# 扩大内需带动产业升级的逻辑、途径与政策协同

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**摘 要：**内需及其创造的市场需求是企业创新产品和服务，推动产业向高技术含量、高附加值、高品质方向发展的重要动力。以扩大内需带动产业升级是深化供给侧结构性改革，构建现代化产业体系和增强双循环内生发展动力的必然要求。扩大内需与产业升级存在互为动力的内在逻辑，消费是产业升级的基础动能，而投资是产业升级的必要保障，同时产业升级会刺激消费和投资，形成内需与产业升级双向互促的发展动态。夯实消费带动产业升级的基础，激发基础设施投资的引导作用，能够有效强化产业升级动能。以扩大内需带动产业升级，不仅要以扩大内需政策有效牵引产业升级、以产业升级政策刺激内需扩大，还要注重政策目标与工具的协同性，政策制定和实施主体的连通性，并以高质量的市场培育政策，为扩大内需和产业升级营造良好的市场和制度环境，促进内需与产业升级协同共进，实现经济高质量发展。

**关键词：**内需 外需 产业升级 政策协同

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## 一、引言

产业升级是指通过技术、管理和制度创新等手段，激发和支持企业向产业链高端攀升，实现技术、产品、服务等方面的全面提升，从而推动产业形成更强市场竞争力和可持续性发展能力的过程。当前，中国正处于加快构建新发展格局、着力推动高质量发展的攻坚期，产业升级作为经济高质量发展的内生动力，是中国经济从高速增长阶段转向高质量发展阶段的重要战略举措。从经济学视角看，带动产业升级的力量分为供给侧和需求侧两种，供给侧是生产技术进步的推动力，需求侧则是社会总需求的拉动力。2008年金融危机以前，中国产业升级主要靠外部需求拉动。国际金融危机爆发后，外部经济环境持续低迷，西方发达国家开始推行生产本地化，中国产业升级的动能逐渐从国外转为国内。面对严峻复杂的国际环境和新冠肺炎疫情对全球经济的持续影响，中央战略性地提出

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了加快构建以国内大循环为主体、国内国际双循环相互促进的新发展格局，强化了坚持扩大内需这个战略基点，内需已成为今后一个时期推动中国产业升级的基础性牵引力量。

围绕实施扩大内需战略和推动产业升级，专家学者们已开展了不少研究。第一，在内需与外需作用方面聚焦消费的地位变化。吕政(2012)指出，要实现经济的持续增长，不能只关注生产能力的扩张而忽视扩大消费市场，必须充分认识扩大国内需求特别是消费需求的重大战略意义。江小涓和孟丽君(2021)认为，中国产品供给从外需向内需转变的过程中，随着国内居民消费率的逐渐上升和消费结构的优化，外需重要性下降，其所起的产业结构升级效应会逐渐减弱。金碚(2021)指出，当经济发展开始向市场经济的成熟阶段转型时，必然要发生的显著变化之一就是国内消费需求将成为拓展市场空间的主要动因。马晓钰等(2022)指出，在外部环境恶化、要素成本上升等因素的影响下，以消费为主体的内需对产业结构升级的影响作用缓慢上升，扩大开放在提高产业结构中的作用会相对下降。第二，在消费带动产业升级方面关注消费升级的影响。刘勇(2016)指出，随着居民消费结构由生存型、物质型消费向发展型、享受型消费升级，消费个性化、多样化特征越来越明显，要生产更多符合消费者需求的高附加值产品，推动形成新业态、新产业。冯树辉和朱平芳(2022)指出，面临需求收缩、供给冲击和预期转弱的三重压力，消费已成为稳经济的重要支撑，步入新发展阶段，需要进一步扩大内需，以消费升级促进产业升级。杨天宇和陈明玉(2018)指出，居民收入增加后，需求收入弹性高的产品在居民消费中的占比逐渐提高，并占据主导地位，从而引导产业结构优化升级。第三，在投资带动产业升级方面侧重分析基础设施的作用。徐晓光等(2021)认为，基础设施投资属于先行资本，具有显著的“乘数效应”，能够引起社会总需求或总收入数倍于投资额的增长，因此一直备受各国政府重视，是刺激经济增长、拉动就业的重要手段。杨丹辉(2022)指出，在数字经济时代，以5G、超算中心、智慧能源和交通系统等为代表的新型基础设施建设将有力支撑未来产业创新发展，为经济社会数字化、绿色化转型筑基赋能。

本文在现有研究的基础上，从扩大内需带动产业升级的内在逻辑出发，重点分析消费、投资、产业关联等构成国内需求的主要内容对产业升级的作用机制和影响因素，并从政策协同的角度，为释放内需对产业升级的促进作用，实现中国经济高质量发展补充一些思路和建议。

## 二、内需带动产业升级的经验事实与基本逻辑

内需是促进产业升级的重要因素，只有通过不断扩大消费需求，才能激发企业生产创新和业务升级，提供更具有吸引力的产品和服务，实现产业升级。中国人口众多，市场规模巨大，内需在推动经济增长等方面起着基础性和主导性作用。分析中国内需、外需以及产业升级的相关数据，总结内外需与产业升级的变动关系和内在逻辑，可为实现需求侧牵引产业升级提供经验事实和理论基础。

## （一）内需、外需带动产业升级的经验事实

### *1.指标构造*

利用GDP支出核算法获取内需和外需的相关数据是标准和常用的经济分析方法。支出核算法包括最终消费支出、资本形成总额、货物与服务净出口三个部分。利用各部分总额分别与GDP作比得到最终消费率、资本形成总额和净出口占比，能够反映内外需在国民生产总值中的相对规模地位。内需占比为最终消费率和资本消费率之和。

使用货物和服务净出口比重作为外需比重，或者使用净出口贡献率作为衡量外需贡献率的指标方法存在不足，因为GDP支出核算法是一种静态核算方法，无法反映各部分之间的相互作用关系(江小涓，2010)。比如：在两种情形下，当进口总额和出口总额分别为5亿元与当进出口总额为0时，净出口数值均为0，但显然前者的对外经济贸易水平更高，而且进口会影响国内的消费与投资，所以使用净出口衡量外需存在不妥。为此，本文采用出口数据来衡量外需水平。首先计算名义外需比重，即出口总额与GDP之比，但由于出口总额与GDP统计口径存在差异，出口总额中含有进口投入品的价值，而这部分并不纳入GDP，因此名义外需数值被高估。参考江小涓(2010)的做法，利用出口总额减去加工贸易进口额后的值表示出口增加值，然后利用出口增加值与GDP之比作为真实外需比重。此种方法也存在一定的缺陷，江小涓(2010)指出一般贸易中转移价值部分也含有进口投入品价值，但是该部分数据难以获得，所以也存在高估外需比重的问题，但会比名义外需比重更接近真实外需比重。综合上述分析，文章在表 1展示了上述外需指标。另外，产业升级在本质上是一种结构变化，是涵盖技术、产品、资本、人才和服务升级的综合现象，需要采用一个国家或地区产业结构向高端制造业、高技术产业、服务业转型的程度进行综合衡量。本文借鉴干春晖等(2011)的做法，使用第三产业产值与第二产业产值之比（$Industry_1$）衡量产业结构升级状况，并使用规模以上工业企业的高技术产业营业收入与制造业营业收入之比（$Industry_2$）衡量产业结构向高技术产业的转型程度。

### *2.内需、外需与产业升级的数据分析*

由表 1可知，内需占比均在90%以上，受2008年金融危机冲击影响，内需占比有所下降，但大部分年份在95%以上，充分说明中国内需在GDP中的重要地位。最终消费率基本维持在50%以上，2008年以后，最终消费率呈现稳步上升的变化趋势，疫情期间略有下降。资本形成率基本维持在40%左右，个别年份受财政货币政策影响会出现波动，比如：为应对金融危机采取的“4万亿”计划使资本形成率达到了47.00%，2012年资本形成率有所下降，基本维持在42%~43%。从内需构成的占比来看，最终消费率和资本形成率基本维持在5:4的比例，充分说明消费在内需中所占的重要地位，以及消费作为拉动经济增长马车的核心地位。从产业升级指标数据变化可得，2012年以后，第三产业产值超过第二产业产值，高技术产业占比触底反弹，产业结构高级化程度不断提高。从内需占比变动与产业升级变动趋势来看，两者在2012年以后均呈现稳定上升的变化趋势。

2005~2021年，从名义出口依存度和真实出口依存度的变化趋势来看，外需占比总体呈现下降趋势。2010年以后，名义和真实外需比重呈现持续性下降，2016年以后下降幅度放缓，在2021年出现了小幅度的反弹。总体而言，外需是经济增长的重要驱动力，但驱动力量有所下降。从外需与产业升级的联动方面来看，两者之间的数据变动趋势并不完全一致，由于外需受国际环境影响较大，个别年份会出现异常浮动。只有当外需变动幅度较大时，产业升级才会发生相应变动，比如：2009年名义和真实出口依存度分别是26.43%和20.10%，产业升级指数在2010年呈现出较大幅度的下降。这也从侧面反映了外需也是产业升级的重要驱动力，但基础动能仍由内需决定。

**表 1：内需、外需与产业升级情况**

单位：%

| 年份 | $Industry_1$（第三产业产值/第二产业产值） | $Industry_2$（高技术产业营业收入/制造业营业收入） | 最终消费率（最终消费支出/GDP） | 资本形成率（资本形成总额/GDP） | 内需占比（最终消费率+资本形成率） | 名义出口依存度（出口总额/GDP） | 真实出口依存度[（出口总额-加工贸易进口额）/GDP] |
|---|---|---|---|---|---|---|---|
| 2005 | 87.87 | 15.90 | 54.30 | 40.30 | 94.60 | 36.98 | 25.01 |
| 2006 | 87.82 | 15.40 | 52.50 | 39.90 | 92.40 | 38.90 | 27.24 |
| 2007 | 91.47 | 14.30 | 50.90 | 40.40 | 91.30 | 38.07 | 27.70 |
| 2008 | 91.28 | 12.90 | 50.00 | 42.40 | 92.40 | 34.83 | 26.56 |
| 2009 | 96.52 | 12.60 | 50.20 | 45.50 | 95.70 | 26.43 | 20.10 |
| 2010 | 95.05 | 12.30 | 49.30 | 47.00 | 96.30 | 29.10 | 22.18 |
| 2011 | 95.27 | 12.00 | 50.60 | 47.00 | 97.60 | 28.02 | 21.75 |
| 2012 | 100.22 | 12.70 | 51.10 | 46.20 | 97.30 | 26.34 | 20.71 |
| 2013 | 106.11 | 12.80 | 51.40 | 46.10 | 97.50 | 24.92 | 19.79 |
| 2014 | 112.06 | 13.00 | 52.30 | 45.60 | 97.90 | 24.40 | 19.41 |
| 2015 | 124.51 | 14.10 | 53.70 | 43.00 | 96.70 | 22.61 | 18.56 |
| 2016 | 132.32 | 14.70 | 55.10 | 42.70 | 97.80 | 20.57 | 17.03 |
| 2017 | 132.08 | 15.60 | 55.10 | 43.20 | 98.30 | 20.32 | 16.80 |
| 2018 | 134.26 | 16.90 | 55.30 | 44.00 | 99.30 | 19.94 | 16.53 |
| 2019 | 140.67 | 16.80 | 55.80 | 43.10 | 98.90 | 19.41 | 16.50 |
| 2020 | 144.18 | 18.20 | 54.70 | 42.90 | 97.60 | 19.31 | 16.59 |
| 2021 | 135.28 | 18.10 | 54.50 | 43.00 | 97.50 | 21.32 | 18.77 |

资料来源：《中国统计年鉴》（2022年）和《中国高技术产业统计年鉴》（2006~2022年）。

## （二）内需、外需带动产业升级的内在逻辑

作为拉动经济增长的三驾马车之一，出口对一个国家的经济起飞具有重要作用。在经济建设初期阶段，由于国内居民收入水平较低，国民储蓄水平不高，投资能力不强，导致有效内需不足，经济增长缺乏内生动力。此时，只有依靠外部市场，把国外的资金和企业吸引进来，刺激国内投资增长和生产能力扩张，并通过出口缓解国内有效需求不足的窘境，带动经济增长。改革开放以来，中国以相对较低的劳动力成本优势和较为齐全的工业门类基础，深度融入全球价值链的劳动密集型、低附加值环节，充分激发了国内市场的活力和创造力，在一定时期内发展成为全球最大的“世界工厂”，提供了大量就业岗位，提高了居民收入，使中国从低收入国家逐步发展为中等收入国家，国内市场规模和有效需求也不断扩大，形成了“外需带动内需，促进经济增长”的良好局面。但是，随着时间的

推移和国内经济的持续增长，受全球价值链分工和贸易体系影响，中国越来越受到来自发达国家的“纵向压榨”和“低端锁定”，难以实现向全球价值链高附加值环节的攀升。同时，由于不同地区和不同行业的资源禀赋和发展路径不同，外需拉动也加剧了地区间和行业间的收入差距。由此可见，当经济发展到一定阶段后，外需带动经济增长的能力逐渐减弱，可持续性面临挑战。

近年来，中国面临的国际环境和竞争优势发生了巨大变化。一方面，受发达国家单边主义、保护主义影响，经济全球化遭遇逆流，外需市场受到限制，同时随着经济社会进步和国民素质的提高，中国劳动力成本优势逐渐消失，部分劳动力密集型产业开始向其他发展中国家转移，外需支撑经济发展的能力不断弱化。另一方面，国内经济社会的快速发展推动内需市场规模持续扩大，消费结构升级换代，国内市场占比和重要性越来越强，但由于供给侧生产能力落后和自主创新能力不足，无法满足消费者越来越高附加值的需求，供给侧和需求侧的矛盾日益凸显。为实现经济的持续增长，破除全球价值链的“低端锁定”并跨越“中等收入陷阱”，中国必须从外需依赖型的发展模式转向内需驱动型的发展模式(张杰和金岳，2020)，依靠开发国内统一大市场和提升企业自主创新能力推动产业升级，使国内需求成为经济增长的持续内生动力，推动形成“内需推动产业升级，反向刺激外需”的新格局。

由此可见，在经济发展和产业结构转型升级的过程中，内外需形成促进产业升级的混合引擎。外需是起步阶段经济增长和积累财富的重要力量，内需是经济持续稳定增长的有力保障(陈宏伟，2017)，必须利用好两种资源和两个市场，充分发挥内需与外需协调拉动的作用，增强消费、投资对产业升级的基础牵引和保障引导作用。同时，产业升级也会对内外需产生反馈约束作用。产业结构优化能够矫正要素配置扭曲现象，产品附加值提高能够满足多层次的高质量消费需求，增强供需适配的灵活性和适应性。而产业升级的滞后会降低消费者剩余，导致内需外流，不利于供需循环的双向互动。当前，在内外部环境深刻调整的新常态下，面对国际市场的日益紧缩和国内市场的巨大潜力，中国必须坚持全面推进以扩大内需为主导的发展战略，不断促进产业结构转型升级，实现高质量发展。

## 三、内需带动产业升级的主要途径

以国内消费者、企业和公共投资对产品和服务需求总量为核心的需求量不断扩大，就会激发国内市场需求不断增加，进而带动相关产业发展，推动产业升级。利用内需带动产业升级，既要充分发挥消费的基础性作用和基础设施投资的引导作用，也要通过产业间的关联拉动相关产业升级。

### （一）以消费升级带动产业升级

消费及其变化通过推动企业向高技术含量、高附加值的产品和服务转型，推动产业竞争力和

盈利能力提升。夯实消费带动产业升级的基础作用，核心在于消费升级。消费作为经济增长的重要支撑和内生动力，能够通过消费规模的扩大和消费结构的优化引导生产，并促进产业结构的转型升级。第一，消费规模的扩大意味着市场需求的增加和消费产品的多元化、个性化，将促使企业投入更多的资金用于扩大生产规模，更新迭代生产设备和改进生产技术以提高生产效率，从而提供更多的产品和服务，实现自身的转型升级和产业结构的优化调整。第二，消费结构的优化是指随着收入水平的提高，居民消费结构将从以生存型消费为主逐渐转向发展享受型消费。按照边际消费理论，收入水平的提高会促进对高收入弹性产品的消费，而高收入弹性的产品通常是非生存必要且附加值高的高端化产品和服务。当消费结构提升时，一些传统产业和低端产业将面临市场竞争的压力，而高端和新兴产业则会得到更多的市场机会和发展空间。这将促使企业根据市场需求变化调整生产规模和结构，重新配置生产要素，加大研发和创新投入，改进经营管理模式，以提升产品和服务的质量，进而推动产业结构的优化升级。第三，互联网、大数据等新一代信息技术打通了生产端和消费端的信息流通，使市场需求的变化更容易被生产者识别，从而快速响应调整生产结构，促进产业升级。同时，互联网技术和平台企业的发展，改变了传统的交易方式，使生产者能够直接面对全体消费者，有效降低了企业的经营成本，有利于商业模式转型和产业结构升级。

中国拥有超大规模的国内市场和最齐全的工业门类体系，国内市场消费潜力巨大，利用消费带动产业升级还有很大空间。但是，目前国内消费市场还存在一些发展不平衡不充分的问题，需要通过政策引导加以解决。首先，自2010年以来，除近两年受疫情影响略有降低外，国内消费增长对经济增长的拉动作用明显增强，但最终消费支出占GDP的比重仍然偏低。2021年，中国最终消费支出占GDP的比重为54.5%，与最高年份2003年的58.1%还相差3.6个百分点[①]。第二，由于中国收入分配制度的不完善不健全，居民收入水平差距较大，尤其是中低收入群体规模仍然较大。根据边际消费递减原理，提高广大中低收入群体的收入水平对扩大国内消费市场意义重大。“十四五”期间，我们应着力扩大中等收入群体规模，形成对扩大消费市场、提高潜在经济增长率的巨大推动力。第三，中国不同地区间经济发展水平的不平衡，导致消费升级促进产业升级呈现出地区异质性。消费升级对产业升级的拉动作用在中西部地区要优于东部地区，这是由于消费升级对产业升级的影响程度随经济发展水平的提高呈“边际递减”效应。因此，要坚持实施区域发展战略，进一步缩小地区差异，发挥中西部地区消费升级对产业升级的促进作用。第四，中国社会发展长期存在的城乡二元结构，导致城乡消费升级对产业升级的影响存在差异性。现阶段，城镇地区消费升级促进产业升级的效果更为明显，而且互联网等商业流通手段的助推作用表现更优。城镇化发展会对周边地区产生空间辐射效应，有利于区域内产业结构的转型升级。

[①] 数据来源：国家统计局。

### （二）以基础设施投资带动产业升级

基础设施建设的质量和规模不仅能够推动经济增长，而且可以推动产业升级。基础设施投资推动产业升级的主要途径有三个：一是扩大消费需求。基础设施投资作为经济社会中的“先行资本”，具有显著的乘数效应，能够带来相当于数倍投资额的社会总需求。一方面，基础设施投资作为社会总需求的重要组成部分，将大量资本投入国民经济循环，为企业经营活动提供生产资料的同时，有助于生产更多的产品和服务，进一步扩大市场消费需求；另一方面，基础设施建设能够改善交通、通信和公共服务等方面的条件，优化企业经营环境，降低成本，助力产业结构转型升级。二是优化资源配置。基础设施建设特别是交通、能源、通信等基础设施建设，可以改善相关区域的发展环境，吸引更多企业和资本流入该地区，促进区域间生产要素的合理流动，实现资本、人才、技术等各类资源的优化配置，并通过规模效应和集聚效应，推动区域内的产业结构调整。此外，基础设施投资具有典型的正外部性，不仅可以促进本地区的产业升级，而且能够带动周边地区的产业结构调整。三是提升创新能力。基础设施投资在降低企业生产经营成本的同时，有利于企业加强研发投入和技术创新，提升产业生产率和技术水平。由于具有规模效应和网络效应，基础设施投资能够引导地区间的产业聚集和技术扩散，并产生技术外溢效应激发企业创新活力。生产技术进步和创新能力提升能够带动产业内部的分工调整和结构优化，推动产业由价值链低端向中高端发展。

基础设施包括传统基础设施和新型基础设施。传统基础设施主要包括交通、能源、水利、邮政、仓储等为生产部门和人民生活提供公共服务的基础设施。新型基础设施主要包括基于新一代信息技术的5G基站、特高压、高速铁路、新能源汽车充电桩、大数据中心、人工智能、工业互联网等内容。两者相同的是，都能够降低企业的生产经营成本。传统基础设施通过提供便利的交通和通讯，降低了企业的交通成本。新型基础设施增强了企业获取信息的能力，可以有效降低企业搜寻信息、沟通协调等成本，同时借助互联网等信息手段实现技术等生产要素的快速流动。两者不同的是，首先，传统基础设施通过形成公共资本而提高全要素生产率，新型基础设施则表现为提高资本扩展型技术。在新一代信息技术的基础上，新型基础设施呈现数字化、智能化和网络化的发展趋势。其次，受经济社会发展阶段和不同阶段生产技术特征的影响，传统基础设施投资更多倾向于制造业，如钢材、水泥、机械设备等工业产品；而新型基础设施投资则在服务业的投入比重更高，集中于5G、大数据、人工智能等信息技术的更新换代，以及与之密切相关的金融业和商业服务业等。再次，新型基础设施投资能够从供给和需求两侧共同促进产业结构升级，在供给侧提高资本和劳动替代率以及商品和服务的替代率，在需求侧提升服务业相对制造业的需求。

随着中国经济由高速增长阶段进入高质量发展阶段，面对复杂多变的国际环境和西方发达国家对中国高新科技产业的“技术封锁”，为实现转动能转方式，跨越“中等收入陷阱”，必须把握新一轮科技革命和产业变革这一战略机遇，大力发展5G、人工智能、大数据等新一代信息技术，发挥新

型举国体制优势，集中力量突破关键核心技术和“卡脖子”问题。这就需要在相关产业和领域加大新型基础设施投资，引导制造业由劳动密集型向资本密集型和技术密集型转变，加快构建现代化产业体系，推动形成高质量发展新动能。需要注意的是，一方面，由于目前我国的关键核心技术仍然受制于人，新型基础设施投资的产业布局应适度超前，转型过程不宜过快，要在优化投资结构上花大功夫，充分发挥投资对产业结构调整的引领作用，着力实现稳定经济增长和优化经济结构的有机结合。另一方面，由于长期以来中国地区间经济社会发展的不平衡，基础设施投资对产业结构升级的影响也存在差异性。东部地区由于经济社会发展水平较高，产业基础较好，基础设施投资带来的产业集聚和人才集聚效应明显高于中西部地区，因此，东部地区的基础设施投资对产业结构升级的推动作用也要明显高于中西部地区，政府在投资布局上应更加注重发挥区域资源优势和不同区域间的协同发展。

### （三）以产业关联带动产业升级

作为经济生态系统的组成部门，各产业之间不是相互独立的，而是相互依存、相互影响和相互促进的。增强产业之间的相互促进作用，可以带动关联产业发展，形成产业链和产业集群，使相关企业之间形成更紧密的合作关系，提高整个产业的竞争力和附加值，推动产业升级。比如，农业的发展为其他产业提供物质基础，推动制造业和服务业的发展，而制造业的进步为农业现代化提供了先进的生产技术和机器设备，反过来提升了农业现代化的水平。以制造业和服务业为例，首先，作为国民经济重要支柱产业的制造业，是服务业得以发展的基础和前提。随着制造业的发展壮大，社会分工进一步细化，企业为了降低内部交易成本，逐步将研发、设计、营销、运输等环节剥离出来，外包给专业化的市场主体运作，由此发展形成了服务业。制造业对专业化服务需求的扩大，不仅降低了自身的经营成本，同时带动服务业经营范围的延展和专业化程度的加深，促进服务业的发展进步。其次，服务业为制造业的发展提供了动力和保障。经济社会发展到一定程度后，服务业提供的研发、设计、物流、金融等服务性产品是制造业企业实现差异化发展，提高产业附加值的重要支撑。现代服务业的发展可以进一步优化制造业生产的各个环节，提高产业链和供应链的整合效率和附加值水平，进而增强企业的核心竞争力，促进制造业的转型升级。因此，制造业和服务业之间资金流、物流和信息流的快速流动，加深了两者的关联关系，推动形成两者相互促进、共同发展进步的良性互动关系。

由于信息技术本身所具有的高渗透性、强带动性等特点，制造业和服务业的关联随着新一代信息技术和高新科技的快速发展而进一步加深，产业边界逐步出现泛化，甚至呈现出产业融合发展的趋势。《“十四五”扩大内需战略实施方案》提出，支持服务业向制造端延伸，大力发展面向制造业的信息技术服务，提高重点行业信息应用系统的方案设计、开发、综合集成能力。当前，中国正处于工业化中后期，推进制造业与服务业深入融合发展，以知识密集型服务业带动制造业向产业价值链

中高端发展，是实现经济高质量发展的必经之路。一方面，可以有效改善制造业供给质量，打破中国制造业的“低端锁定”。长期以来，中国制造业一直处于价值链的中低端环节。在以智能制造为核心的全球新一轮工业革命中，中国制造业面临发达国家高端制造业“回流”和其他发展中国家中低端产业“分流”的双重挑战，通过与现代服务业融合发展，以“制造+服务”模式改善制造业供给质量，形成差异化竞争优势，推动制造业向价值链高端迈进。另一方面，有利于克服“鲍莫尔成本病”，提高经济效益。产生“鲍莫尔病”的原因主要是服务业的生产率难以提高，这很大程度上是由于服务业的“自我循环”。没有实体经济的支撑，服务业的生产率自然难以提升。产业融合发展通过推动制造业和服务业协同发展，可以有效解决这一问题，以制造业带动服务业生产率的提高，避免陷入“中等收入陷阱”。

目前，中国制造业和服务业融合发展还面临许多问题。一是制造业大而不强，沿价值链攀升的能力不足。中国已成为世界第一制造大国，但制造业整体水平距发达国家还有较大差距，主要表现为产品附加值低、盈利能力差、知识资产储备不足，从而导致制造业向价值链高端攀升的动力不足，影响制造业转型升级。二是服务业对制造业转型发展的支持力度不足。近年来，中国制造业和服务业发展出现协同不够紧密的状态，服务业对制造业升级的支持力度不足，金融业甚至出现“脱实向虚”的发展态势。三是融合程度偏低，效益不明显。与发达国家相比，中国制造业在关键核心技术方面还未取得实质性突破，制造业和服务业融合发展的效益有待提高，无法有效改变盈利模式和实现跨越式发展。

## 四、以扩大内需带动产业升级的政策思路

当前中国仍面临消费升级、扩大投资和有效供给之间的矛盾，而且供需错位和循环不畅，扩大内需与产业升级政策的协同效率偏低，制约有效需求和有效供给的高水平动态平衡。因此，只有把实施扩大内需战略和深化供给侧结构性改革有机结合起来，协同推进扩大内需政策和产业升级政策，才能打通供需循环堵点，实现经济高质量发展。

### （一）扩大内需政策

当前中国正处于新型工业化、城镇化、信息化和农业现代化的快速发展阶段，内需对经济增长的贡献仍有较大发展空间，虽然消费的基础性作用持续强化，有效投资支撑产业升级的作用不断提高，但仍面临一些挑战。一方面，居民个性化和多样化消费需求满足程度偏低；住房投资挤压了部分居民的发展性消费支出，导致消费升级缓慢；民生保障存在短板，难以释放大规模消费潜力。另一方面，部分产业尚未建立起符合当下要素比较优势的产业升级方式；企业自主创新能力和开拓精神缺乏；一些行业仍未突破产业升级的技术瓶颈；国内市场循环存在堵点，不公平竞争和要素配置扭曲

抑制了消费和投资的良性互动等。

为扩大内需，按照政策目标和工具类型，中国应加强以下几类政策。一是旨在增强内需动力的积极的财政政策和稳健的货币政策。通过精准组合式减税降费政策，激发各类市场主体的消费和投资活力；通过引导金融机构对实体经济加大支持力度，稳定市场预期；整治市场秩序，惩治各种损害消费者利益的行为，改善消费环境，刺激市场消费潜力。二是旨在提高社会保障水平的相关政策。就业是获取收入的保障，收入是消费的基础和前提。疫情冲击导致部分居民处于失业状态，近期各类高科技公司在裁减人员，政府通过简化审批程序、降低就业准入门槛、支持多渠道灵活就业和支持贫困劳动力就业等政策，保障不同群体就业稳定，推进再就业；通过发展多层次的养老保险体系、落实养老和医疗保险省级统筹、推动教育向更加公平方向改革等措施让人民解除后顾之忧。三是营商环境优化政策。重点完善推动基础设施建设的投融资政策，推进要素市场优化配置和公平统一大市场建立的公平竞争政策，推动产权保护制度和社会信用体系的相关政策，为扩大内需提供高质量市场环境。四是推进扩大内需的其他政策。加快相对落后地区的发展是扩大内需的有效措施。以加快中西部地区、东北地区和少数民族边疆地区发展为重点，推动区域协调发展，完善人口的城镇化政策，缩小不同区域和城乡居民收入差距。

### （二）产业升级政策

中国产业升级仍有较大的发展空间，农业现代化水平正处于发展上升阶段，制造业尚处于全球产业链的中低端位置，服务业比重也低于世界类似发展阶段国家的平均水平。在新一轮产业革命和科技革命驱动下，市场主体和各级政府应注意把握产业升级的新方向，借助新型生产要素和技术要素缩短产业升级过程。当前，中国正处于数字经济发展上升期，数智化和绿色化成为产业升级的主旋律。但一方面企业因自主创新能力薄弱，技术资源与科学资源尚未高效联通(周叔莲和吕铁，2012)，面临产业链和供应链的“断链”风险，产业升级步伐受阻；另一方面，产能过剩与要素投入不足问题共存，资源配置扭曲限制了产业升级，地方产业发展与要素禀赋优势背离，产业同质化问题突出。不同产业发展存在异质性，因此，需要结合产业自身发展特点和政策工具优势制定推动不同产业升级的政策。

参考新结构经济学对产业的分类(王勇，2021)，当前促进产业升级的政策应着力于以下三类。一是政府主导和市场参与型产业升级政策。对于关系国家经济安全和国防安全的重要战略产业，一旦面临技术威胁将会危及整个产业链体系，尤其是以半导体、航空、航天、生物、尖端装备等为代表的先进制造业，需要政府加强基础研究经费支持和推动技术成果转化，从夯实基础研究层面推动产业升级，在部分领域可借助市场力量推动核心技术攻坚。二是市场主导和政府引导型产业升级政策。实施对象包含追赶型产业、转进型产业和换道超车型产业。追赶型产业与世界前沿技术还存在

较大差距，需要政府引导企业设立相关研发机构和学习前沿技术知识补齐技术短板；对于转进型产业，一方面需要推动失去比较优势的传统产业升级优化，另一方面要借助市场机制淘汰落后产能，通过国内梯度产业转移或向“一带一路”沿线国家转移的方式消化多余产能；对于换道超车型产业，比如：新能源汽车行业、移动支付行业以及大数据产业等，市场机制会自动吸引优质要素向产业集聚，而产业自身研发周期较短和人才、技术、资本要素密集度较高等特点能够吸引类似产业进入市场，充分发挥市场竞争机制作用，促使产业自主升级。三是旨在优化营商环境、促进公平竞争的市场培育型政策。公平竞争是最重要的企业行为模式和行为秩序(金碚，2022)，可通过提升产业发展的环境质量和简化制度程序等方式降低企业的市场交易成本和制度性交易成本，提升要素配置效率，培育出具有国际竞争力的高水平市场主体(刘戒骄、刘冰冰，2023)。

### （三）扩大内需与产业升级的协同政策

#### *1.以扩大内需政策牵引产业升级*

内需政策在挖掘消费和投资需求的同时，能够丰富产业转型升级方式，为产业升级政策提供指引方向。第一，实施增加消费需求规模的扩大内需政策，赋予产业新的升级动力。总结近年来家电、新能源汽车等行业减税、补贴经验，尤其是部分地方政府采取的免征购置税、增加充电桩等政策刺激新企业进入市场，推动充电桩、人工智能和新能源电池等行业创新发展和快速升级等做法，进一步扩大减税降费等措施，提高消费者购买力，鼓励人们增加消费支出，从而刺激市场需求。支持地方结合区域资源制定鼓励消费的政策，通过打造更丰富的消费场景引导消费者向高品质产品和服务倾斜，从而推动产业向高端化方向发展。第二，实施促进消费结构升级的扩大内需政策，着力推动绿色消费和数字消费，引领产业升级方向。一方面，加快食品消费的绿色化水平，推进绿色衣着消费、绿色居住消费和绿色交通消费，全面推进绿色用品消费，促使产业应用先进的绿色低碳技术，提高产业链和供应链绿色化、低碳化水平；另一方面，强化数字消费对产业数字化转型的支撑作用，发展以网络购物、网络直播、数字文化、在线教育、在线医疗等为代表的数字消费模式，创新数字消费产品供给，尽快打造具有国际影响力的数字消费品牌，以高质量数字消费需求刺激数字新业态链式升级。第三，积极扩大有效投资，促进产业融合和传统产业升级。合理安排传统基础设施和新型基础设施的投资比例，为产业数字化融合和产业联动升级打造公共服务平台。在推进传统基础设施建设的基础上，加强以“大智云物”为代表的新型基础设施支撑传统产业转型升级的作用，提高数据要素对产业生产经营过程的监管效率，利用数字技术互联降低制造业与生产性服务业的融合成本，推动产业间的关联升级。

#### *2.以产业升级政策刺激内需扩大*

产业升级政策有利于优化资源配置，缓解供需矛盾，扩大有效供给，从而满足高层次消费需求

和扩大有效投资。第一，实施旨在优化资源配置的产业升级政策，提升产品供给的质量和效益，优化消费结构。根据产业发展规律，逐步调整促进产业升级的政策，既要加强对高耗能和高污染行业的环境规制力度，淘汰落后产能，又要提高对新兴产业的政策扶持力度，吸引企业进入市场，逐步优化产业结构，达到供给结构牵引消费结构优化的目的。第二，实施推动产业升级方向的政策，丰富消费品供给种类和方式，挖掘更多消费潜力。中国采取了一系列针对数字化、网络化、智能化的“数字中国”政策，比如：《新一代人工智能发展规划》《“十四五”大数据产业发展规划》等，为数智赋能传统产业提供共性技术支持。要加快发展产业物联网、人工智能、虚拟现实等为依托的智能家居市场，推进物联网、云计算、大数据等智能计算技术为依托的智慧城市建设，实现教育、医疗、交通和城市管理的高效互联，拓展消费边界，不断提升消费产品和服务供给的质量和便利性。第三，推进发展新兴产业和产业融合的产业升级政策，发挥产业间互促互进的联动升级优势，扩大有效投资规模和优化投资结构。一方面，要夯实自主创新助力产业升级和产业融合的基础地位，实施积极的创新激励政策，补齐新兴产业技术短板；另一方面，加快发展现代服务业，构建服务产业新体系，推动公共服务领域提质增效。培育具有发展潜力和良好市场预期的新兴产业和现代服务业，增强产业对资本、技术、人才、数据等要素的吸引力，不断扩大有效投资规模并优化产业结构比例。

***3.以政策协同推进内需扩大和产业升级***

政策协同能够发挥政策合力效果，系统推动内需扩大与产业升级。首先，增强扩大内需政策与产业升级政策制定内容的协同性。由于消费、投资与产业升级之间存在双向的影响机制，所以在制定政策时，应统筹考虑消费、投资与产业升级之间的内在逻辑，避免政策叠加扭曲资源配置，浪费政策资源。同时还要考虑三者的潜在关联机制，通过政策协同打通影响机制堵点，提高三者循环作用的流通性和延展性。其次，促进扩大内需政策和产业升级政策内容制定和实施部门的连通性。扩大内需政策涉及的部门较多，一般需要财政部、中国人民银行、商务部、人力资源和社会保障部、工业和信息化部、国家发展和改革委员会等部门的密切配合，产业升级政策一般由工业和信息化部、国家发展和改革委员会、财政部等部门制定和推动实施，两者存在核心部门重合。因此，必须通过增强各部门政策事前制定的连通性和信息互换程度，统筹考虑政策作用对象间的关联性，提高政策的精准性和有效性。最后，积极优化收入分配制度改革和完善市场培育型政策，为提高居民消费能力、协同扩大内需与产业升级奠定基础。政府应构建以促消费和助产业升级的市场环境体系，保障各类市场主体活力。一要完善劳动、资本、知识、技术和数据等传统要素和新型要素的收益分配比例关系，保障居民消费动力；二要通过财政和货币政策，积极增加公共投资和社会保障支出，提高消费者和企业购买力，促进消费需求增加，还要通过减税降费等措施，降低企业成本，鼓励企业加大技术研发和转型升级力度，扩大企业投资需求；三要积极推进现代市场和流通体系建设，通过建设高效互联的现代流通体系、完善市场基础制度和推动公平竞争政策的实施，优化生产要素配置，提高市场运

行效率；四要深化消费和投资融资体制改革，清除体制机制障碍，优化扩消费、促投资的制度安排。

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# Industrial Upgrade Driven by Domestic Demand: Rationale, Pathway and Policy Coordination

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***Abstract:*** *Domestic demand motivates businesses to develop innovative products, services and industries to pursue a high-tech, high-value, and high-quality path of development. As industrial upgrade is fueled by domestic demand, it is essential for China to expand supply-side structural reforms, establish a modern industrial system, and increase the momentum of endogenous development via dual domestic and international circulations. Industrial upgrade and domestic demand are mutually reinforcing. Consumption provides the impetus for industrial upgrade, while investment serves as the guarantee. Conversely, industrial upgrade stimulates consumption and investment. Consumption and infrastructure investment should therefore be increased in a manner that supports industrial upgrade. As it is a catalyst for industrial upgrade, the objective of policymakers should be to increase domestic demand. In addition, there should be more coordination between policy objectives and instruments and more connectivity between policymakers and implementing agencies. Sound market policies should be adopted to create a market and institutional environment that increases domestic demand, improves industrial upgrade, and spurs high-quality development.*

***Keywords:*** *Domestic consumption, external demand, industrial upgrade, policy coordination*

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## 1. Introduction

In industrial upgrade to sharpen industrial competitiveness and promote sustainable development, technological, managerial, and institutional innovations inspire and support businesses to rise higher in the industrial chain through improvements in technologies, products, and services. China is currently in a crucial phase of establishing a new paradigm for high-quality development. In this stage, industrial upgrade is a strategic initiative and a key impetus for China's economic transition from rapid growth to high-quality development. From an economic standpoint, industrial upgrade is influenced by both supply- and demand-side forces. In contrast to the supply side, which provides the impetus for technological advancement, the demand side provides the pulling force. Prior to the 2008 global financial crisis, China's industrial upgrade was mainly driven by external demand. As advanced economies began

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to re-shore manufacturing in the post-crisis economic downturn, domestic consumption has replaced external demand as the main force behind China's industrial upgrade. Faced with a grave and complex international environment and the outcome of persistent impact of COVID-19 on the global economy, China's central government has established a new development paradigm in which domestic demand is the central component and domestic and international consumption reinforce one another. In the foreseeable future, China's industrial upgrade will be primarily propelled by domestic demand.

There has been extensive research on strategies aimed at increasing domestic demand and promoting industrial upgrade. First, research focused on the changing role of household consumption and external demand. Lyu (2012) held that in order to maintain economic growth, it is necessary to expand the consumer market while simultaneously increasing the manufacturing capacity, asserting that it is imperative to acknowledge the importance of domestic demand. In Jiang and Meng's view (2021), the importance of external demand has decreased in comparison to that of domestic demand due to increasing domestic household consumption and the improving consumption structure. Consequently, the role of external demand in China's industrial upgrade is expected to diminish. Jin (2021) found that a significant transformation occurs during the mature stage of a market-based economy, at which time domestic demand emerges as a crucial catalyst for market expansion. According to Ma et al. (2022), the importance of domestic demand in China's industrial upgrade has been increasing due to the worsening trade environment and rising factor costs. This trend is in contrast to the comparatively decreasing importance of wider opening up in the improvement of the country's industrial structure. Second, scholars examined how China's industrial upgrade is being propelled by consumption upgrade. Liu (2016) asserted that the shift in China's household consumption pattern from subsistence and material consumption to more personalized and diverse forms of developmental and recreational consumption necessitates the production of high-value-added goods to cater to consumer needs, thus promoting novel business models and industries. According to Feng and Zhu (2022), domestic consumption has emerged as a basis for China's economic stability amidst the challenges of declining external demand, supply shocks, and weakened expectations. This underscores the need to shore up domestic demand and facilitate industrial progress through consumption upgrade in the new phase of development. According to Yang and Chen (2018), as household incomes rise, there is a corresponding increase in the demand for products with higher income elasticity. Higher income-elasticity products account for a growing market share, bringing about an overall improvement in the industrial structure. Third, others have directed their attention towards the role of infrastructure in assessing the extent to which investment facilitates industrial upgrading. In Xu's (2021) opinion, infrastructure investment serves as a prominent form of capital that can have a substantial "multiplier effect", resulting in an increase in aggregate social demand or income that surpasses the volume of the investment. This is why governments emphasize infrastructure investment as a strategy to stimulate economic growth and job opportunities. Based on Yang's (2022) research, forthcoming industrial innovation and development will be supported by new infrastructures such as 5G, supercomputing, smart energy, and mobility. These infrastructures will facilitate the digital and green transformation of our society and economy. This study aims to explore the impact of the primary constituents of domestic demand, namely consumption, investment, and industrial correlation, on industrial upgrade. Our investigation will be based on the existing literature and guided by the underlying principles of industrial upgrade driven by domestic demand. This paper aims to provide recommendations and proposals for promoting China's high-quality economic development by leveraging domestic demand to facilitate industrial upgrade, with a focus on policy coordination.

## 2. Industrial Upgrade Driven by Domestic Demand: Empirical Facts and Fundamental Rationale

Industrial upgrade is largely driven by domestic demand. To unleash the potentials of corporate

innovation and industrial upgrade, offer more appealing products and services, and complete industrial upgrade, it is necessary to increase consumer demand. As a populous nation, China has an enormous consumer market, and domestic demand plays a crucial role in economic expansion. This section will analyze relevant data on China's domestic and external demand and industrial upgrade, and identify the relationship between domestic/external demand and industrial upgrade, to provide empirical evidence and a theoretical framework for demand-driven industrial upgrade.

### 2.1 Empirical Facts of Industrial Upgrade Driven by Domestic and External Demand

*2.1.1 Specification of indicators*

In economic analysis, obtaining relevant data on domestic and external demand using the GDP spending approach is standard and common. The GDP spending approach consists of three components: Consumption spending, aggregate capital formation, and net export of goods and services. The final consumption rate, total capital formation, and net export ratio can be derived from the sum of each component as a percentage of the GDP to reflect the domestic and external demand share of the GDP. The domestic demand share is equal to the sum of the final consumption rate and the capital consumption rate.

Using the proportion of net exports of goods and services or the contribution rate of net exports to measure the contribution of external demand has disadvantages due to the fact that the GDP spending approach is a static accounting method that cannot reflect interactions between various components (Jiang, 2010). For example, the value of net export is zero when the total volumes of imports and exports are both 500 million yuan or when the total volumes of imports and exports are both zero, but the former indicates a higher degree of economic and trade cooperation. In addition, imports will have an effect on domestic consumption and investment. Therefore, it is inappropriate to measure external demand using net exports. That's why we use export data to determine the level of external demand. The initial step is to calculate the share of nominal external demand, or the proportion of total exports to GDP. Since there are discrepancies between total exports and the GDP statistical approach, and since total exports include the value of imported inputs that are not included in the GDP, the nominal external demand is overestimated. Referencing Jiang (2010), we subtract processing trade imports from total exports to determine the export value addition before calculating the ratio between the export value addition and the GDP as the share of real external demand. However, this approach is also flawed. Jiang (2010) notes that the transferred value of general trade includes the value of imported inputs, but due to the lack of such data, external demand is still subject to the estimation problem; however, it is closer to the share of real external demand than nominal external demand. In Table 1, we present the previously mentioned external demand indicator based on the preceding analysis. Industrial upgrade is essentially a structural change encompassing technological, product, capital, talent, and service upgrades and must be assessed by the degree of a country or region's transition towards high-end manufacturing, high-tech industries, and services. Industrial structure upgrade is measured by the ratio between the output value of the tertiary industry and the output value of the secondary industry ($Industry_1$), and the degree of industrial structural transition toward high-tech industries is measured by the high-tech operating revenues of large industrial enterprises as a share of total manufacturing business revenues ($Industry_2$).

*2.1.2 Data analysis of domestic demand, external demand and industrial upgrade*

As shown in Table 1, the share of China's domestic demand stayed above 90% and, despite some declines caused by the global financial crisis of 2008, remained above 95% most years, highlighting the importance of domestic demand to China's GDP. China's final domestic consumption rate remained above 50% and increased consistently after 2008, before falling during the COVID-19 pandemic. In specific years, China's capital formation rate fluctuated around 40% as a result of fiscal and monetary

policies. In response to the 2008 global financial crisis, the Chinese government introduced a 4 trillion yuan stimulus program, which increased the capital formation rate to 47.00%. In 2012, China's capital formation rate declined to somewhere between 42% and 43%. In terms of the composition of domestic demand, the ratio between the final domestic consumption rate and the rate of capital formation stood at 5:4, emphasizing the importance of consumption in domestic demand and its function as a driver of economic growth. According to industrial upgrade data, China's tertiary industry surpassed its secondary industry in terms of output value after 2012, and the share of high-tech industries increased, indicating a more complex industrial structure. Since 2012, both domestic demand and industrial upgrade have contributed consistently increasing shares.

Based on variations in nominal and real export dependencies, China's external demand represented a declining proportion between 2005 and 2021. The shares of nominal and real external demands both declined from 2010 to 2016. This decline halted after 2016, followed by a rebound in 2021. In general, external demand serves as an important but diminishing driver of economic growth. Judging by the correlation between external demand and industrial upgrade, the trends of external demand and industrial upgrade are inconsistent. Since external demand is subject to anomalous international volatility in various years, industrial upgrade will only occur when there is a substantial shift in external demand. China's nominal and real export dependencies were 26.43% and 20.10%, respectively, in 2009, and the industrial upgrade index dropped significantly in 2010. The implication is that although external demand is a key driver of industrial upgrade, domestic demand remains the primary incentive.

**Table 1: Domestic Demand, External Demand and Industrial Upgrade (%)**

| Year | $Industry_1$ (Output value of the tertiary industry / output value of the secondary industry | $Industry_2$ (Operating revenue of high-tech industries / operating revenue of manufacturing industry) | Final consumption rate (final consumption spending/GDP) | Capital formation rate (total capital formation / GDP) | Share of domestic demand (final consumption rate + capital formation rate) | Nominal export dependency (total export volume) | Real export dependency (total exports - processing trade imports) / GDP |
|---|---|---|---|---|---|---|---|
| 2005 | 87.87 | 15.90 | 54.30 | 40.30 | 94.60 | 36.98 | 25.01 |
| 2006 | 87.82 | 15.40 | 52.50 | 39.90 | 92.40 | 38.90 | 27.24 |
| 2007 | 91.47 | 14.30 | 50.90 | 40.40 | 91.30 | 38.07 | 27.70 |
| 2008 | 91.28 | 12.90 | 50.00 | 42.40 | 92.40 | 34.83 | 26.56 |
| 2009 | 96.52 | 12.60 | 50.20 | 45.50 | 95.70 | 26.43 | 20.10 |
| 2010 | 95.05 | 12.30 | 49.30 | 47.00 | 96.30 | 29.10 | 22.18 |
| 2011 | 95.27 | 12.00 | 50.60 | 47.00 | 97.60 | 28.02 | 21.75 |
| 2012 | 100.22 | 12.70 | 51.10 | 46.20 | 97.30 | 26.34 | 20.71 |
| 2013 | 106.11 | 12.80 | 51.40 | 46.10 | 97.50 | 24.92 | 19.79 |
| 2014 | 112.06 | 13.00 | 52.30 | 45.60 | 97.90 | 24.40 | 19.41 |
| 2015 | 124.51 | 14.10 | 53.70 | 43.00 | 96.70 | 22.61 | 18.56 |
| 2016 | 132.32 | 14.70 | 55.10 | 42.70 | 97.80 | 20.57 | 17.03 |
| 2017 | 132.08 | 15.60 | 55.10 | 43.20 | 98.30 | 20.32 | 16.80 |
| 2018 | 134.26 | 16.90 | 55.30 | 44.00 | 99.30 | 19.94 | 16.53 |
| 2019 | 140.67 | 16.80 | 55.80 | 43.10 | 98.90 | 19.41 | 16.50 |
| 2020 | 144.18 | 18.20 | 54.70 | 42.90 | 97.60 | 19.31 | 16.59 |
| 2021 | 135.28 | 18.10 | 54.50 | 43.00 | 97.50 | 21.32 | 18.77 |

Source: *China Statistical Yearbook* (2022) and *Statistical Yearbook of China's High-Tech Industries*, 2006-2022.

## 2.2 Intrinsic Rationale for Domestic and External Demand to Drive Up Industrial Upgrade

Export, one of the three drivers of economic development, is crucial to a nation's economic growth. In the initial phase of economic development, domestic demand is insufficient and economic growth lacks endogenous driving forces due to modest household income, a low national savings rate,

and limited investment resources. In this situation, the only way for a nation to stimulate economic growth is to rely on the external market, attract foreign capital and businesses, stimulate the growth of domestic investment and the expansion of manufacturing, and compensate for the lack of demand. China has integrated into labor-intensive and low-value links of global value chains (GVCs) since the implementation of reform and opening up, leveraging its strengths of low-cost labor and a complete industrial system. Economic openness has unleashed vast domestic market and innovation potentials, transforming the nation into the world's factory. China has transitioned from a low-income to a middle-income country as a result of massive job creation and rising household incomes. Due to the expansion of China's domestic market and consumer demand, the interaction between external demand and domestic demand has been conducive to economic growth. China is increasingly subject to "vertical exploitation" and "low-end lock-up" from developed nations under the GVC division of labor and trade systems, preventing it from rising to the high-value links of the GVCs. Along with the disparate resource endowments and development trajectories of different regions and sectors, income disparities between regions and sectors have been widened by external demand. The implication is that when economic development reaches a certain stage, external demand plays a diminishing role in bolstering economic growth, threatening its sustainability.

In recent years, China's international environment and competitive strengths have undergone dramatic transformations. Unilateralism and protectionism in the developed world have hindered economic globalization and impacted China's external demand. China's labor cost advantage has diminished with social and economic development and rising levels of education, and some labor-intensive industries have relocated to other developing nations. The forces propelling external demand have lost momentum. On the other hand, China's rapid social and economic development has contributed to the continuous expansion of its domestic market and an upgrade in its consumption structure. Despite the expanding share and importance of the domestic market, China's limitations of high-end manufacturing and homegrown innovations on the supply side make it hard to meet rising consumer demand for high-value goods and services, resulting in a supply-demand mismatch. If China is to sustain its economic growth, break free from the "low-end lock-up" effect, and avoid the "middle-income trap" (Zhang and Jin, 2020), it must transition from an external demand-driven development model to one driven by domestic demand. China is expected to expand domestic demand as an endogenous driver of economic growth and usher in a new paradigm where domestic demand drives industrial upgrade, which in turn stimulates external demand, developing a unified domestic market, encouraging indigenous corporate innovation, and promoting industrial upgrade.

As demonstrated by the preceding discussion, in the context of economic growth and industrial transition, industrial upgrade is propelled by domestic and external demand. While external demand is an important driver of economic growth and wealth accumulation during the startup phase, domestic demand provides a robust guarantee of sustained economic growth (Chen, 2017). We must maximize domestic and international resources and markets, coordinate domestic and external demand drivers, which are subject to the feedback effects of industrial upgrade, and promote consumption and investment in support. In return, domestic and external demands are subject to the feedback effects of industrial upgrade. For instance, improvement in the industrial structure can correct distortions in factor allocation. By increasing product value-added, it is possible to meet the diverse demands of consumers and to make the supply-demand equation more flexible and adaptable. Lack of progress in industrial upgrade will reduce consumer surplus and lead to an excessive reliance on foreign supplies to satisfy domestic demand, which is detrimental to the supply and demand dual circulations. In the new normal of profound changes in domestic and international environments, China must increase domestic demand to cope with the international market crunch and tap into the potentials of its domestic market, as well as continuously upgrade its industrial structure and pursue high-quality development.

## 3. Pathways for Domestic Demand to Drive Industrial Upgrade

Increasing demand for goods and services from domestic consumers, enterprises, and government investments will speed up the development and upgrade of related industrial sectors. Domestic demand-driven industrial upgrade should give full play to consumption and investment in infrastructure, and stimulate the upgrade of related industries.

### 3.1 Industrial Upgrade Driven by Consumption Upgrade

Consumption upgrade will encourage businesses to provide more technology-intensive and higher value-added products and services, enhancing industrial competitiveness and profitability. Consumption upgrade is at the heart of consumption-driven industrial upgrade. As a primary driver of economic expansion, the growth and structural improvement of consumption provide direction for the supply side and induce industrial transition and upgrade. First, growth in consumption signifies an increase in market demand and the diversification and individualization of consumer goods, which prompts businesses to invest more capital to expand manufacturing, upgrade equipment, and adopt the latest technology to increase efficiency and supply more goods and services. Second, improvement in the consumption structure entails a transition from subsistence consumption to personal development and recreation consumption as household incomes rise. According to the marginal consumption theory, a rise in income will increase the consumption of non-essential, high-value goods and services with a higher income elasticity of demand. When the consumption structure is upgraded, traditional and low-end industries will encounter increased market competition, while high-end and emerging industries will encounter more market opportunities and increased growth space. This will prompt businesses to adjust production to meet market demand, reallocate production factors, and improve product and service quality by investing more in research and development, innovation, and business management. In this way, the industrial structure as a whole will improve. Third, new-generation information technologies such as the internet and big data have facilitated information communication between the production and consumption sides, making it easier for producers to identify changes in market demand and quickly adjust. In this way, internet technologies and platform businesses have transformed the traditional business model by putting producers in direct contact with consumers at lower costs.

With the most comprehensive industrial system and the largest domestic market in the world, China has enormous potentials for consumption-driven industrial upgrade. However, China's domestic consumer market is unbalanced and insufficient, and needs policy guidance. Since 2010, China's domestic consumption has vigorously pulled economic growth, but accounts for a smaller portion of the GDP. China's final consumption as a percentage of the GDP reached 54.5% in 2021, which is 3.6 percentage points below the 2003 apex of 58.1%.[1] Second, China's flawed system of income distribution has resulted in significant household income disparities, with the size of the population in the middle- and low-income brackets remaining big. According to the principle of marginal diminishing consumption, increasing the income of middle- and low-income groups is crucial for the expansion of the domestic consumer market. During the 14th Five-Year Plan period (2021-2025), we should strive to expand the middle-income group to supercharge the development of the consumer market and realize economic growth potentials. Third, China's unequal regional economic development has resulted in heterogeneous regional consumption-driven industrial upgrade. In the central and western regions, effects of consumption on industrial upgrade are more obvious than in the eastern region. The reason for this is that the influence of consumption on industrial upgrade diminishes with increasing economic development. As a result, we should implement a regional development strategy as an industrial upgrade catalyst to narrow regional gaps and give play to consumption upgrade's promotion effect on industrial

[1] Source: National Bureau of Statistics.

upgrade in the central and western regions. Fourth, China's urban-rural divide has led to disparate effects of consumption on industrial upgrade. Currently, urban consumption upgrade has a greater impact on industrial upgrade than does rural consumption upgrade. Internet-based commercial distribution also contributes substantially to industrial upgrade. Urbanization facilitates industrial transition and upgrade in neighboring regions.

### 3.2 Industrial Upgrade Driven by Infrastructure Investment

Infrastructure investment is conducive to economic growth and industrial upgrade. Infrastructure investment promotes industrial upgrade in three ways: First, by increasing consumer demand. As the main capital in social and economic operations, infrastructure investment has a significant multiplier effect and generates social demand that is multiplied by the volume of the investment. As a key component of aggregate social demand, infrastructure investment injects a substantial amount of capital into the national economy, providing businesses with the means to produce more goods and services to satisfy consumer demand. In addition, infrastructure development enhances transportation, communication, and public services, reduces costs, and facilitates industrial transition. Second, investment in infrastructure optimizes the allocation of resources. Infrastructure development - particularly in the areas of transportation, energy, and communications - may improve a region's business climate and attract more companies and capital. Reasonable cross-regional movement of production factors improves the allocation of capital, talent, and technology and promotes intra-regional industrial restructuring. Investment in infrastructure has the potential to encourage regional industrial upgrade and restructuring due to its positive externalities. Third, investment in infrastructure facilitates innovation by stimulating companies to spend more on R&D and innovation to increase industrial productivity and technological prowess, while simultaneously reducing production costs. With the effects of scale and network, investment in infrastructure will steer industrial agglomeration and technological diffusion across regions, resulting in technology spillovers that liberate corporate vitality for innovation. Progress in technology and innovation will promote intra-industry labor division and structural improvement, advancing industrial value addition.

Infrastructure consists of both traditional and new-type infrastructure. Transportation, energy, water resources, postal service, warehouses, and other infrastructures that provide public services for production sectors and people's livelihoods are included in traditional infrastructure. 5G base stations, extra-high voltage (EHV) transmission, high-speed railway, new energy vehicle charging facilities, big data centers, artificial intelligence (AI), and industrial internet are examples of new-type infrastructure. Both kinds of infrastructure reduce the cost of doing business. Companies have greater access to information thanks to traditional infrastructure, enabling them to search for information and communicate at lower costs. Access to the internet facilitates the rapid transfer of technology and other production factors. In contrast to traditional infrastructure, which increases total factor productivity (TFP) via the formation of public capital, the new type of infrastructure is distinguished by an increase in capital-extensive technologies. On the basis of the new generation of information technologies, the new type of infrastructure has shown the trends of digitalization, intelligence, and network-based development. In comparison, investment in traditional infrastructure focuses primarily on the production of steel, cement, mechanical equipment, and other industrial products. Investment in the new type of infrastructure comprises a large proportion of the service sector, with a focus on ICT upgrades, 5G communications, big data, and AI, as well as the closely related financial and commercial services. Investment in the new type of infrastructure potentially induces industrial upgrade from both the supply and demand sides, by increasing the substitution rates of capital, labor and goods and services on the supply side and by increasing the demand for services on the demand side.

As China's economy transitions from rapid growth to high-quality development, it faces complex and volatile international situations as well as technology sanctions imposed by some Western nations.

In this context, we must exploit the strategic opportunity presented by a new round of technological and industrial revolutions, develop 5G, AI, big data, and other information technologies of the next generation, and utilize the whole-nation system to acquire critical technologies and reduce foreign dependence. To achieve this, we must invest more in new infrastructure, accelerate the transition of manufacturing from labor-intensive to technology-intensive, develop a modern industrial system, and cultivate a new dynamic for high-quality development. Considering our reliance on foreign suppliers of essential technologies, we should maintain a moderately advanced industrial layout, avoid hasty transitions, strive to improve the investment structure to steer industrial structure adjustment, and stabilize economic growth while enhancing the economic structure. Uneven regional social and economic development results in disparate effects of infrastructure investment on industrial upgrade. The prosperous eastern region of China functions as the country's industrial powerhouse, attracting more industrial activity and talent than the central and western regions. Therefore, infrastructure investment in the eastern region is more conducive to industrial upgrade than infrastructure investment in the central and western regions. In terms of investment allocation, the government should place a greater emphasis on regional resource advantages and regional development coordination.

### 3.3 Industrial Upgrade Driven by Industrial Correlation

Rather than being independent from one another, industrial sectors are interdependent. Their synergy facilitates the development of related industries, the creation of industrial chains and clusters, the forging of stronger business connections, and the boosting of industrial competitiveness and value addition. Agriculture, for instance, provides essential materials for the manufacturing and service sectors, whereas the manufacturing sector enables agricultural modernization by providing advanced technology, machinery, and equipment. As an essential industry, manufacturing is the foundation for the growth of the service sector. As their business volume increases, manufacturers outsource R&D, design, marketing, transportation, and other services in a cost-effective manner to third parties. As a result, the service sector has flourished with a broader business scope and a higher level of specialization. In addition, the service sector contributes to the development of manufacturing. At a certain level of social and economic development, professional services such as research and development, design, logistics, and finance become crucial in order for manufacturing businesses to pursue differentiated development and raise value addition. By optimizing manufacturing processes and increasing the efficiency of supply chain integration and value addition, modern services contribute to a company's competitiveness and manufacturing transition and upgrade. Rapid cash, material, and data flows strengthen connections and synergy between the manufacturing and service sectors.

New-generation information technologies, with their high permeability and enabling effects, have deepened the link between production and services, blurring the industrial boundaries and integrating industrial development. The *Implementation Program for Expanding Domestic Demand during the 14$^{th}$ Five-Year Plan Period* called for the development of service-based manufacturing and manufacturing-oriented IT services, as well as the design, development, and integration of information application systems in key sectors. Now that it has entered the middle and late phases of industrialization, if it is to achieve high-quality economic development, China must promote integrated manufacturing and service development and increase manufacturing value addition by developing knowledge-intensive services. The benefits of upgrading manufacturing are twofold: First, it may improve the quality of the manufacturing supply and help China's manufacturing industry to overcome the "low-end lock-up effect". For decades, China's manufacturing industry has remained at the middle and bottom rungs of the value chain. In the new industrial revolution centered on smart manufacturing, China's manufacturing industry faces the dual challenges of developed countries reshoring advanced manufacturing and other developing countries competing for mid- and low-end industries. Integrating manufacturing with modern services and fostering differentiated competitive strengths is one way to improve the quality of the

manufacturing supply and value addition. The second advantage consists of overcoming Baumol's cost disease and enhancing economic performance. Baumol's cost disease is caused by the "self-circulation" of services, which inhibits the growth of productivity in the service industry. Without the support of the real economy, service sector productivity may not increase. This issue can be resolved by coordinating the development of manufacturing and the service sector in order to boost service sector productivity and avoid the "middle-income trap".

The integration of manufacturing and services in China faces many obstacles. First, despite its heft, China's manufacturing industry lacks the competitiveness and strength necessary to rise in the value chain. Despite being the largest manufacturing nation in the world, China lags far behind developed nations in terms of overall manufacturing prowess. Manufacturing transition is hindered by modest added value, profitability, and knowledge-based assets. Second, inadequate manufacturing-service integration has meant modest support for upgrading manufacturing in the service sector and a disconnect of the financial sector from the real economy. Third, China has yet to derive more tangible benefits from manufacturing-service integration and make strides in critical technologies to catch up with advanced nations, transform profit modes, and achieve leapfrog development.

## 4. Policy Approach for Industrial Upgrade Driven by Domestic Demand

China is still confronted with a contradiction between consumption upgrade, investment growth, and effective supply. The reaching of a dynamic equilibrium between demand and supply has been hampered by supply-demand mismatch, obstacles to economic circulation, and a lack of coordination between growth in domestic demand and industrial upgrade policy. The only way to eliminate barriers to supply-demand circulation and achieve high-quality economic development is to integrate expanding domestic demand with implementing supply-side structural reforms, placing domestic demand at the service of industrial upgrade.

### 4.1 Policy of Expanding Domestic Demand

China is undergoing rapid industrialization, urbanization, informationalization, and agricultural modernization, and domestic demand has the potential to turbocharge economic development. Despite the fundamental role of consumption and the growing importance of investment in industrial upgrade, there are still obstacles that need to be overcome. In the household sector, individualized household consumer demand has not yet been completely satisfied. Some households have spent the majority of their savings on housing investments, leaving them short of funds for personal development. Deficiencies in public welfare spending have hurt mass consumption potentials. Some industrial sectors have yet to designate an upgrade path based on their comparative advantages. Companies lack incentives to innovate and break new ground. Some industries are faced with technological industrial upgrade bottlenecks. Consumption-investment synergy is hampered by domestic market circulation barriers, unjust competition, and distortions in factor allocation.

China should emphasize a combination of the following policy initiatives: First, a proactive fiscal policy and prudent monetary policy must be adopted to stimulate domestic demand. Through a combination of tax cuts and fee reduction policies, market entities should be incentivized to consume and invest. Financial institutions should be instructed to provide more assistance to the real economy and to stabilize market expectations. Market order should be restored to prevent behaviors that hurt consumer interests, enhance the consumption environment, and stimulate consumption potentials. The second topic is employment policy. In order for consumers to have disposable income, they must have decent jobs. The unemployment rate in China has spiked since COVID-19, and tech firms are laying off employees. To secure employment and re-employment for various groups, we recommend that the government streamline procedures, reduce the job market's threshold, support flexible employment

via various channels, and assist the poor in getting hired. Pension and education concerns should be alleviated through the implementation of multi-tiered pension insurance systems, provincial pooling of pension and medical insurance funds, and reforms to equalize access to education. Third, policies to enhance the business climate. Priority should be given to encouraging investment in infrastructure and financing, encouraging market-based factor allocation, and establishing a unified national market to level the playing field, as well as adopting policies to protect property rights and enforce the social credibility system for a high-quality market environment conducive to domestic demand. Fourth, other domestic demand strategies. For example, domestic demand potentials can be unlocked by accelerating the development of China's less developed central, western, and northwestern regions and ethnic minority regions. Regional and urban-rural income disparities should be reduced through better regional development and demographic urbanization.

**4.2 Industrial Upgrade Policies**

China has enormous potentials for industrial upgrade, as indicated by the rising level of agricultural modernization, manufacturing remaining at the mid- and low-end links of global value chains, and its share of the service sector that is smaller than the average level of nations in comparable development stages. Under the new round of industrial and technological revolutions, market entities and governments at all levels must closely observe the new trends of industrial upgrade and harness new factors of production and technology to accelerate the process of industrial upgrade. Digitalization and environmental sustainability are now the primary focuses of industrial upgrade in the digital economy. The inability of businesses to innovate and derive technological progress from scientific research (Zhou and Lyu, 2012) has exposed supply chains to the risk of external disruptions. Overcapacity coexists with insufficient factor input, and resource allocation distortions have impeded industrial upgrade. The deviation of local industrial development from resource endowment advantages has led to homogeneous industrial development. Diverse policy instruments should be used to formulate and implement industrial upgrade policies for various industries.

Based on the industrial classification of new structural economics (Wang, 2021), we should concentrate on the three categories of industrial upgrade policies listed below: First, government-led, market-participatory industrial upgrade policymaking. Any disruption to the supply of choke-point technologies will jeopardize the entire supply chain for strategic industries that are crucial to the national economy and defense. The government should devote more funds to fundamental research and stimulate the commercialization of R&D discoveries as the foundation for industrial upgrade in advanced manufacturing sectors such as semiconductors, aviation, aerospace, biomedicine, and cutting-edge equipment. In certain industries, market forces can be utilized to advance research on essential technologies. Second, market- and government-driven industrial upgrade policies for lagging, transitioning, and technology-changing industrial sectors. The government must assist industries that lag far behind global frontier technologies in establishing R&D institutions and acquiring frontier technologies and knowledge to make up for their deficiencies. For transition industries, it is recommended to not only upgrade traditional industries that have lost comparative advantages, but to also eliminate backward capacities through market mechanisms and relocate them to low-tier domestic regions or BRI countries. For industries transitioning to new technologies such as new energy vehicles, mobile payments, and big data, market mechanisms will attract the concentration of superior factors. The brief R&D cycle and high concentrations of talent, technology, and capital will attract market-based competition, facilitating industrial upgrade. Third, market incubation policies to enhance the business climate and encourage fair competition. Fair competition is essential for regulating corporate behaviors (Jin, 2022). It is recommended to lower market and institutional transaction costs and increase factor allocation efficiency by enhancing the quality of industrial development and streamlining institutional procedures in order to nurture internationally competitive market entities (Liu and Liu, 2023).

### 4.3 Policies to Coordinate Domestic Demand Growth and Industrial Upgrade

*4.3.1 Industrial upgrade driven by policies to increase domestic demand*

Domestic demand policies provide diverse pathways to industrial upgrade and guide policymaking while unlocking consumption and investment potentials. First, policies should be implemented to increase consumer demand as a driver of industrial upgrade. In the past, policy initiatives such as tax preferences and subsidies were effective for industries such as home appliances, charging stations for new energy vehicles, artificial intelligence, and new energy batteries. The government may look to past practices when developing new programs to raise consumers' purchasing power and spending so as to generate demand. Local governments should be encouraged to enact pro-consumption policies and develop a variety of consumer use cases that serve to promote the consumption of high-quality products and services and induce industrial innovations. Second, the government should implement policies to increase domestic demand by promoting consumption upgrade, with a particular emphasis on digital consumption. Priority should be given to the promotion of green food, green clothing, and green transportation, as well as the encouragement of businesses to implement advanced green and low-carbon technologies and promote green supply chains. In addition, digital consumption should provide greater support for industrial digitalization, cultivate digital consumption brands with international influence, and stimulate the upgrade of digital industrial chains with high-quality digital consumption demand. Third, the proactive expansion of effective investment should be pursued to encourage industrial integration and upgrade traditional industries. The government should encourage a reasonable investment ratio between traditional and new types of infrastructure and develop a platform for industrial digitalization and upgrade. On the basis of the development of traditional infrastructure, efforts must be made to strengthen the role of new infrastructure led by "big data", artificial intelligence, cloud computing, and the internet of things (IoT) in transforming traditional industries. Use of the data factor should be made more efficient in regulating industrial production and business operations. Digital technologies should be harnessed to reduce the cost of integration between manufacturing and producer services and to facilitate the upgrade of related industries.

*4.3.2 Stimulating the growth of domestic demand with industrial upgrade policies*

Industrial upgrade policies help improve resource allocation, resolve supply-demand contradictions, and increase supply capacity so as to satisfy premium consumer demand and expand demand. First, industrial upgrade policies should be implemented to optimize resource allocation and the consumption structure, as well as to improve the quality and efficiency of product supply. In addition to increasing environmental regulation for energy-consuming and polluting industries, the government should eliminate outmoded capacities and step up policy support for emerging industries to attract business investment, improve the industrial structure, and optimize the consumption structure. Second, policies should be implemented to steer industrial upgrade and broaden the categories and distribution methods of consumer products with the aim of uncovering additional consumption potentials. To promote digital, network-based, and intelligent operations, China has adopted a set of "Digital China" policies. For instance, the *Plan for New-Generation Artificial Intelligence (AI) Development* and the *Plan for Big Data Industry Development in the 14$^{th}$ Five-Year Plan Period* offer generic technical support for the digital empowerment of traditional industries. Priority should be given to developing the smart home market based on the industrial internet, AI, and virtual reality (VR), developing smart cities with the support of the internet of things (IoT), cloud computing, and big data, achieving effective interconnection between education, healthcare, mobility, and city management, and expanding the consumption boundary and enhancing the quality and convenience of the supply of consumer goods and services. Third, industrial upgrade policies should be implemented to promote emerging industries and industrial integration, as well as the synergy between industrial sectors, increase investment, and optimize the investment

structure. Indigenous innovation should play a greater part in supporting industry upgrade and integration, and proactive incentives should be implemented to encourage innovation and compensate for emerging industries' technology deficits. Also, it is crucial to develop modern services and enhance the quality and efficiency of public services. Emerging industries and modern services with high potentials and favorable market expectations should be nurtured to attract capital, talent, and data, increase investment, and improve the industrial structure.

*4.3.3 Policy coordination for domestic demand growth and industrial upgrade*

Policy coordination may foster synergy and contribute to domestic demand growth and industrial upgrade. First, domestic demand policies should be coordinated with industry upgrade policies. Policymakers should consider the interplay between consumption, investment, and industrial upgrade to avoid resource allocation distortions caused by policy overlaps and policy resource waste. This requires the removal of institutional obstacles. Second, domestic demand and industrial upgrade policies should be coordinated more closely. Domestic demand policies are developed in collaboration with a wide range of government agencies, including the Ministry of Finance, the People's Bank of China (PBoC), the Ministry of Commerce (MOFCOM), the Ministry of Human Resources and Social Security, the Ministry of Industry and Information Technology (MIIT), and the National Development and Reform Commission (NDRC). The MIIT, the NDRC, and the Ministry of Finance also enact and implement industrial upgrade policies. Given the overlap in policymaking authorities, in order to improve policy coordination and precision, it is essential to increase policymaking coordination and information exchange between relevant departments. Finally, proactive efforts should be made to reform the system of income distribution and enhance market cultivation policies so as to increase household consumption and facilitate industrial upgrade. The government should support the dynamism of market entities and establish a market environment that is conducive to consumption and industrial upgrade. One strategy to boost household consumption is to maintain a reasonable income distribution ratio among various factors such as labor, capital, knowledge, technology, and data. Second, fiscal and monetary policies should be implemented to increase consumer and corporate purchasing power by increasing public investment and social security spending. Tax rates and fees should be decreased to encourage businesses to invest more in R&D and upgrade. Third, there should be steady progress in creating modern market and distribution systems. With the goal of optimizing the allocation of production factors and increasing market efficiency, policies should be implemented to develop efficient and interconnected modern logistics, enhance fundamental market systems, and foster fair competition. Fourth, reforms to the consumption, investment, and financing systems should be carried out to remove institutional barriers that inhibit consumption and investment.

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