Modernising Agrifood Chains in China
Modernising Agrifood Chains in China: Implications for Rural Development

By

Scott Waldron
Dedicated to Mum and Dad
For the farm, formal and life education
that made this research possible

And in loving memory of
Olive
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FOREWORD

China faces enormous challenges in generating sustained and inclusive agricultural and rural development. But rapid growth occurring both inside and outside the agricultural sector provides new opportunities to meet the challenges. The development of higher value agrifood chains may provide opportunities for rural households to increase their levels of specialisation, scale and incomes, and for rural areas to broaden their employment and tax bases.

Facilitation of these developments effectively forms an agricultural modernisation strategy that is becoming increasingly described and prescribed by Chinese policy makers, researchers and development agencies. Despite the attention that has been given to this agricultural modernisation strategy, it has not proceeded without problems and has been subject to little rigorous scrutiny. This study uses a detailed industry case study approach to examine the way that Chinese agriculture is modernising and, as an applied study, to identify areas where China’s agricultural modernisation strategy can be refined.

China’s agricultural modernisation strategy is analysed through the window of a particular Chinese agricultural and rural industry, namely the beef industry. The beef industry resembles many other agricultural and livestock industries that are commercialising, modernising and segmenting with important implications for rural incomes, food safety and the environment. In addition to providing insights into developments in the broader agricultural and livestock sectors, the Chinese beef industry is also worth examining in its own right because of its significant place in the world beef industry and in China’s livestock sector, and because it is used as a “pillar industry” in the development of many poor areas. While the study focuses predominantly on the beef industry, differences and similarities with other livestock industries are noted throughout the analysis.

The use of an industry case study allows for a detailed analysis of a cross section of China’s retail, processing, marketing and production sectors, and the integration of these sectors that form the industry. One novel aspect of the study is that the industry modernisation process is seen as a movement from low to high value agrifood chains in all of these sectors and for the industry as a whole. The study examines the drivers of, and constraints to, the movement from low to high value agrifood chains, the sustainability of the development of the higher value agrifood chains, and the implications for industry participants.
The study draws on multiple forms of data, including extensive interview and fieldwork data over a ten year period across China, budget and scenario analyses; and macro-level data and policy documents. The cross-verification of this data allows for a rigorous, multi-disciplinary and grounded form of analysis that can complement other studies that draw on fewer sources of data. The study also provides a longitudinal and diachronic perspective of the agricultural modernisation process in contrast to a shorter term snapshot.

The study examines the reasons and the measures by which China is attempting to move the agricultural sector beyond its primary reliance on traditional, low value agrifood chains. While the logic of these reasons and measures can be discerned, it is argued that China has attempted to “skip” development stages by over-emphasising the development of large scale modern high value agrifood chains. The attempt to force the pace of modernisation has led to significant distortions and detrimental impacts. The study argues the need for China to refine its agricultural modernisation development strategy to be both more market conforming and to bring more benefits to industry participants in rural areas. This is best done by taking a more incremental approach to agricultural modernisation with an increased emphasis on mid value agrifood chains and the development of market facilitating policies. The analysis, findings and recommendations of the study may be of interest to policy makers, development agencies and researchers working on China’s agricultural and livestock sectors.
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The book is dedicated to my parents Jenny and Tony and in loving memory of my grandmother Olive.
CHAPTER ONE

INTRODUCTION

Rapid economic development has delivered new opportunities and challenges for agricultural and rural development in China. Meeting these opportunities and challenges requires new and increasingly refined strategies that must be underpinned by detailed and pragmatic forms of analysis. This book aims to provide such a form of analysis through a detailed rural industry case study, which may be of interest to policy makers, development agencies and researchers working on China’s agricultural and livestock sectors.

1.1 Background and rationale

China is undergoing a transformation of historic proportions. An annual GDP growth rate of nearly 10% over the thirty years of the reform era (National Bureau of Statistics, various years) has bought about the largest reduction in poverty in history (World Bank, 2005), the largest movement of humans in peacetime history (from rural to urban areas) and an accelerated transition from an agrarian to an industrial nation (Rozelle et al., 2002).

Despite the enormous progress, however, income gaps in China are now amongst the most unequal in the world (Chang, 2002). The fault lines of inequality lie between rural and urban people and rural and urban areas. The lagging of the agricultural sector, rural incomes and rural areas—known in China as the sannong or “three rurals problem”—is regularly cited as the biggest development challenge facing China today.1

Much of the progress in solving the latter two of the “rurals problem”—rural incomes and rural area development—has not been achieved through the first of the “rurals problem”—of agricultural development—but through

1 The term is sannong (“the three rurals”) is an abbreviation for the three terms nongye, nongmin and nongcun, which share the root character nong (rural). Interpreted from the perspective of this study, the term nongye refers to agriculture; nongmin refers to rural people or households; and nongcun refers to rural areas. The “three rurals” issue has been cited as the major development challenge in China at nearly all major occasions in recent years: from Zhu Rongji’s address to the National People’s Congress in March 2002; to the Number One Document of 2004; to the 11th Five Year Plan (2006–2010).
the development of rural industry and the absorption of rural labour into the urban, industry and service sectors. Almost half of the increase in income of farmers in China between 2000 and 2002 came from jobs outside their own townships (Ministry of Agriculture, 2005). To facilitate this so called zhuanyi process, China has introduced measures to increase resource mobility for labour (work migration and household registration) and land (the on-leasing of agricultural land). Chinese policy makers believe that further reforms in this direction will “convert” rural producers into urban consumers, while a less crowded agricultural landscape will provide “room” for those rural households that remain in agriculture to increase returns from agricultural activities.

While continuation of this zhuanyi process may contribute to solving the “three rurals problem” over the longer term, China continues to take a highly proactive approach to agricultural development. This is not just because of China’s preoccupation with food security and mercantilist trade objectives. Although the share of agriculture in China’s economy decreased from 30% in 1985 to 13% in 2005, 62% of the value from the light industry sector was derived from products that use agricultural inputs (Ministry of Agriculture, 2004). Similarly, while the proportion of the Chinese working population engaged in agriculture decreased from 62% in 1985 to 45% in 2005, another 25% of China’s working population work in the 12 sectors that use agricultural products as inputs (Ministry of Agriculture, 2006; Township and Village Enterprise Bureau, 2007, personal communication). Far from ignoring the agricultural sector, policy makers continue to see the “three rurals problem” as interconnected, where agricultural development remains central to bringing about rural and regional development.

In this regard, Chinese policy makers are optimistic about and actively promote several trends in Chinese agriculture including: a) the growing market for higher value agricultural products due to income growth, urbanisation and increased access to export markets; b) the modernisation of the agribusiness sector, especially processing and marketing; and c) that these trends in the off-farm sector will bring opportunities for rural households to sell higher priced farm outputs and to increase farm specialisation and scale. It is also envisioned that the trends will broaden the employment and tax revenue bases of rural areas. A simple representation of these trends appears in Figure 1.1.

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2 The sectors include food products, food processing, beverages, tobacco, textiles, clothing and footwear, leather processing, timber, furniture, paper products and printing. Employment in activities based around agricultural products would be higher if services (such as food service, trading, retailing and transport) were included.
The facilitation of these trends effectively forms an agricultural and rural development strategy that is becoming increasingly described and prescribed by researchers and development agencies (see Chapter 2) and by Chinese policy makers (see Chapter 4). Researchers and development agencies have turned attention to a series of so called “revolutions” including the “high value agriculture revolution”, the “agribusiness revolution”, the “small-holder productivity revolution” and the “livestock revolution”. Similarly, Chinese policy makers at all levels strongly support the development of agro-industrial “dragon head” enterprises because of their perceived capacity to “lead” (daidong) the “scattered” (fensan) rural households and rural groups through the “length of the dragon” (the supply chain) into higher value and distant end markets. Economic agents and consumers are driving other major trends in Chinese agriculture including market segmentation, product differentiation, specialisation and supply chain integration. The facilitation of these trends is referred to in this book as an “agricultural modernisation strategy”, in line with the “Modern Agriculture” theme of China’s Number One Document of 2007 (jointly issued by the Chinese Communist Party Central Committee and the State Council) and in the Third Plenary Session of the 17th Chinese Communist Party Central Committee of September 2008.

Despite the attention that has been given to this agricultural modernisation strategy, it has certainly not proceeded without problems in China and has been subject to surprisingly little detailed, critical scrutiny either in the literature or by Chinese policy makers. This study aims to show how the modernisation strategy is progressing in practice and, as an applied study, to propose measures that may help refine it.

China’s agricultural modernisation strategy is analysed through a focus on the Chinese livestock sector and on the beef industry in particular. The livestock sector and beef industry provides a useful case study for several reasons. Attention has turned in recent years to the growth in demand for animal protein and other animal products especially in developing countries. Rapid growth of the Chinese livestock sector has placed it at the forefront of the “international livestock revolution” with wide ranging development implications (Delgado et al., 1999b). Of the 210 million rural households in China, 100 million households raise livestock, which account for up to 30% of farmers’ incomes (China.org.cn, 2006). Within the livestock sector, the beef industry also continues to commercialise and impact on the livelihoods of more than 13 million cattle raising households and approximately 500,000 people in the agribusiness activities of trading and processing. As a result, the beef industry is used by policy makers in many poor areas of China as an instrument to pursue agricultural, rural and regional development.
Thus, the beef industry is worthwhile studying not only to provide insights into China’s broader agricultural development and modernisation process, but also in its own right in terms of its potential contribution to livelihoods.

![Diagram of agricultural and rural development strategy in China](image)

**Figure 1.1:** A simplified representation of an agricultural and rural development strategy in China

### 1.2 Research objectives

This study draws on a detailed industry analysis to examine the way that Chinese agriculture is modernising and developing, and to identify areas where China’s agricultural modernisation strategy can be refined. Within this broad objective, three specific research questions are addressed:

1. What are the major trends occurring in the Chinese agricultural, livestock and beef sectors? *(This question is addressed through an analysis of*
2. How are the beef consumption, processing, marketing and production sectors developing and modernising? (This question is addressed especially by analysing the incentives of economic agents and the policy environment in which they act in Chapters 6 to 9.)

3. What policy measures should be taken to align China’s modernisation strategy more closely with market developments and the interests of industry participants in rural areas? (This question is addressed in Chapter 10 with a focus on different value chains, especially for the beef industry but also with relevance to the broader livestock and agricultural industries.)

1.3 Methodology

China’s broad agricultural modernisation strategy outlined above is investigated through a detailed industry case study approach. The industry is decomposed into a series of sectors and value chains which together form an “industry system” comprised of a series of inter-related sub-systems. The sub-systems and the relationships between them are examined through a diverse set of analytical tools, thus forming a multi-disciplinary and integrated study. The section below outlines briefly the methodology to be used in the study, which is expanded on in Chapter 3.

An industry approach

China’s agricultural modernisation strategy is analysed through the window of a particular Chinese agricultural and rural industry, namely the beef industry. Using an industry as a unit of analysis has a number of benefits. First, the industry traverses the full agricultural and rural landscape comprised of markets, processing, marketing and production sectors, extension and services, and policies and institutions. An industry analysis therefore allows for an examination of a cross section of this landscape and the relationships in it, while at the same time limiting the scope of analysis to a manageable level. Second, an industry level analysis provides a window from which to examine broader economic phenomenon, including economic agents and their relationships, commodity flows and transactions, returns and rents extracted along the supply chain, organisation and technologies.
Third, the industry focus acts as a meso-level of analysis that links the macro-level (policy, institutional and the broader economic environment) with the micro-level (households and other economic agents). This can aid in the development of causal explanations of how macro settings impact at the micro-level. Fourth, industry level analysis allows for a detailed examination of the mechanics of economic activity, thus revealing issues and nuances that can be overlooked in more macro-level studies. Fifth, and most importantly in the context of this study, Chinese policy makers and international agencies very often use particular agricultural industries, industry targeting and industry specific policies as tools to pursue rural development objectives. The industry study therefore allows for examination of these industry development strategies and policies.

An industry case study approach also involves potential drawbacks, especially in generalising the approach and findings. There are considerable differences between agricultural industries and indeed between livestock industries in China. Different industries have different supply chains and structures and are impacted differently by cross-sectoral policies. These differences preclude “blanket” findings and recommendations across the agricultural sector as a whole (conversely this is also precisely the reason why industry studies are useful). At the same time, however, many Chinese agricultural industries are undergoing the type of modernisation processes seen in the beef industry with similar implications for industry participants. In order to generalise the approach and findings, discussion throughout the study places beef in context with the broader livestock sector and, where possible, makes explicit the differences between the beef and other livestock industries in which the author has comparable knowledge.

A systems approach and study framework

The objectives of this study are examined in the context of major trends in Chinese agriculture such as market segmentation, product differentiation, specialisation and increasing links between the agribusiness and on-farm sectors. This requires that the components of the industry are both “disassembled” and ordered. This study does so by treating the industry as a system comprised of a series of inter-related sub-systems. The “industry system” is encapsulated in the study framework presented in Figure 1.2, which also acts as a chapter outline of the study.

The left hand column of Figure 1.2 shows the chapter structure of the study. This initial introductory chapter (Chapter 1) is followed by the
literature review (Chapter 2) and methodology chapter (Chapter 3). The
subsequent two chapters draw on secondary information to place beef in
context with the agricultural sector (Chapter 4) and to provide an overview
of the beef industry (Chapter 5) that serves as context for the remaining
chapters. Chapters 6 to 9 are based on primary information and more detailed
analysis. Readers particularly interested in detailed analysis are encouraged
to read the many footnotes of the book, which have been excluded from the
main text in order to explicate arguments.

A central construct used in Chapters 6 to 9 is the dissection of the
industry into various agrifood value chains. This segmentation dimension
is designed to capture increasingly important aspects of Chinese agriculture
where increasingly demanding consumers (end users) and customers
(such as processors, retailers or traders) require increasingly differentiated
agricultural products, which impacts on the structures of agrifood chains
and their participants. There are major implications for agricultural, rural
and regional development.

The study distinguishes between low, mid and high value agrifood chains,
which are organised horizontally across Figure 1.2. These agrifood chains
are illustrated as discrete agrifood chains in Figure 1.2 flowing vertically
and linked by black arrows. However, in reality they form a continuum with
significant product flows and therefore relationships between the chains.
These are indicated by the horizontal and oblique shaded arrows between
the boxes in Figure 3.1, which is a more elaborate depiction of the study
framework.

These three agrifood chains flow through industry sectors which are listed
vertically down Figure 1.2. The sectors cover both off-farm and on-farm
sectors of the industry including retail (Chapter 6), processing (Chapter 7),
marketing (Chapter 8) and production (Chapter 9). The chapters and sectors
are ordered from downstream to upstream components of the industry on the
basis that demand-pull side factors have a major impact on other aspects of
the industry, although the impact on supply-push factors are also discussed.

The horizontal and vertical dimensions of the framework combine to
form a matrix or the “industry system”. At each node of the matrix lie specific
industry sub-systems, including categories of industry participants (such as
unspecialised cattle producers) or industry structures (such as mid value
beef markets). Each of these constructs are analysed in specific sections
of each chapter using analytical tools overviewed below. The study also
examines the relationships between the sub-systems to show how issues
or problems in one sub-system affect other sub-systems (for example how
problems in modern processing affect small-holders). This is particularly
## CHAPTER ONE

**Figure 1.2:** Outline of the beef industry system and links with book structure

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<th>TYPE OF ANALYSIS</th>
<th>CONTENT OF CHAPTERS</th>
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<tr>
<td>7. Processing sector</td>
<td>Budgets, other drivers of change</td>
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<td>10. Findings &amp; Recommendations</td>
<td>Findings on the most appropriate emphasis on value chains</td>
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Context

![Diagram: Continuum of agrifood value chains, agricultural modernisation](image)
important in discussing the implications of industry development for industry participants and in providing recommendations on how to address problems.

Another dimension of the framework is the relationships and movement between sub-systems on a horizontal level within each industry sector. The arrows pointing right represent drivers of industry modernisation, while the dashed arrows pointing left represent constraints. The drivers and the constraints can be both policy or economic related and are discussed in detail in Chapters 6 to 9. This analysis adds a transitionary or diachronic dimension to the framework that is important in examining the modernisation process and the implications for industry participants, and helps frame development options for industry participants and policy makers that are discussed in the concluding chapter of the study.

A multi-disciplinary approach

The “industry system” as depicted by the framework imposes the analytical boundaries and much of the “discipline” of the study. However, the wide range of sub-systems analysed and the relationships between them require that a wide range of analytical tools be employed. That is, a multi-disciplinary approach is required to effectively capture the reality, dynamics and diverse landscape traversed by the industry system.

Chapters 4 and 5 draw on secondary sources—official statistics and policy documents—to provide a broad overview of agricultural and industry development in China. The statistical analysis is based on close familiarity with the official statistics, is subject to critical examination and draws on additional analysis to derive unpublished figures. The chapters also draw on an array of policy documents to provide an “official” perspective on issues in Chinese agriculture and the beef industry and to act as context and cross reference to other parts of the study. Policy analysis is interwoven throughout the entire study.

Chapters 6 to 9 draw largely on primary information and provide a mainly qualitative examination of the industry sectors and the drivers and constraints to their modernisation, which can be technical, policy, socio-cultural or economic in nature. However, the analysis also draws on various forms of quantitative analysis, including consumer surveys (Chapter 6) and budget and sensitivity analysis of beef processors (Chapter 7) and cattle producers (Chapter 9). Some of the results of these analyses are also used to examine marketing systems (Chapter 8). The quantitative analysis is linked
across chapters, particularly as input parameters for downstream actors in the agrifood chain (such as abattoirs) are coordinated with output parameters from upstream actors (such as cattle producers). This allows for quantitative analysis of relationships throughout agrifood chains, which span sectors and chapters of the study.

In addition to drawing on a range of analytical tools, the study also draws on a range of data. The data includes: official statistics and policy documents (from national down to local levels); extensive fieldwork and interview material (from nearly 500 face to face interviews); and micro-level survey and budget analysis. All three types of data have been collected and updated over a period of at least 10 years, and in more than 18 provinces of China. It is argued that rigorous cross-verification of these diverse data provides a robust and reliable picture the industry.

When considered individually, methods used within each chapter appear to be technically relatively straightforward. However, the integrative nature of the study can be demanding especially as integration occurs across disciplines, disparate data sources and across industry “sub-systems”. While this approach poses particular research challenges, it is argued that it helps capture the increasingly complex reality and dynamics of the Chinese agriculture, livestock and beef sectors, to assess the implications for industry participants and to design appropriate policy responses. It also enables novel findings to be made that can contribute to broader understanding, as highlighted in the final recommendations and policy implications chapter of the book (Chapter 10).
CHAPTER TWO
LITERATURE REVIEW

To identify previous insights useful in addressing the study objectives, the literature review below overviews relevant work in the fields of rural development, the development of markets, agribusiness, smallholder systems, and change in Chinese livestock structures and supply chains. Relatively few studies examine these issues based on detailed examination of a particular industry, or conduct detailed budgeting of economic agents in the industries. The adoption of such an approach shows how agricultural and agribusiness development impacts on rural development, by establishing the returns, viability, options and mobility paths of different types of economic agents, both on-farm and off-farm. Compared to the patchwork of studies that do take this approach, this study differs in that it draws on a novel analytical framework which, among other features, adds the dimension of market and supply chain segmentation.

2.1 The role of agriculture in development

One of the underlying themes of this study is the role of agriculture in rural development. To summarise the enormous body of literature on the role of agriculture in development, a brief chronological overview of the major issues is provided. In the 1950s and 1960s, agriculture was largely ascribed as playing a “passive” role in national and rural development. Agriculture was treated as a small scale, traditional activity characterised by low productivity and decreasing returns that held few prospects for growth. Economic development was thought to involve a reallocation of resources from the agricultural sector to a modern industrial sector with higher productivity and increasing returns (Adelman, 2001). Agriculture thereby contributed only passively to economic development by providing surpluses of tax revenue, cheap food and labour. Where growth was to occur in the agricultural sector, it was to be undertaken by the large scale modern agricultural sector. As this took place alongside the traditional agricultural sector, a dual economy was formed (Fei and Ranis, 1961). This form of “modernist” thinking was also prevalent in socialist states like China and
the Soviet Union with the centralisation of farming, and the formation of processing and marketing monopolies (Ellis and Biggs, 2001).

This passive view of the role of agriculture was reassessed in the late 1960s and early 1970s when the Green Revolution transformed traditional agriculture into a modern and potential growth sector (Diao et al., 2006; Schultz, 1964). Johnston and Mellor (1961) argued against development based on the dual economy model and showed that small traditional farmers allocate resources efficiently given correct price incentives. The “rural growth based on small farm efficiency” or “small farm first” paradigm has since been a persistent theme in the rural development literature (Ellis and Biggs, 2001).

The more active role of agriculture in economic development was reinforced by recognition of the linkages between agriculture and other sectors, including backward linkages into inputs and services and forward linkages into agro-processing (Johnston and Mellor, 1961). In contrast to urban biased industrialisation characterised by dualistic development patterns, agriculture-industry linkages and interactions were argued to provide incomes for the poor both in agriculture and in agro-industry (Adelman, 1984; Singer, 1979). The importance of small farms in generating “rural growth linkages” or labour intensive off-farm activities in rural areas represents another persistent theme in the rural development literature (IFAD, 2001; Johnston and Kilby, 1975; Mellor, 1976). As in the case of China, these linkages deepen as an economy modernises but decline in relative importance alongside agriculture’s share of production (Haggblade et al., 1989). High profile leaders (Hu Jintao) and researchers (Ke, 2008) are now focusing on reverse transfers from industry to agriculture (gongye fanbu nongye). In Chinese terms, after a modern history of agriculture “feeding” industry, the “baby bird” of industry has grown up to be much bigger than its “agricultural” parents and now industry must now fill the role of “feeding it’s elders” (agriculture) through linkages and transfers.

Inter-sectoral linkages also featured in the debate on the role of agriculture in rural development in the 1980s and 1990s (Hazell and Haggblade, 1991; Hazell and Roell, 1983). Based on an econometric analysis of data from the China Rural Household Survey between 1985 and 1990, Ravallion (2005) reports significant cross-sectoral effects in rural China, notably from cropping to other farm activities (forestry, animal husbandry and fishing) and between these latter activities and off-farm activities (industry, processing, transportation and handicrafts). While Ravallion found fewer signs of reverse linkages, others argue that the growth of agro-industry and off-farm employment (including remittances) can help finance the purchase
of agricultural inputs to further increase productivity (Reardon et al., 1994) and relax capital and risk constraints in farming (World Bank, 2007). Infrastructure development is an important aspect of building inter-sectoral linkages, while the formation of social capital also plays a role in increasing confidence and trust between farmers, input suppliers, processors and banks to initiate non-agricultural business and commercial agriculture (Irz et al., 2001).

Poulton and Dorward (2003) discuss the role of small-holders in development in terms of the distinction between “growth drivers” and “growth supporters”. “Growth drivers” are processes that provide an initial stimulus increasing income flows in an economy such as price or productivity increases in tradeable products. “Growth supporters” are processes which increase multiplier effects to give wider and more sustained growth impacts from the growth drivers. These include consumption linkages for products with high income elasticities. Production linkages arise where a “growth driver” demands locally produced, non-tradeable inputs (upstream linkages) or local processing (downstream linkages). As discussed in the section below, livestock and horticultural products are argued to have high income elasticities in poorer economies with strong upstream, downstream and consumption linkages (Dorward and Kydd, 2005). As also discussed in following sections, benefits to small-holders require not only the presence of potential growth drivers and supporters, but also exchange mechanisms that: a) transmit demand signals across different players in the economy; and b) enable these players to respond to these with increased local supply.

Many of these themes are revisited by the World Bank (2007) in its 2008 Development Report titled “Agriculture for Development”. The report argues that the world is in the midst of a “new agriculture” underpinned by new structures3 and a series of “revolutions”4. This has opened up new opportunities for rural development, arguing that “pathways out of

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3 “Dynamic new markets, far reaching technological and institutional innovations, and new roles for the state, the private sector, and civil society all characterize the new context for agriculture. The emerging new agriculture is led by private entrepreneurs in extensive value chains linking producers to consumers and including many entrepreneurial smallholders supported by their organizations” (World Bank, 2007, p.8).

4 Successors to the industrial revolution and the green revolution cited by the (World Bank, 2007), include the agribusiness revolution, high value agriculture revolution, livestock revolution, horticulture revolution, aquaculture revolution, supermarket revolution, small-holder revolution, small-holder productivity revolution, biotechnology revolution, microfinance revolution, productivity revolution, while biofuels are a “revolution in the making”.

poverty open to the rural poor by agriculture include smallholder farming and animal husbandry, employment in the new agriculture of high value products, and entrepreneurship and jobs in the emerging rural, non-farm economy” (World Bank, 2007, p.1).

The World Bank report uses a typology based on the contribution of agriculture to growth to distinguish between three different types of agricultural countries, namely: agriculture based; transforming; and urban based. China falls into the “transforming” category along with countries like India and Indonesia, where agriculture is a small part of the economy and where poverty is still overwhelmingly rural. The main challenge to transforming countries, especially China, is to address growing inequalities. As discussed below (Section 2.4.3), this is to be achieved through a diversified development strategy of traditional, small scale, welfare type agricultural activities, the pursuit of higher value agriculture, and the development of off-farm rural labour and migration.

2.2 Agricultural markets, agribusiness and farm structures

This section overviews literature related to the “high value agriculture revolution”, the “agribusiness revolution” and farm structures. The review acts as a base on which more detailed case study specific analysis is undertaken in the body of the book, especially Chapters 6 to 9.

2.2.1 The “high value agriculture revolution”

In developing countries, agricultural produce in final markets is typically low priced, which is reflected in small margins for actors along the supply chains and ultimately in low returns for producers. Increasing consumer incomes and urbanisation in developing countries (Rae, 1998) as well as increasing agricultural exports in countries such as China (Nie, 2006) have generated what has been called the “high value agriculture revolution” and is a source of considerable optimism for policy makers and development agencies (World Bank, 2007). Higher market prices may increase margins along the supply chain, increase opportunities for processing and other

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5 China’s agricultural exports grew at 8.5% between 1995 and 2005, but growth rates are expected to decline to 7% for the period of the 11th Five Year Plan (2006 to 2010) to reach US$38 billion (Nie, 2006).