a concern about reducing inequality in housing by improving allocation of underused and empty housing, thus defending the right to housing. When inequality goes down, the frustration and social comparison stemming from the role of housing as a positional good decreases. This is further enhanced by policies and actions which reduce advertisements for cheap mortgages and luxury houses. Various forms of education can also strengthen the dismantlement of luxurious housing as an utter dream. When the required, normative level of comfort decreases, demand for housing goes down. This is further strengthened by house and flat sharing as well as other ways to use built spaces more efficiently which also involves various refurbishment projects. The deconstruction of the luxurious housing dream results in a decrease in household consumption. Reduction of demand for relatively luxurious housing would push housing prices down. This is also supported by policies that establish prices-ceilings and social rent. As a result urbanization is reduced. This is supported by legislation that favours brownfield rather than greenfield building, as well as small-scale, green and reversible ecological housing located close to public transport. Such a mode of construction eventually reduces total flow of material and energy, as well as contamination generated by the building industry. This array of measures reduces aggregate demand for housing, while increasing supply for those in real need.

The impact on employment depends on the balance between two (and more) opposite effects. On the one hand limiting new construction reduces the need to find working force. On the other hand it could free time for self-production. Refurbishment, ecological building, frugal and reversible housing furthermore require more manual work which generates more employment, especially if combined with work sharing. The exact change in employment is thus difficult to predict, although the various effects might cancel out. Price ceilings, and higher reserve rates in banks would limit housing speculation, which would increase housing availability and affordability. If housing investments (from the types mentioned above) are financed by joint savings and zero-interest loans, offered by ethical banks, private debt would reduce (together with the transfers from the poor to the rich). Furthermore higher housing availability would reduce state debt together with dependence on economic growth. GDP is likely to decrease with the reduction of urbanization and housing consumption in general. Yet needs are fulfilled and growth dependence -eliminated. The availability of housing and work sharing would reduce inequality in housing closing the loop, where the degrowth storyline started.

7. CONCLUSION

This paper presented an approach to using system maps to deconstruct certain narratives and search for new story lines. We tried to argue that a decolonization of imaginary is impeded by the absence of a degrowth-based storyline (or “pathway”) to exit the economic, social and ecological crises. For this we present an approach for the collective design of pathways and apply it to the housing sector. This approach involves the identification of causal links and

narratives on the basis of literature review, followed by critical reading of underlying narratives and identification of proposals along the variables identified. Finally pathways or story lines are constructed from the pool of inter-related proposals.

Through the collective development of system maps, narratives of growth and degrowth are put together, revealing three types of representations of the housing sector (in Europe) within the same map. Two of them, the austerity and the stimulus narrative, focus on fostering growth in the housing capacity, considering it as an important engine for the economy. We argue that the two narratives fail to address the challenges posed by post-growth Europe including a clash with ecological limits and a non-preventive approach to housing economic crises.

The proposals we identify and inter-relate here reflect a third narrative, which addresses the multiple caveats of post growth Europe. The degrowth pathway presented above is neither universal, nor unique. It should be read as an attempt to strike a balance between individual and collective actions along different dimension. The degrowth pathway involves a drastic reduction of inequality in housing. This is done by fights for housing rights and fair redistribution, leading to a deconstruction of the dream for luxury housing, driven by social comparison. This deconstruction is supported by policies to reduce advertising and by societal and individual acknowledgement that needs are best served when houses are perceived as places fulfilling important social functions, elements of social networking and nests of conviviality, rather than symbols of status or targets for financial investment. When the attractiveness of bigger and luxury housing is reduced, partly by the voluntary small house movement, housing demand is expected to fall. This is further supported by the promotion of social housing and of “frugal” efficiency based on better utilization of existing housing capacity (by means of sharing and a more efficient use of square meter built space). Alternative banking policies (such as higher reserve rates) which limit bank capacity to give mortgages would also act negatively upon demand. The reduced demand increases the availability of housing. Accessibility of housing is enhanced by seizure of unused houses and refurbishment of urbanized land. Inequality in housing is finally reduced without economic growth, or even with economic degrowth. Effect on employment could be positive or zero, depending on the extent of the manual work and work-sharing, used in the refurbishment and ecological construction sites. Reduction of urbanization and making the building sector more ecological reduces aggregate pressure on ecosystems.

The analysis above has been applied to an emblematic sector of the economy, and developed through several knowledge-brokerage events in the RESPONDER project. Derived from expert and lay knowledge and from literature review (rather than actual data) the model certainly contains a high number of unknowns and approximations. Yet, we believe that the overall direction of the relations is realistic and easy to numerically illustrate, and also to replicate for other sectors of the economy than housing.

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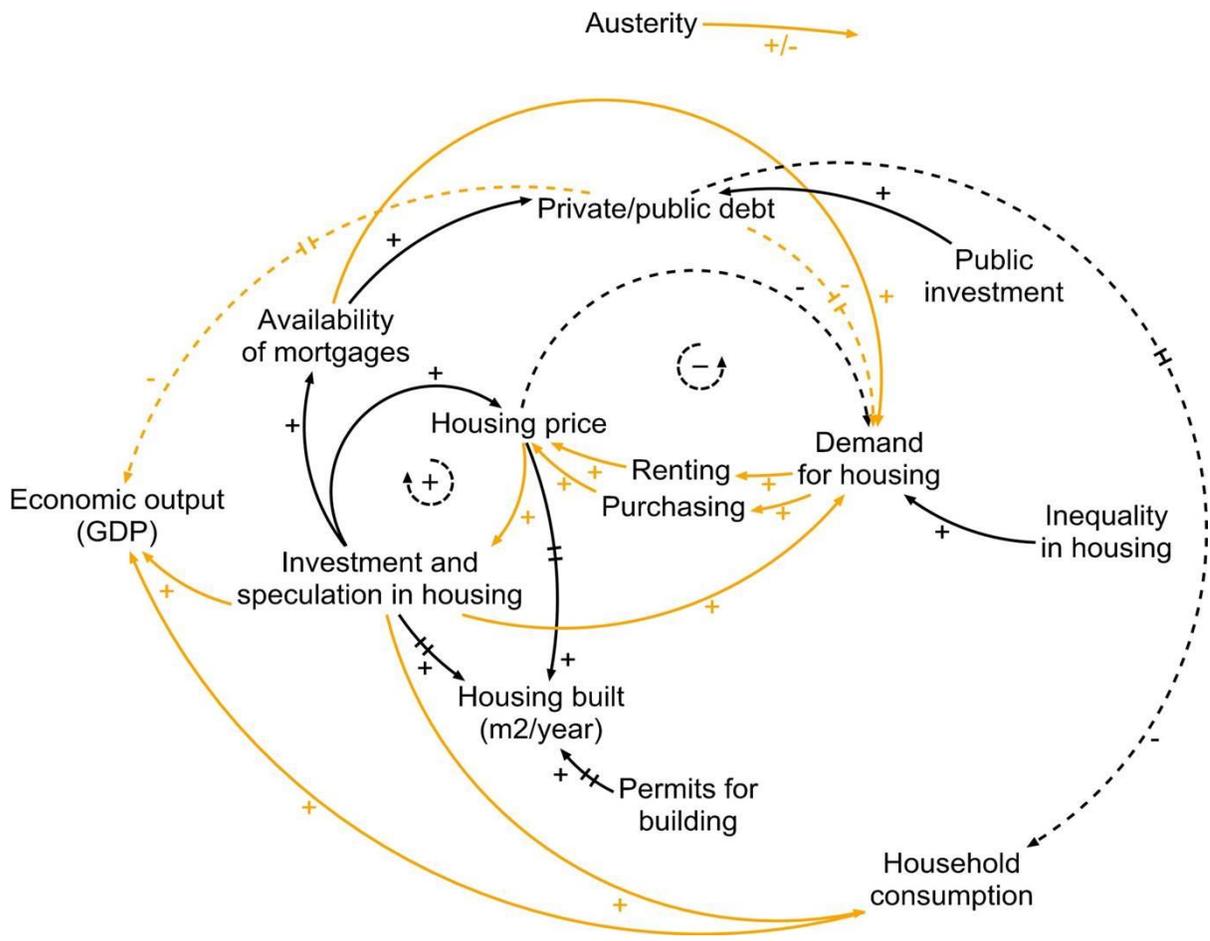


Figure 1 The austerity housing narrative

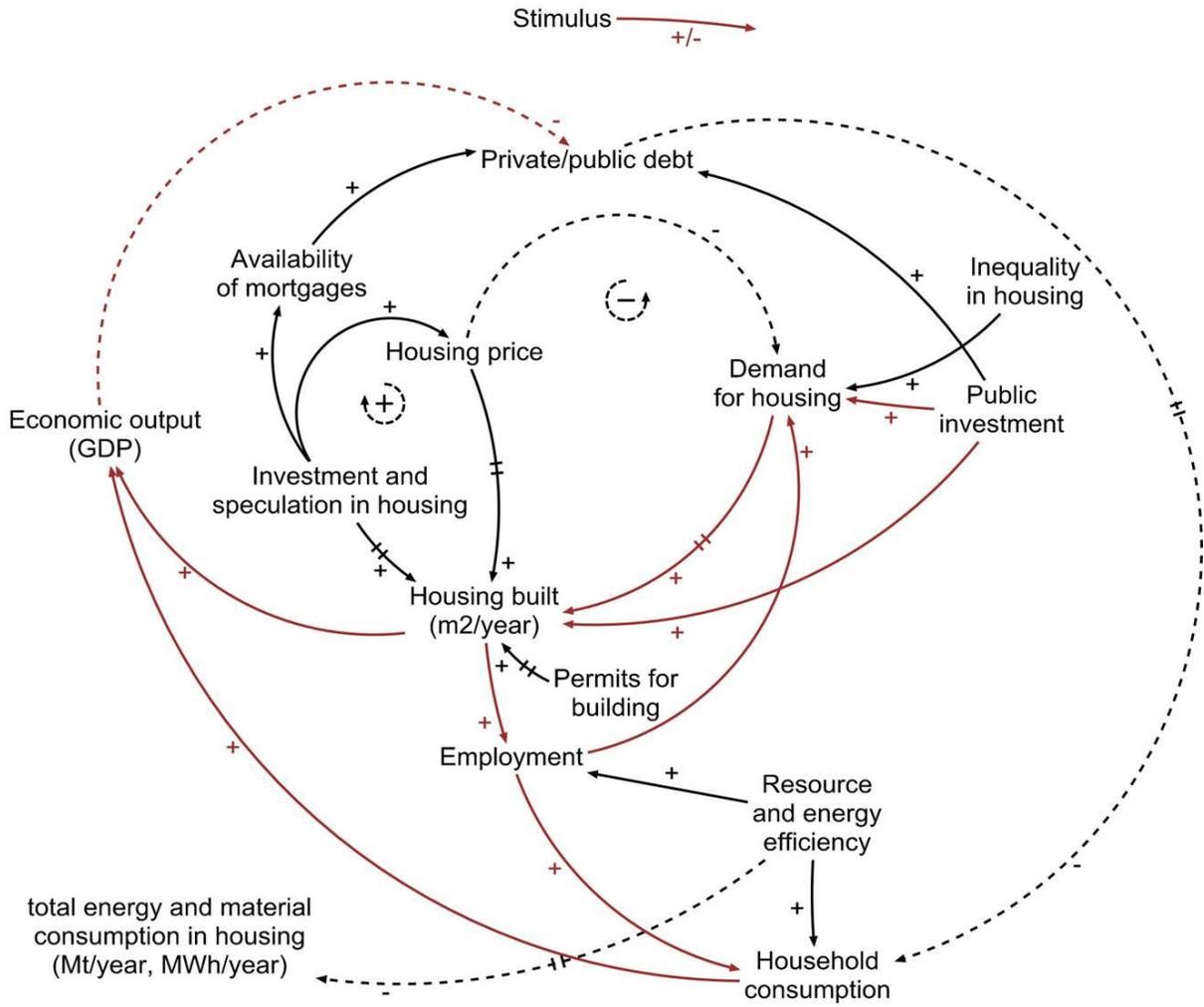


Figure 2: the Stimulus housing narrative

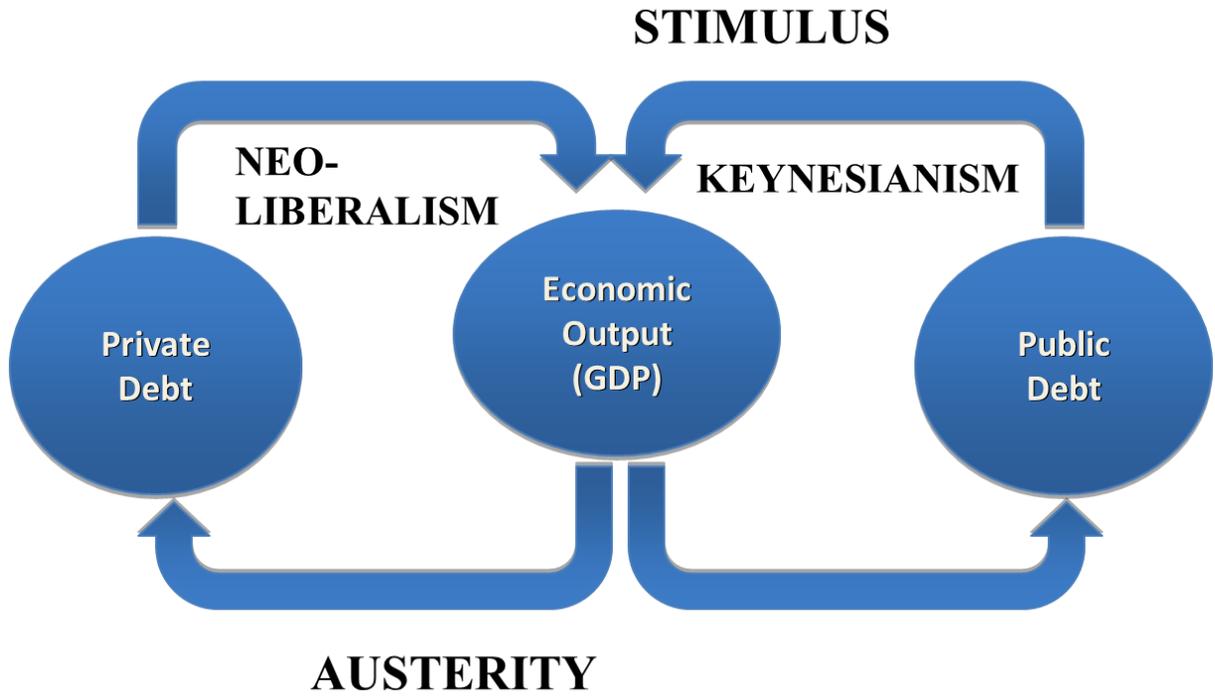


Figure 3: The debt-growth-debt loop

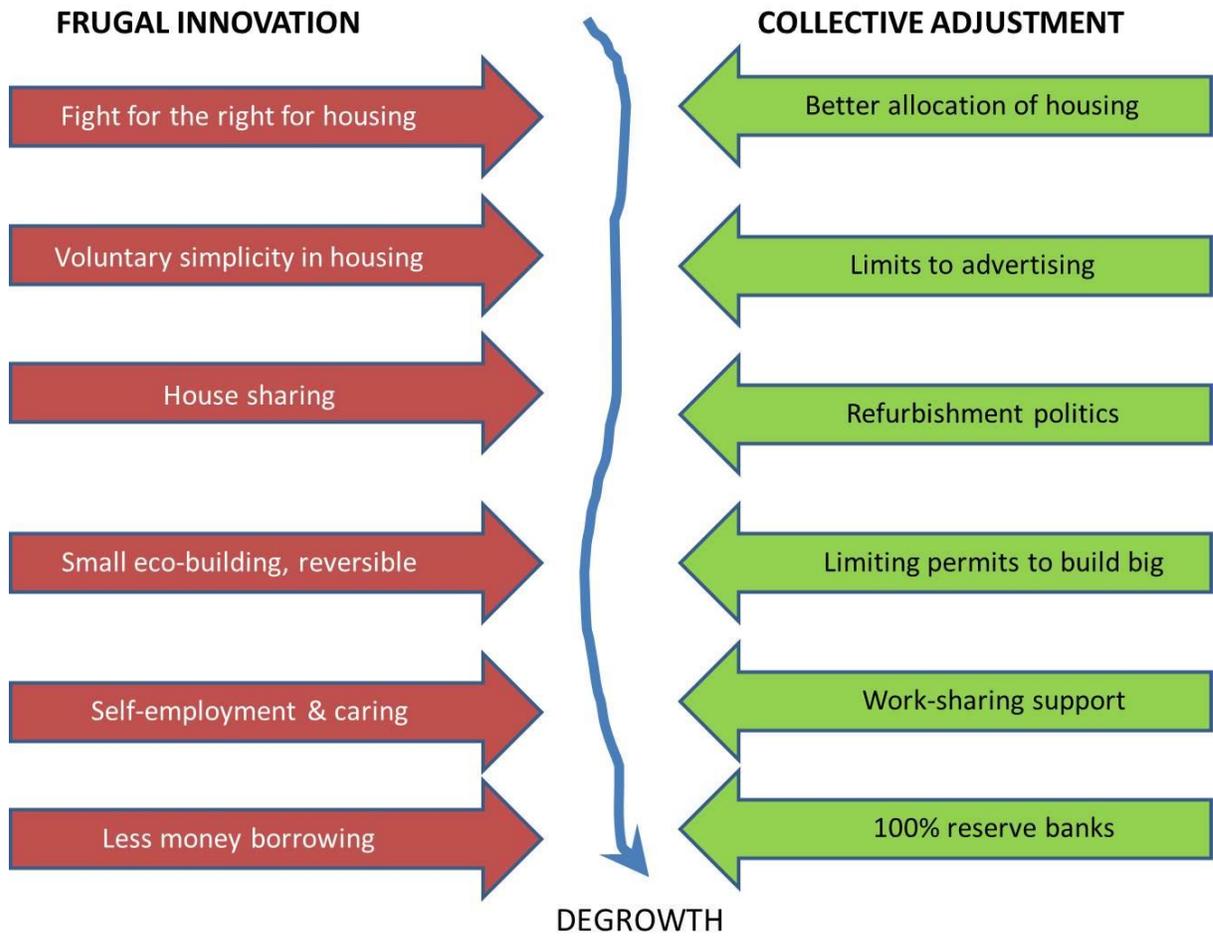


Figure 5: A degrowth pathway balancing the individual/local and the collective through different dimensions

