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**The Transformation of Post-Communist Societies
in Central and Eastern Europe and the Former
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Sustainability Perspective**

by

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The Transformation of Post-Communist Societies in Central and Eastern Europe and the Former Soviet Union: An Economic and Ecological Sustainability Perspective

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Abstract:

Since Communism collapsed at the end of the 1980s, the transition towards a market-based economy has been considerably influenced by the neoclassical economic approach to the reform process. This has often ignored the establishment of adequate institutional frameworks, resulting in high transition costs and the side-lining of environmental concerns. This paper takes a holistic approach to the transformation of post-Communist economies that emphasises, in addition to socio-economic and political dimensions, the importance of appropriate institutional developments in the area of environmental sustainability. Core development values and objectives need to be significantly re-evaluated, if long-term sustainability prospects are to be effectively pursued.

Keywords: Post-Communist societies, transition, environment, sustainability, neoclassical economics, post Keynesianism

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1. Introduction

Since the fall of Communism¹ in 1989-1990, completely new economic and political systems have emerged in Central and Eastern Europe (CEE) and the Former Soviet Union (FSU) (Bradshaw and Stenning, 2004). Previously centrally-planned systems have moved away from state-controlled economic activity, a high degree of autarchy, top-down decision-making and five-year economic development plans, towards liberalisation, macro-economic stabilisation, privatisation and internationalisation (Aslund, 1995). At the same time, a general shift away from single-party political systems has occurred. Democracy is taking hold and space is emerging for greater public participation in political decision-making. However, while 'transition' has been proceeding for nearly seventeen years, this transformation is still far from over.

Reform processes in CEE and FSU² have generally followed an orthodox neoclassical approach, in which the market is viewed as the solution to all dilemmas, including social and environmental problems. Despite diversity in the speed and direction of progress, broadly similar developmental processes have ensued throughout the region. This is not only because the centrally-planned system left similar economic, environmental, and socio-political challenges to be overcome, but also because the neoclassical economic paradigm that dominated policy discussions worldwide at the time has driven forward the same agenda during the transformation of post-Communist societies. Achieving a "well-functioning market economy" has been typically viewed as the ultimate goal of transition, after which, the countries would gain "developed" status and development challenges would be largely overcome.

Neoclassical models of transition have often focused on isolated variables of the economic sphere, with little consideration for the political/institutional developments characteristic of the region (Marangos, 2002). Combined with its inadequacy to tackle sustainability problems, mainly attributed to its simplistic assumptions and theoretical rigidities,³ this has led to the failure of the neoclassical approach to perceive the dynamics of the transition process (Colombatto, 2002). Furthermore, the Post Keynesian economic alternative, with its focus on uncertainty, non-equilibrium and the role and stability of institutions, has been forwarded in the literature as an alternative pathway to transition (Lah and Sušjan, 1999, Marangos, 2004, 2006). Post Keynesianism aims to understand how economic systems work by drawing economic analysis closer to economic realities, and is primarily concerned

¹ We use the term "Communism" when referring to the totalitarian or authoritarian regimes spanning Central, South and Eastern Europe, Caucasus, and Central Asia that were in power before the fall of the Berlin wall. The term may be perceived as more telling of the nature of the regimes than in power, though the term "socialism" was typically used at the time by its followers. "Communism" was perceived by the then Communists as the aim of their socialist authoritarian intervention, when the power of the state is supposed to dissolve and be transferred to the people.

² Central and Eastern Europe refers to Czech Republic, Slovakia, Hungary, Poland, Romania, Bulgaria, Albania, and the former Yugoslav Republics. Eight of these countries joined the European Union in May 2004 and a further two (Romania and Bulgaria) joined at the start of 2007. The Former Soviet Union (FSU) includes Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

³ Several studies have highlighted the limitations of the neoclassical theory of optimisation, perfectly-informed, rational-decision making, and market equilibrium, including their application and suitability for environmental and sustainability analysis, such as: Söderbaum (2000), Soros (1990), DeCanio (2003), Ackerman (2002), Barker (2004), Patterson et al (2006), Scriciecu (2007).

with effective demand and dynamics (Arestis, 1996). The development of appropriate institutional structures and the pro-active role of the state in influencing consumption patterns are of crucial importance. This contrasts with neo-classical economics, which is typically concerned with the allocation of scarce resources to satisfy unlimited needs within a supply-demand market equilibrium framework, and envisages the state as a mere passive provider of security and broad macroeconomic stabilisation policies. But the Post Keynesian perspective is itself limited in that it has largely neglected the environmental, and thus sustainability aspects of economic development (Mearman, 2005).

This paper advocates a more holistic approach to the transformation of post-Communist economies. It emphasises the need to consider not only the evolving changes in the socio-economic and political institutional structure as advocated under Post Keynesianism, but also the development of an adequate infrastructure in the area of environmental legislation and regulation. It argues that a Post Keynesian economic approach to market transformation that includes the treatment of ecological sustainability concerns may have the potential to offer post-Communist states greater opportunities for shifting their transition processes towards more sustainable and socially acceptable outcomes over the medium to long-term. Few academic analyses have been carried out on the environmental sustainability aspects of transition, despite common environmental problems of industrial pollution, land and water degradation, and the legacy of neglect in terms of nuclear safety and waste management across post-Communist societies. Although we acknowledge that social issues, such as poverty are also of crucial importance, these are not explicitly tackled.⁴

The next section discusses how the Communist regimes envisaged development, particularly with reference to environmental considerations. Section 3 explores the transition paths pursued by CEE and FSU societies and examines their implications for sustainable development, with an emphasis on ecological sustainability. A Post Keynesian approach to market transformation that is extended to include ecological sustainability is then advocated in section 4. Section 5 concludes.

2. The economy and the environment during the Communist period

The development and functioning of centrally-planned economic systems is relatively well documented. The state owned most means of production and was responsible for the detailed planning of economic activity, (deciding on resource allocation, income, consumption, investment and distribution throughout the economy), while factor and product prices were heavily regulated, and trade flows were strictly monitored and controlled (Demekas and Khan, 1991). However, the degree of centralisation and state control of economic activities varied across the former Communist countries. Some countries partially reformed their centrally-planned economic systems before the collapse of Communism, whereas others suppressed any attempts towards reform initiatives. Those countries where progressive, organised, alternative structures to

⁴ Investigating the social impacts of transition may in fact strengthen our case for the necessity of an alternative strategy to societal transformation in post-Communist economies, as it is generally acknowledged that poverty and inequality under transition have often deepened relative to the conditions at the onset of the reform process (Lanjouw et al 1998; Shorrocks and Kolenikov, 2001; Gustaffson and Nivorozhkina, 2004).

Communism emerged include Hungary, Poland and Czechoslovakia. In other countries however, such alternative structures resulted in either contrasting paths (such as post-Communist nationalism in the former Yugoslav Republics) or insignificant or inexistent emergent structures, as in the cases of Romania and Albania (Sowards, 1996).

Environmental quality during the totalitarian period was significantly downgraded, as the environment was compromised to make room for large-scale (polluting) energy intensive industries.⁵ Communist governments typically embraced the Marxist ideology on natural resources, which was altered to fit the Stalinist and post-Stalinist ideology, according to which the environment had no intrinsic value, but to serve human needs (Mazurski, 1991). Resource scarcity and environmental degradation were of no concern. On the contrary, Communism regarded industrialism as a driver of abundance and wellbeing. Moreover, the role of the Communist state was to suppress the formation of any environmental, social or non-governmental movements that would represent civil society concerns, as these activities were often interpreted as threats to the regime's power, agenda and objectives. Economic development often translated into the maximisation of production and the meeting of planned production targets at both national and sectoral levels. Virtually no consideration was given to efficiency and economic performance matters or environmental consequences, while technology was often outdated, energy-hungry and polluting. In a nutshell, natural resources were often viewed as a means to pursue industrial and economic growth under Communism. The resulting environmental impacts were seldom acknowledged and drastically downplayed, often through restriction and control over scientific freedom and communication (O'Brien, 2005).

The extent to which environmental problems were ignored during the Communist ruling varied between countries. In essence they were effectively downplayed in virtually all CEE and FSU countries. Exceptions include Hungary, which made important progress towards liberalising its political and economic spheres before the regime change, and dissemination of environmental information was to some extent allowed (O'Brien, 2005, Lomax, 1993). Similarly, in Poland, collectivization and agro-industrialisation was less severe. Small private farms adopting traditional farming practices with limited fertiliser and pesticide inputs succeeded to occupy large parts of the Polish landscape during the pre-reform period. These helped reduce the pressure on the environment and protect large areas of agricultural land from pollution and deterioration (Siciliano, 2001). Nevertheless, the country still faced huge pollution problems (as did the former Czechoslovakia). By the end of 1980s a third of Poland's population lived in areas under ecological threat (Mazurski, 1991).

In Romania (and Bulgaria), the Communist regimes were particularly oppressive. Governments pursued a high degree of autarchy and controlled society by suppressing any trace of private entrepreneurship, liberalism, individual freedom, and the free-flow of non-censored information or any type of dissident activities. Public protests were not only forbidden, but even a hint of dissent was met with repression

⁵ Fortunately, the ineffectiveness of central planning in pushing forward production and delivering the expected economic development meant that environmental quality in CEE and FSU countries during the Communist era did not decline as much as it could have done, had the centrally planned systems been more successful (Zellei, 2001, Gatzweiler and Hagedorn, 2003).

(Mazurski, 1991). Consequently, no reforms were attempted in Communist Romania (OECD, 1998), and the problems of inefficiencies and environmental degradation were particularly acute. For example, inefficient, energy-intensive industries were supported to such an extent in Romania in the 1980s, that harsh restrictions on household energy consumption were imposed (a few hours a day of electricity and heating, even during winter) so as not to disrupt energy supply to industry and the commercial sector (Demekas and Khan, 1991).

In areas under direct Soviet rule during Communism, even tighter control was exerted over society by the centralised administration, with arguably more wide-reaching negative environmental (and social) consequences. The *Virgin Lands* campaign in Kazakhstan in the 1950s saw extensive areas of semi-arid steppe change from pastoralist production to grain production in order to meet centrally-imposed targets (Spoor, 1999). This not only decreased the area for cattle breeders to graze their stock and restricted their migratory movements leading to overgrazing (e.g. Robinson et al., 2003), but also led to rapid soil deterioration and dust storms, as land was cultivated with little consideration paid to soil conservation techniques (Cherp and Mnatsakanian, 2003). In Ukraine the lack of respect for the environment and society is probably most effectively exemplified by the way the Chernobyl accident was handled. Government control over emergency aid contributed by the Western world focused not on resettlement or medical treatment for the people affected, but on keeping the remaining three site reactors operational (Mnatsakanian, 1992). Thousands of people were moved into the danger zone to build a new city for station personnel and to maintain order in the region (Mnatsakanian, 1992). People living in the areas at risk of radioactive precipitation received no information on the dangers they faced due to strict communication controls and information censorship.

Overall, environmental degradation during Communism was regarded as a necessary and logical approach to increased production. This overlooked the spatial and temporal variability of environmental outcomes, leading to some of the most polluted urban-industrial areas in the world (Pavlínek and Pickles, 2000). At the same time, these tight controls had severe social impacts. Public discussion and protest against industrial development and environmental problems were dealt with harshly, as they were seen as being 'against' the Communist state. Although countries in the West with a long history of involvement in the market economy have experienced environmental problems, the undermining of the natural resource base in CEE and the FSU may be, in general, attributed to a series of common factors underlining the workings of centrally-planned economies and the Communist ideology. These include: state-controlled heavy polluting, energy intensive, large-scale industries; land collectivisation and agro-industrialisation; the subsidisation of energy and food prices, distortion of pricing systems and the mis-allocation of resources; the employment of cheap and toxic chemical fertilisers, outdated production technologies, and the scarce use of pollution prevention, control and remediation technologies; suppression of civil rights; and the weak enforcement of environmental protection laws. The approach that transition states have taken to manage these economic and environmental legacies of Communism is explored in the next section.

3. Taking stock of transition paths: the political economy of economic reforms and their environmental implications

The dual goals of transition were essentially to move from a political and economic ideology grounded in Marxism-Leninism towards democracy and a market economy. However, following the release of the Bruntland Report (WCED, 1987) and the United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro in 1992, the broader international community began to place a greater emphasis on notions of 'sustainability' and 'sustainable development'. This new international focus added another challenge to the transition process, since economic and political reforms alone were insufficient to meet sustainability goals. By 1993, most transition states had recognised that for economic growth to proceed and for environmental and social conditions to improve, effective policies, institutions and investments would be necessary to harness the benefits of market reforms to raise their environmental performances (Hughes and Lovei, 1999).⁶

To date, achievements have been varied across the transition states. However, the overall quest for ecological sustainability and sustainable development continues to be in its infancy. Despite the acknowledgement of environmental concerns at the strategic, policy level in the region, the implementation of adequate legislation and measures, and the set-up of appropriate institutions to achieve environmental improvements are typically not priorities within policy makers' agendas. Focus remains on the economic elements of transition and market mechanisms to improve the environment.

A challenge of the transition process has not only been the implementation of a suitable reform programme in terms of the pace, extent and sequence of reforms, but also the choice of the ideology and strategies underpinning the reforms. Overall, it may be argued that the transition economies implemented the orthodox neoclassical economic approach to transition, in either its shock therapy ("big-bang") or its gradualist form.⁷ This is because the neoclassical ideology dominated policy discussions worldwide and people in transition economies were typically weary and wary of government intervention, which was often mis-interpreted as an element of authoritarian socialism (Marangos, 2004). Within this perspective, it is generally assumed that the best way to sustain natural resources and minimise environmental degradation and pollution while continuing economic growth is through competitive markets. However, this supposes that all different forms of capital can be measured. It also assumes that environmental stocks, quality and effects can be given a monetary value, on the basis of which, unique equilibrium solutions can be identified and optimisation decisions can be taken on how to best achieve sustainable capital over a certain period of time (Holt, 2005). Most importantly, economic growth is seen as a prerequisite for achieving social and ecological sustainability.

⁶ One concrete outcome of this acknowledgement took place at the 1993 Environment for Europe conference, when an Environmental Action Programme (EAP) for Central and Eastern Europe was approved by 50 countries. A key tenet in the EAP was for economic development during transition to also improve environmental conditions. This was to take place primarily through the elimination of the perverse economic incentives, in which many of the transition economies' environmental problems were rooted (Hughes and Lovei, 1999). This emphasis highlighted the close links between economic development and the potential for ecological sustainability.

⁷ "The shock therapy approach requires an immediate and rapid transition to the market, while the gradualist model favours an evolutionary process towards a market system" (Marangos, 2003: 55).

Following the orthodox approach to the transformation of formerly centrally administered societies, Hughes and Lovei (1999) identify four main economic measures underpinning the transition process that were supposed to address integrated economic-environmental concerns (Table 1). However, the extent and pace to which these mainstream market ideology driven reforms have been implemented and their actual impact on the environment and sustainable development varied across transition economies.

Table 1
Economic reforms during transition and their assumed environmental implications

Measure undertaken	Supposed related effects on the environment
Elimination of price controls and subsidies	Generally leads to an initial increase in production costs (especially fuel prices), promotes adjustment of production processes and energy and resource savings, and restructuring of industry towards less resource-intensive sectors.
Hard budget constraints	Coupled with changes in enterprise incentive structures this encourages improved efficiency, waste reduction, and the overall improvement of resource management.
Privatisation and the creating of favourable conditions for foreign investment	Expected to improve corporate governance, efficiency, profitability and access to financing allowing renewal of polluting, out-dated technologies.
Trade and market liberalisation	Increases exposure of enterprises to international market requirements, management and environmental practices. Enhances access to cleaner production technologies.

Source: Based on Hughes and Lovei (1999)

Nevertheless, the assumed beneficial environmental impacts that such reforms were supposed to induce have often failed to surface or have lagged behind. This is partly because, as argued below, economic reforms during transition were typically guided by neoclassical principles (particularly under its shock version), often imposed from outside by external creditors (e.g. IMF, World Bank and other international financial lenders) under the form of conditional lending, with little knowledge of the historical and current institutional structures underpinning CEE and FSU societies. A summary of the countries that variously took 'shock therapy' and more evolutionary 'gradualist' approaches can be found in Table 2.⁸

⁸ The shock therapy approach resulted in 'shocks' of different degrees across the transition states, whereas gradualist approaches also proceeded at various different (slow) speeds (Marangos, 2005). Furthermore, some countries were also dealing with regional tensions during the early transition period and this will have impacted the reform process. Classifications within Table 2 should therefore only be taken as very broad generalisations.

Table 2
Broad approaches to economic transition

Country	General Approach	Reference
Albania	Shock therapy	Muço et al (2004)
Armenia	Shock therapy (note: RT)	Simonian (2003)
Azerbaijan	Late reformer	De Melo et al (2001)
Belarus	Late reformer	EBRD (2006)
Bosnia & Herzegovina	Shock therapy (note: RT)	Chossudovsky (1996)
Bulgaria	Shock therapy	Tridico (2005)
Croatia	Shock therapy (note: RT)	Chossudovsky (1996)
Czech Republic	Shock therapy	Wolf (1999)
Estonia	Shock therapy	Wolf (1999)
FYR Macedonia	Shock therapy (note: RT)	Chossudovsky (1996)
Georgia	Shock therapy (note: RT)	Papava (2005)
Hungary	Gradualism	Marangos (2005a)
Kazakhstan	Shock therapy	Alam & Banerji (2000)
Kyrgyzstan	Shock therapy	Alam & Banerji (2000)
Latvia	Shock therapy	Dreifeld (1996)
Lithuania	Shock therapy	Kyvelidis (2000)
Montenegro	Shock therapy (note: RT)	Chossudovsky (1996)
Poland	Shock therapy	Wolf (1999)
Moldova	Gradualism	Wolf (1999)
Romania	Gradualism	Marangos (2005a)
Russia	Shock therapy	Tridico (2005)
Serbia	Shock therapy (note: RT)	Chossudovsky (1996)
Slovak Republic	Shock therapy (when part of Czechoslovakia) then Gradualism	Marangos (2004)
Slovenia	Gradualism	Marangos (2005)
Tajikistan	Late Reformer but shock therapy (note:RT)	EBRD (2006)
Turkmenistan	Late Reformer	De Melo et al (2001)
Ukraine	Late Reformer	Lavigne (1999)
Uzbekistan	Gradualism	Marangos (2004)

(RT= regional tensions)

Only a few transition economies opted for a more gradual approach to market liberalisation and privatisation (Table 2). These include: Hungary, Moldova, Romania, Slovakia, Uzbekistan, and Slovenia (Marangos, 2004, Wolf, 1999).⁹ Even so, the transition process towards a market economy within the neoclassical gradualist framework was mainly guided at the time by “new” institutionalism prescriptions that emphasised the role of transaction costs, property rights and contractual behaviour (Ibrahim and Galt, 2002). Consequently, insufficient emphasis was placed on context-specific institutional development during transition. Furthermore, in EU candidate countries, the institutional problem was often tackled through a “one-size-fits-all” institutional package approach driven by the EU requirements to adopt its

⁹ Other states (e.g. Bosnia and Herzegovina, Belarus, Azerbaijan, Ukraine, and Tajikistan) have lagged behind in terms of reforms. In some cases, this was due to fierce regional conflict in the early years following the collapse of Communism. In others, it was due to the closeness of ties to Moscow.

comprehensive regulatory package (the *acquis communautaire*). Consequently, this has insufficiently considered the specific needs of applicants as different as Slovenia, Romania and Hungary (Mungiu-Pippidi, 2000). Though efforts channelled towards minimising transaction costs may be necessary for an economically successful transition process, they are not sufficient as they ignore the legacy of the past and the cultural, historical and political background specific to each society (Ibrahim and Galt, 2002). Furthermore, the common standards and procedures outlined for EU accession states in the environmental sphere were often abused by neo-liberals to dilute more comprehensive pre-existing environmental legislation - even though it may have been poorly enforced (Pavlínek and Pickles, 2004).

The gradualist procedure required active state intervention to enable elements from the old organisation to be slowly replaced by the new as the process gathered momentum (Marangos, 2004). However, countries that experienced some institutional and market reforms prior to the 1990s (e.g. Hungary or Slovakia) initiated the transition process from a more favourable position, which partly explains their relatively better performance. In spite of other countries having also adopted a gradualist approach, their transition process entailed higher economic, social and environmental costs. For instance, in Romania's transition, the effective management of environmental concerns has been particularly deficient. This is largely attributed to the country's under-developed formal and informal institutional capacity to deal with environmental protection (Petersen and Feehan 2003, Toma, 2004). Though Romania experienced, particularly in the early years of transition, involuntarily decreased environmental pollution due to the interruption and decline in industrial economic activity,¹⁰ policies in the country not only inadequately addressed the deeply unfavourable environmental legacy of the totalitarian regime, but also (gradually) implemented market liberalisation reforms in the context of inadequate environmental legislation and regulation. This was also the case for many of the Balkan countries, where the institutional set-backs experienced during early transition were exacerbated due to inter-ethnic conflict.

In the FSU states, Kazakhstan embraced the reform and liberalisation agenda, and is generally considered to have made good progress in the areas of trade liberalisation, privatisation, price liberalisation and interest rate liberalisation. This has largely been driven by the country's abundance of oil and other mineral resources, which played a vital role in attracting foreign investors (Zardykhan, 2002). However, an important side effect has been that, while elites have benefited from these transformations, it has led to increasing social inequalities and a growing gap between rich and poor (Junisbai and Junisbai, 2005), with the poorest parts of society becoming increasingly reliant on the natural resource base in order to survive. Kazakhstan's environmental performance actually worsened after independence- not only had the legacy of problems from the Soviet era not been addressed, but the aggressive quest for development began within a void of environmental legislation and

¹⁰ Indeed, the decline in industrial production and trend towards services meant that lower emissions and pollutant levels were a by-product of the economic and structural transformations across CEE. Yet, while the 'old' problems were partially addressed by default, 'new' environmental problems emerged, particularly relating to consumer waste and increased car traffic, emphasising the need for holistic legislation and enforcement to address both the Communist legacies and the emerging issues (Pavlínek and Pickles, 2004).

regulation (Jones and Weinthal, 1999). Today, however, Kazakhstan is slowly beginning to take a more inclusive approach towards development, at least in regulatory terms. The country is taking a long-term approach in its Strategic Plan up to 2030 'The Environment and Natural Resources', while leaving more immediate environmental problems to be considered in various sectoral programmes (e.g. National Action Programme for Combating Desertification, National Environmental Action Plan for Sustainable Development) (UNDP, 2003). Nevertheless, progress has been limited due to weak institutional structures at the sub-state level and a lack of finances for policy implementation and monitoring (UNDP, 2003) despite large inflows of foreign direct investment.

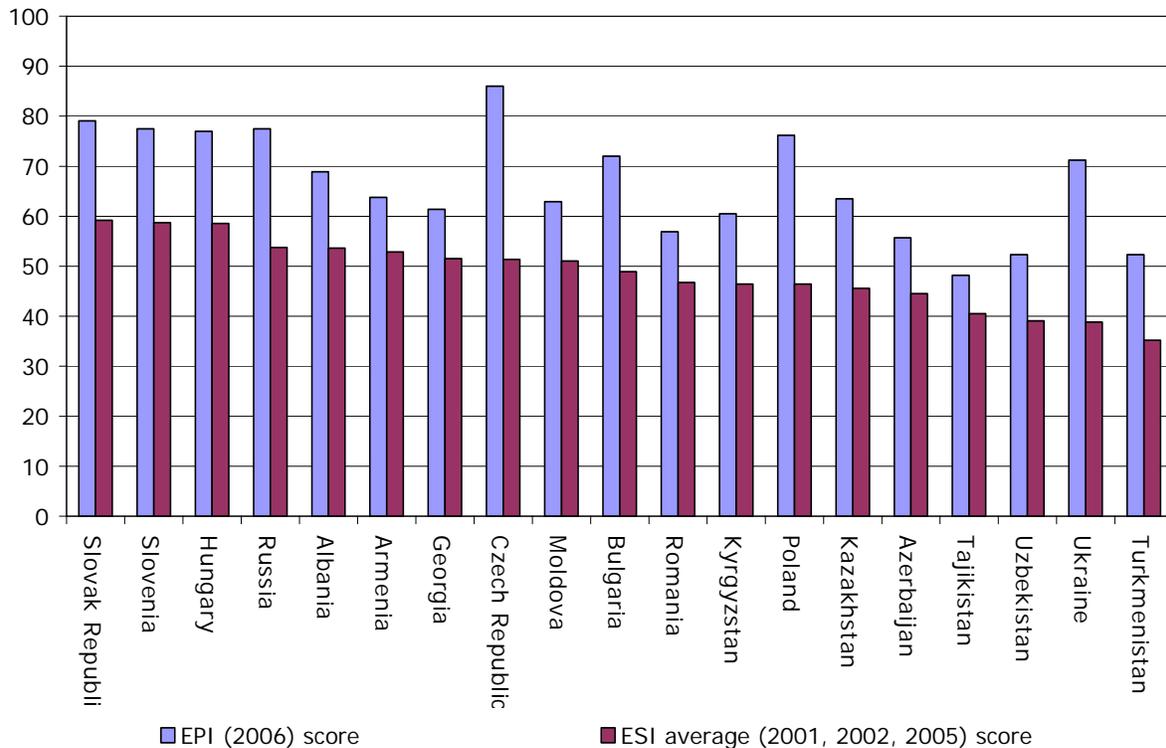
Some FSU countries adopted a gradualist reform process. Uzbekistan represents one state taking such an approach, placing a large emphasis on physical investments (Alam and Banerji, 2000). However, its heavy dependence on energy and grain imports and poor industrialisation of the economy led its government to adopt autarchic policies in support of energy and grain self-sufficiency and import-substitution led industrialisation (Alam and Banerji, 2000). This did little to break the deeply-entrenched public psychology of dependency on the state (Karimov, 1993). Additionally, it allowed the state to assume a principal role as not only the developer and implementer of reforms, but also as a 'collective entrepreneur, production regulator and investor in priority sectors' (Alam and Banerji, 2000). In doing so, it largely perpetuated the status quo. One impact of this was that the economy's cotton dependency was allowed to continue in order to help maintain foreign exchange earnings and employment levels. Environmentally, this has compounded the problems remnant from the Soviet era. The Aral Sea has continued to dry; soils and rivers have further salinised and air pollution and respiratory health problems have increased due to the toxic dust blown from the dry Aral Sea bed (Wiggs et al, 2003). So, while Uzbekistan did not suffer to the same extent the economic and fiscal problems of some of the other FSU countries, it has made less political, social and environmental progress during its transition. Despite adopting a neoclassical gradual approach to reform and liberalisation, it may be argued that, in this case, it has merely helped the political elite maintain economic control and extract the corresponding resource rents. This may be partly attributed to the failure of the neoclassical view to perceive the political and institutional processes underlying the Uzbekistan society.

Overall, it may be argued that all post-Communist societies face significant long-term environmental sustainability challenges, even though some transition countries (particularly the more advanced new EU members) appear to be managing their current environmental problems relatively well. This is further supported by the analysis presented in Figure 1 below, where two country-level environmental sustainability-related indices taken from WEF (2001, 2002) and Esty et al (2005, 2006) are compared for each transition country for which data was available. The indices used are; the Environmental Sustainability Index (averaged over the three years for which it has been calculated) and the (Pilot) Environmental Performance Index (computed only for 2006). The ESI is constructed around the concept of sustainability and is intended to provide a gauge of a country's long-term environment trajectory, tracking past, present and future trends and the nation's ability to protect the

environment over the coming decades.¹¹ The EPI in contrast, focuses only on current on-the-ground outcomes across a range of major environmental issues (Esty et al, 2006).¹²

Figure 1

The Environmental Sustainability Index (ESI) gauging long-term environmental sustainability versus the Environmental Performance Index (EPI) gauging current environmental outcomes (maximum score 100)



Source: Based on WEF (2001, 2002) and Esty et al (2005, 2006).

Note: The average ESI was obtained by taking a simple average over the years for which the ESI has been reported. Though we are aware of some changes in the methodology underlying the ESI for each of the reported years, averaging has been performed on the grounds that the purpose and approach of the exercise has more or less remained the same.

¹¹ “The ESI includes metrics related to underlying natural resource endowments, past pollution control, and the existing degree of ecosystem degradation as well as current environmental policy results and forecasts of a society’s ability to change negative trends” (Esty et al, 2006: 275). It is based on a set of environmental sustainability indicators that fall into five broad areas: environmental systems; reducing environmental stresses; reducing human vulnerability to environmental stresses; societal and institutional capacity to respond to environmental challenges; global stewardship (Esty et al, 2005).

¹² “The EPI addresses the need for a gauge of policy performance in reducing [current] environmental stresses on human health and promoting ecosystem vitality and sound natural resource management” (Esty et al, 2006: 275). It is based on a proximity-to-target methodology and includes a core set of environmental outcomes spanning six broad policy-categories: environmental health; air quality; water resources; productive natural resources; biodiversity/habitat; sustainable energy (Esty et al, 2006).

Even though there are several limitations associated with these indices,¹³ the chart would support the view that transition countries are generally deficient in the establishment and enactment of a long-term vision that is capable of gearing their economies towards more sustainable development pathways. Although some post-Communist countries (particularly the Czech Republic) may perform relatively well in committing significant resources and reducing current environmental stresses, their policies are grounded in *past* tendencies, aimed more at the *present* circumstances, with less focus on avoiding *future* environmental damage or addressing long-term sustainable outcomes.

To reiterate, economic transition in Central and Eastern Europe and the Former Soviet Union, typically under the guidance of the neoclassical approach to reform, whether in its gradual or shock therapy version, has often pressed ahead at the expense of environmental protection and social considerations. This is further illustrated and evidenced below with references to the case of water management and provision. Three country case studies are highlighted in the following section: Russia, Romania and the Czech Republic.

The case of water provision and management

Russia's shock therapy approach caused significant regional variation in the types of environmental impacts that occurred during transition and overall, environmental quality is experiencing both new and old pressures. Achieving adequate water supply provision is one of the most pressing social-environmental problems, particularly in large cities such as Moscow (Oldfield, 1999). Moscow inherited an old and decaying water infrastructure from the Soviet era (Trumbull, 2005). This included a deteriorating cleaning infrastructure as well as inadequate provision. Losses from the system were substantial. Coupled with these inherited problems, during the first few years of transition (1992-1995), domestic water demand rose by five percent. This was mainly due to an increase in newly-built housing areas (Oldfield, 1999). This added further pressures to the situation, not only in terms of increased domestic demand, but also because much of the (privatised) land on which the building took place was within (or bordering) water protection zones. Waste and sewage systems in these new developments were generally poorly built or largely lacking, causing polluted effluent to be commonly discharged close to freshwater supplies, causing their contamination (see Bridges and Bridges, 1992). Although industrial water consumption fell at the start of transition, benefits were far outweighed by the increased municipal water use and the associated rise in pollutant levels, while water conservation levels remain low (Potravnyi and Weißenburger, 1997).

¹³ For example, Jha and Murthy (2003) argue that the design of ESI has conceptual problems in its visualization of environmental degradation and sustainability, with several shortcomings in the choice of variables and statistical methodology employed. Wackernagel (2001) also highlights several limitations associated with the design of ESI: a blurry and arbitrary definition of environmental sustainability with no theory to underline the index, unrealistic and somewhat arbitrary weights assigned to indicators, under-representation and failure to adequately capture across the border externalities, mixing outcomes, processes and human responses, and the use of questionable proxy measures. Furthermore, as Dryzek et al (2002) point out, it is difficult to understand and argue why Brazil and Russia may be regarded more sustainable (have a higher ESI) than Italy and Belgium.

The lack of improvement in water quality and provision in Russia may be attributed to four main causes. First, the 'shock' speed of transition resulted in little or no establishment of institutions to deal with coordinated environmental protection while few data on water quality and change were accessible to illustrate the extent of the problem (Trumbull, 2005). Second, social hardships meant that environmental issues and concerns were not at the top of the list of people's social priorities and needs. Additionally, mass migration from rural to urban areas further increased demand for housing in previously protected watersheds. Third, inadequate investment in infrastructure following privatisation combined with poor environmental enforcement meant that new developments were allowed to exacerbate the situation. And fourth, focus centred on economic change, meaning that many of the old elites continued to maintain power, perpetuating the environmental attitudes and vested interests of the Soviet era, leading to institutional inertia. This would explain the fact that water consumption in residential areas is un-metered and losses remain high. Taken together, these elements show that shock therapy initially changed little beyond the economic sphere, and this had important environmental and social implications in terms of water quality and provision.

Romania's gradualist approach fared a little better than Russia in terms of its ability to manage water resources. Poor quality drinking water (Lack, 1999) and low connectivity rates to sewage treatment plants due to under-investment in water are, amongst other environmental problems, key criticisms levied at the Romanian government by the European Commission in its 1999 and 2000 reports (EBRD, 2001). Since transition started, industrial restructuring led to a reduction in water effluent discharges. However, a lack of investment in improving and rehabilitating existing water and waste facilities has limited the achievement of environmental and water protection goals (Klarer et al, 1999). Similar to the Russian situation, there is little metering of water consumption and virtually no demand management through efficient pricing mechanisms. Combined with poor monitoring, an insufficient legal framework and regulatory capacity for effective enforcement, and low information dissemination capacities of local authorities, there is also little social consciousness or political will to conserve water.

In the Czech Republic (which took a shock-therapy approach), water pollution has declined considerably. However, this cannot be attributed to transition alone, as the trend began in the mid 1980s while Communism was still prevalent, with the push to build more effluent treatment plants in order to treat more waste water (Pavlínek and Pickles, 2004). Nevertheless, the positive environmental trajectory continued post-1989 with a substantial decline in overall water withdrawals (MoE, 1999). Industrial water extraction declined by 36%, agricultural water use dropped by a huge 83%, while withdrawals for the energy and municipal drinking water sectors fell respectively by 19% and 28% (MoE, 1999; Pavlinek and Pickles, 2004). The main reason for the decline in household water consumption was the removal of government subsidies, which caused drinking water prices to rapidly increase. Yet, because the Czech Republic had partly established an institutional framework to address water pollution and waste management prior to transition, it makes it difficult to assess the effectiveness of new institutions and legislation – particularly when neo-liberals were 'suspicious of state regulation as its origins lay in the former regime' (Pavlínek and Pickles, 2004: 259). Improvements in water quality and use efficiency

could therefore be marginal over the long-term, unless the institutional framework undergoes major revisions.

These three case studies illustrate that the neo-classical economic approach's failure to establish adequate institutions and regulatory provisions had negative environmental (and social) repercussions throughout the post-Communist states. Primarily, such failings can be attributed to an over-emphasis on the economic elements of transition and on market liberalisation reforms. Much of the state regulation originating from the 'old' system allowed short-term improvements, while economic transition resulted in environmental improvement by default. Whether current institutions and regulations are capable of continuing on this trajectory remains to be seen, particularly when external driving forces (such as European Union integration, Environmental Action Programmes, the Aarhus Convention and multi-lateral cooperation) are considered. Nevertheless, the high potential for growth in the region and the increasing reliance on market forces will continue to challenge the sustainability dimension of transition states' developmental processes. What is needed is a fundamental shift in development approach that takes a different view of economic growth; an approach that is holistic and considers socio-political, environmental, and institutional aspects of sustainability. The next section explores the potential within the Post Keynesian economic alternative to better cope with increasingly pressing sustainable development challenges.

4. Re-assessing “transition”: a Post Keynesian economic and ecological sustainability view

The neoclassical approach to transition, under its both shock therapy and gradualist forms, largely downplayed the inter-linkages between the economic, environmental and social pillars of the reform process, and the associated institutional challenges.¹⁴ This paper argues that the extension and adaptation of the Post Keynesian economic alternative to transition to be more consistent with ecological sustainability and conceptualisations of the sustainable development paradigm may provide more solid grounds for enhancing human wellbeing.¹⁵ Post Keynesianism is not exclusively based on positivism and determinism as neoclassical economics is, but also draws on normative judgements and a broader approach to development. This includes (in addition to efficiency considerations) concepts like uncertainty, hysteresis, circular causation, historical (as opposed to logical) time, critical realism, bounded rationality,

¹⁴ Furthermore, some political studies that classify modern states according to their orientation towards civil society place dictatorships (including communist regimes) and the states under market liberal (i.e. neoclassical) ideology under the same heading, that of the “actively exclusive” state, though the former are the mostly “actively exclusive” states (Dryzek et al, 2002). “An *actively exclusive* state attempts to prevent the formation and impede the operation of social movements that oppose the agenda” (Dryzek et al, 2002, p.660)

¹⁵ In addition to its potential to deal more effectively (in our view) with sustainable development challenges, we chose the Post Keynesian economic alternative to development both because it has provided an explicit and consistent critique of mainstream neoclassical economics, and because it displays a relatively well-established tradition of analysis (Arestis, 1996) and has managed to build up a coherent account of its own ontology, epistemology and methodology (Dow, 2002). However, there may be several similarities and strong synergies that we do acknowledge between Post Keynesianism and other strands of heterodox schools of economic thought, such as institutional political economy (heterodox institutional economics), evolutionary and behavioural economics, post-autistic economics, and Post Marxism.

path dependency, non-equilibrium, and non-market clearing. Acknowledging and accounting for the complexity of dynamic systems, these concepts appear better rooted in reality than those pertaining to the neoclassical approach.

A Post Keynesian economic alternative to the transition process, explicitly considering the socio-cultural and political characteristics specific to each post-Communist society, has been already proposed, though sparsely, in the literature. Marangos (2003, 2004, 2005, and 2006) emphasised the importance of taking into account the inter-related nature of economic institutions and behaviour, the interdependence between market relations and social relations, as well as the political aspects of transformation when shaping transition paths. That economic realities and developments in the post-Communist societies of Central and Eastern Europe tend to actually support the Post Keynesian approach and view of the behaviour of transitional consumers, is also argued by Lah and Sušjan (1999). Roland (2002) has also highlighted the importance of considering the deep institutional transformations spanning post-Communist societies when analysing the transition process, as well as the public's attitudes, values and priorities.

However, the Post Keynesian economic alternative to transition, as advanced in the literature to date, has been mostly concerned with the interrelated nature of economic institutions and behaviour, and the political aspects of transformation. Whilst we fully endorse this approach, we further argue for a more holistic approach to the transformation of post-Communist economies to take account not only of necessary changes in the economic, social and political institutional structures, but also of a desired development in the formal and informal institutional setup in the area of environmental legislation and regulation. Achieving institutional changes that would promote the integration of environmental concerns into market-based systems is essential for attaining effective natural resource management (Gatzweiler and Hagedorn, 2003). In other words, the Post Keynesian approach may represent a pathway that is more able to both tackle real economic and development problems, and to encompass conceptualisations of sustainable development looking beyond the economic (Holt, 2005). Nevertheless, Post Keynesianism needs to more explicitly and directly consider the environmental dimension in its aim to contribute towards the development of civilised societies. The multiple equilibria conditions within Post Keynesianism are enacted not just by the market but also by social and political institutions, which are also responsible for advancing public policies dealing with environmental standards in the economic decision-making process (Holt, 2005).

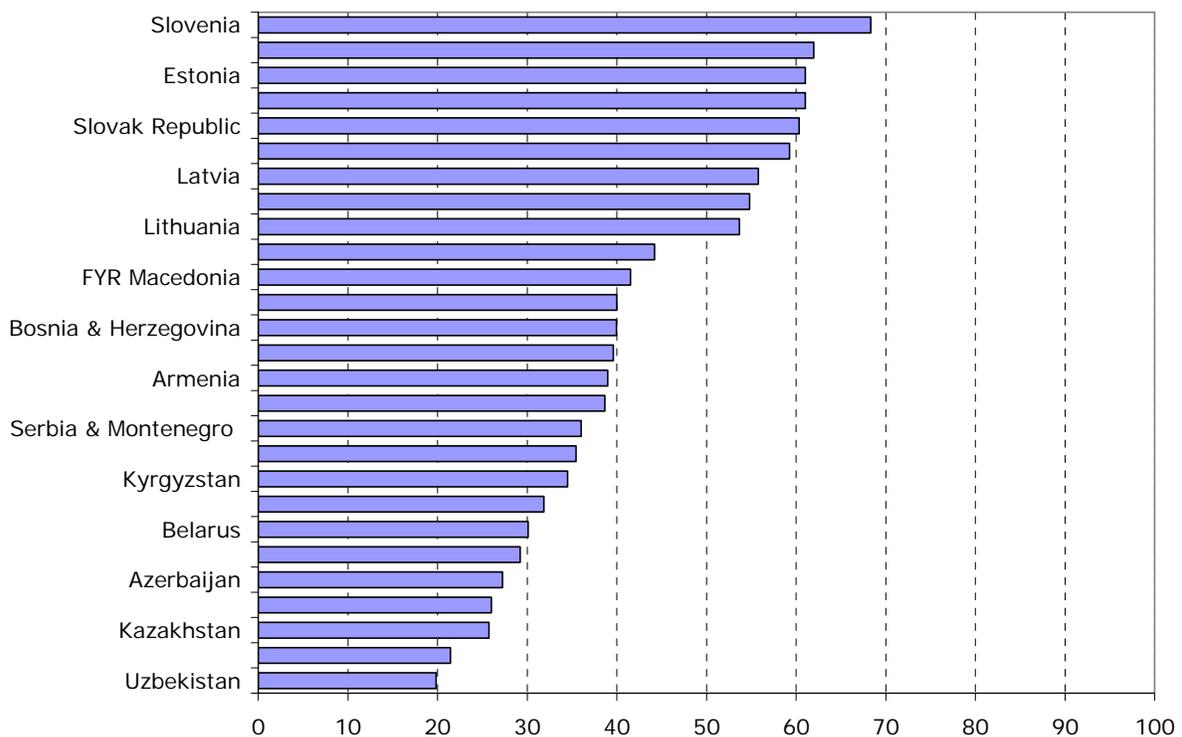
Returning to Figure 1 in section 3, a further interesting observation relates to the top three countries: Slovakia, Slovenia and Hungary. These display the highest Environmental Sustainability Index from the entire set of CEE and FSU transition economies. Their relative greater ability to address environmental concerns over the next decades may be partly attributed to the progressive measures and institutional reforms implemented prior to the transition period (particularly Slovakia and Hungary, see Sowards, 1996, and O'Brien, 2005) - similar to the shock therapy case study of water pollution and extraction in the Czech Republic. Moreover, Slovakia, Slovenia and Hungary adopted a gradualist approach to transition (see Table 2). This may have enabled them to take advantage of the opportunity to establish the institutional prerequisites for civilised societies as perceived by Post Keynesians to provide employment, economic growth, reduced insecurity and high living standards (Marangos, 2004). So, even though transition paths have been substantially

influenced and shaped by the uniformity and universality of the neoclassical economic doctrine, they did draw to some extent on local, context-specific economic realities.

Hence, it may be the case that transition paths (particularly the gradualist approach) contained elements of Post Keynesianism that arguably contributed to better outcomes and lower transition costs (Marangos, 2004). This is also revealed when looking at the country rankings according to the social and institutional capacity component of the ESI (see Figure 2).

Figure 2

The Social and Institutional Capacity component of ESI (averaged over 2001, 2002 and 2005; maximum score 100)



Source: Based on data from WEF (2001, 2002) and Esty et al (2005)

Slovenia, Hungary and Slovakia are in the top five countries according to the degree to which they have in place institutions and underlying social patterns to effectively respond to environmental challenges. However, it may be asserted that those transition economies that experienced no progressive reforms during the Communist rule were less likely to contain elements of Post Keynesianism within the overarching Washington consensus based approach to the reform process. Consequently, they were unlikely to significantly benefit from the establishment of institutional prerequisites. For instance, a major persistent concern on the eve of Romania's accession to the EU was the mis-representation and inadequacy of the country's institutional capacity to absorb EU funds and effectively employ them in the deprived areas that most urgently need them.¹⁶ Fostering adequate context-specific

¹⁶ For example, Sporea (1999) and Heidhues, Davis and Schrieder (1998) emphasised the failure of the Romanian institutional framework to use pre-accession funds for a successful rural development.

institutional capacity is therefore paramount for creating viable long-term sustainability strategies. This may result in better overall development outcomes instead of relying on market forces or an external “one-size-fits-all” institutional package that may be able, at best, to tackle only *current* environmental concerns.

It may be argued that both the history of command and control, and the neoclassical driven transition paths have contributed little to addressing the challenges of sustainable development in the region. Post-Communist states further need to undergo important structural transformations through the effective incorporation of sustainability goals in their mix of strategic interests. This is particularly relevant within the context of globalisation and a greater inter-connected world, where ecological modernisation and environmental conservation are increasingly emerging as potentially core state interests for the future. Dryzek et al (2002) argue that some modern states, particularly Germany, are increasingly ready for a third major transformation, namely “the development of a green state [with a conservation imperative] made possible by the incorporation of environmentalism” (p. 659).¹⁷ This may be possible due to both the emerging attachment of environmental values to the German state’s economic imperative and the recent presence of an active oppositional German public sphere in the environmental domain, whose concerns can be connected to the legitimation imperative of the state (Dryzek et al, 2002). A Post Keynesian approach that includes ecological sustainability may offer post-Communist societies increased possibilities to both improve their sustainability perspectives and eventually anticipate such external shifts in development paradigms.

The plausibility of such developments may rest on two further observations placing the specific context of transition countries within a global context. First, there is an increasing acceptance that economic growth and environmental protection are not necessarily mutually exclusive, and indeed, that they can be mutually supportive.¹⁸ Second, transition economies continue to considerably depart from being high-consumption societies with high ecological footprints, based on strong and established systems of capitalist production, partly due to the specific historical conditions from which they have emerged.¹⁹ With the sudden collapse of Communism, transition countries have succeeded in breaking the path dependency of large-scale polluting and highly inefficient production systems advances under the command and control

¹⁷ The other two major transformations that modern states historically underwent refer to the creation of the liberal capitalist state (where the bourgeoisie could harmonise with the state’s emerging interest in economic growth) and the emergence of the welfare state (where the organised working class could harmonise with the state’s emerging interest in legitimising social concerns and restraining capitalism’s instability and inequality) (Dryzek et al, 2002).

¹⁸ For instance, the concept of ecological modernisation in its weak form advocates the view that environmental conservation is possible without any disruption to economic growth and the system of capitalist production (Christoff, 1996). Stern (2007) also argues that environmental protection in terms of climate change mitigation does not conflict with economic growth, but on the contrary early action on climate change may create a range of opportunities for both growth and sustainable development, particularly in the long run.

¹⁹ Even the most advanced transition economies are not big consumers compared to Western EU countries and the US. For example, ecological footprints of the most advanced transition economies are 5.0 gha/person for the Czech Republic, 3.8 gha/person for Slovenia and 3.6 gha/person for Slovakia, which are considerably lower than those of Western countries, such as the USA, 9.5 gha/person, Sweden, 7.0gha/person, France, 5.8 gha/person, and UK, 5.4 gha/person (WWF, 2005). However, it is mostly the composition of production/consumption rather than the overall level of consumption/growth that matters.

regime (though some continue to struggle with this legacy). Nonetheless, post-Communist societies currently run the risk of falling into another unsustainable path dependency, largely driven this time by the neoclassical economic approach to transition. The latter entails a narrow focus on market reforms, efficiency and economic growth priorities, and may lock economies into large-scale, modernised yet fossil fuel-intensive, unsustainable production systems (as is the case with most developed countries), even though these are more economically and technologically advanced than those that dominated the Communist landscape. The CEE and FSU transition countries hence continue to witness substantial and rapid processes of change, and the sustainability of their future development paths is yet to be defined. These context-specific characteristics may mask an important potential for transition countries to significantly contribute to shifts in development paradigms, even though their experience in fostering the democratic process is still limited.

Reforms in post-Communist societies have largely focused on solving the economic problem, in terms of achieving increased efficiency and making the best use of scarce resources, whereas environmental and social concerns have been typically downplayed. The economic and ecological sustainability perspective advanced in this paper questions the existing political-economic structures and strategies of post-Communist states, where environmental and social concerns are typically secondary to economic reforms and objectives. This is not to say that economic objectives are not to be pursued (indeed, they are very important in achieving better living standards within post-Communist societies), but supports the argument that it is not economic growth *per se* that matters. Instead, it is the composition of economic growth, the means of achieving it, and the inclusion of environmental values and social concerns as core objectives in addition to the economic imperative that are vital.

For example, there are clear potential overlaps between Post Keynesian economics, ecological economics and ecology. As Holt (2005) argues, economic efficiency is perceived by Post Keynesians and ecologists alike as mere means to achieving societal and developmental goals. It is not understood as an end in itself, represented by a market-driven unique equilibrium point that neoclassical economists equate with the point where sustainability with scarce resources may be achieved under pre-determined substitutability assumptions.²⁰ Furthermore, adopting a pollution prevention approach instead of a post-damage remediation attitude may help governments to anticipate and meet expected shifts in civil society's demands for environmental quality, and most importantly, avoid irreversible and substantial negative impacts. Nevertheless, this would imply a continuous and iterative consultation process involving the political groups in power and civil societies, in order for transition countries to embark on more sustainable development pathways. Hence, this underlines the importance of capitalising on the synergies with disciplines such as political science, anthropology, psychology, and Post Keynesian economic analysis to address sustainability concerns within the post-Communist states.

²⁰ Holt (2005) sees compatibility between Post Keynesian economics and ecological economics particularly with reference to the complexity theory, according to which complex and dynamic systems do not exhibit a unique equilibrium, but multiple equilibrium points, and agents do not act fully rational but based on a constantly changing and coevolving environment. He argues that "Post-Keynesians and ecological economists share a more inclusive and activist position [than traditional neoclassical economics] in dealing with real world problems" (p. 181).

The potential for such transformations may be nevertheless unequal across transition countries and may be partly influenced by geo-political factors. Those transition economies that are now part of the European Union have the relative advantage, on one hand, of being able to improve their institutional framework and their democratic exercise through the significant financial, technical and knowledge support that they have and will continue to receive from Brussels. On the other hand, the new EU members from CEE will deepen their Europeanisation process, and this is likely to continue to place a strong emphasis on cross-compliance and meeting EU standards and requirements. The transition period will continue after EU accession, and the new member states will need to maintain their permeability and continue their EU policy “downloading” process (Boroianu, 2006).

5. Conclusions

For seventeen years, post-Communist societies have been struggling to escape the shadows of their Communist past and the bleak legacy of their command and control regimes. Since 1989-1990, the Central and Eastern European and the Former Soviet Union countries have undergone substantial structural changes in their efforts to promote democracy and improve their developmental perspectives. Transition towards a functional market-based economy has been largely dominated, often through the mediation of international financial lending institutions, by the neoclassical economic approach in either its shock therapy or gradualist version.

The neoclassical take on transition emphasises the reliance on market forces brought about by liberalisation, privatisation and the overall withdrawal of the state from influencing societal outcomes. Moreover, it assumes that the best way to sustain natural resources and minimise environmental degradation and pollution while continuing economic growth is through competitive markets. Economic growth is seen as the most important pre-requisite for achieving environmental and social sustainability. Nonetheless, this approach to transformation often ignored the maintenance, alteration, setup and evolution of adequate institutional frameworks, and downplayed the importance of geo-political considerations. This has contributed not only to economic under-performance, but also resulted in overall high transition costs and the sidelining of (social and) environmental concerns. Achieving long-term sustainability has not been a priority.

Currently, post-Communist societies face a double challenge: to shake off any remaining persistent and significant inefficiencies and structural progress-inhibiting factors originating from the pre-reform period, *and* to overcome the developmental barriers to a more sustainable future that have emerged during the reform process. A Post Keynesian economic alternative that accounts for the socio-cultural and political characteristics specific to each post-Communist society may be better able to effectively deal with the economic realities and, overall, enhance human wellbeing. Furthermore, Post Keynesianism with its focus on evolving institutions and the proactive role of the state in shaping societal outcomes appears more compatible with ecological sustainability objectives and sustainable development paradigms.

It may be argued that CEE and FSU transition countries display significant potential to substantially reconsider their development strategies, meet sustainability challenges, and contribute to shifts in international development paradigms, even though their experience in fostering the democratic process is still limited. This is

partly due to their specific historical conditions underlining their current circumstances, in terms of witnessing rapid processes of change and not being deeply rooted or locked into particular unsustainable development paths. Post-Communist societies may “tunnel through” or avoid unsustainable trends and pick-up on the latest developments/proposals in tackling sustainability problems, such as those related to climate change and global warming. This would involve more active involvement in international treaties and cooperation mechanisms, as well as a continuous and iterative consultation process between governments and civil societies.

Ultimately, we are living in a fragile world where the economy and the environment are closely intertwined. Ecological sustainability that reinforces human welfare should be seen as a core developmental objective of the state. Economic growth pathways and strategies need to be consistent and reinforce this objective if sustainability is to be pursued. A Post Keynesian economic alternative to market transformation to include the treatment of ecological sustainability concerns may offer post-Communist states greater opportunities for shifting their transition processes towards more sustainable and socially acceptable outcomes over the long-term.

The analysis forwarded in this paper has taken a broad-brush approach to identifying better suited alternatives and strategies to push the transition process onto more sustainable and just development paths. The detail and analytics behind the proposed workings and inter-linkages, and their relevance for effectively addressing sustainability concerns, from each post-Communist society’s viewpoint and within an increasingly inter-connected world, remains open to further research.

6. References

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