The Pakistan Business Council
FOSTERING ECONOMIC GROWTH

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Export Diversification into Non-Traditional Product Segments

EXPORT DIVERSIFICATION INTO NON-TRADITIONAL PRODUCT SEGMENTS

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The Pakistan Business Council (PBC)
and
The Consortium for Development Policy Research (CDPR)

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The Pakistan Business Council: An Overview

The Pakistan Business Council (PBC) is a research-based business advocacy platform established in 2005. It is now supported by over 100 private sector local and multinational businesses with significant investment in, and long-term commitment to sustainable growth of the country. They come from 14 countries, have leading roles in 17 major sectors of the formal economy, generate 40% of annual exports, contribute a third of Pakistan's total tax revenues and employ three million. Their combined sales represent every 9th Rupee of Pakistan's GDP.

PBC's major objectives are to advocate polices that lead to creation of jobs, value-added exports and reduction in import reliance through improved competitiveness of manufacturing, services and the agriculture sectors. It also promotes formalization of the economy.

PBC's over-arching theme, **"Make-in-Pakistan"** consists of three pillars: **"Grow More/Grow Better", "Make More/Make Better"** and **"Serve More/Serve Better."** Its evidence-based advocacy is backed by over a hundred studies to date through its full-time research team, supplemented by collaborative research with renowned industry experts and economists. Through its Centre of Excellence in Responsible Business (CERB), PBC works to build capacity and capability of businesses beyond its membership, to adopt high environmental, social and governance standards. PBC holds conferences, seminars and webinars to facilitate the flow of relevant information to all stakeholders in order to help create an informed view on the major issues faced by Pakistan. Through its presence in Islamabad and Karachi, it works closely with relevant government departments, ministries, regulators and institutions, as well as other stakeholders including professional bodies, to develop consensus on major issues impacting the economy.

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LIBERTY

LIPTON
Teas and Infusions

LOTTE

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MACPAC
FILMS

MAHMOOD GROUP

Martin Dow

MASOOD
ROOMI

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FOODS
SINCE 1970

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PSX
PAKISTAN
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ptcl


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SAP

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Servis

Shan

SICPA

SIEMENS

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SPEL
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Standard
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systems

TAPAL

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Unilever

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engro elengy terminal

engro fertilizers

engro polymer & chemicals

HINUCON Private Limited

HUBCO

International Steels Limited
Shaping Tomorrow

LCI
LUCKY CORE INDUSTRIES

LMC Lucky Motor Corporation

Pakistan Cables

Executive Summary

This report identifies new export sectors and products within manufacturing that Pakistan could potentially diversify towards in the short to medium term. It also puts forward a set of preliminary policy recommendations that would facilitate the transition. Both secondary literature and stakeholder analysis of the selected sectors are used to outline the policy interventions,

The need for export diversification stems from the country's persistent low growth and frequent balance of payment crises. A significant factor contributing to Pakistan's vulnerability to external shocks is its narrow manufacturing and export base, with an overreliance on low value-added manufacturing and primary commodity exports. Sustainable growth and development necessitate a diverse and productive manufacturing and export sector, as demonstrated by the experiences of newly industrialized countries like Korea, Taiwan, China, and Viet Nam.

Over the past two decades, Pakistan's export basket has exhibited low diversity and complexity, primarily revolving around textile and agricultural products. The product space map of the country shows that exports are heavily concentrated in agriculture and cotton-based product clusters that occupy a peripheral position in the overall product space. While Pakistan's product space cluster displays dense interconnections, it lacks connections to other product spaces, hindering diversification efforts even within the same HS code. Consequently, Pakistan has made limited progress toward larger, more complex, and interconnected product groups.

Therefore, the challenge is to diversify into sectors and products that are highly value-added but are also within reach and not too far from the underlying comparative advantage. Big leaps in industrialization strategies that are facilitated by protectionist policies are often costly and lead to chronic inefficiencies. Hence, diversification must be within the feasibility set of a country and broadly in line with its technology and factor resources. To identify manufacturing products and sectors that Pakistan can diversify towards, three separate approaches have been adopted – an analysis of trade data to identify possible export opportunities, Hausmann Product Space analysis, and the Growth Identification and Facilitation Framework (GIFF). The products and sectors identified using these three approaches are then triangulated into a set of common products.

The first approach employed is straightforward - it analyses Pakistan's top twenty export products in terms of global demand (world import shares) at the HS 4-digit level. This helps identify items within the same product category that are in high demand globally but are not currently exported by Pakistan. The ensuing diversification options include items in the HS 63 (other textile articles), HS 61, 62 (articles of apparel knit), HS 42 (articles of leather), HS 90 (optical, surgical equipment, etc.), HS 55 (manmade staple fiber) and HS 95 (sporting goods) category. As these items are proximate to the existing exports of Pakistan, diversification into these would be potentially feasible and thus are a "low-hanging fruit."

The second approach is the Hausmann Product Space analysis. It is available at the Harvard Atlas of Economic Complexity and provides possible diversification by Pakistan based on current capabilities. The following sectors have been identified using three diversification strategies:

- Parsimonious Transformations (Short-Term): The sectors include (i) furniture, (ii) synthetic textiles and garments (also identified above), (iii) surgical instruments (also identified above); (iv) footwear (also identified above), (v) food processing, (vi) electronics assembly.
- Balanced Approach (Medium-Term): The key sectors identified here include (i) steel, (ii) non-ferrous metals, (iii) electronics, (iv) mining, and (v) pharmaceuticals.
- Strategic Bets (Long-term): (i) Platform changing value chains, (ii) IT, (iii) clean technology, (iv) electrical machinery, (v) autonomous vehicles.

The third approach is GIFF which is a policy tool based on insights from New Structural Economics, that emphasizes both effective markets and government facilitation to achieve industrial diversification and upgrading. The GIFF is applied to locate benchmark countries for Pakistan and to identify sectors in which it might have a latent comparative advantage. The benchmark countries are those from which product transfers can be possible i.e., the products in which the benchmark country's export share is declining, creating an opportunity to fill that gap. Viet Nam, China, Bangladesh, and Indonesia are identified as possible transfer countries for Pakistan.

The GIFF analysis identifies product categories relating to high-value fashion garments (identified in the export analysis as well as under product space), footwear, and recreational sports (also identified above). Therefore, based on the three approaches the following sectors are identified as common and hence feasible for diversification:

- **Diversification within the product family:** Garments, leather products & footwear, sports, and surgical and medical devices
- **Diversification outside traditional sectors:** Pharmaceuticals

Finally, a set of policy recommendations are put forward for each sector based on existing research and a stakeholder analysis conducted for this report. The recommendations focus on policies that would facilitate diversification into the products identified above. The report also estimates the unrealized export potential for various product categories that Pakistan is currently exporting. It lists products along with their respective HS codes and the estimated potential in USD. Additionally, it highlights primary products within each category that have significant export opportunities. The detailed description including the unrealized export potential of products at the 6-digit HS code level, methodology used to calculate unrealized export potential, and data sources are outlined in the report.

The estimates of export potential and summarized recommendations to achieve export diversification are shown in the following tables.

TABLE 1: Unrealized Export Potential by Products

Product	HS Code	Unrealized Export Potential (USD)	Primary Export Potential Products
Bed, Table, Toilet, and Kitchen Linen	6302	2.1 billion	Linen
Men's or Boys' Suits and Apparel	6203	512 million	Men's trousers
Men's or Boys' Knitted Apparel	6103	226 million	Men's trousers, cotton shorts – knitted or crocheted.
Knitted Sweaters and similar Articles	6110	99 million	Knitted or crocheted jerseys
Saddlery and Harness for Any Animal	4201	8.2 million	
Trunks, Suitcases, Vanity cases, Briefcases, and Similar containers	4202	23.6 million	Handbags of leather composition
Apparel and Clothing Accessories	4203	489 million	Articles of leather apparel
Yarn (other than sewing thread) of synthetic staple fibers	5509	8.1 million	Synthetic staple fiber yarn
Medical or Surgical Instruments and Apparatus	90	307.9 million	Microscopes other than optical microscopes
Toys, Games, and Sports requisites	95	393.9 million	Inflatable balls

TABLE 2: Summary of Recommendations

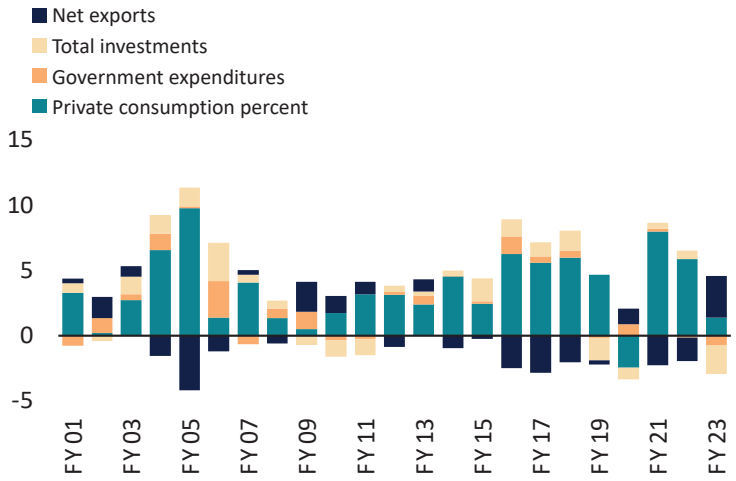
Category	Recommendations	Proposed Timeframe	Relevant Actors
High-Value Garment Segments	• Expansion of EFS (Export Facilitation Scheme) to a larger set of exporters. • The sector association should work on developing an Export Development Fund (EDF) for projects that finance communal infrastructure to enhance productivity and to make SMEs more compliant with green standards. • Enhancing firms' market knowledge, international networking, and skill development. • Inclusive export financing scheme and a reduction in interest rates. • Provision of a conducive business environment through Special Economic Zones (SEZs), modernization, and automation of business processes.	Medium-to-Long-term	• Trade Development Authority of Pakistan • Board of Investment • Finance Division
Leather Products and Footwear	• Implementing a separate HS code for second-hand branded shoes distinct from the existing HS code assigned to used clothes. • Lifting the ban on 3-D printers to fast-track product design development. • Customs should consult with the manufacturing sector to determine International Trade Price (ITP) to calculate the value of imports and duties. • EFS (Export Facilitation Scheme) should be offered to SME exporters if they meet their export targets and EDF should be used for ensuring environmental/green compliance by SMEs.	Short-term-to-Medium-term	• Trade Development Authority of Pakistan • Federal Board of Revenue
Surgical and Medical Device Industry	• Establishing a skill development programme • Provision of international testing facilities and certifications, using EDF financing for upgrading local certification infrastructure. • Development of a surgical city in Sialkot; the city should offer links with the electronics and material science research and development facilities to help the sector diversify into value-added devices. • The government through commercial councilors can help identify possibilities of joint ventures that could result in technology transfer in materials and electronics to facilitate export diversification. • Elimination of provincial sales tax on training costs and duplicate registrations/regulations.	Medium-term-to-Long-term	• Provincial skills development authorities • National Vocational and Technical Training Commission • Public-private partnership authorities
Pharmaceuticals	• Initial price determination of essential drugs should be done via reference pricing. Drug pricing should be according to successful global pricing regulations, and not fall under DRAP's jurisdiction. Instead, should be transferred to an independent Pharmaceutical Pricing Board (PPB). • Anomalies in the Drug Regulatory Authority of Pakistan (DRAP) Act and Drug Pricing policy should be corrected. • Establishment of Pharma clusters in major cities. • Revenue from the Central Research Fund should be utilized for research and development.	Medium-term	• Drug Regulatory Authority of Pakistan (DRAP) • Trade Development Authority of Pakistan • Ministry of National Health Services, Regulation & Coordination.

1. Introduction

The objective of this report is to identify potential non-traditional export sectors within manufacturing that Pakistan can move toward in the short to medium term. The need for manufacturing and export diversification stems directly from the country's chronic problem of low growth and frequent balance of payment crises. Expanding the manufacturing and export base to include higher value-added products that are in global demand and align with Pakistan's comparative advantage can promote higher and more sustainable economic growth. This study specifically focuses on the manufacturing sector's export diversification opportunities.

In recent years, Pakistan's economy has faced numerous challenges that have hindered its post-pandemic recovery, with growth lingering between 2% and 3%. Existing structural weaknesses were amplified by the catastrophic floods in 2022, a global recession, supply chain disruptions, and domestic political uncertainty. These factors have contributed to both low growth and persistent inflation, averaging 25% over the past two years, eroding purchasing power, and increasing poverty in urban and rural areas. Inflation, coupled with a record-high interest rate of 22%, has also reduced private consumption and investment demand. The manufacturing sector, burdened by rising energy costs and low demand, saw a 3.94% decrease in growth in FY23. The total investment-to-GDP ratio remained stagnant at 14% in 2023, the lowest in the region. Following a sharp depreciation, the exchange rate stabilized due to stringent administrative actions against informal capital flows and import controls. Although the State Bank has lifted most restrictions on official imports, commercial banks continue to ration foreign exchange, tying allocations to export earnings. While these measures to curb imports have improved the trade balance in recent months, they have also contributed to a low-growth equilibrium. Manufacturing exports, reliant on imports of capital goods and raw materials, continue to suffer from low levels of growth and productivity.

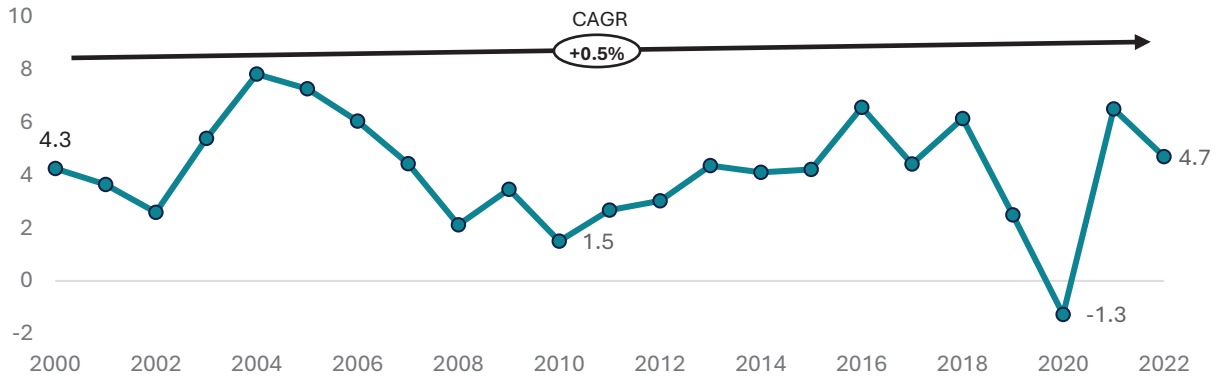
FIGURE 1: Breakdown of Pakistan's Growth 2001-2023 (%)



Source: State Bank of Pakistan

Although Pakistan's recent economic challenges, especially chronically high inflation, are unprecedented, they are part of a long-term cycle of boom and bust in the country's economy. Figure 1 above shows the growth performance and composition over the past two decades. As the figure shows, periods of growth are primarily driven by consumption, with investments and exports playing minor roles. Particularly concerning is the overall long-term growth stagnation, evident in Figure 2. The Compound Annual Growth Rate (CAGR) of GDP over the last two decades stands at a modest 0.5%.

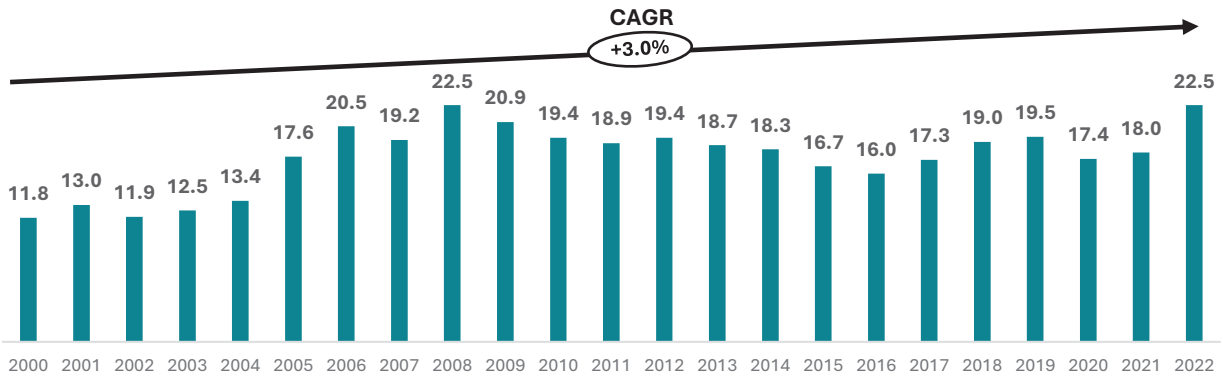
FIGURE 2: Real GDP Growth 2000-2022 (%)



Source: World Bank Data

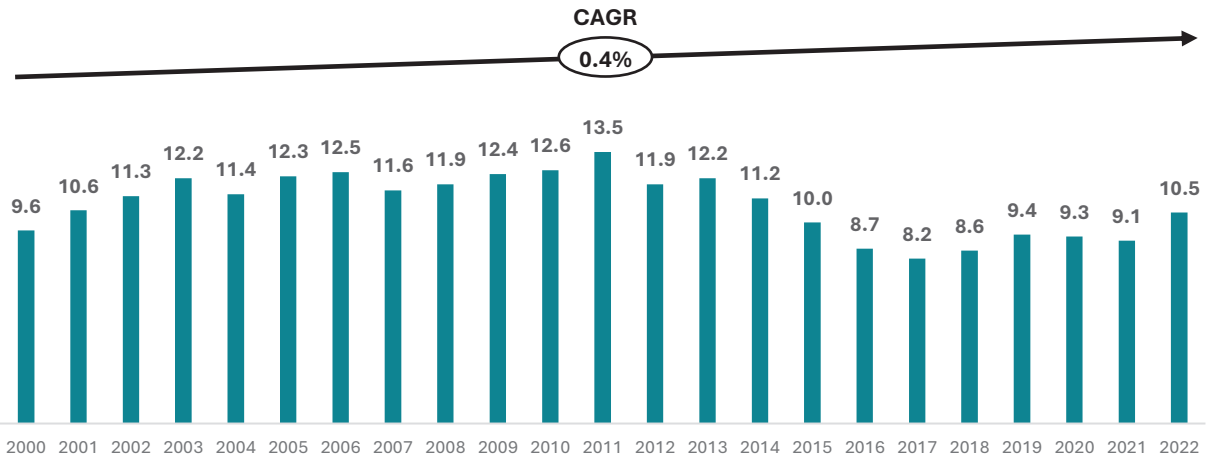
Pakistan in the last four decades has experienced a skewed structural transformation from agriculture to services, while the manufacturing sector's share in the economy has remained static. Consequently, the share of manufacturing exports in GDP has stayed unchanged, and the country's share in global exports has declined, indicating an overall loss in competitiveness. Increasing import demand, particularly for oil and petroleum products, has led to a widening trade deficit, causing repeated balance of payments crises. As shown in Figure 3, despite a fall in import demand due to COVID-19 and subsequent import curtailment measures by the government, the Compound Annual Growth Rate (CAGR) of import demand over the past two decades is 2.5% higher than that of exports.

FIGURE 3: Imports of Goods and Services (2000-2022, % of GDP)



Source: World Bank Data

FIGURE 4: Exports of Goods and Services (2000-2022, % of GDP)

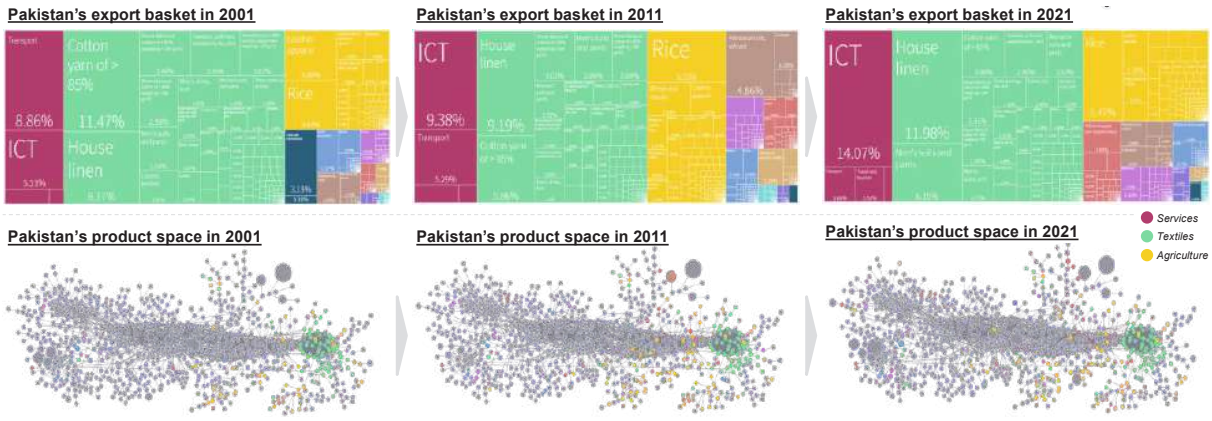


Source: World Bank Data

A primary factor behind an economy's vulnerability to external shocks is a narrow manufacturing and export base, coupled with an overreliance on low value-added manufacturing and primary commodity exports. Sustained growth and development require a diverse and productive manufacturing and export sector, as evidenced by the experiences of newly industrialized countries such as Korea, Taiwan, China, and more recently, Viet Nam.

Over the past two decades, Pakistan's export basket has remained largely undiversified and low in complexity. Exports have been primarily concentrated on textile and agricultural products, with rice holding a significant share. The product space map shows that Pakistan is predominantly concentrated around agriculture and cotton-based product clusters, and its position in the space is peripheral. This offers limited opportunities for diversification, as is evident from the stagnant export basket composition for over a decade (see Figure 4 below). The product space cluster of Pakistan displays dense interconnections within itself, but it lacks connections to the broader product space. Consequently, the existing capabilities and know-how in Pakistan do not support diversification toward complex products, even within the same HS code. To address this, policy reforms are needed to create incentives for the private sector to invest in acquiring skills, capabilities, and technologies, enabling diversification toward higher value-added products

FIGURE 5: Pakistan's Export Basket & Product Space, 2001, 2011, 2021



Source: Atlas of Economic Complexity, Ministry of Industries & Production, Government of Pakistan

Simultaneously, the number of unique products exported by Pakistan has declined. Measured at an HS 6-digit level, Pakistan exported 2,824 unique products in 2019, down from 2,987 in 2009. This contrasts sharply with many other countries like Sri Lanka and Vietnam, which have expanded both the number and quality of products they export. Although Pakistan has shown some early signs of growth in non-traditional exports since 2020–21, they still represent a small fraction of overall exports. Moreover, Pakistan has struggled to nurture large-scale exporters. In FY 2021, the largest exporting firm shipped goods valued at less than US$450 million, comprising just 1.6 percent of total exports. By comparison, Reliance Group in India recorded exports worth US$41 billion in the same period. Furthermore, exports in Pakistan are heavily concentrated, with 198 firms contributing 50 percent of total exports. Less than 3,000 firms managed to export more than US$1 million, and the median export value per firm was only about US$105,000. This bias toward small-sized firms has impeded export growth by limiting access to technology, research, distribution networks, compliance, and integration with larger global value chains.

Pakistan's exports, which peaked at about 15% of GDP in 2003, have been declining since 2011 and currently stand at approximately 11% of GDP, significantly lower than comparative countries. Meanwhile, export volume growth has stagnated since FY 2007 due to de-industrialization, resulting in a widening export volume growth gap compared to other emerging markets. This decline has led to Pakistan's share of global exports dropping by almost 40% since the early 1990s, remaining only 0.13% of world exports in 2020. The most recent trade deficit stands at USD $1,743 million as of February 2024. To tackle the problem of widening trade deficit and low export volume growth, Pakistan needs to prioritize growing its manufacturing and export base and adding value to its export commodities, particularly in agriculture, IT, and engineering products, to enhance profit margins.

The report is structured into five sections. The following section outlines the rationale for export diversification and highlights recent success stories in the developing world, along with an overview of Pakistan's existing trade policy framework. Following this, the third section conducts an in-depth analysis of the current lack of diversity and complexity within Pakistan's export sector. Subsequently, the fourth section introduces a three-pronged methodology for identifying potential non-traditional sectors for diversification. Once the sectors and specific products for diversification are identified, a stakeholder analysis covering these sectors is conducted to pinpoint major constraints and provide preliminary policy recommendations aimed at facilitating diversification efforts.

2. Export Diversification – Global Best Practices and Existing Policy Framework

Export diversification reduces the dependency of an economy on one or a few products as sources of foreign exchange earnings, thus lowering the risk and vulnerability to external shocks and contributing to economic growth. The three stages of export diversification, as noted by Bond and Milne[1], are:

- Diversifying from exporting a few primary commodities to a larger variety of products.
- Shifting from primary commodities to manufactured export commodities.
- Diversifying the export base into the tertiary sector, such as communication services, etc.

For developing countries like Pakistan, reducing dependency on primary goods is crucial for enhancing terms of trade, bolstering foreign exchange reserves, and transitioning toward a trajectory of sustainable high growth. Between 2005 and 2020, India and Bangladesh saw their exports surge by 133% and 130%, respectively, while Pakistan experienced a modest 39% increase over the same period. Furthermore, Pakistan's total export share in global exports dwindled from 0.19% to 0.16%[2]. Beyond the region, countries like Korea, Taiwan, Singapore, and China serve as exemplars of policies that foster manufacturing and export-driven growth. Within a few decades, these nations transformed their economic structures from primarily low value-added agriculture to competitive, high value-added manufacturing bases, elevating them to the status of middle- and high-income economies. In contrast, countries such as Brazil and Argentina pursued import substitution strategies, emphasizing the domestic market; however, these inward-looking policies resulted in slower growth and an industrial base that was less competitive and inefficient.

As a recent example of success, Bangladesh has had an impressive growth trajectory over the years, outperforming economic growth predictions by placing a special focus on export-led industrialization. Bangladesh's export earnings grew by 41% from 2021-2022[3], despite its declining share of apparel exports - which is an indicator of the country's emphasis on export diversification to increase export earnings. Bangladesh has achieved this by establishing industrial parks and economic zones to stimulate foreign direct investment. Additionally, it is progressing towards becoming an outsourcing destination, with its Information and Communication Technology (ICT) sector experiencing remarkable growth in export earnings, soaring from $26 million in 2008 to $1.4 billion in 2021[4]. These achievements have been made possible through incentivizing export-oriented sectors.

1 DeRosa, D. A. (1992). Increasing Export Diversification in Commodity Exporting Countries: A Theoretical Analysis. IMF Staff Papers, 1992(003), A005. Retrieved Mar 28, 2024, from https://doi.org/10.5089/9781451973174.024.A005

2 Abu Bakar Sadiq. 2023. Exploring Product Diversification Opportunities in Pakistan for Export Growth. Forman Journal of Economic Studies Vol. 19(1), pp. 47-75. Retrieved from: DOI: http://dx.doi.org/10.32368/FJES.20231903

3 Bangladesh Ministry of Foreign Affairs. 2022. Retrieved from: https://mofa.portal.gov.bd/sites/default/files/files/mofa.portal.gov.bd/page/37199c6d_96b8_4715_bf54_d999c9b02ff9/Bangladesh%20Rising%20January%202022.pdf

4 Bangladesh Ministry of Foreign Affairs. 2022. Retrieved from: https://mofa.portal.gov.bd/sites/default/files/files/mofa.portal.gov.bd/page/37199c6d_96b8_4715_bf54_d999c9b02ff9/Bangladesh%20Rising%20January%202022.pdf

For instance, Bangladesh ensures 100% tax exemption for the IT sector, along with cash incentives and profit repatriations. Its industrial and economic parks provide infrastructure for research and development, along with access to employment opportunities for skilled labor, energy availability, and networking opportunities.

Pakistan's Strategic Trade Policy Framework[5] aims, on paper, to enhance the competitiveness of its export industry by diversifying into more complex goods, and moving away from traditional exports like cotton, leather, rice, and manufactured goods. Additionally, the country's export market is heavily concentrated in a few countries, highlighting the urgent need for diversification. This diversification is imperative for Pakistan to address its vulnerability to Dutch Disease (DD), a phenomenon described by Ijaz Nabi and Saqib Jafarey as the stagnation of an economy following substantial inflows of foreign currency from a single source[6]. Overcoming Dutch Disease requires innovation, and well-designed programs to upgrade trade infrastructure and enhance export productivity. Therefore, the STPF aims to promote product development, capacity building for human resources and institutions, and upskilling to address Pakistan's export stagnation and trade deficit.

Constraints to Pakistan's export diversification encompass a range of issues, including low productivity in the manufacturing sector, inadequate value addition, shortages of skilled labor, energy inefficiency, and shortages, and a lack of research and development. Additionally, Pakistan faces challenges stemming from its limited export destinations, which constrain its export market. These challenges contribute to a current account deficit, low foreign exchange reserves, and difficulties in servicing debt. Moreover, the country's heavy reliance on a narrow range of export goods such as textiles results in limited resources being allocated to other non-traditional export goods and services. This limitation is compounded by inadequate investment in research and development to enhance the value addition and diversification of non-traditional export goods and services. Furthermore, import tariff exemptions primarily target raw materials rather than input technology crucial for enhancing product and service value addition, thereby discouraging export improvement efforts[7]. To effectively diversify the manufacturing and export sector, Pakistan requires a uniform and coherent industrial policy. However, such a policy is lacking, as the country has adopted various industrial strategies across different eras.

During the 1950s and 1960s, Pakistan pursued import-substitution strategies and policies characterized by protectionism, tariff barriers, overvalued exchange rates, and subsidized capital. The 1970s saw the nationalization of industries, leading to the establishment of state monopolies. From the 1980s to 2010, there was a shift towards privatization, trade liberalization, and a focus on exports and market reforms, accompanied by increased private investment. This period also witnessed a rise in foreign direct investment and the establishment of special industrial zones to boost industrial growth and efficiency. Emphasis was placed on free trade systems and technology transfers to promote the domestic export industry. However, after 2010, Pakistan's industrial growth decelerated, with textiles emerging as the primary focus for export incentives[8].

Challenges such as lack of capital investment and absence of a cohesive federal industrial policy all continue to contribute to a stagnant performance by the industrial sector. Moreover, high interest rates and energy prices hinder SMEs from competing in the export sector, thus acting as market barriers for firms to export diversified goods and services. Moreover, low levels of research and development, lack of skill development, and low networking and coordination between industrial players contribute to the overall inefficiency of the industrial sector and reduce export competitiveness.

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5 Ministry of Commerce. Strategic Trade Policy Framework (STPF) 2020-25. Retrieved from: https://tdap.gov.pk/wp-content/uploads/2022/01/STPF-2020-25-1.pdf

6 Saqib Jafarey and Ijaz Nabi. Overseas Remittances and Dutch Disease. (2024). Retrieved from: https://cdpr.org.pk/wp-content/uploads/2024/04/Article-3-Overseas-Remittances-and-Dutch-Disease-in-Pakistan-1.pdf

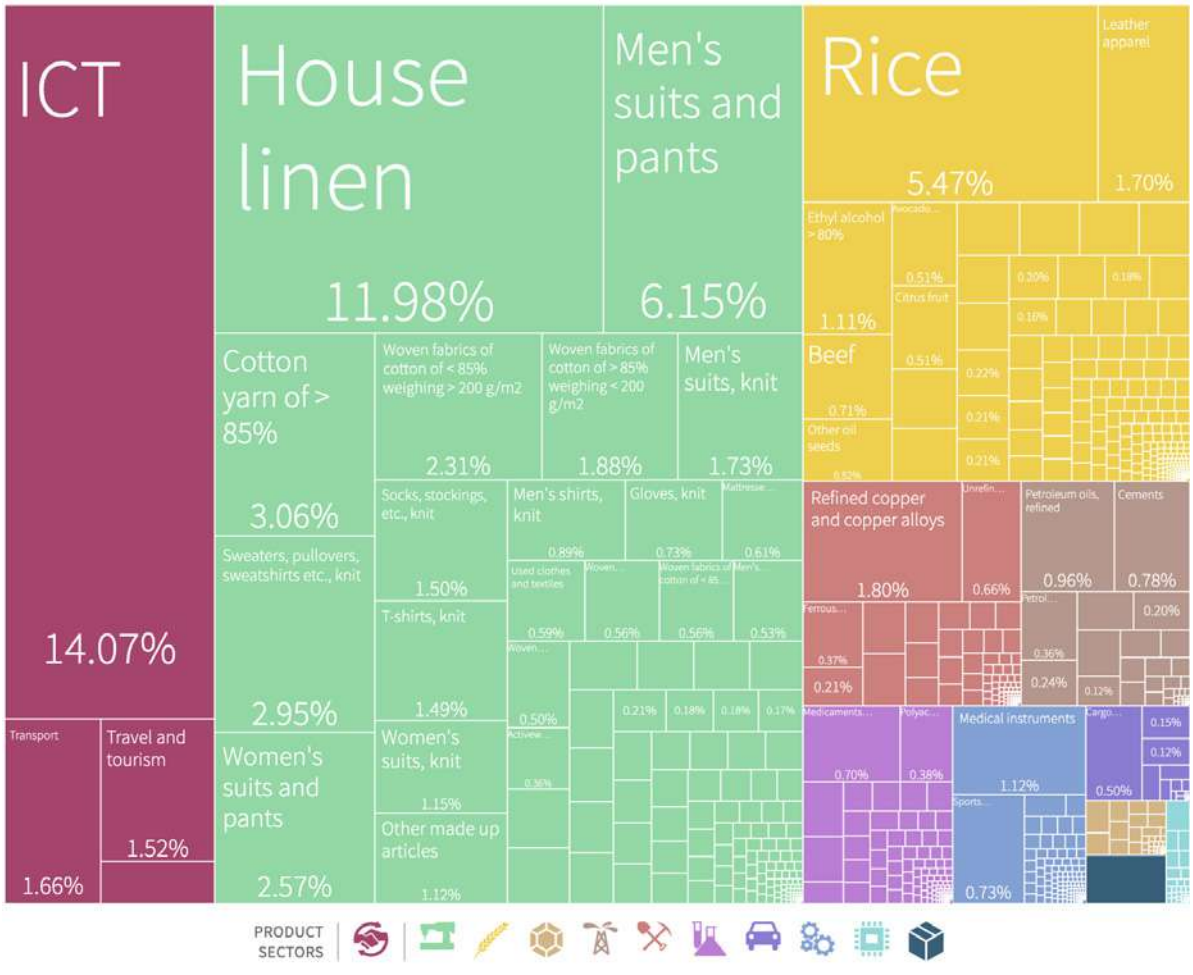
7 State Bank of Pakistan. Special Section - Annual Report. 2014-2015. Retrieved from: https://www.sbp.org.pk/reports/annual/arFY15/Special-Section3.pdf

8 Kishwar Khan. Industrial Policy for Economic and Social Upgrading in Pakistan. 2021. Retrieved from: https://library.fes.de/pdf-files/bueros/pakistan/18898.pdf

3. Pakistan's Export Conundrum – A Case of Inadequate Diversification

This section presents a deeper analysis of the structure of Pakistan's export sector, examining various methodologies to measure the extent of product diversification and the degree of product complexity. As discussed in the sections above, exports from Pakistan have remained low compared to other regional and comparator countries, and the export basket and export markets have not diversified. Pakistan's total exports in 2021 were $36.7 billion, and Pakistan's exporter rank was 63 out of 133 countries. As a first step of analysis, the following figure shows the lack of diversity of exports. The export basket predominantly comprises of Textiles, Rice, and ICT.

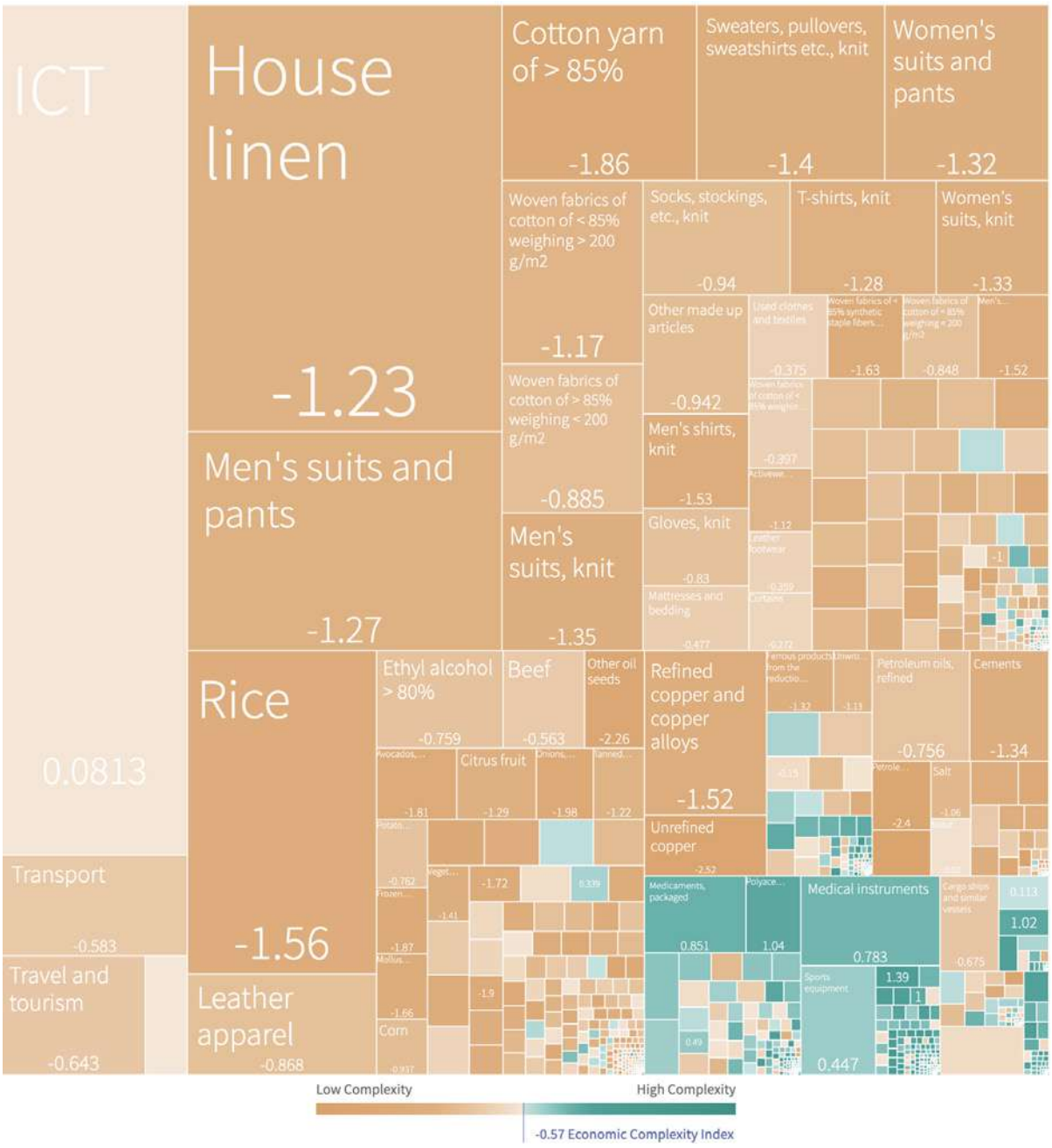
FIGURE 6: Pakistan Export Basket, 2021 (% Shares)



Source: The Atlas of Economic Complexity

A second step of analysis is to look at the complexity of the export basket. The Harvard Growth Lab analyses suggest that countries that have managed to move into products that are more complex and sophisticated compared to their income levels are expected to grow faster. An effective growth strategy therefore needs to be driven by a process of diversification into more complex goods and services. As shown earlier, Pakistan's largest goods exports are in the moderate and low complexity category and thus low value products - textiles and agriculture (See Figure 7, Below).

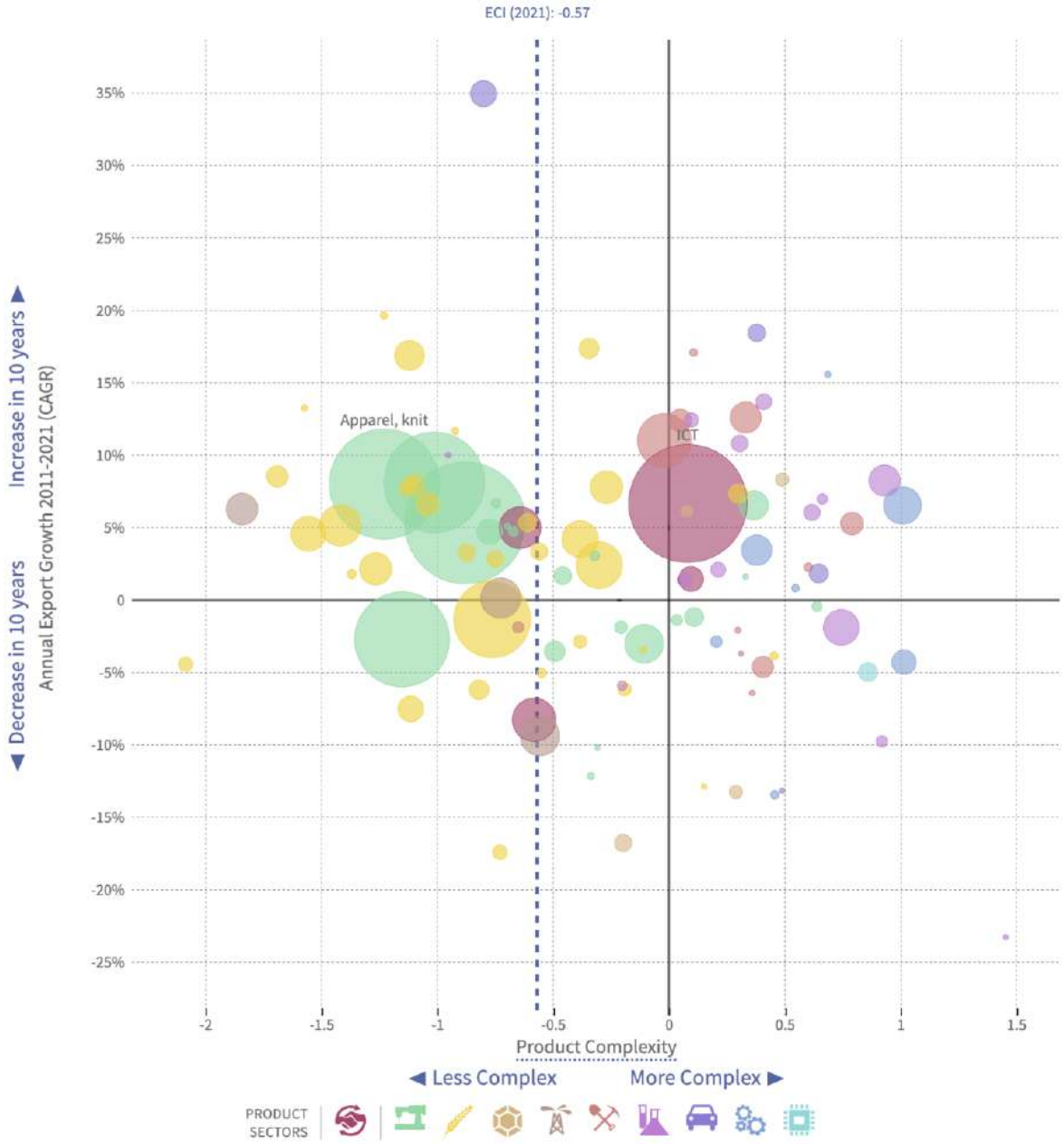
FIGURE 7: Pakistan's Export Complexity, 2021



Source: The Atlas of Economic Complexity

The third step of analysis is to look at export growth dynamics. Most of the growth in exports has also come from less complex products such as apparel, knitwear, and other made-ups. Some growth has been observed in sectors that are more complex like pharmaceutical, medical apparatus, and metal tools, however, the overall size of these relatively more complex sectors is small (See Figure 8, Below).

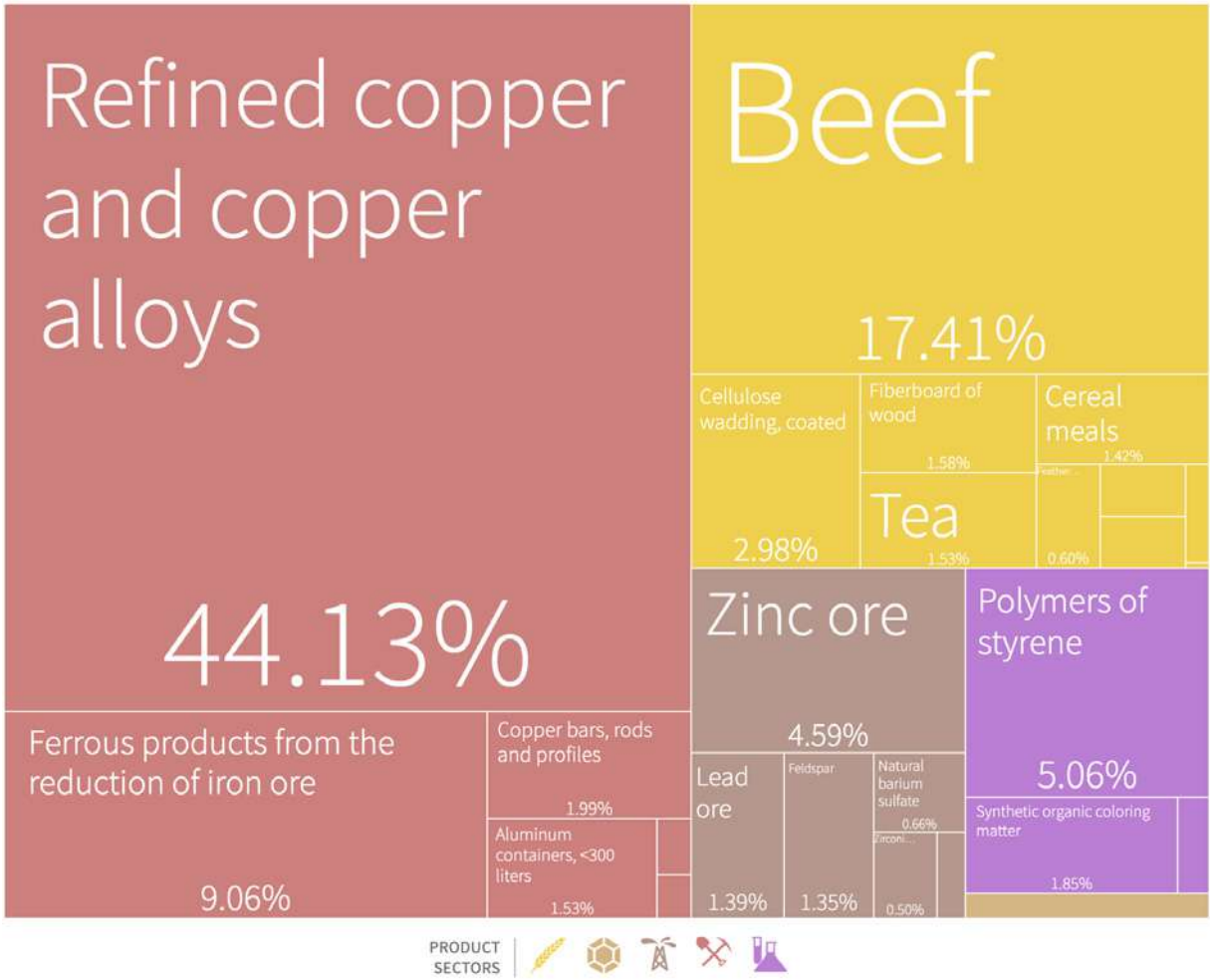
FIGURE 8: Export Growth vs Complexity, 2021



Source: The Atlas of Economic Complexity

A fourth step of analysis is to look at growth in new and more complex products. Over the last 15 years, Pakistan has only 26 new products in its export basket, which have added only $6 in income per capita. Most of these new products are natural resource-based or agricultural produce indicating a diversification in lesser value-added sectors, see Figure 9.

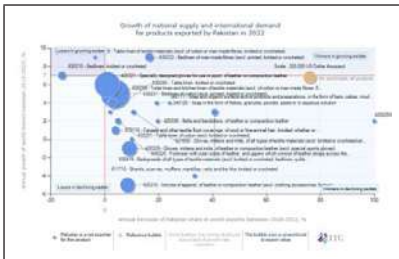
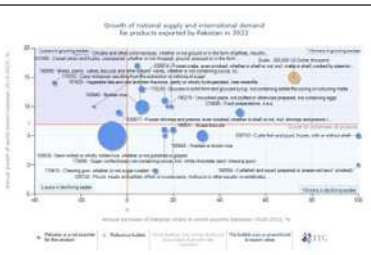
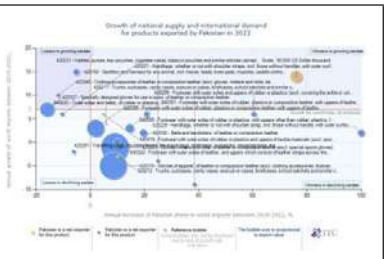
FIGURE 9: New Products Exported by Pakistan, 2006-2021



Source: The Atlas of Economic Complexity

A fifth step of analysis is to calculate the Revealed Comparative Advantage (RCA) of existing exports from Pakistan. The analyses using ITC Trade map data below suggest that most exports from Pakistan are stuck in non-competitive sectors — export growth in those sectors is globally on a decline. There are few products where Pakistani exports are in the competitive region.

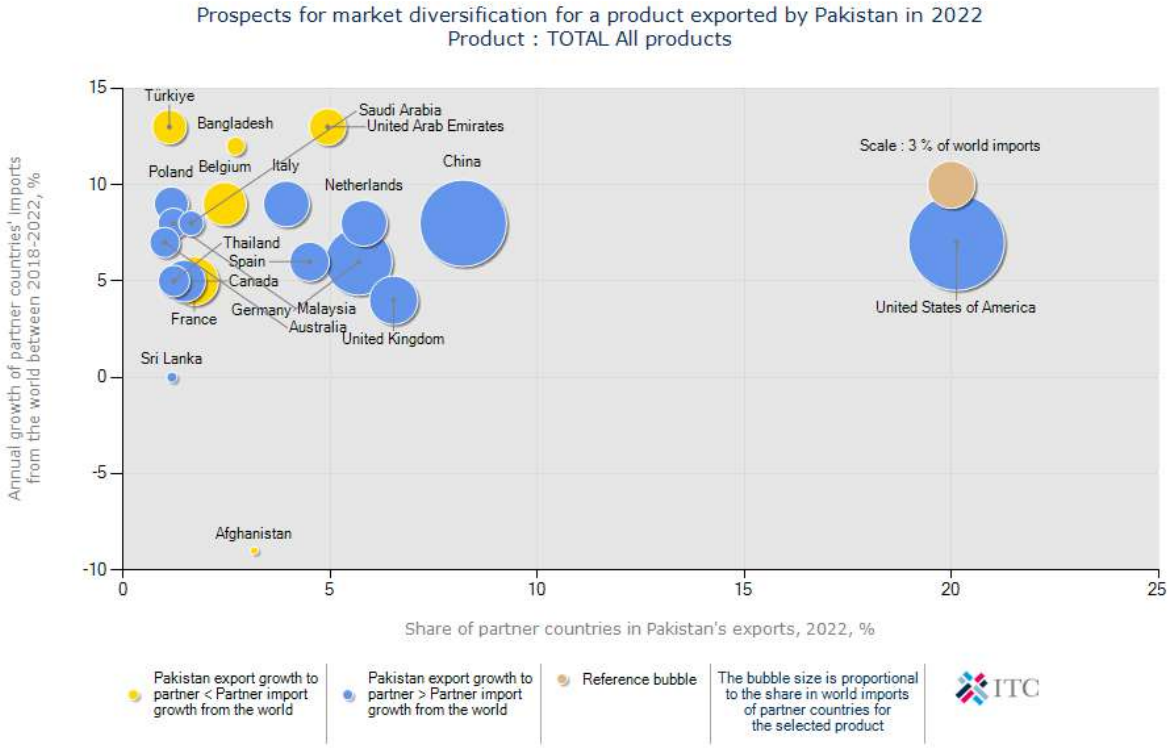
FIGURE 10: Export Competitiveness of Key Export Sector, 2018-2022 (%)

		
In the segment of creative industries, Pakistan's export mainly resides in sectors with decreasing global demand.	Food processing, fisheries, and pasta, are globally competitive sectors.	In leather and leather products there are no goods in the competitive segment.

Source: ITC Trade map

A sixth step of analysis looks at the diversification of Pakistan's exports in terms of destination markets. Figure 11 below shows that apart from the US and China the shares are small, especially in Middle East countries.

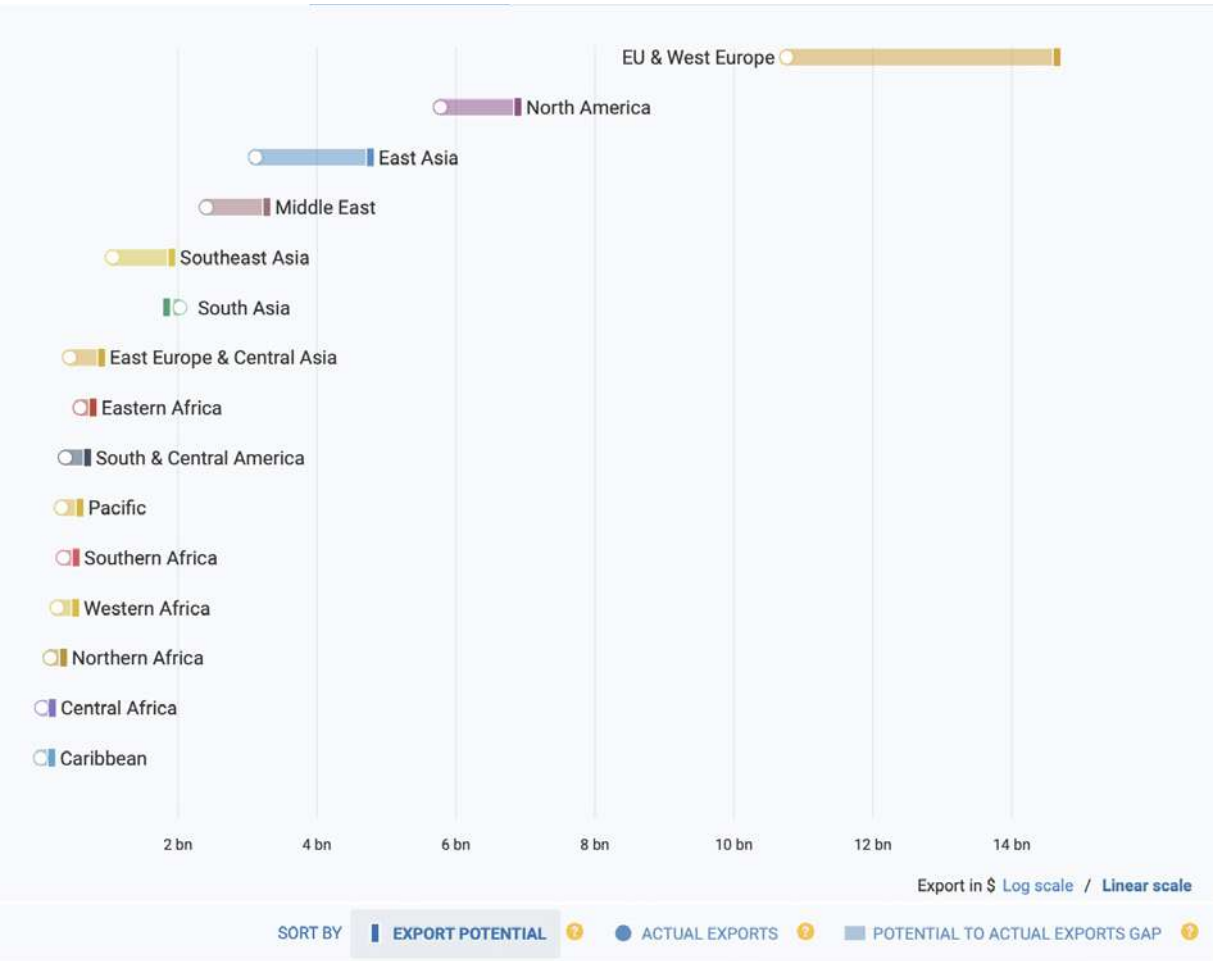
FIGURE 11: Market Diversification of Pakistan's Exports



Source: ITC Trade map

Further analysis of possible region-level diversification suggests that the EU, North America, East Asia, and Southeast Asia offer significant export potential for Pakistan (Approximately $14 billion+, See Figure 12, Below). Therefore, the export strategy should focus on exploring opportunities in these markets. This may be done via effective diplomacy of trade missions in these regions. For example, the Pakistan Embassy in West Canada has established an association led by expats in Canada who have conducted two expos with Pakistani exporters and have generated momentum in trade possibilities—the model may be replicated in other key regions. However, the expansion of exports to the EU is conditional upon Pakistani produce meeting new EU sustainability and circularity requirements that are going to be effective by 2025.

FIGURE 12: Pakistan's Export Potential in Key Regions



Source: ITC Trade map

The analysis above provides strong evidence to conclude that Pakistan is operating far below its potential, and its exports are concentrated in low to medium-value products. The key reasons for this are summarized below:

- The tariff rationalization process has been complicated by the issuance of Special Revenue Orders (SROs) such as the 5th Schedule. There is a tendency to maintain substantially higher and more complex tariffs to generate domestic revenue through import duties. This, combined with manufacturers' easy access to the large domestic market, which lacks stringent quality compliance requirements for exports, has led to a systemic anti-export bias. One key measure of this bias is the EERm/EERx ratio, where a ratio of 1 indicates no bias and higher ratios indicate greater bias. In 2004, the ratio was 1.19, which has since decreased to 1.13 (average effective protection rate)[9]. This shows that there is substantial improvement despite the elimination of export subsidies. As the export subsidy is taken as zero while certain sectors get zero rate inputs under Export Facilitation Schemes (EFS) especially garments and leather and some avail loan schemes for exports the ratio is an upper limit—for proposed sectors, the basis will be less. indicating significant improvement despite the elimination of export subsidies10. Furthermore, the disproportionately high returns offered by sectors like real estate and wholesale & retail have diverted

9 Hamna Ahmed, Mehreen Mahmud, Naved Hamid, and Talal-Ur-Rahim. A strategy for Reversing Pakistan's Dismal Export Performance. CREB Policy Paper No.01-10. (2010). Retrieved from: https://creb.org.pk/wp-content/uploads/2022/06/5fc29f0a5585da206c994d09b7c61c6ePolicy-Paper-01-10-complete.pdf

10 For recent - average protection rate is from ITC trade map and assuming export subsidy is zero as export loans are not universal. For different sectors, this would require a separate study as there is no such data readily available, and the data extraction will require more time.

investment away from manufacturing. The absence of a consistent industrial and trade policy has been a significant weakness, constraining export growth.

- The overall business environment and investment climate in Pakistan have been hampered by significant structural issues, which have constrained investment, industrialization, and exports. These core structural issues are well-documented and include (i) policy inconsistency, (ii) legal issues and gaps, particularly concerning the disparity between de-jure and de facto investment regimes, (iii) inadequate institutional governance and capabilities, notably the absence of a genuine investment promotion agency (IPA), (iv) low savings rate, (v) shallow financial markets, (vi) a sizable informal economy, (vii) weak dispute settlement mechanisms and the absence of an effective commercial dispute resolution system, (viii) absence of investor retention practices and measures to bolster investor confidence, (ix) restrictive tax collection interface, coupled with administrative complexities and cumbersome documentation procedures within a sub-optimal regulatory environment, (x) infrastructure gaps and pricing issues, including the cost of land, underutilized special economic zones (SEZs), and the cost of utilities.
- The cross-cutting issues such as the poor state of human capital development, dysfunctional economic governance, and lack of focus on materializing and retaining investments have also limited investments and resulted in a sub-optimal portfolio mix (95% of FDI has been market-seeking and the rest is natural resource-seeking with negligible investments for efficiency-seeking).
- Due to the aforementioned issues and as evidenced by the provided data, Pakistan's product base has largely remained confined to less complex, low-value products. The absence of an integrated quality and compliance culture has led to business strategies centered on low margins and high turnover in domestic markets. Consequently, Pakistani firms have struggled to integrate their products into global value chains (GVCs). GVC participation necessitates a certain level of scale, quality, compliance, and just-in-time delivery, all of which are lacking in Pakistan. Furthermore, the policy focus has traditionally been on manufacturing complete final products. For instance, extensive support has been provided to the automobile manufacturing sector for decades, while limited incentives and pathways have been created to specialize in certain parts to supply to GVCs.
- The issue of compliance is critical for accessing export markets and has been a weak area for Pakistan. Pakistan lags in necessary research, development, and required laboratories and testing facilities for product certifications relating to different aspects. The growing threat of climate change and sustainability concerns has prompted developed countries to implement new regulations and compliance standards. For instance, the EU has spearheaded initiatives like the EU Green Deal, Carbon Border Adjustment Mechanism (CBAM), and the EU Circular Economy Action Plan, which will necessitate a new set of compliances and certifications by 2025 for continued eligibility to sell in the EU market. Pakistan's key export sectors such as textiles, leather, food, and agriculture are poised to be significantly impacted by these developments. However, both the industry and the government continue to adopt a segmented approach to preparing for these impending changes.
- Export sector financing has also been inadequate, especially since the SMEs have remained largely unserved. This has resulted in limited growth of small and new exporters. There have been no supporting mechanisms that facilitate market discovery and entry as exporters face huge costs in learning about markets and demand. There is a need for the trade missions to be more effective along with building a strong collaboration with the Trade Development Authority of Pakistan (TDAP), which has not happened to date. The financing instruments to fund such activities have not been suitable at large.
- Pakistan's negotiations of FTAs and PTAs have yielded inadequate results, and limited benefits have accrued from these efforts as in some cases bilateral trade imbalances have been large. The formation of the FTAs/PTAs has also been slow, and there are several potential countries where no efforts have been made.
- An overly appreciated exchange rate has historically impacted export competitiveness. This has been largely rectified; however, the unpredictable volatility of the exchange rate remains an issue.

4. Identification of Non-Traditional Products/Sub-sectors

This section conducts data analysis to pinpoint sectors with potential for export diversification. The analysis employs three distinct methods: a straightforward examination of trade data for opportunities, Hausmann product space analysis, and the GIFF Framework. The final selection of products that Pakistan could potentially diversify towards is determined based on the findings from these three methodologies.

Opportunities within existing export sectors

Pakistan's Top-20 exports at HS-2 Digit are provided in the table below. The first 4 contributors are linked to the textile value chain and the 5th largest is also linked to agriculture.

TABLE 3: Top-20 exports at HS-2 Digit level

Rank	Product	Exports in value	Exports as a share of total exports (%)	Exports as a share of world exports (%)
1	63 Other made textile articles, sets, worn clothing, etc.	5,638,037	18.12	6.63
2	61 Articles of apparel, accessories, knit or crochet	5,138,138	16.51	1.74
3	62 Articles of apparel, accessories, not knit or crochet	3,910,119	12.57	1.54
4	52 Cotton	3,418,575	10.99	5.4
5	10 Cereals	2,617,705	8.41	1.47
6	74 Copper and articles thereof	862,322	2.77	0.4
7	42 Articles of leather, animal gut, harness, travel goods	735,845	2.37	0.73
8	22 Beverages, spirits and vinegar	592,631	1.9	0.4
9	90 Optical, photo, technical, medical, apparatus, etc	462,400	1.49	0.07
10	03 Fish, crustaceans, molluscs, aquatic invertebrates	442,274	1.42	0.3
11	55 Manmade staple fibres	439,562	1.41	1.18
12	39 Plastics and articles thereof	424,173	1.36	0.05
13	02 Meat and edible meat offal	381276	1.23	0.23
14	27 Mineral fuels, oils, distillation products, etc.	370,961	1.19	0.01
15	08 Edible fruit, nuts, peel of citrus fruit, melons	370,786	1.19	0.27
16	25 Salt, Sulphur, earth, stone, plaster, lime and cement	362,704	1.17	0.55
17	95 Toys, games, sports requisites	340,151	1.09	0.2
18	30 Pharmaceutical products	313,337	1.01	0.04
19	07 Edible vegetables and certain roots and tubers	286,247	0.92	0.34
20	17 Sugars and sugar confectionary	255,092	0.82	0.45

Source: ITC Trade Map

Since the aim is to pinpoint potential diversification within manufactured exports, sectors pertaining to primary agriculture and fisheries have been excluded. Likewise, natural resource-based sectors, where diversification relies solely on available resources, have also been omitted. Seven key sectors within manufactured exports have been singled out to explore potential diversification within the product group. The method employed is straightforward and involves comparing Pakistan's exported product mix with the global demand product mix (world import shares) at the HS 4-digit level. This comparison helps identify items within the same product cluster that are in high demand but are not currently exported by Pakistan. The ensuing diversification options are highlighted below.

FIGURE 13: World product Mix vs Pakistan Export Mix for Products in at HS 63 Code

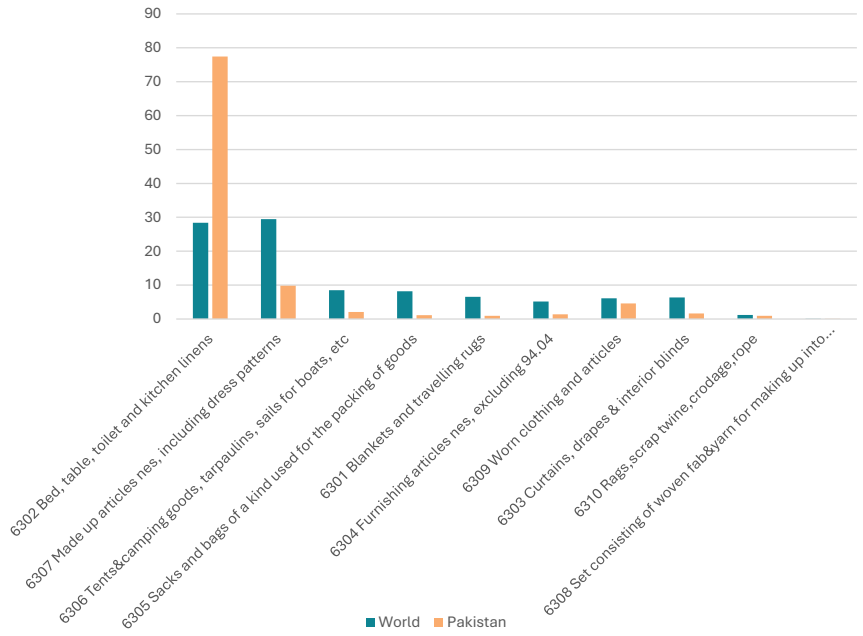
Product	Possible Diversification
63: Other made textile articles	
	**6307: Made-up articles dress patterns,** **6306: Tents, camping, etc.,** **6305: Sacks and bags for packaging,** **6301: Travel Blankets,** **6304: Furnishing articles,** **6303: Curtains and drapes** In short, there is a need to diversify towards high fashion and sporting/outdoor items and home décor.

FIGURE 14: World product Mix vs Pakistan Export Mix for Products in HS-61 Code

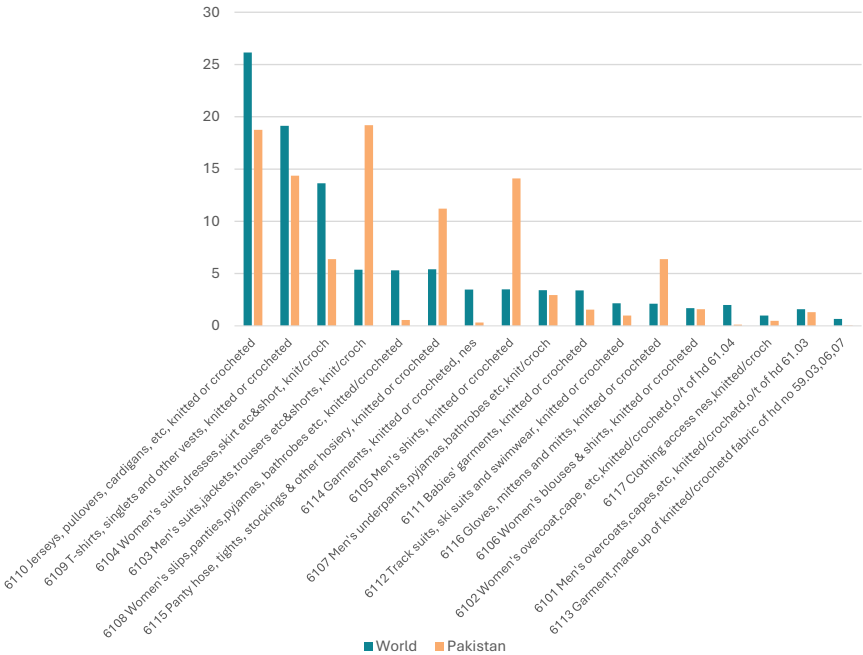
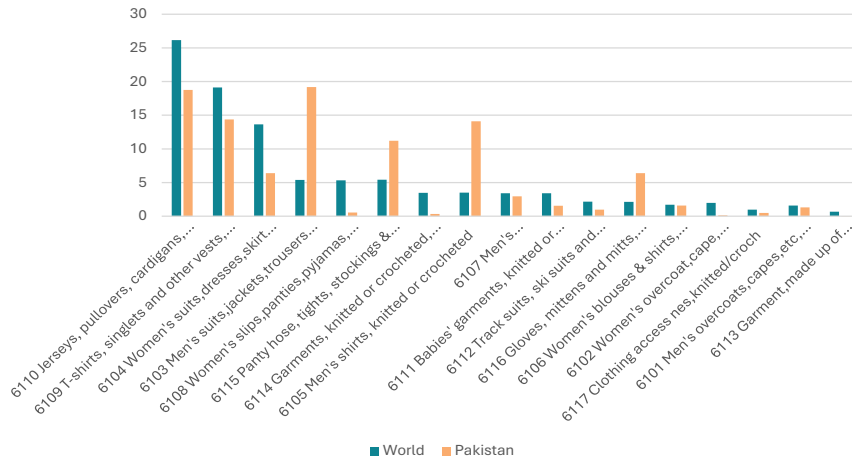
61: Articles of Apparel Knit	
	**6110: Jerseys and pullovers,** **6104: Women's or girls' suits,** **6109: T shirts and Singlets, and** All high fashion items are possible items for diversification

FIGURE 15: World product Mix vs Pakistan Export Mix for Products in HS-62 Code

62: Articles of Apparel Not Knit

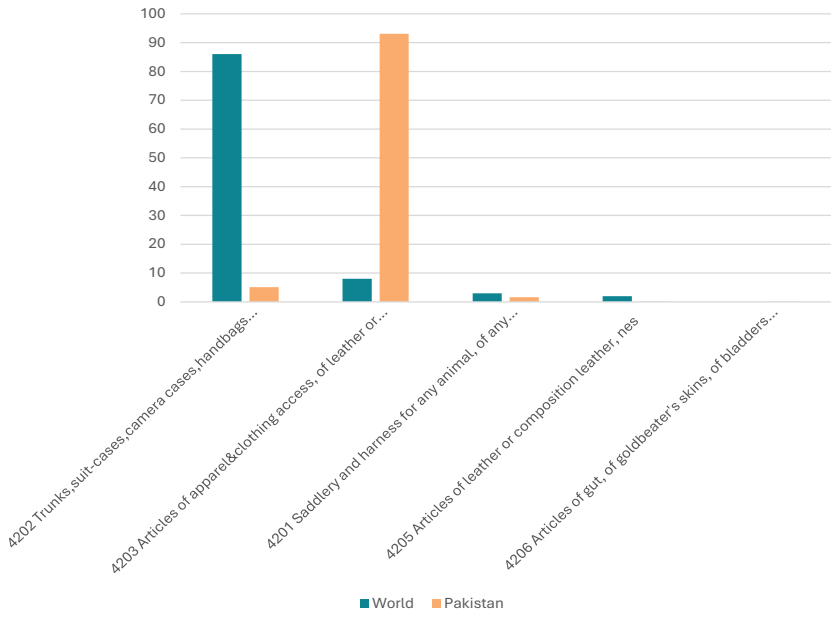


6203: Men's suits, jackets, etc.

Easy diversification into HS 6204 and all remaining categories is possible.

FIGURE 16: World product Mix vs Pakistan Export Mix for Products in HS-42 Code

42: Articles of Leather

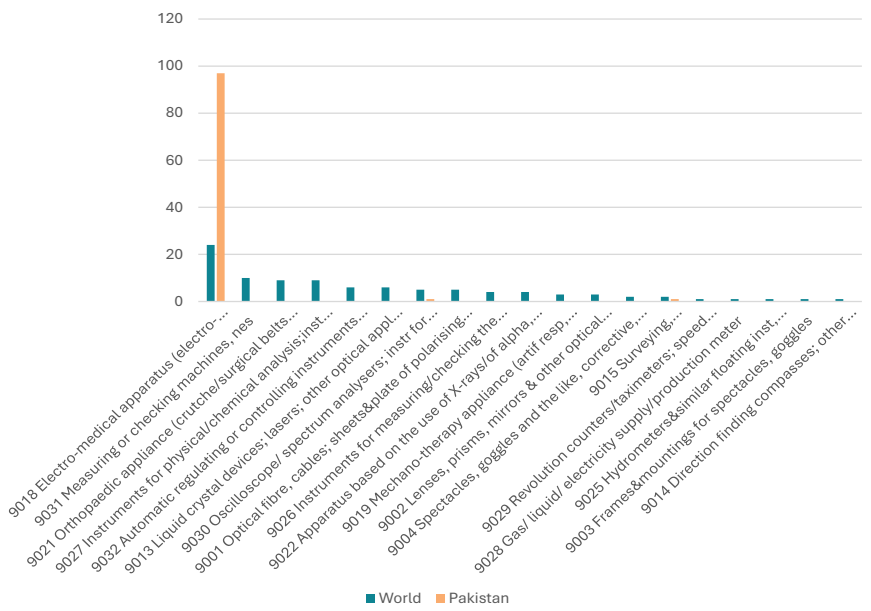


4202: Trunks, suitcases, etc.

Easy diversification into HS 6204 and all remaining categories is possible.

FIGURE 17: World product Mix vs Pakistan Export Mix for Products in HS-90 Code

90: Optical, photo, ortho, apparatus



9018: Surgical equipment

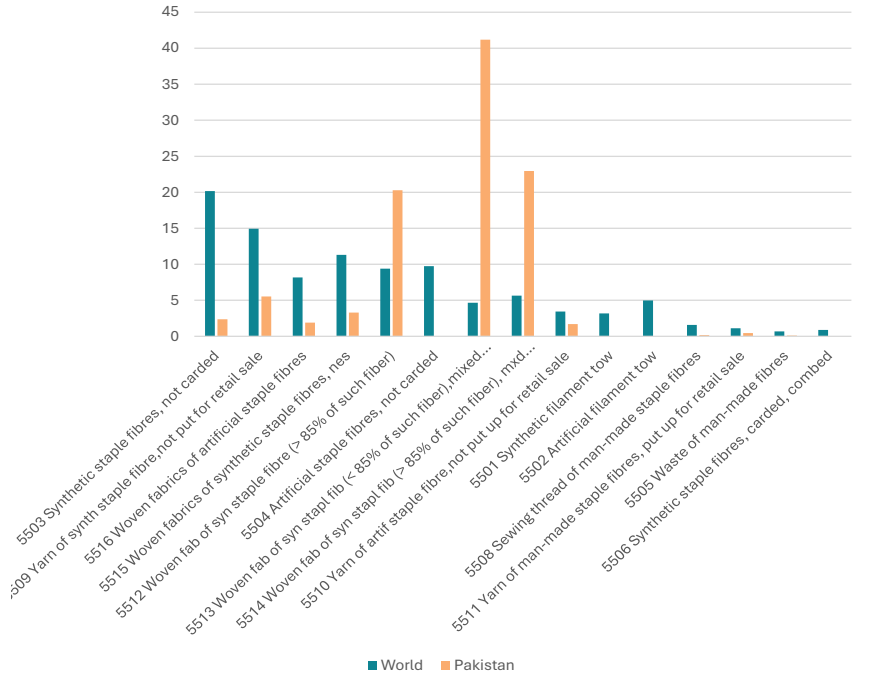
9031: Life support appliances, ventilators, BP monitoring machines, etc.

9021 and 9027: Physical body implants, support equipment, and laboratory equipment

In Pakistan's case, while it stands as a major exporter of surgical equipment under 9018, there are promising diversification opportunities within appliances such as life support, ventilators, BP monitoring machines, etc., under 9031, as well as physical body implants, support equipment, and laboratory equipment under 9021 and 9027.

FIGURE 18: World product Mix vs Pakistan Export Mix for Products in HS-55 Code

55: Manmade staple fiber



5505: Waste (including noils, yarn waste, and garnetted stock) of man-made fibers

5509: Yarn (other than sewing thread) of synthetic staple fibers

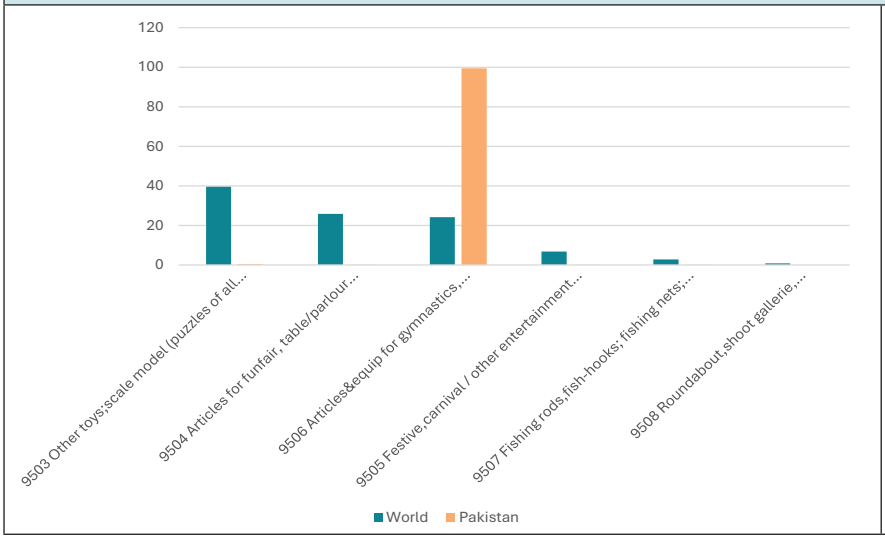
5515: Other woven fabrics of synthetic staple fibers

5516: Woven fabrics of artificial staple fibers

There's a significant potential for diversification into synthetic and recycled materials and yarns

FIGURE 19: World product Mix vs Pakistan Export Mix for Products in HS-95 Code

95: Sporting Goods



Clear opportunities to diversify into kids' sporting and playing toys and other indoor and fun games

Further six-digit level analysis is provided below to identify potential products:

- Bed, Table, Toilet, and Kitchen Linen (HS code 6302)

Pakistan emerges as a significant player in this category, showcasing strengths in various subcategories. For instance, in HS code 630210 (knitted or crocheted bed linen products), Pakistan leads, surpassing major exporters like China. Similarly, in products belonging to HS code 630239, Pakistan holds the highest share, making a substantial contribution to global exports. However, in subcategories like HS codes 630221 and 630222, which refer to 'printed bed linen' products, Pakistan's share is relatively low compared to countries like China and India.

- Men's or Boys' Suits and Apparel (HS code 6203)

Pakistan secures second position in exports within this category, marked by its dominance in specific subcategories. Particularly noteworthy is Pakistan's remarkable 91% share in men's ensembles of cotton (HS code 620322) indicating a significant market presence. Nevertheless, in subcategories such as HS code 620311 and 620312, which refer to suits of wool or synthetic fibers, Pakistan's market share is minimal compared to leading exporters like China and Italy.

- Men's or Boys' Knitted Apparel (HS code 6103)

Pakistan holds the fourth position in this category, boasting a notable presence in various subcategories. For instance, in HS code 610310 (men's suits, knitted, or crocheted), Pakistan leads, showcasing its strength in this segment. However, in subcategories like HS code 610323 and 610342, which refer to ensembles of synthetic fibers or cotton, Pakistan's share is relatively small compared to dominant exporters like China.

- Knitted Sweaters and Similar Articles (HS code 6110)

Pakistan ranks fifth in exports within this category, demonstrating a significant presence in certain subcategories. For example, in HS code 611090 (knitted articles of textile materials), Pakistan commands nearly 50% share, indicating a substantial competitive edge. Nevertheless, in subcategories like HS code 611020 and 611030, which refer to sweaters of cotton or manmade fibers, Pakistan's share is comparatively modest compared to leading exporters such as China and Germany.

- Saddlery and Harness for any animal (HS code 4201)

In the product category classified under the HS code 42, Pakistan's most significant export is represented by HS 4201. Among the subcategories, HS 420100 (Saddlery and Harness for Any Animal) stands out as Pakistan's primary export, holding a dominant position. However, Pakistan's market share in the total global export of this product falls significantly short compared to its regional counterparts. Notably, Viet Nam emerges as a major player, surpassing Pakistan in market share. This presents an opportunity for Pakistan to explore strategies aimed at capturing a larger portion of this market.

- Trunks, Suitcases, Vanity-cases, Briefcases, and Similar containers (HS code 4202)

Within the products falling under the HS code 4202, Pakistan boasts three primary exports, delineated at the six-digit level as 420229 (Handbags), 420211 (Surface of leather or composition leather), and 420221 (Handbags of leather or of composition leather). While Pakistan maintains a noticeable share in the total global export in the 420229 category, the same cannot be said for the other aforementioned categories. Within these product categories, there exists substantial untapped potential for growth, presenting Pakistan with promising opportunities to expand its market presence.

- Apparel and Clothing Accessories, of leather (HS code 4203)

In HS code 4203, Pakistan stands out with a larger market share. Notably, Pakistan's dominance extends to products within categories 420310 (Apparel, of leather or composition leather), 420321 (Gloves of leather, for sports), and 420329 (Gloves of leather, not for sports). However, the landscape shifts when considering categories 420330 (Belts of leather) and 420340 (Other accessories of leather), where Pakistan's market presence indicates ample room for expansion. These categories present promising avenues for growth, signaling opportunities for Pakistan to capitalize on.

- Yarn (other than sewing thread) of Synthetic staple fibers (HS code 5509)

In this category, Pakistan's presence remains minimal across all subcategories and specific products. However, there are two products, namely 550912 and 550921, where Pakistan exhibits some presence in contrast to other subcategories, although still limited compared to other countries.

- Medical, or Surgical instruments and Apparatus (HS code 90)

HS 90 stands as the ninth-largest export category for Pakistan. However, within the HS 90 category, only HS 9005 (binoculars, monoculars, other optical telescopes and mountings) emerges as a product at the 4-digit HS level where Pakistan maintains a presence. Specifically, within this category, HS 900510 (Binoculars) represents the product category where Pakistan exhibits some presence. Nevertheless, this presence pales in comparison to the leading exporters in this subcategory.

- Toys, Games, and Sports requisites (HS code 95)

Within the HS Code 95 products, there exists a singular category at the 4-digit HS code level where Pakistan holds a presence: HS 9506 (Articles and equipment for general physical exercise, gymnastics, athletics, and other sports, including table tennis, or outdoor games).

  - Articles and equipment for general physical exercise and other sports (HS 9506)

Within HS 9506, HS 950662 (Inflatable Balls) is the only product where Pakistan has a significantly large export share (approximately 17%). Additionally, Pakistan maintains a modest yet discernible market presence in products categorized under HS 950651 (Lawn- tennis rackets) and HS 950659 (Badminton or Similar Rackets),

with export market shares hovering around 5%. There lies an opportunity for Pakistan to diversify its exports within adjacent subcategories of the larger category, such as HS 950669 (Balls excluding inflatable, golf, table-tennis, tennis, cricket, and polo balls), and HS 950691 (Articles and equipment for general physical exercise, gymnastics, or athletics).

Export Potential of Pakistan for Selected Products

In Pakistan's existing export sectors, there's significant potential for growth. The Potential Export Value Calculation is calculated as the product of three main factors: supply, demand (corrected for market access), and bilateral ease of trade[11]. Supply projections consider the country's export share, GDP growth rate relative to competitors, and global tariff advantages. Demand projections incorporate projected imports, GDP per capita growth, and tariff advantages in the target market. Ease of trade is determined by comparing actual trade to hypothetical trade scenarios, indicating trading ease with the target market relative to world markets. This section summarizes the export potential identified for products at the 6-digit HS Code level within these sectors, using data from the International Trade Centre (ITC)[12]. The total unrealized export potential in the sectors identified below is **USD 3.73 billion**, which is almost 10% of Pakistan's total exports in fiscal year 2022.

- Bed, Table, Toilet, and Kitchen Linen (HS code 6302)

The total unrealized export potential in this category reaches USD 2.1 billion. Bed linen of cotton (HS code 630231) leads with an unrealized export potential of USD 750 million, followed by toilet, linen, and kitchen linen of cotton (HS code 630260) and knitted or crocheted bed linen (HS code 630210) with potentials of USD 593 million and USD 388 million, respectively. Focusing further on linen products, where Pakistan already has a strong presence, could yield significant benefits.

- Men's or Boys' Suits and Apparel (HS code 6203)

In this category, the total unrealized export potential amounts to USD 512 million. Men's trousers (HS code 620342) emerge with the highest potential at USD 351 million, followed by men's ensembles of cotton (HS code 620322) and men's suits and blazers (HS code 620349) with potentials of USD 44 million and USD 40 million, respectively. Strengthening efforts in men's clothing products, where Pakistan already has a foothold, could drive further growth.

- Men's or Boys' Knitted Apparel (HS code 6103)

Within this product category, the total unrealized export potential is USD 226 million. Men's trousers and shorts of cotton, knitted or crocheted (HS code 610342) lead with a potential of USD 104 million, followed by knitted or crotched men's suit-type jackets and blazers (HS code 610339) at USD 44 million.

- Knitted Sweaters and Similar Articles (HS code 6110)

Knitted or crocheted jerseys (HS code 611020) lead with the highest potential at USD 99 million, followed by knitted or crotched sweaters of cotton (HS code 611090) with USD 63 million. Knitted or crotched sweaters of man-made fibers (HS code 611030) and other materials (HS code 611019) also show potential. In total, these categories demonstrate an unrealized export potential of USD 180 million.

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11 Detailed methodology also available at this link: https://exportpotential.intracen.org/en/resources/glossary#export-potential

12 Export potential data extracted from: https://exportpotential.intracen.org/en/?fromMarker=i&exporter=586&toMarker=w&market=w&whatMarker=s

- Saddlery and Harness for any animal (HS code 4201)

The total unrealized export potential in this category is USD 8.2 million, indicating a discernible opportunity for further growth and market expansion.

- Trunks, Suitcases, Vanity-cases, Briefcases, and Similar containers (HS code 4202)

This category's total unrealized export potential amounts to USD 23.6 million. Handbags of composition leather (HS code 420221) emerge with the highest potential at USD 6.7 million, followed by containers, bags of plastics or textile materials (HS code 420292) and containers and bags of leather (HS code 420291) with potentials of USD 1.9 million and USD 4.5 million, respectively.

- Apparel and Clothing Accessories, of leather (HS code 4203)

In this category, the total unrealized export potential amounts to USD 489 million. Articles of apparel of leather and composition leather (HS code 420310) lead with USD 216 million, followed closely by gloves of leather and composition leather (HS code 420329) at USD 214 million.

- Yarn (other than sewing thread) of Synthetic staple fibers (HS code 5509)

The total unrealized export potential in this category is USD 8.1 million. Synthetic staple fiber yarn (HS code 550953) exhibits the highest potential, standing at around USD 5 million.

- Medical, or Surgical instruments and Apparatus (HS code 90)

In this category, the total unrealized export potential amounts to USD 307.9 million. Microscopes other than optical microscopes (HS code 900510) present a potential of USD 2.9 million.

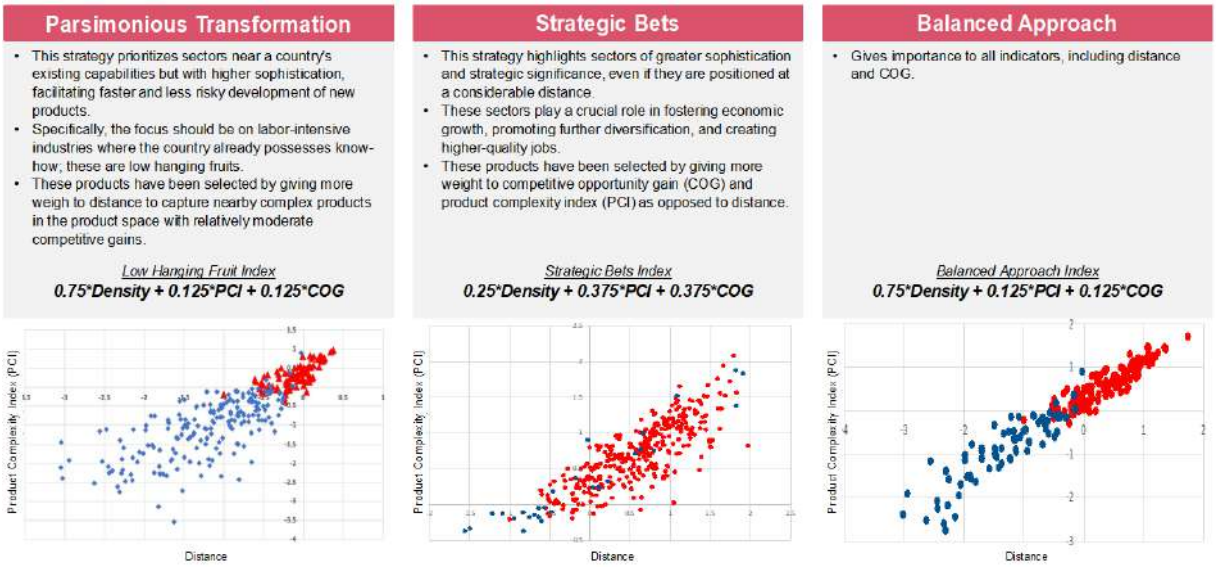
- Toys, Games, and Sports requisites (HS code 95)

The total unrealized export potential in this category is USD 393.9 million. Inflatable balls (HS code 950662) lead with a potential of approximately USD 243 million, followed by categories such as balls excluding inflatable (HS code 950699), badminton or similar rackets (HS code 950659), and articles and equipment for general physical exercise, gymnastics, or athletics (HS code 950691).

Product Space Analysis

The Hausmann Product Space analyses are available at the Harvard Atlas of Economic Complexity and provide possible diversifications by Pakistan based on current capabilities. The model identifies sectors based on three approaches as depicted below:

FIGURE 20: Hausmann Product Space analyses



Source: Ministry of Industries and Production, Government of Pakistan

Based on the three approaches the following sectors have been identified by the Ministry of Industries & Production:

- Parsimonious Transformations (Short-Term): The sectors include (i) furniture, (ii) synthetic textiles and garments (also identified above), (iii) surgical instruments (also identified above); (iv) footwear (also identified above), (v) food processing, (vi) electronics assembly.
- Balanced Approach (Medium-Term): The key sectors identified here include (i) steel, (ii) non-ferrous metals, (iii) electronics, (iv) mining, and (v) pharmaceuticals.
- Strategies Bets (Long-term): (i) Platform changing value chains, (ii) IT, (iii) clean technology, (iv) electrical machinery, (v) autonomous vehicle.

The possible choices to look at from the perspective of this paper are (i) synthetics, (ii) surgical and medical devices, (iii) leather footwear and products, (iv) pharmaceuticals.

Growth Identification and Facilitation Framework (GIFF) Approach to Pakistan

The GIFF is a policy tool based on insights from New Structural Economics, emphasizing both effective markets and government facilitation to achieve industrial diversification and upgrading. The GIFF allows countries to locate latent comparative advantage and leverage it to achieve structural change. In this section, the GIFF is applied to locate benchmark countries for Pakistan and to identify sectors in which Pakistan might have a latent comparative advantage.

The first step of the GIFF framework is to identify potential countries from whom the share in products can be transferred. This process involved listing the countries that fulfill the following conditions:

- Had similar levels of per capita GDP as Pakistan in the year, 2002 (between 70 percent and 195 percent of Pakistan's GDP per capita).
- Experienced higher annual growth in per capita GDP between 2002 and 2022 than Pakistan, i.e., 4.66 % per annum.
- Can be classified as a high-growth country i.e., higher annual growth in per capita GDP than 8.5% between 2002 and 2022.
- Had a higher current level of manufacturing, and value added (% of GDP) than Pakistan in 2022.

Using this approach, three countries: Indonesia, Viet Nam, and China are the benchmarked countries (See Table 3, Below).

TABLE 4: Benchmarked countries

Country	GDP per capita (current USD) 2002	Ratio of GDP per capita, 2002 (benchmarked country/Pakistan)	GDP per capita growth (2002-2022)	Manufacturing, value added (% of GDP) 2022
Pakistan	599.79	1.00	4.7	13.78
Indonesia	888.90	1.48	9.3	18.34
Viet Nam	434.81	0.72	11.7	24.76
China	1,148.51	1.91	12.6	27.70

A second approach is to list all those countries which fulfill the following conditions:

- Had 100-300% higher GDP per capita than Pakistan in 2022.
- Had higher annual growth in GDP per capita than Pakistan.
- Had a higher current level of manufacturing, value added (% of GDP) than Pakistan in 2022.

Using this approach, two countries: **Bangladesh** and **Viet Nam** are the benchmarked countries, see Table 4. **Viet Nam** is the only common benchmark country in the two approaches.

TABLE 5: Benchmarked countries with second approach

Country	GDP per capita (current USD) 2022	Ratio of GDP per capita, 2022 (benchmarked country/Pakistan)	GDP per capita growth (2002-2022)	Manufacturing, value added (% of GDP) 2022
Pakistan	1,588.9	1.00	4.7	13.78
Bangladesh	2,688.3	1.69	9.4	21.76
Viet Nam	4,163.5	2.62	11.7	24.76

In the case of Pakistan, a crucial aspect of identifying potential transfer countries is to shortlist those with a higher minimum wage compared to Pakistan. Table 5 reveals that all benchmarked countries surpass Pakistan in minimum wage, barring Bangladesh. Nevertheless, Bangladesh's minimum wage is only marginally lower than Pakistan's, and this slight difference may be negligible, potentially influenced by fluctuating exchange.

TABLE 6: Minimum wages in benchmarked countries

Country	Monthly minimum wage (USD)
Pakistan	115
Bangladesh	114
Viet Nam	141
Indonesia	187
China	341

The trade patterns of these "benchmark countries" for Pakistan are explored in Table 6. Product codes in the top twelve exports of the reference countries in 2019 (at HS 4-digit level) are listed in Column 1. Excluded from consideration are raw, natural resource-based products such as rice, coffee, coal, oil, plywood, and furniture. Column 2 indicates if a product code is declining in the transfer country with a "1". Column 3, the "score", denotes how many out of the four countries experience a decline in that product category between 2019 and 2022. For instance, product code HS 6110 (Sweaters, pullovers, and similar articles, knitted or crocheted) has declined in two out of the four countries: Viet Nam and China. These two countries emerge as ideal transfer countries for this product category.

TABLE 7: Declining product categories in transfer countries

Declining product codes (1)	Declining in: (2)				Score (3)	Commodity name (4)
	Bangladesh	China	Indonesia	Viet Nam		
3102	0	1	1	0	2	Mineral or chemical fertilisers, nitrogenous
6109	1	1	1	1	4	T-shirts, singlets and other vests, knitted or crocheted
6110	0	1	0	1	2	Sweaters, pullovers and similar articles, knitted or crocheted
6202	0	0	1	1	2	Women's', girls' overcoats, car-coats
6204	0	1	1	1	3	Women's or girls' suits, ensembles, jackets, etc.
6403	0	0	0	0	0	Footwear with outer soles of rubber, plastics, leather
8471	0	0	0	0	0	Automatic data processing machines and units thereof
8473	0	1	1	0	2	Parts and accessories (other than covers, carrying cases and the like)
8521	0	1	1	0	2	Video recording or reproducing apparatus
8525	1	1	1	0	3	Transmission apparatus radio-broadcasting television
8529	0	0	0	0	0	Parts of set-top box, for use in the manufacture of set-top box
9503	0	0	0	0	0	Reduced size ("scale") models and similar recreational models; puzzles of all kinds

Table 7 provides a summary of the target sectors by transfer country, focusing on sectors that have experienced growth in world trade between 2019 and 2022.

- Bangladesh emerges as an ideal country for transferring nitrogenous minerals or chemical fertilizers.
- China stands out as an ideal destination for transferring garments, footwear, data processing machines, toys (such as puzzles and reduced-size models), as well as parts and accessories for office machines.
- Viet Nam is identified as an ideal country for transferring garments, and parts and accessories for office machines.
- Indonesia is highlighted as an ideal country for transferring footwear and data processing machines.

TABLE 8: Target products and transfer countries for Pakistan

Code	Commodity Name	Value imported globally in 22 (USD)	Annual growth in global imports 19-22 (%)	Transfer Country
3102	Mineral or chemical fertilizers, nitrogenous	$62,611,513,763	35.27	Bangladesh
6109	T-shirts, singlets, and other vests, knitted or crocheted	$47,502,707,570	5.01	Viet Nam
6110	Sweaters, pullovers, and similar articles, knitted or crocheted	$66,318,319,719	5.67	China
6202	Women's,' girls' overcoats, car-coats	$19,926,576,777	0.41	Viet Nam
6204	Women's or girls' suits, ensembles, jackets, etc.	$62,002,655,406	2.69	China
6403	Footwear with outer soles of rubber, plastics, leather	$58,491,767,298	2.61	China & Indonesia
8471	Automatic data processing machines and units thereof	$459,617,346,102	7.60	China & Indonesia
8473	Parts and accessories (other than covers, carrying cases and the like)	$161,337,443,145	8.13	China & Viet Nam
9503	Reduced size ("scale") models and similar recreational models; puzzles of all kinds	$60,576,039,490	6.60	China

The GIFF analysis identifies possible diversification in various product categories, including high-value fashion garments (identified in the export analysis above and under product space), footwear, and recreational sports (also identified above).

- **Diversification within the product family:** Garments, leather products & footwear, sports, and surgical and medical device
- **Diversification outside traditional sectors:** Pharmaceuticals

5. Sector Analysis & Recommendations

The analysis above has identified five potential sectors for export diversification: High-Value Garments, Leather Products & Footwear, Surgical & Medical Device Industry, Sporting Goods, and Pharmaceuticals. This section provides a brief overview of each sector, along with sector diagnostic and policy recommendations. The focus is on enhancing competitiveness and achieving export diversification within each sector.

Five stakeholder interviews were conducted to gain insights into the potential sectors where opportunities for export diversification were highlighted. The interviewees included the former chairman of Pakistan Readymade Garments Manufacturers and Exporters Association (PRGMEA) and Owner of Delta Garments – a medium-sized clothing textile and garments company, the Chairman of the Surgical Instruments Manufacturers Association of Pakistan, the Chairman of Pakistan Leather and Garment Manufacturers and Exporters Association (PLGMEA), the CEO of the pharmaceutical company Ferozsons Laboratories, and the Secretary General of the Pakistan Sporting Goods Manufacturers and Exporters Association (PSGMEA). Table 8 in the Annexure lists their names and designations.

The interviews for the study were conducted in the form of phone calls to overcome time and mobility constraints. Each interview lasted 15-20 minutes and consisted of a few brief questions regarding the overview, obstacles, and opportunities for export diversification within the interviewee's respective industries.

TABLE 9: High-Value Garment Segments

Sector Highlights	
Size of Sector	~500 market players
Contribution to GDP	~1.7% (20% of textiles sector)
Contribution to Exports	11.3%
Exports	USD 3.69b
Employment	40% of the manufacturing workforce is employed by the textiles sector

The Ready-Made Garments (RMG) sector in Pakistan is primarily dominated by SMEs. However, its growth and export diversification have not reached their full potential due to several factors. One major challenge is the sub-optimal supply chain, which impedes the industry's expansion into new markets and product lines. The industry has suffered from a lack of access to newer materials, especially man-made and technology yarns. Additionally, the cotton yield, quality, and variety have been below par. Pakistani SMEs face higher input costs and less reliability compared to competitor countries due to limited access to credit and commercial loans, coupled with high transaction costs[13]. Although the transition to renewable (solar) energy is occurring rapidly, limitations like Maximum Demand Indicator (MDI) payments based on installed power capacity create barriers.

13 Hassan Khawar, Nadia Mukhtar, Maheen Javaid and Umair Javed. PBC and CDPR. Pakistan's Readymade Garments Sector: Challenges and Opportunities. 2018. Retrieved from: https://www.pbc.org.pk/wp-content/uploads/Pakistan%E2%80%99s-Readymade-Garments-Sector-Challenges-and-Opportunities.pdf

The fluctuating exchange rate, despite a post-COVID-19 rate adjustment that provided a quick boost to exports, has hindered diversification by making it difficult to price new products as import costs rise. The issue of inputs, especially materials, has been somewhat alleviated by the introduction of the Export Facilitation Scheme (EFS), which has zero-rated most inputs intended for export and allows automatic adjustments. Recently, the EFS has also been extended to new exporters.

The lack of suitable financing/credit products has kept the pace of technology transfer slow. This has resulted in little diversification out of the traditional products where historic investments are still providing sustained dividends. The human resource and labor productivity have both been sub-optimal and are key reasons for the sector not diversifying into more sophisticated products. While the female workforce in the sector is rapidly increasing (close to 50%), it is still far below countries that have outperformed Pakistan like Bangladesh, Viet Nam, and Sri Lanka. The limited labor skills and lack of modern technology integration have also impacted the growth of newer designs and fashion items. While some networks have been established with local universities, the impact is still minimal. Thus, there is a lack of investment in human resources, education, and skill development to address the skill shortages of workers in the garment industry[14].

Cluster formation through glocalization has not been very successful in the garment industry of Pakistan. As pointed out in a previous report by the International Growth Center in 2013, firms could not reap the full benefits of the cluster in Karachi due to poor law and order situation, despite the availability of infrastructure facilities, access to skilled labor, and access to port facilities[15]. Over time, the availability of suitable and viably priced land has also become an issue. Most of the Ready-Made Garment (RMG) clusters located in Lahore, Karachi, and Sialkot are outside industrial zones and SEZs. The pricing models of SEZs and the time it takes to mature transactions are major deterrents for the industry. However, SEZs provide exporters with great benefits too, such as easy access to raw materials at competitive prices, and a business-friendly environment[16].

Finally, under the GSP+ status, the garment industry has increased its exports to the EU. However, under the EU Green Deal and the EU Circular Economy Action Plan, a plethora of new regulations and compliance on greening the overall value chains and making them more sustainable will be introduced. While the sector is meeting several of these requirements through existing buyer contracting requirements, it will have to make substantial investments in upgrading its existing systems and will need compliant external infrastructure (such as waste recycling, water recycling, and effluent management) to meet these standards. These new requirements, while a threat, also offer substantial opportunities to diversify and gain higher shares if compliance is proactively managed.

The main recommendations include:

- The expansion of the EFS to a larger set of exporters and further improving the user interface will help the industry diversify. A recent example of diversification because of EFS has been the transition of Denim Product manufacturers to making puffer jackets as all machinery and inputs are via EFS. The transition was swift and smooth, and substantial exports have already started. The industry association will have to run training sessions for small exporters, while the Ministry of Commerce (MOC) needs to ensure that applicability and usability are further eased out.

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14 Naved Hamid and Ijaz Nabi. CDPR and IGC. The Textiles and Garments Sector: Moving Up the Value Chain. (2016). Retrieved from: https://cdpr.org.pk/wp-content/uploads/2020/04/The-Textiles-and-Garments.pdf

15 Turab Hussain, Kashif Malik, Usman Khan, Adeel Fahim, Ijaz Nabi and Navid Hamid. IGC. A Comparative Analysis of the Garments Sector of Pakistan (2013). Retrieved from: https://www.theigc.org/sites/default/files/2022/01/IGC_Final-report_cover.pdf

16 Hassan Khawar, Nadia Mukhtar, Maheen Javaid and Umair Javed. PBC and CDPR. Pakistan's Readymade Garments Sector: Challenges and Opportunities. 2018. Retrieved from: https://www.pbc.org.pk/wp-content/uploads/Pakistan%E2%80%99s-Readymade-Garments-Sector-Challenges-and-Opportunities.pdf

- The sector association should focus on developing EDF projects to finance communal infrastructure, such as SEZs on land lease models, communal warehousing in SEZs, warehousing for international companies registered with PSW under the EFS for tool manufacturing, warehousing for input sourcing and sale to SMEs for export, and waste recycling facilities. This will not only enhance productivity but also help SMEs comply with green standards.
- Improving trade and customs facilitation through modernization and automation will create a more conducive business environment, increasing overall business efficiency. Simplifying customs procedures to reduce time and costs will enhance export competitiveness[17].
- A critical issue has been a lack of market and fashion knowledge. The time to discover developing new products or market-responsive products in Pakistan is long as the link between the manufacturers and the international retail segment is inadequate. Through its trade missions, MOC should help manufacturers in Pakistan set up JVs or acquire international distribution chains for a quick route to diversification and higher value addition.
- Establishing connections with the international market will further stimulate technological and non-technological innovation within the local industry. As indicated by previous research conducted by CDPR and IGC, companies with international ties and those engaged in exporting to the Middle East and the US have shown notable innovation[18]. By fostering international connections and enhancing innovation within the textile industry, a positive cycle can be initiated, resulting in sustainable growth in exports.
- To ensure a more rapid transition to solar energy, the Government of Pakistan (GoP) needs to rationalize the Maximum Demand Indicator (MDI) costs. Currently, MDI costs must be paid even if all energy consumption is green/solar.
- Financing, as highlighted above, is a critical issue, and currently, the export refinancing scheme is not inclusive. There is a need to relax collateral requirements and assign financing limits based on export turnovers to make it more accessible. Additionally, the current interest rate is not feasible and needs adjustment.
- There is a need to incentivize the establishment of service providers that will help exporting sectors meet new stringent compliance requirements (for example, the EU-specific requirements mentioned above) and certifications. These service providers will be essential going forward to ensure exports remain competitive - this recommendation is relevant for all sectors.

TABLE 10: Leather Products & Footwear

Sector Highlights	
Contribution to Exports	0.48%
Exports	USD 178.6m
Imports	USD 38.6m
Employment	~ 1 million

The leather product and footwear industry in Pakistan has emerged on the back of a strong leather sector. However, associated industries such as designing, leather shaping, lasting, product design, accessories, and threads have not kept pace, resulting in minimal export success and diversification. The leather products and footwear industry depends heavily on skill, design capacity, and product and material innovation, with Italy being a prime example. While technology can contribute, labor skills and productivity are crucial. Pakistan has struggled to produce the skilled workforce required due to a disconnect between manufacturers and training institutes.

17 Ibid.

18 Waqar Wadho and Azam Chaudhry. CDPR and IGC. Innovation in the Textile Sector of Pakistan (2018). Retrieved from: https://cdpr.org.pk/wp-content/uploads/2020/03/Innovation-in-the-Textile-Sector-of-Pakistan-1.pdf

Furthermore, where industry linkages between training and research institutes exist, the focus is primarily on footwear, with little attention given to other leather products like luggage, bags, and equipment covers, which have significant value-added export potential. The overall leather product industry is fragmented, representing a mix of import-converted products and indigenous production. This fragmentation has hindered the consolidation of the domestic industry for product innovation and the improvement of labor skills through joint platforms and training programs. Additionally, the ban on the use of 3-D printers has limited design innovation in the industry.

Leather products are known for their fast-changing designs and variable quality, making adaptability and flexibility essential for all players in the supply chain, from designers to manufacturers and marketers. The concept of mass customization in production is gaining traction across various industries, particularly in fashion-related sectors. However, in terms of manufacturing technology, many firms still rely on older machinery, often imported from China and Italy. Only a few companies have invested in the latest machinery and tools. The micro and cottage industry lag significantly in adopting modern production technologies, upgrading their machinery, and improving working conditions and labor environments. Therefore, it is crucial for footwear sector companies to be aware of and embrace this transformation to ensure their relevance in the global marketplace.

Specifically, for footwear, the increasing availability of used branded footwear imports has hampered the growth of the local industry. The tariff categorization and duty rates need to be adjusted to ensure that branded shoes are imported at a fair price. Another significant constraint facing the industry is the absence of an ancillary industry that produces quality inputs or components, which are crucial for making finished goods. These inputs include molds, shoe lasts, zippers, metal parts, and chemicals.

The main recommendations include:

- While investment in skill upgrading will take time, lifting the ban on 3-D printers is necessary to fast-track product design development.
- There is a need to segregate the HS code for second-hand branded shoes from the current HS code for used clothes. Alternatively, effective non-tariff barriers (NTBs) could be erected to restrict branded shoes from being imported as secondhand clothes on the premise of health and hygiene.
- Customs should consult with manufacturing industries to determine the International Trade Price (ITP) for calculating import duties. This will ensure enhanced revenue, fairer competition, and support export expansion.
- The pending case for establishing a footwear/leather product park in Lahore should be expedited, with land made available on a lease model.
- The recommendations for the garments sector relating to EDF financing and greening, export refinancing, and EFS are also relevant for the leather sector. The EFS should include lenient measures to allow minor exporters to benefit, subject to meeting export targets.
- Like the garments sector, the leather industry faces export challenges, particularly to the EU due to stringent greening and sustainability standards. While the leather industry is already complying with standards under the Leather Working Group (LWG), traceability must be expanded across the entire value chain to ensure compliance. The EU is introducing a product digital passport requirement, necessitating digital tracking of products across the value chain.
- Despite the hurdles facing the leather industry's export prospects, as mentioned earlier, there are also promising opportunities for Pakistan in the export of leather products. China, a significant exporter of shoes and leather goods, is experiencing increased tariffs in the US due to geopolitical tensions. This situation opens a window of opportunity for Pakistan. As highlighted in a previous CDPR policy brief regarding the garment industry[19], Pakistan could capitalize on this period of global trade tensions to establish ties with the US market, thereby enhancing its exports to the country.

19 Shahid Yousuf, Ijaz Nabi and Zara Salman. CDPR, IGC, and PBC. The Garments and Textiles Industry: Global Trends and Prospects for South Asia (2019). Retrieved from: https://cdpr.org.pk/wp-content/uploads/2020/04/The-Garments-and.pdf

TABLE 11: Surgical & Medical Device Industry

Sector Highlights	
Size of Sector	USD 498m (~3,900 manufacturing units)
Contribution to GDP	1.6%
Contribution to Exports	0.42%
Exports	USD 474m (0.7% of global demand)
Imports	USD 304m
Employment	~150,000 direct employment

The surgical instruments sector is one of the most developed industries in the country. Pakistan currently has almost 100% share in basic instruments as manufacturing is reliant on a skilled workforce which is only available in Pakistan. That skill is of hand polishing instruments, and it is on the decline in Pakistan due to the hazardous nature of the work. This is the single most critical threat to existing exports.

A second and more recent issue that has emerged is the requirement to get Medical Device Regulation (MDR) compliance. The MDR compliance by the EU now requires stricter compliances in terms of biodiversity and application procedures of medical devices. The challenge is a lack of knowledge and awareness about these compliances within the industry and the associated cost of compliance certification. At present, only SGS is offering the certification facilities, and the cost can vary from Euro 50,000 to Euro 500,000 depending on the type and complexity of the surgical instrument category. As the sector is dominated by SMEs, it is not possible to raise the required financing from traditional sources. However, the medium-term opportunity from MDR compliance offers a substantial positive Net Present Value (NPV), as certified products are expected to command prices at least five times higher.

The third critical issue is the segmented spatial location of the surgical industry. The exporters are spread all over Sialkot, some operating in buildings situated within residential settings. This haphazard nature of clustering is a hurdle limiting the growth of the sector. Moreover, fierce competition within the industry has led to price convergence to marginal cost – pure Bertrand equilibrium for most homogeneous products, resulting in stagnant prices and thin profit margins, thereby discouraging investment and diversification efforts.

The industry has limited research and development and lacks linkages with hospitals and medical professionals that can help in diversification. While COVID-19 provided an opportunity for some proactive firms to quickly diversify into making ventilators, such diversification at large is missing. As shown in the data in the previous section there is a huge and growing demand for medical devices such as glucometers, blood pressure monitors, other motioning devices, and testing kits, within the same parent HS Code, but the industry has failed to take advantage of its long existing relationships with buyers of medical products. The two main reasons for this shortcoming are the lack of development in the electronics industry (most modern devices need electronic equipment), and the limited availability of composite and plastic polymer-based materials that are essential for manufacturing modern healthcare equipment. Thus, a critical factor in diversifying into value-added medical devices will require development and integration with the electronics industry, or perhaps initially, the development of a low-cost import channel for these.

Exports in this sector like the ones above will face the upcoming challenges of additional EU compliances relating to greening and sustainability.

The main recommendations include:

- A national effort to develop a skills programme with clear pathways into the surgical industry to replenish the stock of skilled workforce. This should entail training and job placement of youth from South Punjab, Northern Sindh, and Southern KP to Sialkot. This will require establishing worker hostels and residences which can be funded via EDF as a specific project for the surgical industry.
- The MDR compliance will require the sector itself to upgrade its procedures and practices to ensure production lines are compliant with the requirement. The government will have to negotiate the provision of international testing facilities and cluster-based certifications to reduce costs. A medium-term solution is to use EDF financing and upgrade the local certification infrastructure.
- There is a pending plan for the development of a surgical city in Sialkot. This must be expedited, and the city should offer links with the electronics and material science research and development facilities to help the sector diversify into value-added devices. The government through commercial counselors can help identify possibilities of joint ventures that could result in technology transfer in materials and electronics to facilitate diversification.
- There is a pending case in the industry for registration and compliance with DRAP. It is recommended that as Surgical is predominantly an export-based industry with no local sales, the international ISO certification may suffice for DRAP's enforcement, and any duplicity of registrations and regulations may be avoided.
- Provincial sales tax on training fees/costs may be eliminated to increase the incentive for industries to invest more in training the workforce.
- Recommendations provided above for greening, and sustainability are relevant here as well.

TABLE 12: Sporting Goods

Sector Highlights	
Size of Sector	4,200 companies clustered in Sialkot
Contribution to Exports	1.56%
Exports	USD 506m

Pakistan's sports industry is world-renowned and has strong partnerships with international brands. However, most firms are now concentrated on manufacturing footballs. A few brands also produce hockey sticks and sports gear. The sector is starkly segmented, with a few large companies linked with brands, while several SMEs supply to both domestic and export markets. The overall quantum of sales is small, and the product base is very narrow. There are several opportunities for the sector to diversify into other sports besides soccer balls, but that would entail quality research and development at the cluster level. The sector has submitted a comprehensive proposal for EDF financing, and the same is being recommended below:

- Setting up of Sports Goods Industrial Park in Sialkot (Proposal pending with EDF) with the following features:
  - Linkage with Loughborough Sports University
  - One window for all approvals
  - Set-up of Life & Health Fitness laboratory for sports goods performance
  - Materials science development (academic and practical linkage)
  - Support in the establishment of testing and certification facilities and import of machinery for manufacturing golf equipment.

TABLE 13: Pharmaceuticals

Sector Highlights	
Size of Sector	USD 3.3 b (~620 registered companies)
Contribution to GDP	~1.13%
Contribution to Exports	11.3%
Exports	USD 306m
Imports	USD 684m
Employment	~250,000 direct and indirect employment

The pharmaceutical sector is of critical importance to Pakistan's economy. It offers a unique mix of some of the largest multinationals, joint ventures, and large national manufacturing units. It is also one of the oldest manufacturing sectors in the country, with its first legislation promulgated in 1976. Unfortunately, Pakistan has not been able to keep pace with the growth experienced by neighboring countries like India, Bangladesh, and even Sri Lanka. The sector has faced a range of regulatory, procedural, institutional, and legislative bottlenecks that have resulted in stunted growth and limited access to export markets[20].

The non-enabling nature of pharmaceutical regulations in Pakistan has resulted in inefficiencies. For example, critical ICU Drugs including Amoxicillin, Insulin, Heparin, Carbamazepine (Tegral), Propofol, and Thyroxine have become unsustainable, while drugs for TB remain under serious threat. These shortages have forced patients to buy medicines in the black market, facing grave risks of unregistered, smuggled, and counterfeit medicines. In some cases, patients have had to pay substantially higher prices to buy essential drugs due to shortages. Similarly, the impact of these regulations has affected exports as well. Pakistan exports Therapeutic Goods worth USD $700 Million (including Pharmaceuticals of US $300 Million) to over 60 Countries. In comparison, India has exported pharmaceuticals worth US $28 Billion to over 217 Countries (including APIs of US $8 Billion) in the past twelve months. Bangladesh Exports to over 141 Countries.

Another adverse impact of excessive regulation has been the exit of MNCs from Pakistan, and those that remain have severely contracted their investment plans. Pakistan at one point in time housed over 30 MNCs compared to now, where only 4 retain manufacturing operations in the country. Companies are facing historic losses and an unsustainable future. GSK Pharmaceutical's net loss in the six months to 30 June 2023 was over Rs. 752 million, and Abbott Laboratory's net loss was Rs. 799 million during the same period. Regulatory overreach, irrational sales tax regime, and lack of policy enforcement by the Government in pricing have made Pakistan a highly unattractive destination for pharmaceutical manufacturing. Pricing decisions for new molecules and hardship cases of essential drugs get stuck in the cabinet for years without any solution in sight. The departure of MNCs, the nursery for the national industry, has resulted in reduced efficiency and skills as well as loss of technology transfer, investment, capacity upgradation, and lack of introduction of new therapies.

The main recommendations are:

- The World Health Organization (WHO) publishes a comprehensive model list of essential drugs, from which each member may select drugs based on local disease prevalence patterns to issue a National Essential Medicines List (NEML). The Drug Regulatory Authority of Pakistan (DRAP) already follows this practice on an annual basis. After the issuance of SRO 228 of 2024, the pricing of drugs other than essential drugs shall be governed by competitive market forces, a successful model that has been followed for over a decade in the region (India and Bangladesh) as well as in all developed pharmaceutical markets. Thus, the regional working model of setting prices via market forces will result in the most efficient outcome. The government's role will be to ensure fair competition and product quality.

20 Usman Khan, Nadia Mukhtar, Hina Shaikh and Abdul Hadi. Unleashing the Potential of Pharmaceuticals in Pakistan. 2021. PBC and CDPR. Retrieved from: https://cdpr.org.pk/wp-content/uploads/2018/02/Unleashing-the-Potential-of-Pharmaceuticals-in-Pakistan.pdf

    - The initial price determination of essential drugs should utilize reference pricing, an internationally recognized price regulatory mechanism already included in the existing Drug Pricing Policy 2018. This mechanism compares the maximum price of proposed essential drugs with the ceiling prices in a basket of comparable countries (these could be India and Bangladesh, in the case of Pakistan) to establish a ceiling price for a certain country. Subsequent annual price adjustments for essential drugs should be based on the Consumer Price Index (CPI) and currency exchange rates.
- Drug Pricing Policy 2018 entitles the pharmaceutical industry to an annual inflationary price adjustment under clause 7 [i.e., 70% of official CPI (with a cap of 7%]. This requires immediate revision and should be rational, judicious, and at par with successful global pricing regulations and norms. This would ensure the availability of quality drugs at competitive prices in the market and put an end to smuggled, unregistered, and counterfeit practices.
- Pricing and quality are two fundamentally different aspects of pharmaceutical regulations. In line with the world's major regulators (FDA of the USA, EMA of Europe, MHRA of the UK), the primary focus of DRAP should be the regulation of pharmaceutical/drug quality, licensing, registration, and achieving international standards (PIC/S and WHO-WLA enlistment) to improve the quality of domestically manufactured drugs and add credibility to 'Made in Pakistan' pharmaceuticals abroad.
- Therefore, in line with global best practices, it is proposed that price regulation should be separated from DRAP and managed by an independent Pharmaceutical Pricing Board (PPB), with DRAP's Pricing Division serving as the secretariat. The PPB should be managed by sectoral experts nominated by the Federal and Provincial Governments for better autonomy and efficiency[21].
- Anomalies exist in the DRAP Act 2012, the Drugs Act 1976, and the Drug Pricing Policy 2018, as many sections are overlapping, conflicting, outdated, and not in line with international best practices (FDA of the USA, EU, WHO) or current successful pharmaceutical regulatory regimes. These have been identified after substantial action research and discussions with all stakeholders. These include (but are not limited to):
    - Price fixation/revision of essential drugs through an Independent Pharmaceutical Pricing Board (PPB) following international best practices and successful regional models.
    - Clear procedures for investigation and liability (for minor manufacturing faults) in line with the WHO framework. Illegal activities (unregistered, unlicensed, counterfeit) must be strictly dealt with under the code of criminal procedure.
    - Clear SOPs for sampling, storage, and transportation of drug samples for testing.
    - Clear SOPs for recall (Guidelines on Recalls and Rapid Alerts of Defective Therapeutic Goods issued by DRAP) to avoid unnecessary litigation on minor contraventions by empowering PQCBs.
    - Harmonize overlapping powers of Federal and Provincial Drug Inspectors.
    - Reports of Drug Testing Laboratories and appeals to be harmonized following international best practices.
- Pharma Clusters should be established in Karachi, Islamabad, and Lahore (adjacent to SEZ Quaid-e-Azam Industrial Estate, M2 Motorway, Sheikhupura) to fast-track investments in Export-Oriented Finished Dosage and API/Raw Material manufacturing (especially given the API Policy 2021 issued by DRAP). It is critical to understand that API/Raw material production units will only be feasible if there is a stable and growing local formulation drug industry, which currently is struggling for survival. API Bonded Warehouse, Central Environmental Controls, and WHO-Compliant Testing/ Training Laboratory should form part of the cluster. The land should be provided on a long-term lease or on a low-cost model to encourage and attract immediate investment.
- The Central Research Fund (CRF) is a tax burden levied by DRAP (previously the Ministry of Health) on the pharmaceutical industry, amounting to 1% of annual profit before tax. It is recommended that this levy be discontinued. The existing resources in the CRF should be allocated as grants to select

21 Usman Khan, Nadia Mukhtar, Hina Shaikh and Abdul Hadi. Unleashing the Potential of Pharmaceuticals in Pakistan. 2021. PBC and CDPR. Retrieved from: https://cdpr.org.pk/wp-content/uploads/2018/02/Unleashing-the-Potential-of-Pharmaceuticals-in-Pakistan.pdf

non-government, non-profit teaching hospitals to establish WHO-prequalified Bioequivalence (BE) laboratories. These laboratories are crucial for the sector to conduct BE studies, which are essential for achieving the US $5 billion export target by facilitating entry into high-value developed pharmaceutical markets. Alternatively, the government could merge the CRF with the Export Development Fund (EDF) under joint government-industry control. Various incentives could then be provided, such as financing for research, cost-sharing for the high cost of registration in export markets, support for Bio-equivalence studies, and participation in pharmaceutical exhibitions and road shows.

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7. Annexure

TABLE 14: Stakeholders Interviewed

Name	Designation and Organization
Sajid Saleem Minhas	Ex-Chairman, Pakistan Readymade Garments Manufacturers and Exporters Association (PRGMEA) CEO, Delta Garments
Yousaf Hassan Bajwa	Chairman, Surgical Instruments Manufacturing Association of Pakistan (SIMAP)
Amanullah Aftab	Chairman, Pakistan Leather and Garment Manufacturers & Exporters Association (PLGMEA)
Osman Khalid Waheed	Chief Executive Officer, Ferozsons Laboratories
Mohsin Masood	Secretary General, Pakistan Sporting Goods Manufacturers and Exporters Association (PSGMEA)

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