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**AN EXPLORATION  
OF  
PATH  
DEPENDENCY  
AND  
SPATIAL  
OUTCOMES**

Exploring path dependency theory and the urban pattern that has emerged in Sydney in the Post WWII period.

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I certify that the content of this dissertation is my own work, except where otherwise stated, and that the material has not been submitted for another degree.



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# **INTRODUCTION**



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## INTRODUCTION

Investigation of path dependency theory is tempting as it may present answers to why apparently incongruous decisions that lead to inefficient outcomes are made. It may present opportunities to theorise, from an economic history perspective, as to why these decisions are made, and why the results of actions can have durability, even if outcomes appear to be inefficient. From a spatial perspective, decisions relating to the location of firms and households, as well as wider considerations of urbanisation, might be subject to path dependent outcomes and may warrant investigation.

Path dependence theory incorporates consideration of the possibility that 'locked-in' processes will lead to path dependent outcomes. This appears to exhibit some parallel properties to institutionalism, and this similarity will be highlighted. The drivers of 'locked-in' processes leading to path dependent outcomes include 'increasing returns' and 'positive feedback mechanisms'. These influences can lead to a less efficient course of action being chosen over a better path. Other features of path dependency to be noted include 'events' - where apparently insignificant events having a major impact on outcomes, and 'timing' - where the timing of the events, or sequence of events, may impact on final outcomes.

Path dependence can produce various efficiency outcomes, and is heavily influenced by the relevance of information available and how knowledge is applied. Three different 'degrees' of path dependence, as summarised by

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Liebowitz and Margolis (1995), provide an outline of the scope of the path dependence.

This study proposes to explore path dependency theory and its role in influencing spatial outcomes. In do so path dependence theory may be seen to provide an explanatory tool for locational decision making and land use choices for firms and households. A number of other economic location theories have been developed, and comparison with them should be made to determine whether path dependency is simply a duplicate of an earlier theory, or whether it will indeed add something new to locational analysis. The three main economic location theories to be examined and compared as part of this study are the neo-classical, behavioural and structuralist approaches.

It is recognised that it is important to place locational decision making within the correct context. The value of a comparative approach, espoused by Frost (1990) among others, is noted, however, making substantial comparison between a number of cities is beyond the scope of this study. As Sydney is to be used for a case study application of path dependency outcomes, placing this city within the context of its initial development is considered important. It is proposed to adopt a Settler Capitalism approach to the explanation of the forces that moulded early Sydney. This is intended to lay the foundations for a more detailed, but necessarily brief, description of the early development path of Sydney.

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Setting the context for a spatial application of path dependency would not be complete without highlighting reasons for the existence of cities and the influences on the size and shape of those cities. A number of cities began for military or spiritual reasons, however, as Mills (1972) suggests, their continued existence and growth is due to their success in performing economic roles. Mills narrows down the reasons for their continued growth to two economic characteristics (i) scale economies and (ii) regional comparative advantage. In undertaking this study, awareness will be required of the major influences on the size and shape of the cities including the historical legacy of earlier settlement decisions, population growth and change, the impact of innovation in transportation, as well as the role played by market forces on the urban pattern.

Consideration will need to be given to the reasons behind why the urban area exists and why it has developed. This will involve considering how the urban pattern helps (or hinders) the facilitation of exchange, the impact of scale economies, agglomeration economies and regional comparative advantage. These features have a significant influence on the evolving urban pattern, and they will need to be taken on board if a fuller understanding of the urbanisation processes, which may or may not be influenced by path dependency, is to be achieved. A functional component approach is proposed to be undertaken in an effort to enhance the scope of this inquiry. It will involve dividing the case study into its major components for more detailed analysis. The major components to be examined include (a) housing, (b) employment and (c) transportation.



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As mentioned earlier, Sydney is to be used as the case study upon which to apply the path dependency analysis of urban form outcomes. Sydney is defined as the principle metropolitan area, or for statistical purposes the area defined by the Australian Bureau of Statistics as the Sydney Statistical Division which includes the Central Coast to the north, Sutherland and Wollondilly Shires to the south and the Blue Mountains to the west. Within this area it is believed that all of the manifestations of urban growth and development can be captured.

The timeframe for the focus of the case study is to be the post World War II period. It is noted, however, that in the study of urbanisation and path dependency, land use decisions made deep in the city's past could result in an outcome that effects contemporary decision making as much as decisions made immediately subsequent to the original decision. The post WWII period should provide an adequate timeframe for analysis as a number of major changes to the pattern of urbanisation in Sydney occurred during this period.

It is the intention of this dissertation to explore whether links can be made between path dependency and spatial outcomes. If it does prove possible to make these links, then path dependency theory may provide an additional tool for explaining the urban pattern in which we live.